THE EFFECT OF CELEBRITY ATHLETE MODELS IN FOOD ADVERTISING ON THE PERCEIVED HEALTHINESS OF FOOD PRODUCTS

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CHAPTER I

INTRODUCTION

Obesity among Americans has risen dramatically in recent years (Mikhailovich & Morrison, 2007). Statistics from the Centers for Disease Control and Prevention (CDC) indicate that since the 1970's obesity has steadily increased among people of all ages, races and socioeconomic backgrounds (CDC, 2006). The effects of obesity have created dire health consequences for society. If this trend continues, young people today will face worse health conditions later in life than any previous generation (Larimore & Flynt, 2005).

Factors contributing to obesity are widely debated but focus on two basic causes – not enough exercise and a high-calorie diet (Colditz, 1999). Previous research has explored a variety of environmental factors that influence increasing overweight trends among Americans. These are commonly thought to include increased portion sizes, eating out more frequently, increased consumption of sugary sweetened drinks, increased television and electronic games, changing labor markets and a fear of crime, which prevents outdoor exercise (Hardus, van Vuuren, Crawford & Worsley, 2003).

Many have blamed an abundance of fast-food and snack food advertising for the increase in calorie intake among young people (Lynn & Novosat, 2008). Kids today face almost double the amount of television commercials than children in the 1970's, with American children averaging 40,000 commercials in the year 2000 (Walsh, 2008).

Recognizing the seriousness of the obesity problem, the government, consumer groups and parents have put pressure on the food industry to adjust their advertising practices (Seiders & Petty, 2007). The use of certain celebrity athletes in advertisements is particularly concerning as they may be seen as "healthy" role models. The Federal Trade Commission (FTC), in its recent report on food advertising, recognized celebrities used in food marketing, including such athletes as David Beckham, Alex Rodriguez, LeBron James and Derek Lee (FTC, 2008). However, the report does not make specific recommendations for further research, on the use of celebrity athletes and their effect on consumer perceptions of food products. Therefore, empirical research is important to understand the potential impact that the presence of the celebrity athlete model has on food choices.

While the outcry is loudest over concern for the health nutrition of children, statistics show that all Americans are affected by obesity and weight-related illnesses. At this time it is still largely in the marketers' control to self-govern their advertising and make the necessary adjustments based on the recommendations by the Federal Trade Commission. Therefore, the purpose of this study is to determine how the use of a celebrity athlete model in food advertising affects the perception of healthiness of the advertised food product.

Health Trends

According to statistics maintained by the Centers for Disease Control and Prevention (2006), in the years ranging from 2003-04 just over 17 percent, or 12.5 million, children and adolescents ages 2 - 19 in the United States were categorized as overweight. Nearly half of young adults and children do not exercise on a regular basis. Similarly, 32 percent of adults were categorized as obese, with another 5 percent defined as being extremely obese. The statistics also indicate a lack of exercise or activity for adults, with at least 60 percent of adults falling short of the recommended physical activity. Additionally, dietetic survey research showed an increase in calories consumed among Americans between the 1970's and late 1990's (Nestle, 2007).

The statistics for both boys and girls show a significant increase in the prevalence of obesity between 1994 and 2004 (CDC, 2006). According to various sources, obesity typically develops from an imbalance between calories consumed and calories used through physical activity (Robinson, 2001; Colditz, 1999). The implications of less physical activity are documented by increased cases of type II diabetes, hypertension, stroke, cancers and other conditions (Colditz, 1999). For young people experiencing overweight symptoms it is more severe because, as statistics indicate, they are more at risk to be obese as adults. The development of obesity at earlier ages, such as childhood, allows for many years of exposure to health risks and complications. This increased exposure creates a higher probability that further health issues will develop throughout a person's lifetime (Dietz, 1998). While the increases in obesity statistics are most prevalent in the United States, the trends are evident in other countries and regions around the world (Ebbeling, Pawlak & Ludwig, 2002).

Research predicts that based on current rates, there is a potential that 100% of Americans will be overweight or obese by the year 2040 (Heaner, 2007). The statistics indicate the alarming rate at which children are susceptible to obesity at earlier ages than previous generations. Today's generation of children are said to be the first generation to have a shorter life expectancy than their parents (Olshansky, Passaro, Hershow, et al, 2005).

Federal Trade Commission Involvement

In 2006, the Federal Trade Commission (FTC, 2008) initiated a review of the food industry's advertising practices to children. The FTC analyzed the marketing practices of 44 major food companies in the United States. According to the study, food companies spent roughly $1.6 billion on advertising to children and adolescents in 2006 (FTC, 2008). The FTC study set out to analyze how food companies targeted children through the media. Additionally, the FTC wanted to know the potential consequences of the food advertising on children and how advertising could increase poor dieting habits among young people. The study found that children were still regularly exposed to a variety of food advertising messages through the media. The report recommended several areas of concern which needed future research; however, the use of celebrity athletes in food advertising was not an area the report noted for further research.

Due to government pressure, food companies slowly began to change their advertising practices. This government review highlighted the ongoing public debate between food advertising and sedentary lifestyle to see how each contributed to obesity.

The Use of Celebrity Spokespersons

The use of celebrities in advertising is a common way for marketers to identify and communicate with a target audience (Kim & Na, 2007). The power of the role model, whether an athlete or celebrity, can alter consumer attitudes and perceptions toward a brand or product (Bush, Martin & Bush, 2004). As society becomes increasingly aware of issues causing obesity, it becomes critically important to understand how powerfully these role models can influence people's health perceptions of a food product.

The celebrity spokesperson has historically been used by advertisers. Some estimates indicate that about 25 percent of advertisements feature a well-known celebrity endorser (Amos, Holmes & Strutton, 2008). There are a variety of objectives that can be accomplished with the presence of a role model in an advertisement. Most commonly celebrities in advertising create an identity for a brand or product that relates to or is inferred by the spokesperson (Farrell, Karels, Monfort & McClatchey, 2000). Additionally, with improved communication technology over the recent decade, celebrities have become more prevalent in society (Bush, Martin & Bush, 2004). The celebrity athlete's image can be leveraged as an expert endorsement. While this depends on the industry and the tone of the advertisement, an expert opinion made by a role model in an advertisement can have the power to influence the perceptions and attitudes of an audience.

Celebrity athletes are those who, for the purpose of this research, are described as publicly well-known athletes who have an image that appeals to consumers, and, therefore, marketers. They are typically known for their performance on their respective

field or court. However, in addition to being a professional athlete, the most popular sports athletes are sought after by corporations for million-dollar endorsement contracts. These contracts can range from soft drinks to underwear (Bush, Martin & Bush, 2004). It is not uncommon for one celebrity to have multiple endorsement contracts at one time. This could suggest in some sense that celebrity athletes have a well rounded image or expertise because their opinions are relevant to consumers outside of their specific sport. For celebrity athletes, the food and beverage category represents great opportunity for endorsement contracts. These endorsements alone can bring the athletes greater publicity and financial gain than from sports performance alone.

Michael Phelps as a Celebrity Athlete

The Olympic Summer Games of 2008 in China produced some of the highest Olympic network ratings for the sponsor network NBC (ESPN Online, 2008). This was largely driven by the swimmer Michael Phelps. Phelps was publicized for winning more gold medals in one Olympic Games than any previous Olympic athlete. Headlines suddenly referenced the endorsement success that Phelps would bring to brands as his recognition around the world increased (Walker, 2008).

Suddenly sponsors were leveraging their brands to incorporate the endorsement of Phelps. At the same time the public was embracing the media attention regarding Phelps. This attention involved information about everything from his family to his training regiment. Information spread about his 12,000 calorie diet (Henley, 2008) as well as his McDonald's breakfast, which could consist of four Egg-McMuffins. One could argue that it is relatively easy to understand that the intensity of Phelps' training program

allowed him to burn more calories than the average person. Additionally, it could be argued that people know four egg McMuffins at one meal is not considered a nutritious breakfast. However, the question can be raised whether or not young people have the ability or motivation to make those connections after the exposure of such endorsement advertising.

In contrast to the success Phelps' enjoyed after the Olympic Summer Games, news rapidly spread in January 2009 regarding a photo captured at a University of South Carolina party of Michael Phelps smoking marijuana (Nashawaty, 2009). In the following days as Phelps publicly admitted to the drug accusations, corporate sponsors quickly began to let contracts expire or reexamined marketing campaigns with his presence. Although his image was altered from the hero he was just days and months earlier, he is recognized for his athletic ability by people around the world.

Eli Manning as a Celebrity Athlete

Super Bowl XLII Champion and Most Valuable Player Eli Manning leveraged his marketability in February of 2008. After following the success of his older brother, Peyton Manning, on the football field, Eli would rapidly receive endorsement contracts similar to those held by his older brother. Endorsement deals for Manning include Kraft Oreos, Reebok and Citizen Watch (Janoff, 2008).

The season Eli Manning won the Super Bowl included many weeks of national media attention during the New York Giants season. Manning has, in contrast to Phelps, remained out of the negative media spotlight. Whereas Phelps faced issues with his DUI at age 19, Manning has been noted as a less publicized celebrity in his personal life. For

marketers this could be a safer celebrity endorsement bet. However, it is difficult to determine how consumers perceive these young athletes as they grow up in front of the public. Both Phelps and Manning are young white male athletes in their early 20s who are well-known in the public through their respected sports. Increasingly, both have a strong presence in more mainstream life through advertising endorsements.

The use of athletes, or in this case a celebrity athlete, is nothing new to advertising. There are studies that analyze the effects of the role model or celebrity athlete in advertising (Bush, Martin & Bush, 2004). However, there is a lack of literature regarding the influence a celebrity athlete has on the perception of nutritional value of the products they endorse. Coming off the recent summer Olympic Games and Michael Phelps newly acquired endorsement deals, several of which are in the food and beverage category, it is timely and important to understand the perception of the nutritional value that a celebrity athlete can create through advertising.

Theoretical Framework

Persuasion is usually defined as attitude change resulting from exposure to information from others (Olson & Zanna, 1993). The research by Carl Hovland (Hovland, Janis & Kelly, 1953) with the U.S. Army during World War II was instrumental in demonstrating how people develop attitudes through exposure to mediated communications such as films. When applied to advertising, the goal of persuasion is to change consumers' attitudes toward a particular product, brand, person or idea that ideally will lead to buying the product, voting for a political candidate or

accepting an idea, like "Click-it or Ticket." In an attempt to persuade consumers, advertisers use many techniques including celebrity models in their advertisements.

The Elaboration Likelihood Model (ELM) is an extension of persuasion theory that explains how people interpret messages. Developed by Petty and Cacioppo (1979), the model suggests that there are two routes to persuasion people can take on a continuum when processing a message. The central route involves a high level of elaboration or thought. It is believed to occur when a message topic has personal relevance to the receiver. The receiver then analyzes the characteristics of the message, such as the quality of the argument, and considers previous assumptions regarding the topic. The second route, known as the peripheral route, involves less elaboration by the receiver on the presented topic. In this situation, the message receiver will likely have less personal relevance with the topic, and therefore does not engage in detailed thought or analysis of the argument. However, receivers displaying the peripheral route are more likely to be influenced by the peripheral cues, such as color, design or models in the ad (O'Keefe, 2002).

The persuasion theory, the Elaboration Likelihood Model will inform this study. The theory will be used to predict and possibly explain how the presence of a celebrity athlete in an ad might convince consumers that a food product is healthy in the absence of any explicit health claims.

Significance of the Study

The purpose of this study is to determine how the use of a celebrity athlete model in food advertising affects the perception of healthiness of the advertised food product among college students.

If the research finds that the celebrity athlete has an effect on nutrition perception, it may be beneficial for regulators and the industry. This knowledge could help set standards to develop stricter guidelines for the use of celebrity athletes in food advertising.

Methodology

The methodology for this study is a simple post-test only experimental design using an experimental (treatment) group and a controlled variable group. Participants were randomly assigned one of three different print ads for a breakfast cereal. One treatment featured celebrity endorser Michael Phelps, another treatment featured celebrity endorser Eli Manning, and the final treatment featured a generic male student. Other than the cutline of the celebrity athlete's name, treatment ads are identical and contain no explicit health claims (see Appendix A). After viewing the ad, participants completed a questionnaire measuring attitude toward the ad, health perceptions, source-credibility of the celebrity endorsers, health concern and purchase intent.

The independent variables are the presence of a celebrity athlete in a food cereal ad. The dependent variable is the participant's perception of the health value of the food product, attitude toward the ad, the source-credibility of the endorser and purchase intent. The final dependent variable, which was also explored, is the respondent's overall health

concern. The study used a sample of university students from Oklahoma State University.

Overview

Chapter 2 provides a review of the past literature. This provides analysis of the research conducted in relation to the celebrity role model and health perceptions of food advertising.

Chapter 3 provides the method used to conduct the experiment design. This includes the hypothesis, research questions and measurement scale. Additionally, information regarding the sample and procedures are provided.

Chapter 4 includes a detailed analysis of the experimental results. Details regarding the demographics of the sample are provided with measurement analysis of the health perceptions.

Chapter 5 highlights relevant findings related to the research topic. There is also detailed information regarding the limitations of this study, as well as recommendations for future research in this area. Included are implications and recommendations for marketers and regulators that impact the advertising of food products.

The final section of the thesis contains an appendix with the experimental treatments.

CHAPTER II

REVIEW OF LITERATURE

The following chapter provides a detailed overview of the existing literature regarding the concepts of advertising, persuasion, source credibility, nutritional labeling, and the effects of food advertising. The previous research in the related subjects offers context for this study. Ultimately, the body of research will inform the study herein.

The Process of Advertising

Advertising is an indirect type of persuasion carried on the mass media and paid for by an identified sponsor. It uses a variety of information, product benefits or emotional appeals to create positive impressions (Rossiter & Percy, 1997). Effective advertising leverages consumer insights to develop the most accurate tone and message tailored to an audience. Ultimately the goal of advertising is to persuade the audience to buy a product, vote for a candidate or adopt an idea (Severin & Tankard, 2001). The repetitive nature of advertising typically forces audiences to view the advertisement multiple times and ultimately creates an impression. Over time advertising can either

change or reinforce people's attitudes toward the advertisers' goals, such as increasing sales of a product (Altman, Avery, et al, 2003).

It has been noted by previous academic researchers (Fullerton & Kendrick, 2006) that unlike most industries of business, consumers feel compelled to openly discuss their opinions regarding the success or failure of an advertisement – everyone is an expert on advertising. However, the scientific research in the area of advertising and consumer behavior explores in depth how ads affect people. Research has shown that people are willing to alter their preferences, attitudes and behaviors after just one exposure to an ad (Lowery & DeFleur, 1995).

Persuasion Theory

Persuasion is usually defined as attitude change resulting from exposure to information from others (Olson & Zanna, 1993). This can be done through a typical conversation or through mass communication; such is the case with advertising.

During World War II, the U.S. military recognized the need to persuade young soldiers to fight in a foreign war. Toward that end, numerous films were made to motivate soldiers and to hopefully change their attitudes toward the enemy and the Allies. A Yale researcher, Carl Hovland, was responsible for measuring the effectiveness of the military films known as the *Why We Fight* films (Lowery & DeFleur, 1995). Results from Hovland's military research led to his "magic keys of persuasion" (Lowery & DeFleur, 1995). The keys of persuasion attempt to identify the factors that influence effective persuasion, such as source credibility, which is an important element in this study.

Source Credibility in Advertising

Carl Hovland (1951) discovered early in his work with persuasion that there was a strong influence based on the credibility of the source. The marketer's goal is to establish credibility for a brand or product with the consumer through the consumer's identification with the spokesperson (Choi & Rifon, 2007). Research on the topic of source credibility has uncovered several factors that influence people's willingness to give credibility to a source, such as expertise, trustworthiness and attractiveness (Ohanian, 1991).

Ohanian (1991) researched source credibility of various celebrities among college students. The study measured the impact that a celebrity's attractiveness, expertise and trustworthiness have on an audience and the purchase intent of an advertised product. Four treatments were created using celebrities Linda Evans, John McEnroe, Madonna and Tom Selleck. The celebrities were then matched to products that a person at the time would have associated them with, such as tennis rackets for John McEnroe. A total of 578 respondents viewed one of the four treatments with a questionnaire. The results found that there was a significant relationship between physical attractiveness and trustworthiness, but the responses indicated that the perceived expertise of the endorser with the product significantly related to the purchase intention of the product.

Amos, Holmes and Clinton (2008) analyzed the existing literature from previous decades to determine the collective findings regarding source credibility in advertising. The results highlighted the celebrity trustworthiness, celebrity expertise, and celebrity

attractiveness. Conversely, negative celebrity information had the most detrimental effect on consumer purchase intent, brand attitudes, and attitude toward the ad.

The process of social learning was developed by Bandura in research conducted in 1965 (Lowery & DeFleur, 1995). The experiments studied a series of aggressive acts toward a Bobo doll, which were viewed by groups of children. One group was shown the aggressive acts followed by rewards for such behavior, while another group was shown punishment for the acts of aggression toward the doll. Finally, a third group was shown no consequences for the acts of aggression. The results demonstrated a high and uniform degree of learning whereby the students who witnessed punishment for the actions were less likely to treat the doll in an aggressive manner. The research shows that children are able to learn aggressive behavior through observation and are able and willing to reproduce such actions when there are little consequences for doing so.

The role of the mass media in the learning process detailed by Bandura (1986) revealed how role models influence people as they are exposed to new ideas, causes or products. Initially this process assumed that for a person to experience a change about an idea or product, the change would likely occur through a change agent. The change agent (Rogers, 1963) was thought to be someone whom the person interacted with regularly, such as a classmate, family member or personal salesman. However, as research in the effects of role models in mass communication became more prominent, the concept was adapted to recognize that there are vicarious role models created in the media. The audience can develop a relationship with this role model even though there had been no interaction other than through the means of mass communication. The outcome leads to the opportunity for the role models to transfer their image to other products or brands

through advertising. The vicarious role model theory accounts for the broad recognition of some characters and celebrities to mass audiences.

Elaboration Likelihood Model (ELM)

The Elaboration Likelihood Model, developed by Petty and Cacioppo (1979), suggests that there are variations in the way that persuasion affects the receiver. This effect is determined by how the receiver of a message is willing to engage in elaboration, or critical thinking of the message topic. Based on the degree of willingness there can be two types of influence.

One is the central route to persuasion which involves a great deal of elaboration and critical thinking by the receiver. This high level of thinking is used because the message receiver has preexisting knowledge of the topic or the topic has relevance to the receiver. The second type of elaboration, known as the peripheral route, involves less elaboration or critical thinking than the central route. With the peripheral route the receiver uses simple cues to decide his position on the topic. The peripheral cues, such as source credibility and the appeal of the ad, can be more influential in the receiver's attitudes than the argument value (O'Keefe, 2002).

Two factors that affect the opportunity for the Elaboration Likelihood Model to take place are the ability and motivation of the message receiver to engage in elaboration of the subject (O'Keefe, 2002). First, message receivers must have the ability to comprehend the intention of the message. If the receiver does not have the ability to understand the topic, there is little opportunity to create a change in perception. Second, the receiver must have the motivation to receive the message and make an effort to

interpret the basic meaning of the message. There is very little opportunity for high elaboration to occur unless both factors are present.

Research by Petty, Cacioppo and Goldman (1981) builds on persuasion theory by exploring the relationship between an individual's personal involvement with the topic and the effect on perception. The research tested how undergraduate students are persuaded by varying types of arguments based on their level of personal relevance to the topic. The results found that subjects with a high level of personal relevance to the topic were strongly influenced by the quality of the argument. Inversely, subjects who had a low level of personal relevance to the topic showed more influence to the peripheral cues, such as the credibility of the information source. The findings confirmed the principles of ELM by demonstrating the effects that personal relevance has on how an individual will perceive similar messages. Findings from this research are important for marketers who attempt to target messages to consumers who have varying levels of personal involvement with their product.

The elements of ELM are thought to be an example of a dual process approach of information comprehension and interpretation (O'Keefe, 2002). The argument strength and level of involvement are identified by the previous research by Petty and Cacioppo (1984) as the factors determining central and peripheral routes. The present research will draw from the principles developed by Petty and Cacioppo (1979) and study the effect of the peripheral route. The research purpose is consistent with previous research where the low involvement respondents are influenced more strongly by the peripheral effects of the ad.

The ELM research by Petty, Cacioppo, and Schumann (1983) is important to marketers who seek to design ads that effectively engage the consumer into interpreting a message as the marketer desires. The researchers performed an experiment to measure attitude change based on argument strength. In the study, a total of 160 male and female college undergraduates were exposed to magazine ads under varying degrees of product involvement. The advertisements were presented to the students in the form of booklets, one containing the advertising stimuli and the second containing the dependent measures. The results found that the argument quality, which in this study was related to Edge Razors, was an important factor when high personal relevance was present in the respondent. However, the manipulation of the celebrity endorser in a low involvement ad produced significant attitude change. The study concludes that there cannot be an overwhelming emphasis on the central or peripheral routes in advertising as each person responds differently depending on their personal relevance to the topic.

Research conducted by Frewer, Howard, Hedderley and Shepherd (1997) explored the Elaboration Likelihood Model and food risks in communication methods. The primary goal of the experiment was to measure the effectiveness of the source credibility in risk communication. The research was conducted with 160 participants. Source credibility is seen to be a major influence in people's beliefs and perceptions of information credibility. The research by Frewer et al. (1997) explored the personal relevance that the source credibility produces when the topic relates to a possible risk. The two topics used by the researchers were the hazards of excessive alcohol use and microbiological food-borne risk. The research exposed experimental groups to communication from a trusted source (medical doctors) and a non-trusted source

(government officials). The results showed that source credibility and message content did affect the perception of the message; however the ELM did not indicate significant elaboration toward risk based on the source alone.

In a study by Jones, Sinclair and Courneya (2003), the authors researched the effects that advertising health and exercise promotion can have on behaviors. The study specifically examines the Elaboration Likelihood Model to measure the respondents' willingness to engage in extensive elaboration toward the topic. Previous research in weight loss (Kreuter, Bull, Clark & Oswald, 1999) show that the persuasion theory can be effective in influencing individuals to engage in health and exercise activities after exposure to the messages. Because of this success, the authors (Jones, Sinclair & Courneya, 2003) used the ELM framework to understand the effectiveness of persuasion. Previous research exercise campaigns (Tversky & Kahnesman, 1981) demonstrated the prospect theory, in that individuals respond differently depending on how communication messages are framed, specifically relating to how behavior can result in gains or losses. Therefore, the research by Jones, Sinclair and Corneya (2003) sought to determine how the principles of ELM affect behavior and intent to exercise based on the presence of a credible source in the message. A total of 192 students participated in the experiment. The students were randomly assigned a reading from a credible source, a medical doctor, or non-credible source, a student. The results indicated support for the ELM theory and the prospect theory in that positively framed messages from a credible source were the most effective communication to increase exercise motivation in students.

Celebrity Athlete Models in Advertising

The use of a celebrity athlete in advertising is common because of the publicity the athlete receives through the media. The athlete's recognition has the potential to be extremely effective for marketers. A study by Bush, Martin and Bush (2004) measured the effects of the sports celebrity on the behavioral intentions of teenagers. Specifically, the researchers wanted to know how the presence of the sports celebrity would influence the word-of-mouth among friends about the product, willingness to change brands because of the athlete, and brand loyalty. The results of a sample of 218 teenagers surveyed found that the presence of a sports celebrity in the advertising of a product led to increased positive word-of-mouth and brand loyalty. The authors suggest that through the study it can be confirmed that sports celebrities are role models for young adults.

Research suggests that the similarity between the role model and the product is necessary. Experimental research such as Kim and Na (2007) suggest that participants view the role model more favorably when matched with a congruent product.

Lockwood and Kunda (1997) analyze an alternative impact that role models and superstars can impose on an audience. In the study, the authors proposed that because of prior research that indicates that people can be either inspired or discouraged by the presence of a successful role model, it is important to understand how this affects emotions. When an audience becomes discouraged by the presence of a role model, research suggests that it could be due to an overwhelming feeling of inability to accomplish similar success as the superstars presented.

While the studies demonstrate an increase in behavioral change, empirical research does not detail how the celebrity athlete serves as source credibility in food

advertising specifically. Research indicates that effective use of a celebrity in advertising should have a strong link between the product being sold and the celebrity (Kim & Na, 2007; McCracken, 1989). In a culture driven by thinness and perfect body image (Almond, 2000), it is difficult to understand why Americans are trapped in an obesity epidemic, while yet they feel such a strong connection to world-class athletes.

Food Marketing Efforts

Companies that produce and market food products to children have been under pressure in recent years regarding their advertising practices. Food advertisements to children frequently run during Saturday morning cartoons or during the early afternoon after school (Batada, Seitz, Wootan & Story, 2008). Many of these advertisements took the form of the show that kids would have been watching, such as using cartoon characters. The characters, many of which would become icons to young children and even enter popular culture, would connect with children and reinforce the product they were selling, such as Trix Rabbit or Ronald McDonald. Research has shown that the types of products companies were advertising are commonly sugary-sweet food or beverage products (Batada, Seitz, Wootan & Story, 2008).

Research by Batada and Wootan (2007) sought to assess the foods advertised in affiliation with Nickelodeon media and characters. The authors recognized that while the childhood obesity epidemic has been created by numerous factors, food marketing efforts influence many important food choices that children make. The decisions include how they interpret food choices, preferences, their diets, and their health. In the study, Batada and Wootan (2007) analyzed television ads, magazine ads and grocery store packaging.

The results found a large portion of advertisements contained poor nutritional quality, with television at 88 percent and magazines at 76 percent. Additionally, 60 percent of Nickelodeon characters were found on food packaging of poor nutritional items. The promotional partnerships with restaurants found that 94 percent were rated as poor nutritional status. The significance of the percentages found in the study indicated a negative trend in food marketing efforts.

A more recent content analysis study by Warren, Wicks, Wicks, Fosu and Chung (2008) found a higher number of nutritional appeals in food advertising. The sample was exposed to cable and broadcast television food advertisements, during the peak time when school-aged children are viewing – 2:00 p.m. to 10:00 p.m. Seventy-seven randomly selected days were recorded between January and May of 2006. Coders were used to categorize ads as child-targeted, if the ads fell within four areas. The categories were based on programming, visual cues or voice-overs, verbal references and specific marketing promotions to children. The results found, similar to previous studies, that low-nutrition products were the most frequent advertised to children. The ads were effective in using cues that would appeal to children specifically, including messages that could alter taste and mood effects. The concept of nutritional content was found to be used third most frequently. The authors noted that the findings signaled an encouraging change by marketers. However, it can be argued that children are not interested in the direct nutritional messages in advertising, and, therefore, it is important for future research to analyze how children peripherally process nutritional cues.

King and Hill (2008) explored the effect that unhealthy food advertising has on 309 British children. The experiment focused on how food magazine ads impacted the

children's mood, hunger, food choice and product recall. Booklets were created with ads randomly placed throughout. The booklets were presented to the children as school-based media literacy exercise. The children's body weight, height and body satisfaction were measured one week after the exposure. There were no effects on the food choice or preference of the respondent during analysis. However, results found that there was a greater impact in the less healthy food products than the healthier products. The authors note that further research is needed to determine the effectiveness of alternative marketing channels such as television. This study indicates that children are influenced by ads for less healthy food products.

The dietary restraint theory used by Warren, Strauss, Taska and Sullivan (2005) analyzes the circumstances and factors that affect restrained eaters. These are people, who are typically women in the studies, who constantly try to refrain from breaking a strict set of dieting guidelines. Because of this strict diet, these restrained eaters are at risk of becoming temporarily disinhibited (Warren et al, 2005). At these times, emotional and/or environmental factors can overwhelm the person causing a splurge of poor eating. Based on the research by Warren et al (2005), the mass media is suspected to cause many of the emotional factors. The experiment had female participants view emotionally involved movies with commercials placed at a specific time during the movie, depending on the sample group. Specifically the commercials were designed for one treatment group to be exposed to diet advertisements or images of models representing the ideal-thin. The second treatment group was offered a more neutral commercial tone as to not remark or influence food or weight issues. Research indicated that people's moods and behavior vary dramatically depending on the participants' environment. The women

participants in Warren et al (2005), research indicated that both high and low restraint eaters were influenced by the mass media images highlighting the ideal-thin. As the authors of the study suggest, it is important to evaluate our existing assumptions regarding regulatory issues in advertising due to the effects that have been shown to occur in research. Additionally, modern day issues, social responsibility and media pressures put the emphasis of dieting on almost all people. This includes both males and females in demographics that include children as young as kindergarten to adults.

Because this topic has permeated throughout society, future research is important to determine how a more general group, including both men and women, react to food advertising. The topic will continue to be a pressing issue in the future because of the dramatic consequences facing those with overweight health issues.

Health Claims in Advertising

In recent decades there has been public concern that the health claims in advertising can be misleading to consumers (Andrews, Burton & Netemyer, 2000). The effects that nutritional claims in advertising produce are important because of the abundance of claims on food products. Recent diet trends created a consumer culture that draws people to the food or product option they believe will be healthier in comparison to alternative products (Baltas, 2001).

Consumers have regularly been exposed to messages from a variety of sources recommending an increase in vegetables, decrease in alcohol, or other types of messages suggesting an action to better the health of the individual (Klassen, Wauer, Cassel, 1990). The authors note this has been an ongoing occurrence for the past 30 to 40 years.

However, their research focuses specifically on the increase of health claims in the 1980's. The 1980's are important in regards to how health claims became prominent in advertising. During this time period it became appealing for consumers to see that food products were "better" for them than another product or type of food. At times, specific health issues were the focus of the claims. In order to maintain the truthfulness of advertising for the sake of the consumer, the Food and Drug Administration took an active role in establishing guidelines. The research sought to explore whether the amount of weight-loss claims targeted at women had changed over the prior three decades leading up to the time of the research. Specifically looking at women's magazines, the results indicated that there was a significant increase in manufactured product health and weight-loss claims during the 1980's. The findings are important to track the impact that health claims have over time, as well as the frequency that marketers are using an issue such as weight-loss to influence consumers.

Baltas (2001) built on previous research to measure the effects that nutritional information has on consumer choice. The research specifically reviews packaging nutrition information and allows for marketers and policy makers to measure the influence nutritional information has on purchasing behavior. Research on the topic is important because of the number of products that list the nutritional information and the increase in consumers who are willing to purchase healthier products. The author recognized that consumers could be potentially confused by the technical information associated with nutritional content. The recommendations from the review show that there are differences between consumers based on what they are looking for in a food product. The advertising message is said to create expectations of the healthfulness of

the product. From the expectation, it can either be confirmed or rejected based on the nutritional values listed on the product.

Andrews, Netemeyer and Burton (1998) expanded on previous research focused on nutrition label and packaging claims to include the advertising claim effect. The purpose of the experiment was to measure to what extent nutritional content claims generalize health perceptions across different disclosures, ad claim types, and nutrition knowledge impact (Andrews, Netemeyer & Burton, 1998). The research was important at the time because of FTC rulings (FTC, 1994) that attempted to build unity in food labeling regulations between The Food and Drug Administration (FDA) and the FTC. As consumers were drawn to more nutritious health products, health claims became more prominent in marketing efforts (Andrews, Netemeyer & Burton, 1998). The experiment measured how terms such as, "low-fat" or "healthy" affected the individual's perception of the food product as to lower risk for specific health diseases. Additionally, the nutritional knowledge of the respondent was tested because of the hypothesis that consumers with greater nutritional knowledge would have less favorable opinions of the product without nutrient quality or content. The results found that those respondents with high nutritional knowledge rated the advertised brand as being higher in fat content than the respondents with low nutritional knowledge. Respondents with low nutritional knowledge were more willing to accept the health claim or cues from the treatment. Results also demonstrated an overgeneralization effect of the health claims whereby the respondents transferred the health claims to other unmentioned health benefits of the food product. Nutritional knowledge found mixed results, but suggested that high-knowledge consumers are better able to interpret health information than low-knowledge consumers.

A study by Adams and Geuens (2007) researches the effect that health slogans have on the consumers' perception of the food product. The study used an experimental method to test 310 adolescents in Ghent, Belgium. The authors note that, based on previous research from Andrews, et al. as discussed above, consumers could potentially discount a positive health claim as simply an attempt to sell based on the marketers' desired outcome. Groups of school children were randomly assigned to different treatments. Treatments were designed to contain either a generally considered healthy product (Cornflakes cereal) or a generally assumed unhealthy product (cookies). Both products were then paired with healthy and unhealthy advertising slogans. The measurements included the Health Perception of the Product (HPP), and Health Concern (HC). The dependent variable was measured through the Attitude Toward the Advertisement, and Attitude Toward the Product and Purchase Intention. The results showed little difference in gender, which did not support the authors' hypothesis. While the results did not indicate a significant difference between claim types of healthy versus unhealthy, the results were positive in both taste quality and the health slogan. The authors suggest that this indicates that children were not as skeptical of advertising as previous research suggested, and the respondents were more persuaded by advertising than previously thought. The authors discuss the possibility that the children do not take the persuasive advertising tactics into account when forming attitudes of a food product. The results also found that the most effective ad claims were those that were placed on a product that is already generally perceived as healthy. This reinforcement of the healthy claim on an assumed product could pose a problem for consumers due to the importance that companies place on food taste at any cost, even nutrition. Therefore, if consumers

rely on a health claim to determine the food products they purchase, there could be a difference between the actual and perceived health qualities of the product. The present study partially replicates the research by Adams and Guens (2007).

Government Regulations

The Federal Trade Commission released recommendations for the food and beverage industry following a study on the food marketing practices to children and adolescents (FDA, 2006; FDA, 2008). Released in July of 2008, the Commission had obtained data from 44 major food and beverage marketers, who accounted for $1.6 billion in promotion dollars for their products in 2006. The 2006 Federal Trade Commission's review of the marketing practices of food companies was not the first time the government had mandated regulations in response to public outcry (Seiders & Petty, 2007).

The FTC Food Marketing to Children Report (2008) explores the current status of food marketing practices of major companies. The study examines the many different methods used to promote brands and products to children. Examples are seen in the product packaging, event marketing, online promotions, movie cross-promotion and celebrities. The study names several sports celebrity superstars who endorse food products in the media. As mentioned earlier, the report names such celebrity athletes as LeBron James and Alex Rodriguez.

The FTC Report recommends several specific areas for further research and improvement. For example, the report notes several companies' efforts to improve on the nutritional label packaging that has been designed for consumers to make more informed

choices that fit their needs when selecting food items. Because of the high level of misinterpretation or lack of use of the nutritional labels noted by industry and academic researchers, companies have developed their own methods of developing logos or claims to assist the consumer. The report states the following, "Companies should conduct research on the effectiveness of various labeling devices to determine how consumers interpret such labeling and to identify those devices most effective at conveying meaningful, truthful information".

While the FTC Report does not recommend specific research for the use of celebrity athletes in advertising, it is important to understand due to the effect that a role model can create on an audience. As the obesity concern increases and society seeks to slow the frightening health trends, it becomes crucial to explore and better understand how the common practice of using a role model or celebrity athlete to endorse a food product affects the consumer's perception of the product's health quality in the absence of any other health messages.

Summary

The advertising methods of food marketers are under close watch by the government, consumer watch group and parents because of the potential contribution advertising has in the obesity trends (Seiders & Petty, 2007). There is little empirical research regarding celebrity athletes in food adverting. This study hopes to add to the research body summarized in this chapter in an effort to build on the existing mass communication theories and their role in food marketing.

Based on the previous research, celebrity endorsers are frequently used in advertising messages and have the ability to affect buyer behavior (Bush, Martin & Bush, 2004). The present study will replicate parts of the research by Adams and Guens (2007) on the effects of health slogans indicated some influence in the perception of the food product. Additionally, the celebrity endorser can serve as a peripheral cue in advertising through the Elaboration Likelihood Model, which suggests that the level of personal relevance can alter a person's willingness to accept an advertising message (Petty & Cacioppo, 1984).

Empirical research is important to understand the potential impact that the presence of the celebrity athlete model has on food choices. Therefore, this researcher hopes to determine the effects of a celebrity athlete in food advertising.

CHAPTER III

METHODOLOGY

This chapter details the research objectives, independent variables, dependent variables, hypotheses tested and the experimental design used to analyze the research questions at hand. Additionally in this chapter are the elements represented in the measurement scales, advertising treatments and sampling methods. Finally, the chapter discusses the statistical analysis of the data collection and data processing.

Research Objective

The objective of this study was to better understand how the use of celebrity athlete models in food advertising affects the perception of the healthiness of advertised food among college students.

This study aimed to build on the past research in the area of food advertising and health perceptions of food advertisements. Specifically, the framework and design partially replicated a study by Adams and Geuens (2007), which attempted to determine the effects that advertising slogans have on food product health perceptions.

The results from the present research may be beneficial to advertising regulators by offering insight into the potential consequences and impact of food advertising featuring celebrity athletes. Due to the negative health implications of obesity, this research is important for consumers, the government and the food industry.

Variables and Hypotheses

The independent variable in this experiment was the presence of a celebrity athlete model in the ad. Two celebrity athletes were tested -- Olympian Michael Phelps in one treatment, and Super Bowl MVP Eli Manning in another. Both athletes appear in a cereal print ad. The dependent variables were health perceptions of the product (HPP), the health concern (HC), attitude toward the ad (AttAd) and purchase intent (PI). The treatments using the celebrity athletes measured their source-credibility (Ohanian, 1991).

Previous empirical research suggests that consumers rely on the health claims made in the advertising of food products (Andrews, Netemeyer & Burton, 1998; Baltas, 2001). The research debates the effects that health claims have on consumer behavior when choosing food options. Further, the Elaboration Likelihood Model (ELM) suggests that celebrities in ads may serve as a peripheral cue enhancing the attributes of a product being advertised (Petty & Cacioppo, 1984).

Therefore, it was hypothesized that consumers will rate food products healthier when there is a celebrity athlete pictured in the ad.

H1: Health perception of the food product (HPP) will be higher for the ads containing Michael Phelps and Eli Manning than for the ad featuring the unknown model.

The Elaboration Likelihood Model (Petty & Cacioppo, 1984) framework can be applied to the present experiment. The dependent variable of health concern (Adams & Guens, 2007) indicates the respondent's personal relevance toward nutritional value in food choices. A high level of personal relevance should engage the respondent in detailed elaboration regarding the actual health value of the food product advertised. Based on the theory, if the respondent engages in a significant amount of elaboration regarding the product's nutritional value, he or she will rate the food product less healthy than those not concerned with the nutritional value of foods. Those respondents with low personal relevance toward health concern (HC) would have been influenced by the presence of Phelps or Manning in the ad and will rate the product's nutritional value higher. Therefore,

H2: There will be an inverse relationship between health concern and the health perception of the food in the ads containing Michael Phelps or Eli Manning.

The attitude toward the ad (Adams & Geuens, 2007; Gresham & Shimp, 1985) explores the effects that a celebrity endorser can have on the appeal of an ad or product. The use of a role model has been shown to be effective in creating positive attitudes among consumers toward the ad.

H3: Attitude toward the ad mean scores will be higher for the ads containing Michael Phelps and Eli Manning than for the ad featuring the unknown model.

The positive attitudes toward the ad are related to the purchase intent of the product being advertised (Mitchell & Olson, 1981; Mitchell, 1986). Therefore,

H4: There will be a positive relationship between attitude toward the ad and purchase intent in the ads featuring Phelps or Manning.

The research relating to the source credibility of a celebrity endorser (Amos, Holmes and Clinton, 2008) demonstrates how negative information regarding a celebrity can have a negative impact on perception of the advertising featuring the celebrity, and therefore decrease purchase intent. The media coverage highlighting Phelps drug-use just weeks before the research collection could be considered negative information. Therefore,

H5a: Participants will rate the source credibility of Michael Phelps lower than the source credibility of Eli Manning.

H5b: Participants will rate attitude toward the ad lower for the ad containing Phelps versus Manning.

H5c: Participants will rate purchase intent lower for the ad containing Phelps versus Manning.

Experiment Design

The experiment used a basic post-test only with control variable group design. It explored the relationship between the independent variable of the celebrity athlete and the dependent variables of the health perceptions of the product (HPP), health concern (HC), attitude toward the ad (AttAd), purchase intent (PI).

Procedure

The researcher recruited students from Oklahoma State University undergraduate journalism classes to participate in the research project by contacting professors. Professors who were willing to participate were supplied with a script to read to students explaining the purpose of the research and highlighting that their participation was completely voluntary. Additionally, a signup sheet was provided to pass around to those students willing to participate. The only information students were asked to offer was an email address where the survey link was sent via email.

Three online questionnaires were developed on the Internet survey site, Survey Monkey. One questionnaire contained the experimental ad with Michael Phelps and the other contained and identical ad featuring Eli Manning. Finally, the control ad consisted of the same ad with a non-celebrity generic male student. Otherwise the questionnaires were identical, except for the source credibility scale questions, which asked the opinions of the respondent in regards to the celebrity athlete model in the ad that they had just seen.

Students who agreed to participate in the research were randomly assigned to one of the treatment ads or to the control ad. Students were then emailed a link to one of the three questionnaires according to their assignment.

The first page of the questionnaire explained the survey and informed the participants of their voluntary participation. Additionally, it reminded the students that they could close out of the survey at any point, if they desired. Following the questions regarding their opinions of the advertising treatments, participants were asked demographic and basic lifestyle questions. The questions were in the format of semantic

differential, Likert rating scale, multiple choice questions for demographic details, or participant entered text responses. All responses were automatically tabulated and loaded into a database for future analysis.

The procedure was first pre-tested among a small group of college students to make sure the questionnaire was clear to the respondents and the data collection was working properly.

Advertising Treatments

The print advertising treatments were designed by replicating features of a Total Raisin Bran cereal box cover. Cereal was selected as the food product for the experiment because it is a category that is widely common among households (Adams & Geuens, 2007). The price of a box of cereal is accepted as relatively affordable for most people, and cereal is frequently associated with both children and adults.

The cereal box cover was altered in Adobe Photoshop to create print ads using similar claims and graphics produced on the original cereal box design. The brand name of the cereal was changed to the generic name "Crunchy Flakes" and claims were adjusted to be non-health specific. Images including a purple full color background, the cereal bowl, and the milk and cereal were used from the original cereal box scan to maintain consistency with what people would typically see on the store shelf or in advertising. The headline of the advertisement was "A Great Way to Start Your Day!" Next to the "Crunchy Flakes" title, the term "New" was added to stay consistent with our purpose of asking the opinions of the research respondents. The copy was modified to read, "Crunchy Wheat & Bran Flakes with Plump, Juicy Raisins". The three variations

of the advertising treatment maintained consistent copy and layout design elements, except for the image of Michael Phelps, Eli Manning and the generic male student. Additionally, both of the celebrity athletes had a cut line with their name and achievement. For Phelps the cut line read, "Olympian Michael Phelps". Manning's cut line read, "Super Bowl MVP Eli Manning". There was no cut line for the generic male student.

The control advertising treatment was an exact replication of the celebrity athlete treatment advertisements; however, the image of a celebrity athlete was replaced with the non-celebrity model. All graphics and claims otherwise remained consistent. All slogans, colors and space layouts were otherwise identical.

The researcher determined that it was important to have the entire electronic image on the questionnaire screen so the participants did not have to scroll down the page. Therefore, the ad was reduced in size but proportions of a standard print ad were maintained so as not to distort the advertisement.

Research Instruments

Perceptions of the healthiness of the cereal were measured using Adams and Geuens' (2007) health perception of the product (HPP), and the health concern (HC) scale. The likeability of the ads were measured by the attitude toward the ad scale (Gresham & Shimp, 1985). The questionnaires containing Phelps and Manning used Ohanian's (1991) source-credibility Scale.

The HPP and the attitude toward the advertisement were measured on a 5-point semantic differential scale. The HPP contained six items. There were five items related

to the attitude toward the advertisement. Both were anchored with opposing statements at each end of the scale. Health concern was measured by nine items on a five point Likert scale ranging from 1=strongly disagree to 5=strongly agree.

The source credibility scale used to measure the respondent perceptions of both Phelps and Manning contained 16 items. Respondents viewing the experimental ad with Michael Phelps were asked if the respondent was aware of the media coverage surrounding Phelps that occurred just weeks before the research launched.

The demographic questions captured information regarding the participants' age, gender, race, university, student classification, whether they eat breakfast or not and their exercise frequency. The questionnaire containing Eli Manning had a total of 43 items, while the questionnaire containing Phelps had 44 due to the additional question surrounding the drug use. The non-celebrity male model questionnaire had a total of 27 items, because it did not include the source credibility scale.

Respondents

Students were recruited for this study from several undergraduate journalism courses at Oklahoma State University. The respondents represented a non-random representative sample of university students. However, the courses were journalism classes due to the convenience of contacting the professors teaching those courses. Also, college students are easier to sample than young children because of strict regulations when working with children under the age of 18. The sample of college students was chosen to maintain a fairly homogenous group under study.

College-aged students are an important demographic for government regulators and marketers to better understand. Because of their age, they stand to gain the most from changes in behavior that could result in more nutritious eating and, therefore, a lesser risk of the repercussions of poor health. Today's college students have grown up in the recent decades when health concerns have gained attention in popular culture. For this reason, college students will have a unique perspective on the health quality of advertising that contains food products. Additionally, this group has been exposed to a greater number of advertisements than children in previous generations. The amount of potential spending that college students represent makes them of great importance to marketers who are constantly attempting to find ways to sell them products and brands (Bush, Martin & Bush, 2004).

Data Collection, Processing and Analysis

The data collected from the three questionnaires were combined to create one data set. The Internet site organized the responses and allowed the data to be downloaded into an Excel file. The Excel file was then loaded into the SPSS system for detailed analysis and statistical tests. The variable scales were reverse coded so that they could be averaged to produce one score for each variable.

ANOVA's were used to test hypothesis one and three. A Pearson Correlation Coefficient was used to test hypothesis two and hypothesis four. T-tests were used to test hypotheses five a, five b and five c.

CHAPTER IV

FINDINGS

The following chapter details the findings of the experiment to measure the health perception of food products that celebrity athletes may create in food advertising. The experiment measured the respondent's health perception of the product, attitude toward the ad, source credibility of the celebrity athletes, health concern and purchase intent. The respondents were also asked whether or not they ate breakfast, how often they exercised and demographic questions.

Three variations of an advertisement for a fictional cereal maintained consistent copy and layout design elements, except for the image of the model. One ad featured Michael Phelps, one Eli Manning and one a generic male student. Both of the celebrity athletes had a cut line with their name and achievement. For Phelps the cut line read, "Olympian Michael Phelps". Manning's cut line read, "Super Bowl MVP Eli Manning". There was no cut line for the generic male student. The treatments were randomly assigned to a group of mass communication students at Oklahoma State University.

Three measurement scales were used in the experiment questionnaires to measure the health perception of the product, attitude toward the ad, and health concern of the respondent. A fourth scale was present for the celebrity athlete treatments to measure the

source-credibility of the athlete. The health perception of the product (HPP) was designed by Adams and Geuens (2007). The HPP contained six items on a five point semantic differential scale. The responses were measured with five indicating the most positive opinion of the product and one indicating the most negative. The attitude toward the ad scale was adapted from Gresham and Shimp (1985). The scale contained five items, also on the five point semantic differential scale with five indicating the most positive response and one indicating the most negative response. The health concern (HC) scale, also Adams and Geuens (2007), contained 10 items on a Likert-type scale. The HC was measured on a five point scale with a score of five indicating the most positive response "strongly agree" and one indicating the most negative response "strongly disagree". The source credibility scale (Ohanian, 1993) measured the respondents' opinions of the celebrity athletes' attractiveness, expertise and trustworthiness. The scale, used for both Phelps and Manning, contained 16 items on a five point semantic differential scale with five indicating the most positive response and one indicating the most negative. Negatively phrased statements on the scales were reverse coded and items for each scale were averaged to produce a score for each variable.

Respondent Profile

A total of 106 student respondents from Oklahoma State University mass communication classes participated in the study. Of the respondents, 73 percent were female and 27 percent were male. The respondents were 82 percent white, eight percent Native American, four percent African American, and two percent international students.

Hispanic, Asian American, and Other accounted for an additional one percent each. The reported average age was 20.5 years. Roughly half of the participants reported eating breakfast regularly with an additional 38 percent reporting that they sometimes ate breakfast. Roughly one-third (34%) of the respondents reported exercising two to three times per week and more than one-third (36%) reported exercising up to four or five times per week.

When questioned regarding their familiarity with the celebrity athlete model, one being the least and five being the most familiar, Phelps measured at 4.33 while Manning measured lower at 3.62. Almost all (97%) of the respondents were aware of the Phelps drug-use report in the media.

Health Perception of the Product (HPP)

The research hypothesis 1 predicted that the cereal in the ads featuring Michael Phelps and Eli Manning would be perceived as healthier than the ad featuring the generic model. The analysis found no statistically significant difference in the health perception among the three treatments ($F=1.785$; $p=.173$; Phelps HPP=3.44; Manning HPP=3.46; non-celebrity model HPP=3.72). Therefore, hypothesis 1 was not supported.

Health Concern (HC)

Hypothesis 2 predicted an inverse relationship between the personal health concern of the respondents and their health perception of the cereal in the ad for the treatments containing Phelps and Manning. The two ads were analyzed separately using a Pearson Correlation Coefficient, which found no statically significant relationship

between the respondents' health concern and the health perception of the food for either of the ads containing celebrities (Phelps ad, r=-.090; p=.602; Manning ad, r=-.138; p=.436). Hypothesis 2 was not supported.

Attitude Toward the Ad

Hypothesis 3 predicted that the ads featuring the celebrity athletes would produce more positive attitudes when compared to the ad featuring the non-celebrity model. An ANOVA revealed that the ad featuring Manning (AAd=2.96) generated significantly more positive attitude toward the ad scores (F-3.64; p=.03) than the ad that featured Phelps (AAd=2.40) and the ad containing the non-celebrity model. Hypothesis 3 was partially supported.

Purchase Intent

Hypothesis 4 predicted a positive relationship between the attitude toward the ad and the purchase intent of the product in the ads featuring Phelps or Manning. The responses to both ads were analyzed separately using a Pearson's Correlation Coefficient. The findings revealed a statistically significant positive relationship between the attitude toward the ad and purchase intent for both the ad containing Phelps (r=.431; p=.009) and for the ad featuring Manning (r=.411; p=.018). Therefore, the findings support hypothesis 4.

Michael Phelps Drug-use in the Media

Due to the negative media surrounding Michael Phelps' drug-use that circulated prior to the data collection, hypothesis 5(a), 5(b) and 5(c) predicted that Phelps' source credibility score, attitude toward the ad score and purchase intent score would rate below that of Eli Manning. The source credibility findings revealed no significant difference (t=1.1434; p=.156) between Phelps (3.33) and Manning (3.58). The finding for the attitude toward the ad, hypothesis 5(b), found a significant difference (t=2.473; p=.016) between the ad featuring Manning (AAd=2.96) and that of the ad featuring Phelps (AAd=2.4). Finally, in hypothesis 5(c) the purchase intent between the ads featuring Phelps (PI=2.36) and the ad featuring Manning (PI=2.55) revealed no significant statistical difference (t=.673; p=.503). The findings of hypothesis 5 reveal that 5(a) was not supported, 5(b) was supported and 5(c) was not supported.

CHAPTER V

CONCLUSION

Health trends over the past 30 years indicate an increase in the number of Americans suffering from obesity. The factors causing such an increase include changes in our diet and a lack of exercise. Support for both arguments can easily be found in the amount of calories consumed and the hours Americans spend in front of the television each day (Hardus, van Vuuren, Crawford & Worsley, 2003). Young people are not immune to the obesity trends as seen by the statistics from the Centers for Disease Control and Prevention. Parents and regulators have been quick to call for action to stop the obesity epidemic from continuing to impact the lives of young adults and children.

The Federal Trade Commission's 2008 report (FTC, 2008) questions food advertising practices. The FTC's investigation and analysis highlight the importance and magnitude of the obesity problem. The report also draws attention to the need to better understand the impact of food advertising on American's food choices.

This study sought to determine if a celebrity athlete endorser in food advertising affects the health perception of a food product. The research used a post-test only with control ad experimental method to measure the effects of print food advertisements containing a celebrity athlete.

The questionnaire was completed by a convenient sample of 106 students from Oklahoma State University-Stillwater campus. The questionnaire was distributed during February 2009 to the college students who were willing to participate. The respondents were randomly assigned to one of the three treatments for a cereal. The treatment versions contained identical layout and copy, however, the endorser was manipulated in all three treatments. One version contained Olympian Michael Phelps, one contained Super Bowl MVP Eli Manning, and the third treatment contained an unknown male student. Each ad treatment was identical except for the image of the endorser and the respective cutline used to identify the respective professional athletes. The questionnaires contained scales to measure the health perception of the product (HPP), attitude toward the ad (AttAd), source credibility for the ads featuring Phelps and Manning, health concern (HC) and purchase intent. The data from all three questionnaires were combined into one file containing all of the responses and analyzed using t-tests, ANOVAs and tests of correlation.

Summary

The primary research goal of this study was to determine if the presence of a celebrity athlete transferred the attribute of healthiness to the food product being advertised. It also sought to determine how personal health concern might influence the perception of the healthiness of the food product. The results of this study found no effect on the perception of food healthiness when a celebrity athlete was used in

advertising. Likewise, there was no evidence of an influence created by the respondent's personal level of health concern.

Therefore, the celebrity athletes, Michael Phelps and Eli Manning, used in the study did not convince the respondents that the food product was healthier because of their presence alone. However, given the fairly high rating of health perception of the product to all three of the treatments (Phelps = 3.44, Manning = 3.46, Unknown Male = 3.72), there is the possibility that the treatments conveyed a sense of healthiness to the respondents. The contributing factors to this perception could have been produced by the design of the ad or even the pre-existing perception respondents had toward the general healthiness of cereal.

There was a relationship between purchase intent and attitude toward the ad, which suggests that those who like the ad more are more likely to buy the product. When comparing Phelps' and Manning in terms of source credibility and purchase intent of the product, no significant differences were found; however, respondent's rated the ad featuring Manning significantly higher than the Phelps or generic model ads.

Discussion

The finding of this study are not consistent with the findings of the previous research by Adams and Geuens (2007) who found that healthy slogans used with a generally considered healthy product increased the health perception of the product. The present study, which replicated parts of Adams and Geuens (2007) study, did not find an effect on health perception of the product when a healthy endorser was matched to a healthy product. Beyond the difference in the independent variable, there were many

differences between the two studies, including the age of the respondents. Adams and Geuens (2007) studied school children and the present research used college students.

The present findings were also inconsistent with the research by Andrews, Netemeyer and Burton (1998) which indicated that the less nutritional knowledge of a respondent, the more likely the respondent would be to respond favorably to health slogans. Additionally, Andrews et al. found an overgeneralization of healthiness to characteristics of the product. This overgeneralization occurred when respondents transfer the health claims or qualities to other areas of the product that are not present. Respondents in the present study did not overgeneralize the healthy qualities of the celebrity athlete to the food product. This may be because the celebrity athletes chosen were not perceived as healthy. For example, Phelps' McDonald's junk-food habit was widely publicized and may have altered consumers' perceptions of his healthiness.

The findings of this study were inconsistent with the previous ELM research (Petty, Cacioppo & Goldman, 1981) regarding personal involvement in persuasion effectiveness. The low health concern in the present study did not influence the respondents' reliance on peripheral cues, such as the models in the ads. This was also inconsistent with Adams and Geuens (2007) study which found health concern to be a mediating factor in the perception of the product.

The study revealed information regarding the celebrity athletes selected for the advertising treatments. The ad featuring Eli Manning received more positive attitude toward the ad scores than the control ad. This finding is consistent with the findings by Bush, Martin and Bush (2004), which indicate that celebrities can influence consumer perceptions. The Manning ad also outscored the Phelps ad, which may be explained by

the recent negative media attention surrounding Phelps. The results of the Amos, et al. (2008) study found that negative publicity of a celebrity endorser has a negative impact on the attitude toward the endorser and toward the product.

Attitude toward the ad scores for the ads featuring Phelps and Manning were positively related to the purchase intent of the product. This finding is similar to the prior research (Mitchell & Olson, 1981; Mitchell, 1986) relating to attitude toward the ad. The research from previous studies, and the present, suggest that the more a person likes the advertising for a product, the more willing the respondent is to say that they will purchase the product.

The present research found little difference among the three treatments. This is inconsistent findings of Lockwood and Kunda (1997) who found that the success of a celebrity endorser, or superstar, could either encourage or discourage respondents. In the case of Phelps and Manning, their presence in the ads did not create significant encouragement or discouragement in the results.

Implications

The results of the present research, although not generalized to entire population, would suggest that food advertising featuring celebrity athlete endorsers is not likely to create a perception of healthiness for the food product. The findings are important to food marketers who have the goal of generating high sales volumes, and to the regulators who are seeking a balance between the advertising of food products and the negative effects of high-calorie food consumption.

Additionally, the timing of the present research suggests the acceptance or ambivalence of drug-use among young sports stars. This information is important for the companies who connect their products with Michael Phelps, or for other marketers whose brands might be affected by the negative media attention occasionally received by celebrity endorsers.

Limitations

Several limitations should be considered when analyzing the results of the study. The limitations include such elements as the research population, sample size, advertisement type, experimental conditions and research instruments.

Population. The convenient sampling method used for the research experiment cannot be generalized to the entire population of college students. Previous research supports the influence of celebrities on young people's impressions and behaviors. The findings of the present study are limited to students of one university in Stillwater, Oklahoma and do not represent the overall population of college students.

Respondents. The research respondents were mass communication students, which should be considered a limitation to the research. Mass communication students may have a more sophisticated understanding of advertising and, therefore, may have been more likely to be skeptical of the advertising message.

S*ample Size.* The size of the treatment groups should be considered as a limitation because of the impact such sample sizes could have on the sub-analysis. The treatment groups were relatively similar in size between Phelps (N=36), Manning (N=34) and the control ad (N=36).

A*dvertisement Type.* The results from the research are limited by food product selected for the advertising. Cereal was selected because it is a common food for most people regardless of age or preferences. However, because cereal is such a well known product it could be argued that people have preconceived impressions of cereals based on the graphical layout and design of the advertising. Therefore, the results of the experiment cannot be generalized to all types of foods.

Experimental Conditions. The research participants were asked to evaluate their opinions of the advertising treatments through the use of an online survey site. The nature of the research created an artificial environment whereby respondents viewed the ad and immediately answered questions about their perception of the health quality of the product, their attitude toward the ad and other questions. Because the process of print advertising is subtler through newspapers and magazines, and developed over several viewings, it is difficult to determine if the same results would have been produced if participants had viewed the ads in a more natural environment. Therefore, the experimental conditions should be considered a limitation of the research project.

Treatments. The research experiment was initially designed to test the influence that celebrity athlete Michael Phelps created coming off of his recent Olympic success. However, just weeks before the experiment was scheduled to launch, the scandal involving his drug use hit the media. As the results of the research question regarding Phelps media exposure indicate, almost everyone was aware of his negative media attention. Phelps' image through the media was altered as he quickly acknowledged and attempted to quiet the negative attention. Regardless, the research respondents' perception of Phelps should be considered a limitation.

Type of Celebrity. The research examined two male athletes who were both in their 20's and cannot be generalized to all celebrity athletes. This should be considered a limitation to the research because the results do not consider the impact that other celebrity endorsers might have.

Future Research

Children. Young children are likely to be influenced by the peripheral cues in advertising more than adults (Roe, Levy & Derby, 1999). This is because young children lack an understanding of advertising and are not as skeptical as adults who have a better understanding of advertising goals. Future research should examine the effects that young children have when being exposed to food advertising using celebrity athletes.

Celebrity Athletes. It is important for future research to explore the relationship that young people have with different celebrity athletes. The athletes in the present experiment were selected for their opposing images to the public. It is possible that other athletes from different sports could have a great effect on the health perception of the

product. Future research should study how other types of athletes and female celebrity athletes influence the healthiness perception of food products to young people.

Advertising Type. The print advertising messages that were tested in the present research do not have the same effectiveness as print advertising may have with other generations. Young people today are heavy users of the Internet and other new media channels. Because of this, young people today might not respond as well to advertising messages that are not similar to the advertising messages they receive daily. Future research should incorporate new media into the advertising types to better mirror the type of messages that young people are used to seeing in their environment.

Conclusion

As the importance of reversing the obesity trend continues to become more of a priority for the government and marketers, it is important to determine what effects food advertising messages have to people who regularly view these ads. The FTC's (2008) review on food adverting shows the large amounts of money that companies use for advertising food products to young people. However, the report does not make specific recommendations for further research, on the use of celebrity athletes and their effect on consumer perceptions of food products.

The results of the present study indicate that college students in this study were not influenced by the presence of a celebrity athlete in food advertising. This is important for regulators and researchers who will further explore the research report developed by the FTC in 2008 in an effort to slow the obesity rates. However, because the respondents did rate the ad containing Eli Manning significantly more appealing than

the ad containing the control ad and Michael Phelps, it is important for regulators to explore how positive attitudes in advertising can influence purchase behavior over time.

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Michael Phelps Instrument

1.

Graduate Student Research Study
Mass Communication / Media Management Program
Primary Researcher: Trey Barrow

Thank you for agreeing to participate in this research study. This survey is designed to gain information regarding your attitudes and perceptions of a new product launch.

To begin the survey, click the button below. The survey should take five minutes to complete.

The information you provide will be completely anonymous. All data gathered in this study will be generalized and reported in summary form. Your individual responses will be confidential, which means that they will neither be provided to any organization outside the university, nor be used for any purpose outside the research study question.

This survey is being conducted by Oklahoma State University. If you have any questions, please contact the primary researcher Trey Barrow at 918-519-7104 or allen.barrow_iii@okstate.edu. This research study has been approved by the Institutional Review Board.

Michael Phelps Instrument

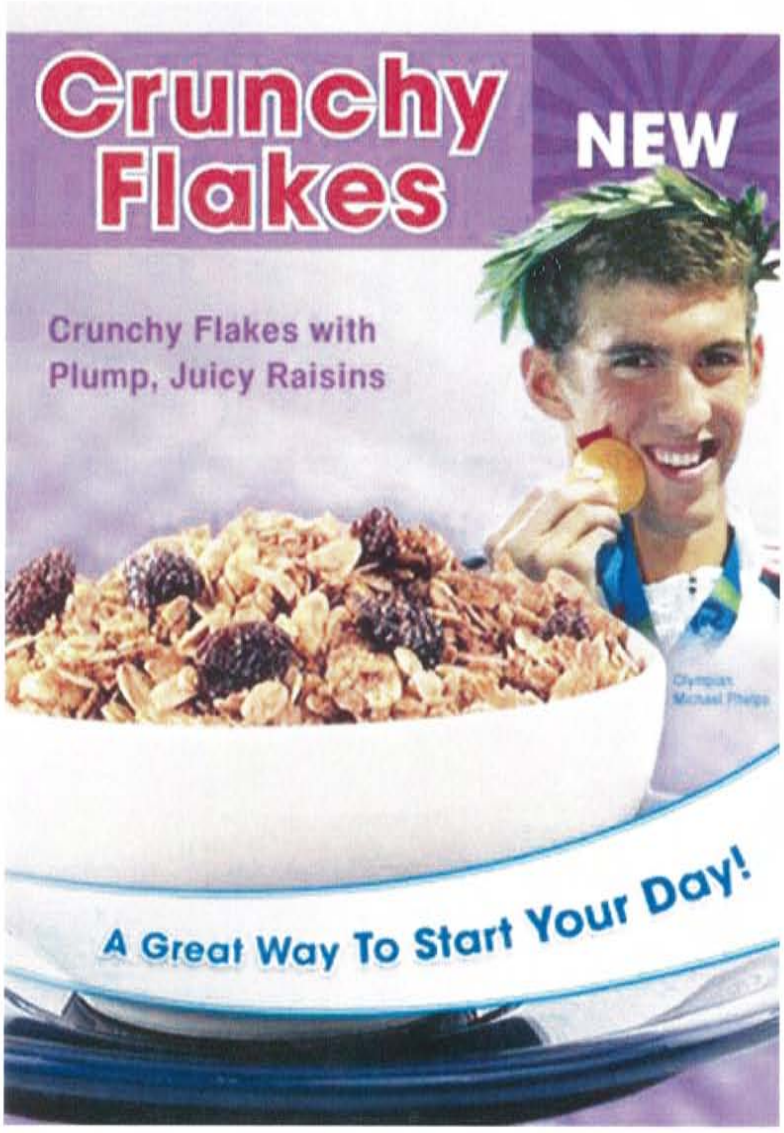
2.

Review the advertisement on the following page for a new cereal.

When you have finished reviewing the advertisement, please select the NEXT button and answer the questions relating to your opinions of the ad.

Michael Phelps Instrument

3.



Michael Phelps Instrument

4.

1. I think the cereal in the ad...

	(1) is unhealthy	2	3	4	(5) is healthy
Rate your opinion on the scale:	○	○	○	○	○

2. I think the cereal in the ad...

	(1) contains a lot of sugar	2	3	4	(5) contains little sugar
Rate your opinion on the scale:	○	○	○	○	○

3. I think the cereal in the ad...

	(1) has a low nutritional value	2	3	4	(5) has a high nutritional value
Rate your opinion on the scale:	○	○	○	○	○

4. I think the cereal in the ad...

	(1) is bad for my body	2	3	4	(5) is good for my body
Rate your opinion on the scale:	○	○	○	○	○

5. I think the cereal in the ad...

	(1) has a negative influence on my weight	2	3	4	(5) has a positive influence on my weight
Rate your opinion on the scale:	○	○	○	○	○

6. I think the cereal in the ad...

	(1) is bad for my teeth	2	3	4	(5) is good for my teeth
Rate your opinion on the scale:	○	○	○	○	○

Michael Phelps Instrument

5.

7. I think the advertisement is...

	(1) not attractive	2	3	4	(5) attractive
Rate your opinion on the scale:	○	○	○	○	○

8. I think the advertisement is...

	(1) not credible	2	3	4	(5) credible
Rate your opinion on the scale:	○	○	○	○	○

9. I think the advertisement is...

	(1) not appealing	2	3	4	(5) appealing
Rate your opinion on the scale:	○	○	○	○	○

10. I think the advertisement is...

	(1) not convincing	2	3	4	(5) convincing
Rate your opinion on the scale:	○	○	○	○	○

11. I think the advertisement is...

	(1) bad	2	3	4	(5) good
Rate your opinion on the scale:	○	○	○	○	○

Michael Phelps Instrument

6.

Olympian Michael Phelps is featured in the cereal ad. Please provide your opinions about Phelps below.

12. How familiar are you with Michael Phelps?

	(1) Not familiar with Phelps	2	3	4	(5) Very familiar with Phelps
Rate your opinion on the scale:	○	○	○	○	○

13. I think that Michael Phelps is...

	(1) Unattractive	2	3	4	(5) Attractive
Rate your opinion on the scale:	○	○	○	○	○

14. I think that Michael Phelps is...

	(1) Not Classy	2	3	4	(5) Classy
Rate your opinion on the scale:	○	○	○	○	○

15. I think that Michael Phelps is...

	(1) Ugly	2	3	4	(5) Beautiful
Rate your opinion on the scale:	○	○	○	○	○

16. I think that Michael Phelps is...

	(1) Plain	2	3	4	(5) Elegant
Rate your opinion on the scale:	○	○	○	○	○

17. I think that Michael Phelps is...

	(1) Not Sexy	2	3	4	(5) Sexy
Rate your opinion on the scale:	○	○	○	○	○

18. I think that Michael Phelps is...

	(1) Undependable	2	3	4	(5) Dependable
Rate your opinion on the scale:	○	○	○	○	○

19. I think that Michael Phelps is...

	(1) Dishonest	2	3	4	(5) Honest
Rate your opinion on the scale:	○	○	○	○	○

20. I think that Michael Phelps is...

	(1) Unreliable	2	3	4	(5) Reliable
Rate your opinion on the scale:	○	○	○	○	○

21. I think that Michael Phelps is...

	(1) Insincere	2	3	4	(5) Sincere
Rate your opinion on the scale:	○	○	○	○	○

Michael Phelps Instrument

22. I think that Michael Phelps is...

	(1) Untrustworthy	2	3	4	(5) Trustworthy
Rate your opinion on the scale:	○	○	○	○	○

23. I think that Michael Phelps is...

	(1) Not an expert	2	3	4	(5) Expert
Rate your opinion on the scale:	○	○	○	○	○

24. I think that Michael Phelps is...

	(1) Inexperienced	2	3	4	(5) Experienced
Rate your opinion on the scale:	○	○	○	○	○

25. I think that Michael Phelps is...

	(1) Unknowledgeable	2	3	4	(5) Knowledgeable
Rate your opinion on the scale:	○	○	○	○	○

26. I think that Michael Phelps is...

	(1) Unqualified	2	3	4	(5) Qualified
Rate your opinion on the scale:	○	○	○	○	○

27. I think that Michael Phelps is...

	(1) Unskilled	2	3	4	(5) Skilled
Rate your opinion on the scale:	○	○	○	○	○

28. Are you aware of the recent news regarding Michael Phelps' drug use?

○ Yes

○ No

Michael Phelps Instrument

7.

29. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I really do not think about whether everything I do is healthy for me.	○	○	○	○	○

30. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I do not always wonder if something is good for me.	○	○	○	○	○

31. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
My health is so valuable to me that I give up many things in life.	○	○	○	○	○

32. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I do not feel like wondering all the time whether certain foods are or are not healthy for me.	○	○	○	○	○

33. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that I am considerate in life towards healthy food.	○	○	○	○	○

Michael Phelps Instrument

8.

34. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that I often dwell on being healthy.	○	○	○	○	○

35. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I give up a lot to eat as healthy as possible.	○	○	○	○	○

36. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that, in general, I give up a lot for my health.	○	○	○	○	○

37. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think it is important to know how you have to eat healthy.	○	○	○	○	○

38. Enter your response to the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
If I had the chance, I would purchase the cereal featured in the ad.	○	◉	○	○	○

39. Do you eat breakfast?

- Yes
- No
- Sometimes

40. On average, how many days per week do you exercise with at least 30 minutes of walking?

- Never
- 1 day per week
- 2-3 times per week
- 4-5 times per week
- 6-7 times per week

Michael Phelps Instrument

10.

41. What is your gender?

- Male
- Female

42. What is your age?

43. What is your race/ethnicity?

- White, Non Hispanic
- Hispanic
- Native American
- Asian American
- Pacific Islander
- African American
- International - Non-Resident
- Other

44. What college do you currently attend?

- Oklahoma State Univeristy-Stillwater
- Oklahoma State University-Tulsa
- University of Oklahoma
- University of Tulsa

Other (please specify)

Eli Manning Instrument

1.

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Eli Manning Instrument

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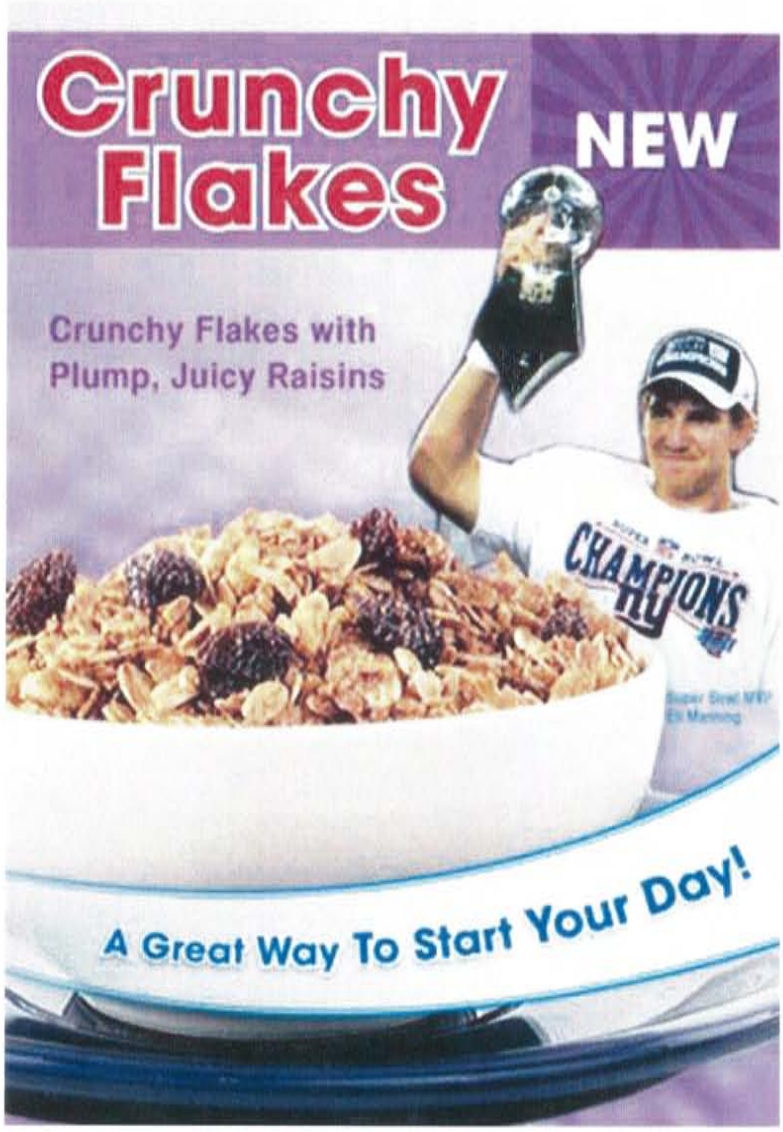
Eli Manning Instrument

3.



Eli Manning Instrument

4.

1. I think the cereal in the ad...

	(1) is unhealthy	2	3	4	(5) is healthy
Rate your opinion on the scale:	○	○	○	○	○

2. I think the cereal in the ad...

	(1) contains a lot of sugar	2	3	4	(5) contains little sugar
Rate your opinion on the scale:	○	○	○	○	○

3. I think the cereal in the ad...

	(1) has a low nutritional value	2	3	4	(5) has a high nutritional value
Rate your opinion on the scale:	○	○	○	○	○

4. I think the cereal in the ad...

	(1) is bad for my body	2	3	4	(5) is good for my body
Rate your opinion on the scale:	○	○	○	○	○

5. I think the cereal in the ad...

	(1) has a negative influence on my weight	2	3	4	(5) has a positive influence on my weight
Rate your opinion on the scale:	○	○	○	○	○

6. I think the cereal in the ad...

	(1) is bad for my teeth	2	3	4	(5) is good for my teeth
Rate your opinion on the scale:	○	○	○	○	○

Eli Manning Instrument

5.

7. I think the advertisement is...

	(1) not attractive	2	3	4	(5) attractive
Rate your opinion on the scale:	○	○	○	○	○

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	(1) not credible	2	3	4	(5) credible
Rate your opinion on the scale:	○	○	○	○	○

9. I think the advertisement is...

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10. I think the advertisement is...

	(1) not convincing	2	3	4	(5) convincing
Rate your opinion on the scale:	○	○	○	○	○

11. I think the advertisement is...

	(1) bad	2	3	4	(5) good
Rate your opinion on the scale:	○	○	○	○	○

Eli Manning Instrument

6.

Super Bowl quarterback Eli Manning is featured in the cereal ad. Please provide your opinions about Manning below.

12. How familiar are you with Eli Manning?

	(1) Not familiar with Manning	2	3	4	(5) Very familiar with Manning
Rate your opinion on the scale:	○	○	○	○	○

13. I think that Eli Manning is...

	(1) Unattractive	2	3	4	(5) Attractive
Rate your opinion on the scale:	○	○	○	○	○

14. I think that Eli Manning is...

	(1) Not Classy	2	3	4	(5) Classy
Rate your opinion on the scale:	○	○	○	○	○

15. I think that Eli Manning is...

	(1) Ugly	2	3	4	(5) Beautiful
Rate your opinion on the scale:	○	○	○	○	○

16. I think that Eli Manning is...

	(1) Plain	2	3	4	(5) Elegant
Rate your opinion on the scale:	○	○	○	○	○

17. I think that Eli Manning is...

	(1) Not Sexy	2	3	4	(5) Sexy
Rate your opinion on the scale:	○	○	○	○	○

18. I think that Eli Manning is...

	(1) Undependable	2	3	4	(5) Dependable
Rate your opinion on the scale:	○	○	○	○	○

19. I think that Eli Manning is...

	(1) Dishonest	2	3	4	(5) Honest
Rate your opinion on the scale:	○	○	○	○	○

20. I think that Eli Manning is...

	(1) Unreliable	2	3	4	(5) Reliable
Rate your opinion on the scale:	○	○	○	○	○

21. I think that Eli Manning is...

	(1) Insincere	2	3	4	(5) Sincere
Rate your opinion on the scale:	○	○	○	○	○

Eli Manning Instrument

22. I think that Eli Manning is...

	(1) Untrustworthy	2	3	4	(5) Trustworthy
Rate your opinion on the scale:	○	○	○	○	○

23. I think that Eli Manning is...

	(1) Not an expert	2	3	4	(5) Expert
Rate your opinion on the scale:	○	○	○	○	○

24. I think that Eli Manning is...

	(1) Inexperienced	2	3	4	(5) Experienced
Rate your opinion on the scale:	○	○	○	○	○

25. I think that Eli Manning is...

	(1) Unknowledgeable	2	3	4	(5) Knowledgeable
Rate your opinion on the scale:	○	○	○	○	○

26. I think that Eli Manning is...

	(1) Unqualified	2	3	4	(5) Qualified
Rate your opinion on the scale:	○	○	○	○	○

27. I think that Eli Manning is...

	(1) Unskilled	2	3	4	(5) Skilled
Rate your opinion on the scale:	○	○	○	○	○

Eli Manning Instrument

7.

28. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I really do not think about whether everything I do is healthy for me.	○	○	○	○	○

29. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I do not always wonder if something is good for me.	○	○	○	○	○

30. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
My health is so valuable to me that I give up many things in life.	○	○	○	○	○

31. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I do not feel like wondering all the time whether certain foods are or are not healthy for me.	○	○	○	○	○

32. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that I am considerate in life towards healthy food.	○	○	○	○	○

Eli Manning Instrument

8.

33. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that I often dwell on being healthy.	○	○	○	○	○

34. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I give up a lot to eat as healthy as possible.	○	○	○	○	○

35. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that, in general, I give up a lot for my health.	○	○	○	○	○

36. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think it is important to know how you have to eat healthy.	○	○	○	○	○

37. Enter your response to the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
If I had the chance, I would purchase the cereal featured in the ad.	○	○	○	○	○

9.

38. Do you eat breakfast?

- ◯ Yes
- ◯ No
- ◯ Sometimes

39. On average, how many days per week do you exercise with at least 30 minutes of walking?

- ◯ Never
- ◯ 1 day per week
- ◯ 2-3 times per week
- ◯ 4-5 times per week
- ◯ 6-7 times per week

Eli Manning Instrument

10.

40. What is your gender?

- Male
- Female

41. What is your age?

42. What is your race/ethnicity?

- White, Non Hispanic
- Hispanic
- Native American
- Asian American
- Pacific Islander
- African American
- International - Non-Resident
- Other

43. What college do you currently attend?

- Oklahoma State Univeristy-Stillwater
- Oklahoma State University-Tulsa
- University of Oklahoma
- University of Tulsa

Other (please specify)

Control Student Instrument

1.

Graduate Student Research Study
Mass Communication / Media Management Program
Primary Researcher: Trey Barrow

Thank you for agreeing to participate in this research study. This survey is designed to gain information regarding your attitudes and perceptions of a new product launch.

To begin the survey, click the button below. The survey should take about five minutes to complete.

The information you provide will be completely anonymous. All data gathered in this study will be generalized and reported in summary form. Your individual responses will be confidential, which means that they will neither be provided to any organization outside the university, nor be used for any purpose outside the research study question.

This survey is being conducted by Oklahoma State University. If you have any questions, please contact the primary researcher Trey Barrow at 918-519-7104 or allen.barrow_iii@okstate.edu. This research study has been approved by the Institutional Review Board.

Control Student Instrument

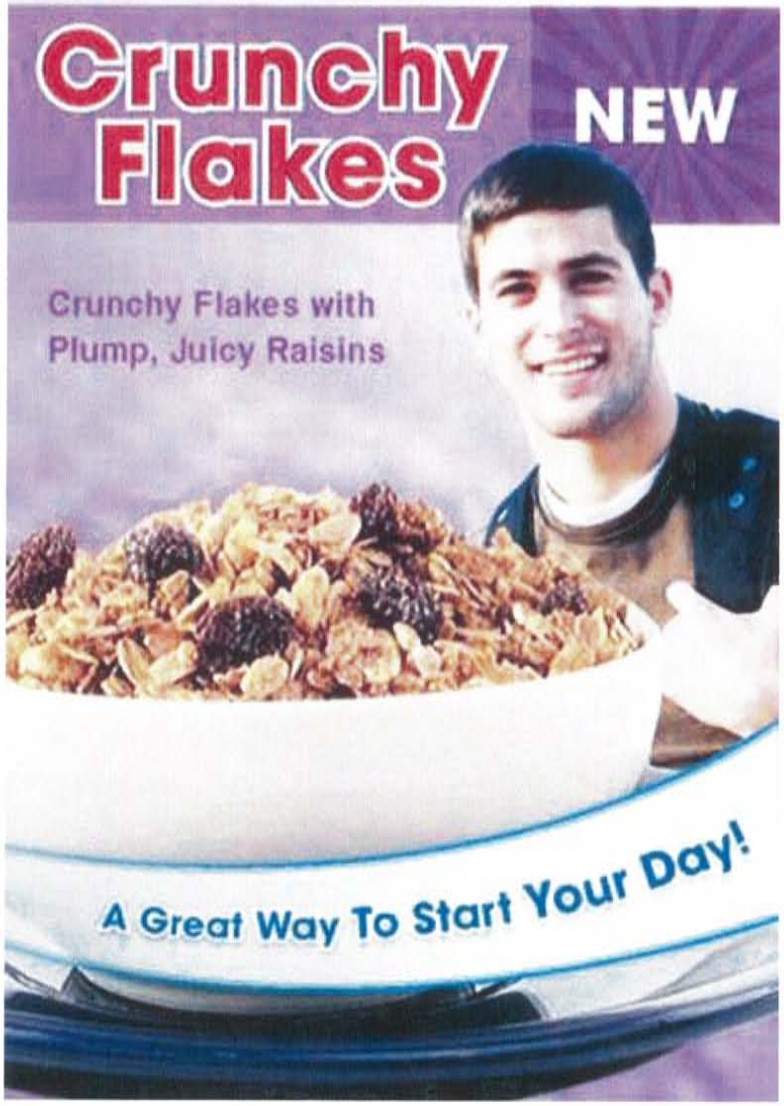
2.

Review the advertisement on the following page for a new cereal.

When you have finished reviewing the advertisement, please select the NEXT button and answer the questions relating to your opinions of the ad.

Control Student Instrument

3.



Control Student Instrument

4.

1. I think the cereal in the ad...

	(1) is unhealthy	2	3	4	(5) is healthy
Rate your opion on the scale:	○	○	○	○	○

2. I think the cereal in the ad...

	(1) contains a lot of sugar	2	3	4	(5) contains little sugar
Rate your opion on the scale:	○	○	○	○	○

3. I think the cereal in the ad...

	(1) has a low nutritional value	2	3	4	(5) has a high nutritional value
Rate your opion on the scale:	○	○	○	○	○

4. I think the cereal in the ad...

	(1) is bad for my body	2	3	4	(5) is good for my body
Rate your opion on the scale:	○	○	○	○	○

5. I think the cereal in the ad...

	(1) has a negative influence on my weight	2	3	4	(5) has a positive influence on my weight
Rate your opion on the scale:	○	○	○	○	○

6. I think the cereal in the ad...

	(1) is bad for my teeth	2	3	4	(5) is good for my teeth
Rate your opion on the scale:	○	○	○	○	○

Control Student Instrument

5.

7. I think the advertisement is...

	(1) not attractive	2	3	4	(5) attractive
Rate your opion on the scale:	○	○	○	○	○

8. I think the advertisement is...

	(1) not credible	2	3	4	(5) credible
Rate your opion on the scale:	○	○	○	○	○

9. I think the advertisement is...

	(1) not appealing	2	3	4	(5) appealing
Rate your opion on the scale:	○	○	○	○	○

10. I think the advertisement is...

	(1) not convincing	2	3	4	(5) convincing
Rate your opion on the scale:	○	○	○	○	○

11. I think the advertisement is...

	(1) bad	2	3	4	(5) good
Rate your opion on the scale:	○	○	○	○	○

Control Student Instrument

6.

12. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I really do not think about whether everything I do is healthy for me.	○	○	○	○	○

13. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I do not always wonder if something is good for me.	○	○	○	○	○

14. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
My health is so valuable to me that I give up many things in life.	○	○	○	○	○

15. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I do not feel like wondering all the time whether certain foods are or are not healthy for me.	○	○	○	○	○

16. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that I am considerate in life towards healthy food.	○	○	○	○	○

7.

17. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that I often dwell on being healthy.	○	○	○	○	○

18. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I give up a lot to eat as healthy as possible.	○	○	○	○	○

19. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think that, in general, I give up a lot for my health.	○	○	○	○	○

20. Enter your responses regarding the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I think it is important to know how you have to eat healthy.	○	○	○	○	○

21. Enter your response to the following statement.

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
If I had the chance, I would purchase the cereal featured in the ad.	○	○	○	○	○

8.

22. Do you eat breakfast?

- ◯ Yes
- ◯ No
- ◯ Sometimes

23. On average, how many days per week do you exercise with at least 30 minutes of walking?

- ◯ Never
- ◯ 1 day per week
- ◯ 2-3 times per week
- ◯ 4-5 times per week
- ◯ 6-7 times per week

Control Student Instrument

9.

24. What is your gender?

- ◯ Male
- ◯ Female

25. What is your age?

26. What is your race/ethnicity?

- ◯ White, Non Hispanic
- ◯ Hispanic
- ◯ Native American
- ◯ Asian American
- ◯ Pacific Islander
- ◯ African American
- ◯ International - Non-Resident
- ◯ Other

27. What college do you currently attend?

- ◯ Oklahoma State Univeristy-Stillwater
- ◯ Oklahoma State University-Tulsa
- ◯ University of Oklahoma
- ◯ University of Tulsa

Other (please specify)

Oklahoma State University Institutional Review Board

Date:	Thursday, January 29, 2009
IRB Application No	AS093
Proposal Title:	The Effect of Celebrity Athlete Models in Food Advertising on the Perceived Healthiness of Food Products
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 1/28/2010

Principal Investigator(s):

Allen Trey Barrow
2236 E. 18th
Tulsa, OK 74104

Jami Armstrong Fullerton
OSU-Tulsa 700 N. Greenwood
Tulsa, OK 74106

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

[X] The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Sheila Kennison, Chair
Institutional Review Board

Thank you for agreeing to participate in this research study.
Please read the following information before completing the online survey.

Study Purpose
The purpose of this research is to gain information about effective advertising of new products to college students. Because you are a current college student, your participation is very important to this study.

Procedure
After reading this page, if you are willing to participate in the study please write down your email address on the form passed out by your professor. An email will then be sent to you with a link to the questionnaire. Simply click the link that will be emailed to you. After selecting the link, please follow the directions on the questionnaire hosted by the Internet site Survey Monkey.

The questionnaire will ask for your attitudes towards an advertisement, health concerns, and general demographic questions.

The online questionnaire will take about five minutes to complete.

Risks of Participation
There are no known risks associated with the project which are greater than those ordinarily encountered in daily life.

Benefits
Participants will not receive any direct benefits from this study.

Confidentiality
No personal data will be collected or stored in association with this study. All data collected during this study will be completely confidential and will be stored by the researcher on a personal computer. Hard copies of the research data will be stored in the OSU-Tulsa North Hall Building, Room 385-A, 700 N. Greenwood Ave., Tulsa, OK 74106.

Access to the data will be given to officials of Oklahoma State University, including the OSU Graduate College and the OSU Institutional Review Board. Data will be maintained indefinitely and will be reported using statistical analysis of the information.

The OSU IRB has the authority to inspect consent records and data files to assure compliance with approved procedures.

Contacts
Trey Barrow
Primary Investigator, OSU Graduate Student
918-519-7104

Dr. Jami Fullerton
Professor, OSU
918-594-8579

If you have any questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or at irb@okstate.edu.

Participant Rights
Participation in this study is voluntary. You may discontinue your involvement at any time without reprisal or penalty. Your completion of the online survey indicates that you have read and fully understand the preceding information, that you are participating in this study voluntarily, and that you are at least 18 years of age.

To: OSU Faculty
From: Allen Barrow (Trey)
RE: Celebrity Athlete Model in Advertising Experiment for Graduate Research

Dear faculty member,

I am currently working on a research project that will partially fulfill the requirements for a Master of Science degree in Mass Communication from OSU-Tulsa.

I would like to request your assistance with my research. With your help, I would like to recruit current college students to participate in my research project regarding their opinions of advertisements for a new product launch.

The information that your students provide through an online questionnaire will be completely confidential and will be used in a summary form with other respondents. Students who agree to participate in the study will be asked to go online and complete a five minute survey.

If you wish to present your students with this opportunity to participate in a research study, I have attached a recruitment script that you may use to explain the project in your classroom and a form for your students to write down an email address in order for the researcher to email the online questionnaire link. In addition, I have attached an informational page that provides all the necessary instructions on how to complete the online questionnaire.

When the sign up sheet is complete with participant's email addresses, please scan the document and email to allen.barrow_iii@okstate.edu or fax the document to 918-461-6858.

If you would prefer for me to send you hard copies of these documents, please let me know and I will be happy to provide them. It is important to remind students that their participation in this study is completely voluntary and it is not a class requirement that they participate in the study.

I appreciate your assistance with this project and if you have any questions or concerns, please feel free to contact me.

Sincerely,

Trey Barrow
918-519-7104

CELEBRITY ATHLETE MODLE IN ADVERTISING EXPERIEMENT
FACULTY SOLICITATION SCRIPT

I have been asked by an OSU graduate student to request your participation in a research project regarding your opinions for an advertisement of a new product. Since you are all university students, you are eligible to participate in the research study, if you wish. I will handout information regarding the research study today in class.

If you agree to participate in the study, you will take a short online questionnaire. It will take about five minutes to complete. Participation in this study is completely voluntary. It is not a class requirement that you participate in this study.

The information that you provide in the survey will be used in an academic research paper and possibly published in an academic journal. Your responses will be kept anonymous and your answers will be used in a summary form with other respondents. If you choose to participate, you may withdraw at any point, if you do not feel comfortable answering any of the questions.

If you are interested in participating in this research project, please write down an email address where the researcher can send a link to an online questionnaire. The email the researcher will send you provides all the necessary instructions on how to complete the online questionnaire.

To: University Students
From: Allen Barrow (Trey)
RE: Advertising Experiment for Graduate Research

Dear University Student,

You are receiving this email because of your willingness to participate in the graduate research presented by your professor.

I am currently working on a research project that will partially fulfill the requirements for a Master of Science degree in Mass Communication from OSU-Tulsa. I would like to request your assistance with my research.

The information that you provide in an online survey will be completely confidential and will be used in a summary form with other respondents. If you agree to participate in the research project you will need access to the Internet a short **5 minute questionnaire**.

Please review the attached Student Recruitment Flyer for details regarding the research project. If you have any further questions, please contact me directly.

It is important to remember that participation in this study is completely voluntary and it is not a class requirement. You may quit your participation in the research at any time by deleting this email or exiting the questionnaire browser.

If you choose to continue, please click the link below to be directed to the questionnaire.

Link to questionnaire

I appreciate your assistance with this project and if you have any questions or concerns, please feel free to contact me.

Sincerely,

Trey Barrow
allen.barrow_iii@okstate.edu
918-519-7104

Volunteer Research Sign-Up Sheet

If you are willing to participate in the research, please enter an email address where a questionnaire link can to be sent to you.

VITA

Allen Barrow III (Trey)

Candidate for the Degree of Master of Science

Thesis: THE EFFECT OF CELEBRITY ATHLETE MODELS IN FOOD ADVERTISING ON THE PERCEIVED HEALTHINESS OF FOOD PRODUCTS.

Major Field: Mass Communication/Media Management

Biographical:

Education:

University of Oklahoma
Bachelor of Arts – Journalism/Advertising Major
June 2003

Oklahoma State University
Master of Science – Mass Communication/Media Management
Expected Completion – May 2009

Experience:

Hilti, Inc. – Tulsa, OK
E-Business Content Developer / Strategic Marketing (2004-Present)

Name: Allen Barrow III (Trey) Date of Degree: May, 2009

Institution: Oklahoma State University Location: Tulsa, Oklahoma

Title of Study: THE EFFECT OF CELEBRITY ATHLETE MODELS IN FOOD ADVERTISING ON THE PERCEIVED HEALTHINESS OF FOOD PRODUCTS

Pages in Study: 97 Candidate for the Degree of Master of Science

Major Field: Mass Communication/Media Management

Scope and Method of Study:
Recognizing the seriousness of the obesity problem, the government, consumer groups and parents have put pressure on the food industry to adjust their advertising practices (Seiders & Petty, 2007). The use of certain celebrity athletes in advertisements is particularly concerning as they may be seen as "healthy" role models. Therefore, empirical research is important to understand the potential impact that the presence of the celebrity athlete model poses to food choices. The purpose of this study is to determine how the use of a celebrity athlete model in food advertising affects the perception of healthiness of the advertised food product among college students. The methodology for this study is a simple experimental design using an experimental (treatment) ad and a control ad. Participants were randomly assigned one of three different print ads for a breakfast cereal. One treatment features celebrity endorser Michael Phelps, another treatment features celebrity endorser Eli Manning, and the final treatment features a non-celebrity male model.

Findings and Conclusions:
There were at total of 106 students sampled from Oklahoma State University journalism classes for the questionnaire. The results of the present study indicate that college students in the research sample were not influenced by the presence of a celebrity athlete in food advertising. However, the respondents did rate the ad containing Eli Manning significantly more appealing than the ad containing the control ad and Michael Phelps. This partially confirms what is largely accepted in advertising practices, in that celebrity endorsers do create a more favorable impression of products and brands when they are used in the ads. The fact that Phelps was not rated higher than the control ad in the Attitude toward the Ad scale could largely be due to his recent negative media attention following his drug use scandal.

ADVISER'S APPROVAL: Jami Fullerton, PhD