8-14-2020

Impact of Celebrity Endorsement in Advertising of High-Risk Products

Victoria Olaosebikan
vao7088@rit.edu

Impact of Celebrity Endorsement in Advertising of High-Risk Products

Victoria Olaosebikan

School of Communication

College of Liberal Arts, Rochester Institute of Technology

A *Thesis* presented

in partial fulfillment of the Master of Science degree in

Communication & Media Technologies

Degree Awarded:

August 14, 2020

The members of the committee approve the thesis of

Victoria Olaosebikan presented on May 28, 2020.

_____

Tracy Worrell, Ph.D.
Professor
School of Communication
College of Liberal Arts
Thesis Advisor

_____

David Neumann, Ph.D.
Professor
School of Communication
College of Liberal Arts
Thesis Advisor

_____

Ammina Kothari, Ph.D.
Associate Professor and
Director of Graduate Programs
School of Communication
College of Liberal Arts

_____

Kelly Norris Martin, Ph.D.
Associate Professor and
Director
School of Communication
College of Liberal Arts

Table of Contents

Abstract

Celebrity endorsement is one of the most popular and effective strategies in advertising. Celebrities are perceived as attractive and having both likable qualities and influential power. Marketers have become more aware of the influence celebrities have on individuals and have harnessed this into advertising products and services. Empirical studies have shown that celebrities have been very effective in advertising low-risk products and services. But how effective is this strategy in advertising high-risk products and services? This study employed the elaboration likelihood model to investigate the impact of a celebrity endorser compared to a non-celebrity endorser on consumer behavior in advertising high-risk products/services with a focus on dietary supplements. The results of this study show that consumers used more of the peripheral route of information processing in examining the celebrity advertisement. There was no significant difference in the impact between the celebrity endorser and non-celebrity endorser. They both had a positive relationship with attitude toward the product. However, they did not significantly affect consumers' purchase intention.

Keywords: celebrity endorsement, celebrity endorser, dietary supplement, high-risk products, persuasion route

Impact of Celebrity Endorsement in Advertising of High-Risk Products

Celebrity endorsement is believed by marketers to be one of the most effective strategies in advertising (Spry et al., 2011). This strategy dates back to the late nineteenth century when sports stars were used as endorsers by various tobacco companies (Erdogan, 1999). The trend has grown rapidly ever since, with many companies investing millions of dollars on celebrities like entertainers, athletes, social media influencers, and other famous personalities to promote their products and services. With Americans' growing obsession with celebrities it is no surprise why this strategy has gained popularity in marketing communication over the years. In the United States, 14% to 19% of advertisements are estimated to be endorsed by celebrities (Elberse & Verleun, 2012). Marketers invest in this strategy because they believe that endorsement from celebrities makes their claims more credible and appealing to consumers.

Research shows celebrity endorsement to be effective in enhancing brand image and evaluation (e.g., Atkin & Block, 1983; Awasthi & Choraria, 2015; Friedman & Friedman, 1979; Hovland & Weiss, 1951; Kaushik & Baliyan, 2017; Lear et al., 2009; O'Mahony & Meenaghan, 1998; Petty et al., 1983; Silvera & Austad, 2004). Key factors like celebrity attractiveness, expertise, and endorser/product match are believed to determine the effectiveness of a celebrity endorsement (Atkin & Block, 1983; Dom et al., 2016).

There are many types of consumer products on the market. Many fulfill our basic needs such as food and clothing. Some fulfill our need for self-expression and creativity such as cosmetics, fashion, and home furnishings. These are low-risk products in that they only have positive impacts on our lives. However, there are high-risk products/services that consumers purchase as well, such as medical services, medicines, or financial services and safety equipment. Initially, celebrities were used in promoting traditional products like clothing, food,

cosmetics, and others, which are classified in this study as low-risk products. However, this strategy has been extended to other areas like financial institutions and health communication to promote high-risk products and services. While most studies (e.g., Atkin & Block 1983; Kaushik & Baliyan, 2017; Lear et al., 2009; O'Mahony & Meenaghan, 1998; Silvera & Austad, 2004) have focused on the effectiveness of celebrity endorsement of low-risk products, not much has been done in regards to the effectiveness of celebrity endorsement of high-risk products; little is known about the persuasion process in celebrity endorsement of high-risk products/services. The question remains: Are celebrities effective in endorsing high-risk products/services? For instance, does the use of a celebrity in promoting high-risk products influence an individual's purchase intention?

The purpose of this study is to determine the impact of a celebrity endorser compared to a non-celebrity endorser on consumer behavior in advertising high-risk products/services with a focus on dietary supplements (a fictitious brand of dietary supplement was used for the study). This study uses the elaboration likelihood model as a framework for analyzing the effectiveness of a persuasive message (Petty & Cacioppo, 1986).

This study is important to both academics and advertisers. Consumer research is an indispensable part of advertising; marketers are interested in understanding the attitudes and behaviors of customers to determine the best strategy to influence consumers' purchase intention. Advertisers may assume that since celebrities have been successful in advertising low-risk products over the years, this strategy would also be effective in endorsing high-risk products. Marketers must do thorough research before using celebrities to create awareness for their brands. They need to ask important questions about the effectiveness of a celebrity endorsement of high-risk products and services compared with less costly non-celebrity endorsement

advertisements. Therefore, this research will be helpful to marketers in determining consumers' attitudes and the process underlying the effectiveness of celebrity endorsement of high-risk products and services.

Literature Review

Celebrity

A celebrity is a famous person who is well known to a certain demographic. A person could become famous for different reasons: It could be on talent, expertise, remarkable achievements, or even physical appearance. Friedman and Friedman (1979) view a celebrity as an individual whose achievements are known to the public. Examples of celebrities are movie stars, singers, TV hosts, social media influencers, politicians, athletes, and others. McCracken (1989) defines a celebrity endorser as an individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement. This means that the individual uses personal fame to create awareness and promote products. Bergkvist and Zhou (2016) expand this definition stating that celebrities also endorse business-to-business service and consumer services.

With the rapid growth of the internet and media in the 21st century, celebrity endorsers also include more individuals who can achieve fame through a wide variety of communication channels (Giles, 2018). Today, a celebrity endorser includes individuals known as digital influencers or social media influencers. Digital and social media influencers are new types of celebrity endorsers who promote products and services through their popularity on social media and blogs (Freberg et al., 2011). One definition of an influencer includes athletes, fashionistas, fitness experts, gamers, beauty bloggers, travel experts, chefs, and more who are experts in a

particular field and have a lot of followers on social media, not less than 10,000 followers and engagements on their blogs (Meltzer, 2018).

Celebrity Endorsement

Celebrity endorsement is a marketing strategy that involves using famous and important personalities to promote a product or services. This strategy has gained much popularity in marketing communication over the years (Erdogan, 1999). Many celebrities such as entertainers, athletes, and other famous personalities are paid millions of dollars to endorse various products and brands. For example, David Beckham signed a deal with Adidas for $160.8 million in 2003; George Clooney in 2006 signed a deal with Nespresso for $5.7 million per year, with a total accumulation of about $62 million; in 2012, Beyoncé's deal with Pepsi was estimated to be $50 million; Taylor Swift's partnership with Coca-Cola which began in 2014 was estimated to be about $26 million; 50 Cent also signed a deal with Vitamin Water for $100 million; Michael Jordan signed a deal with Nike Air Jordan estimated to be $40 million a year; Serena Williams also partnered with Nike for $40 million, and several other celebrities (McCann, 2017). Companies spend an enormous amount of money on celebrity advertising based on the belief that they will sustain high recall rates for their brands and positively influence customers' purchase intention.

Numerous studies have tested the effectiveness of celebrity endorsement (Atkin & Block, 1983; Awasthi & Choraria, 2015; Friedman & Friedman, 1979; Hovland & Weiss, 1951; Kaushik & Baliyan, 2017; Lear et al., 2009; Mahony & Meenaghan, 1998; Petty et al., 1983; Silvera & Austad, 2004). A consistent finding from these studies confirms that celebrity endorsers have a positive impact on brand image and evaluation.

Even though marketers and empirical researchers have established that there are significant benefits of celebrity endorsement, there are also potential hazards of using celebrity endorsers. Public controversy, image change, loss of public recognition, and bad image are examples of potential hazards that can negatively affect celebrity endorsement (Erdogan, 1999). For example, Tiger Woods lost his endorsement deals with Gillette, General Motors, AT&T, and more after the news of his mistresses' scandal broke (Jones, 2018). Another example is when Paula Deen lost her deals with Walmart, Target, Home Depot, Food Network, and more after she revealed she had used racial slurs in the past. The image of a celebrity is just one factor amongst other factors influencing the effectiveness of a celebrity endorsement.

Factors Influencing the Effectiveness of Celebrity Endorsements

Hovland and Weiss (1951) proposed what is known today as the source credibility model, which is concerned with the level of the source's trustworthiness and expertise. Their study on the effect of source credibility on audience retention of communication suggests that individuals regard communication as more credible when presented by a source with high credibility, but perceived as less credible when presented by a low credible source. In other words, individuals will have a positive evaluation of a message if the source is viewed as highly credible. Hence, the success of a celebrity endorsement heavily depends on the celebrity's expertise and trustworthiness. Here, trustworthiness refers to the level of the celebrity's honesty and integrity, and expertise refers to the celebrity's amount of knowledge and experience (Yöreş, 2017).

Consumers generally find endorsements by celebrities more credible than endorsements by non-celebrities. Atkins and Block's (1983) study confirmed that advertisements endorsed by celebrities were more positively evaluated than those featuring non-celebrities. Similarly, a recent study by Kaushik and Baliyan (2017) examined the impact of using celebrity and non-

celebrity endorsers in fast-moving consumer goods (FMCG) advertisements and consumer purchase intentions. Fast-moving consumer goods are products that sell at low cost and relatively quickly, such as vegetables, milk, fruits, toiletries, beverages, packaged foods, and more (Kenton, 2020). The result of their study also confirms the influence of celebrity credibility as a celebrity advertisement had a more significant impact on purchase intention of FMCG products than a non-celebrity advertisement. The attention and recognition that celebrities get from the public are said to be the reason why they are regarded as credible or more credible than non-celebrities (Yöreş, 2017).

The attractiveness of a celebrity also determines the effectiveness of a celebrity endorsement. It is based on how physically appealing and likable an endorser is perceived by individuals (Choi & Rifon, 2012). The attractiveness of a celebrity is significant to the success of a celebrity endorsement because celebrities who are attractive are found to be more effective in endorsing products and services than non-attractive celebrities (Erdogan, 1999). Attractiveness does not only relate to the physical appearance of a celebrity but also other characteristics like intelligence, personality traits, and lifestyles (Erdogan, 1999).

The compatibility of the "cultural meaning" of celebrity and product is another factor that makes a celebrity endorsement successful (Yöreş, 2017). Here, individuals tend to transfer the image of a celebrity to a product, which can either be a positive or negative image. This means that if individuals have a positive perception about a celebrity, they will transfer the positive image to the product endorsed, but if they have a negative perception of the celebrity, they will have a negative image of the product (Aureliano-Silva et al., 2015).

A strategic combination of the product being endorsed and a celebrity also helps to create a positive influence on consumer responses (Choi & Rifon, 2012). The idea between the product

and celebrity match-up relates to how well a product and celebrity fit based on physical attraction and expertise. For example, an attractive celebrity with great skin will make a good match for a skincare product or an athlete will make a great match with athletic shoes. A proper match-up is believed to make the celebrity endorser more trustworthy and attractive (Erdogan, 1999).

Other factors that influence the effectiveness of a celebrity endorsement include the message and product type, level of receiver's involvement, and the character of the target receiver. While previous studies on the effectiveness of celebrity endorsement have focused on other factors not much has been done on how the nature of a product/service influences the success of a celebrity endorsement. Hence, this study adds to the field of other studies by examining the impact of celebrity endorsements on consumer behavior in advertising high-risk products using the elaboration likelihood model as a framework.

The Elaboration Likelihood Model

The elaboration likelihood model (ELM) is a persuasion theory developed by John Cacioppo and Richard Petty in 1980. Before its development, theories in the field of persuasion offered no comprehensive framework for understanding attitude change (Kitchen et al., 2014). ELM provides a framework for understanding and analyzing the effectiveness of persuasive communication (Petty & Cacioppo, 1986). The dual-process theory explains persuasion as a cognitive process. It suggests when people are exposed to the persuasive message they go through a cognitive process where their attitude to the message depends on their level of elaboration. The level of elaboration is the level of information processing efforts or the amount of cognitive efforts used to process a persuasive message. Depending on their elaboration or cognitive effort, people use either the central route or peripheral route of processing information.

When the level of elaboration is high (when a person uses a lot of cognitive effort), the person is using the central route processing, having both the motivation and ability to process a persuasive message (Bitner & Obermiller, 1985). In contrast, when the level of elaboration is low, a person is considered to be using the peripheral route, lacking motivation or ability to process a persuasive message (Bitner & Obermiller, 1985).

This means that when individuals take the central route, they attempt to carefully evaluate the arguments of the message. When an individual takes the peripheral route, they pay attention to simple cues such as the attractiveness of the spokesman, or source expertise. The individual requires little or no cognitive effort, relying on superficial cues. This means that the attitude formed under the peripheral route is less influenced by the argument quality of the persuasive message. In the context of this study, if the attitude of an individual is more influenced by issue-relevant information or the quality of the message of the product, then the individual is taking the central route. If the individual is more influenced by superficial cues such as the attractiveness of the celebrity, then the individual is using the peripheral route.

An individual level of elaboration can be influenced by situational variables, personal variables, and product category variables (Bitner & Obermiller, 1985). Situational variables include purchase activity or motivation, time pressure, and personal accountability, which may influence a person's level of elaboration (Bitner & Obermiller, 1985). Personal variable relates to a person's need for cognition, a person may have high (central cue) or low (peripheral cues) need for cognition (Bitner & Obermiller, 1985). The product category variable relates to how the nature of a product influences elaboration likelihood. For expensive, and high-risk products, people will be more responsive to central cues, while for inexpensive, and low-risk products, people will be more responsive to peripheral cues (Bitner & Obermiller, 1985). This study

focuses on personal variables and product category variables, as the nature of product type may affect the influence of a celebrity (Friedman & Friedman, 1979). Under the product category, a product can be classified as either a high-risk product or a low-risk product.

The Elaboration Likelihood Model and High-Risk Products/Services

High-risk products and services are those that are perceived to cause potential hazards, harm, or loss. The concept of high-risk products or services in this study is viewed in terms of consumer risk perception of a product or service, which is consumers' perception of the potential consequences, hazards, and uncertainty of purchasing a product or service (Dowling & Staelin, 1994). Examples of high-risk products/services are medical services, medicines, or safety equipment (Bitner & Obermiller, 1985).

The tenets of the ELM suggest that celebrity endorsements may not be successful in the high-risk product category. It has been established that high-risk products will most likely activate high elaboration of a persuasive message and high elaboration results in the central route of processing (Bitner & Obermiller, 1985). An individual with high cognition may be willing to put a lot of thorough and cognitive effort in processing the message because of the nature of the product.

However, it is important to note that regardless of promoting a high-risk product/service, if there are not enough central cues, or if an individual lacks the ability and motivation to process the central cues, they might turn to the peripheral cues (Bitner & Obermiller, 1985). This study adds to the field of previous research to determine the effectiveness of celebrity endorsements in high-risk product categories with a focus on dietary supplements. In the context of this study, a celebrity may not be effective in influencing individual attitudes because of the nature of the product endorsed. Individuals will turn to central cues in the advertisement such as issue-relevant

information of the dietary supplement. On the other hand, if they cannot process issue-relevant information about the dietary supplement or the ability to process the supplement as a high-risk product, the celebrity may be more effective in influencing their attitude. This means they will be taking the peripheral route of persuasion.

Dietary Supplements

The purpose of this research is to study a high-risk product, and a dietary supplement being a high-risk product was selected for this study. A dietary supplement is any product designed for ingestion that contains a "dietary ingredient" with nutritional values to supplement diets (Mordorintelligence, 2019). Dietary supplements have one or a composition of the following ingredients: a mineral, a vitamin, an herb or herbal remedies, botanicals, and weight-loss or dietary supplements, to prevent nutritional deficiency diseases and enhance overall health (DeLorme et al., 2012). The global sale of dietary supplements is forecasted to reach USD 230.73 billion by 2027 (ReportLinker, 2020). The global growth of the market is due to the increasing aged population, increasing costs of healthcare, increasing number of diseases caused by lifestyle, high birth rate, premature births, and increased cases of malnutrition (ReportLinker 2020).

Currently in the United States, more than half of Americans use at least one dietary supplement (Smith-Mady, 2017). With the rapid growth in the consumption of dietary supplements and the competitive market, companies are increasingly advertising their brands (Smith-Mady, 2017). Advertising is believed to play a prominent role in the growth and sales of dietary supplements (DeLorme et al., 2012). According to Kantar Media's 2018 MARS consumer Health Study, dietary supplement advertising has grown over the past year, with advertisers spending nearly about US $900 million on vitamin, mineral, and supplement

products. The advertisements for vitamins and minerals account for about $239 million in ad spending and the advertisements for nutritional supplements account for about $640 million in ad spending (Kantarmedia, 2018). As the dietary supplement market is becoming more highly competitive, marketers are using more strategic ways, especially celebrity endorsements, to advertise their brands. Therefore, it is interesting to know how celebrities thrive in this area.

Researchers have studied different areas in celebrity advertisement health-related products. Examples of some areas that have been studied are celebrity endorsement of drugs/dietary supplements: regulations and consumer protection (Feinman, 2011; Mospan & Alexander, 2018; Smith-Mady, 2017), celebrity endorsement, and direct to consumer advertising (e.g., Bhutada et al., 2014; Rollins & Bhutada, 2014). Not many studies have been done specifically on the impact of celebrity endorsement on the advertisement of dietary supplements and how individuals process the persuasive messages; this is the gap this study is trying to fill.

Celebrity endorsement of dietary supplements is an interesting area to study for several reasons (Smith-Mady, (2017). First, it involves a celebrity promoting a health-related product, which has a combination of different ingredients. Individuals may react differently to these ingredients, which makes dietary supplements risky to the health of potential consumers. Secondly, dietary supplements are not strictly regulated like other prescription drugs. Thirdly, most people do not seek a physician's consent before taking a dietary supplement based on the false assumption that they are safer to take than the drugs that require a doctor's prescriptions. Bearing all these factors in mind, this study examined the effectiveness of celebrity endorsement of dietary supplements by investigating how individuals process an advertisement. Also, this study examines if there is a relationship between the perceived risk of dietary supplements and

the route taken to process the message if the celebrity status moderates the relationship between perceived risk and the route taken to process the message.

Research Questions

Based on the tenets of the elaboration likelihood model and the findings of previous research, my study will examine the following research questions:

- **RQ1:** What **information processing route** do individuals use to evaluate a celebrity endorsement of dietary supplements and is this different than a non-celebrity endorsement?
- **RQ2**: Is there a relationship between the **perceived risk** of dietary supplements and the route taken to process the message?
    - **RQ2a:** Does celebrity status moderate the relationship between perceived risk and the route taken to process the message?
- **RQ3:** Is there a difference between **the likelihood to buy** a dietary supplement after viewing a celebrity versus a non-celebrity advertisement?
    - **RQ3a:** Does the route taken moderate the relationship between celebrity status and likelihood to buy a supplement?

Methodology

The scope of this study lies in investigating the effectiveness of celebrities in the endorsement of high-risk products and services, with a focus on celebrity endorsement of dietary supplements. The study also focuses on the possible differences between celebrity endorsement and non-celebrity endorsement of dietary supplements. The respondents of this study were restricted to adults from the age of 18 years and above. A total of 250 respondents were selected

for the study using a convenience sampling technique. The questionnaires were disseminated online, open to anyone within the age group selected for the study.

The experimental method was adopted for this study to determine if there is a cause-and-effect relationship between two variables (Williamson & Johanson, 2017) to know if the change of the independent variable causes any change in the dependent variable. The experimental method involves the manipulation and isolation of an independent variable to create conditions (Price et al., 2018). Participants are assigned to one of two conditions, creating different groups experiencing different treatments of the independent variables. Subsequently, the groups are compared to measure the effect of the manipulation on the dependent variables.

The experimental method is appropriate for this study because two random groups experienced different treatments of the independent variable to determine if the manipulation of the independent variable (the celebrity endorser or a non-celebrity endorser) is related to the changes to the dependent variable (level of elaboration, level of involvement, endorser' s credibility, risk perception, attitude, and purchase intention). Participants were assigned randomly to two groups, with each group experiencing a different condition based on the manipulation of the independent variable (the endorser). The first group was exposed to a fictitious advertisement of a dietary supplement endorsed by Oprah Winfrey. The second group was exposed to the advertisement of a dietary supplement with a non-celebrity endorser. The independent variable that was manipulated in this study was the presence of the celebrity in the advertisement of the dietary supplement in the first group and the presence of the non-celebrity in the second group. The purpose of this comparison was to find out if the presence of a celebrity has more impact on endorsing dietary supplements than a non-celebrity.

Product and Stimuli Development

Two mockup advertisements of a multivitamin supplement were designed, one with a popular celebrity (Oprah Winfrey) and the other with a non-celebrity endorser. Both advertisements were designed with the same messages (see Appendix). The advertisements contained information regarding the benefits of the supplement and a direct message from the endorsers in the form of testimony and a call to action. The supplement used in the advertisement was an existing brand of an adult multivitamin supplement. However, the product was redesigned, having a different package, unknown brand name, and branded as a new product. The original claims of the supplement were used in the advertisement, but another feature was added to include probiotics. The identity of the original supplement was hidden in the advertisement to avoid the influence of a participant's existing brand awareness, preferences, and user experience (Gardner, 1985). The multivitamin supplement was chosen for this study because it is gender-neutral and familiar. Different genders participated in the study, therefore, the product chosen should preferably represent a product category that is gender unbiased and highly familiar (Singh et al., 2000).

In the experiment, participants were assigned randomly to a celebrity advertisement or a non-celebrity advertisement to set different conditions. All participants performed the same task for both advertisements. They were instructed to first go through the ads, and then to respond to a well-structured questionnaire. The questionnaires were the same for both ads measuring the same dependent variables.

Measures and Scaling

This study examined two independent variables, the celebrity endorser and non-celebrity endorser and their relationship with dependent variables. The dependent variables include the consumers' information processing route measured with two sub-variables: level of elaboration

and involvement, risk perception, endorser credibility, attitude towards the product, and purchase intention. The study manipulated the independent variables to create two conditions: The manipulation was the presence of the celebrity in the first condition and the presence of a non-celebrity advertisement in the second condition.

The first dependent variable, the information processing route, was measured by two sub-variables: level of elaboration and involvement to determine if consumers used the central or peripheral route of information processing (see Appendix). The level of elaboration was measured with nine items on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) to find out the amount of cognitive effort individuals used in evaluating the advertisement. It was divided into two categories: copy-focused elaboration and endorser-focused elaboration. Items specific to copy-focused elaboration included statements like "I tried to make an accurate judgment of the supplement," "I used a lot of mental effort to evaluate the possible values of the supplement for me," and "I used the claims to evaluate the supplement." The endorser-focused elaboration included statements like "I paid a lot of attention to the endorser of the supplement," "I used the endorser to evaluate the supplement," and "I gave a lot of thought to the endorser to judge whether the supplement would be suitable for me." Similarly, involvement was measured on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) to indicate the level of importance and attention individuals gave to the advertisement. Statements assessing the level of involvement included "The advertisement held my attention," "While reading the copy, I was very involved," and "This advertisement copy didn't have anything to do with me or my needs."

Endorser's credibility which indicates how well consumers trusted the celebrity and non-celebrity endorser and their claims were examined with ten items on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). It included items such as "The claims of the endorser

are believable," "The endorser is attractive," The endorser uses the product," "The endorser knows about the product's attributes-advantages," "The endorser knows the product's attributes-disadvantages," and "I trust the recommendations of the endorser."

Risk Perception was measured to indicate if individuals considered the supplement as a high-risk product and if they thought of the implications on their health. Items regarding risk perception included "This supplement is a high-risk product" and "I would take a dietary supplement not prescribed by my doctor," were measured on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*).

Attitude towards the supplement was determined to show if individuals' feelings towards the supplement were positive or negative and if they found the supplement appealing. Items measured on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) included statements such as "My feeling towards the product is negative," "My feeling towards the product is positive," and "I find the supplement appealing."

The last variable, purchase intention, was measured on a 5-point Likert scale (1 = *extremely unlikely* to 5 = *extremely likely*) to show individuals' willingness and intentions to purchase the dietary supplement. The statement "I would like to purchase the supplement advertised," was used to measure consumers' likelihood to purchase the dietary supplement.

Data Analysis

Microsoft Excel was used for the data entry and the data were analyzed in Minitab using descriptive and inferential statistics. The descriptive statistics were expressed in mean, frequency counts, and percentages. Inferential statistics included *t*-tests (Independent and Two-sample *t*-test), correlation tests, and regression tests. The independent sample *t*-test examined whether there was a difference between routes used for those viewing the celebrity advertisement and the

non-celebrity advertisement. The two-sample *t*-test examined if there was any difference between the celebrity and non-celebrity ad regarding the information processing route; and whether there was a difference between the likelihood to buy the dietary supplement from a celebrity versus a non-celebrity endorser. The correlation test was conducted to test if there was a relationship between the perceived risk of dietary supplements and the route taken to process the message.

Results

A total of 132 respondents were examined for the study with 45% reporting as male and 55% reporting as female. The survey was distributed evenly to create two groups, where respondents were exposed to either a celebrity advertisement (54%) or a non-celebrity advertisement (46%) of the dietary supplement. The majority of respondents were between the ages of 35–44 (45%), with the rest 45–54 (22%), 25–34 (16%), 55–64 (10%), 65–74 (4%), 75 and older (2%), and 18–24 (1%). Additionally, the majority of the respondents identified as Caucasian (52%), 17% identified as Black and African American, 12% as Asian, 10% as Native Americans and Alaska Natives, 8% as Hispanic and Latino Americans, and 1% as Native Hawaiians and other Pacific Islanders.

Research question 1 examined which information processing route individuals used to evaluate celebrity endorsement of dietary supplements, compared to a non-celebrity endorsement. The items used to examine information processing were examined for reliability with both the central ($\alpha = .85$) and peripheral ($\alpha = .79$) having sufficient reliability to create a score for each variable.

An independent sample *t*-test was conducted examining whether there was a difference between routes used for those viewing the celebrity advertisement and the non-celebrity

advertisement. For the celebrity advertisement, a significant difference was found such that respondents used the peripheral route ($M = 3.32$, $SD = 0.91$) in processing the advertisement more than the central route ($M = 2.93$, $SD = 0.59$), $t = 3.65$, $p = .001$. In contrast, no significant difference was found in the route used for viewing the non-celebrity advertisement as the mean score of the central routes ($M = 3.14$, $SD = 0.73$) and the peripheral routes ($M = 3.08$, $SD = 1.11$) were close, $t = 0.46$, $p = .648$. A two-sample *t*-test was conducted to examine if there is any difference between the celebrity and non-celebrity ad regarding the information processing route.

Results of the *t*-test indicate no significant difference between the celebrity ad ($M = 3.52$ $SD = 0.70$) and non-celebrity ad ($M = 3.74$, $SD = 0.93$), $t(108) = -1.46$, $p = .146$ when examining the central route of processing. Further, there were no significant differences between the celebrity ($M = 3.31$, $SD = 0.91$) and non-celebrity ($M = 3.06$, $SD = 1.10$), $t(112) = 1.37$, $p = .175$ when examining the peripheral route of processing. Further analysis was done to examine the credibility of the endorsers and attitude towards the product. A two-sample *t*-test was conducted to examine if there was a difference in the credibility of the celebrity and non-celebrity endorser and consumers' attitude towards the dietary supplement endorsed. Results of the test show no significant difference between the perceived credibility of the celebrity endorser ($M = 32.66$, $SD = 6.81$) and non-celebrity endorser ($M = 32.87$, $SD = 7.83$), $t(117) = -0.16$, $p = .872$; and no significant difference between attitude towards the product in the celebrity advertisement ($M = 3.21$, $SD = 0.86$) and non-celebrity advertisement ($M = 3.31$, $SD = 1.15$), $t\ (109) = -0.56$, $p = .577$ advertisement.

Research question 2 examined if there is a relationship between the perceived risk of dietary supplements and the route taken to process the message. A Pearson correlation test was

conducted to test if there is a relationship between the perceived risk of dietary supplements and the route taken to process the message. Results of the Pearson correlation indicate that there is no significant association between the perceived risk of dietary supplements and the route taken to process the message, central route, $r = -0.057$, $p = .523$ and peripheral route $r = 0.150$, $p = 0.092$. Research question 2a examined if a celebrity's status moderates the relationship between perceived risk and the route taken to process the message. A regression test was conducted to test this relationship. Results of the regression indicate no association between the celebrity status and the relationship between perceived risk and the route taken to process the message, F (2,124) = 1.75, $p > .05$, $R^2 = .74$.

Research question 3 examined if there is a difference between the likelihood to buy a dietary supplement from someone that is a celebrity versus a non-celebrity**.** A two-sample *t*-test was conducted to examine if there is a difference between the likelihood to buy the dietary supplement from a celebrity versus a non-celebrity endorser. Results of the two-sample *t*-tests indicate that there are no significant differences in the likelihood to purchase a dietary supplement from a celebrity ($M = 2.76$, $SD = 1.11$) and non-celebrity ($M = 2.92$, $SD = 1.25$) endorser, t (119) = -0.77, $p = 0.444$. Research question 3a examined if the route taken moderates the relationship between celebrity status and likelihood to buy a supplement. A regression test was conducted to examine if the route taken moderates the relationship between the celebrity status and the likelihood to purchase the dietary supplement. Results of the regression test indicate no positive association between the route and the relationship between celebrity status and the likelihood of purchasing the dietary supplement, $F(2, 123) = 8.21$, $p > .05$, $R^2 = .77$.

Discussion

The purpose of this study was to examine the impact of celebrity endorsement of high-risk products with a focus on dietary supplements. Celebrity endorsement is believed to be one of the most effective promotional strategies in advertising (Spry et al., 2011). Celebrity advertisement is considered to lead to a more favorable attitude towards advertisement than a non-celebrity advertisement (Atkin & Block, 1983; Petty et al., 1983). The cultural meaning celebrities transfer to a message is said to be the reason why they are regarded as more successful in endorsement than non-celebrities (Yöreş, 2017). In other words, celebrities lead to a more favorable attitude because they already have established influence and public recognition that they use to convey a message, while non-celebrities are just conveying a message with their gender, age, and social status (Saeed et al., 2014).

If an individual who views an advertisement changes attitude based on scrutinizing the product-relevant information in an advertisement, the individual is said to be taking the central route of information processing. On the other hand, if an individual's attitude changes based on the attractiveness or credibility of the product endorser, the individual is taking the peripheral route (Petty et al., 1983).

However, celebrity endorsements are believed to be more effective in a low involvement product category (low-risk products) and unsuccessful in a high-involvement product category (high-risk products; Bitner & Obermiller, 1985; Petty et al., 1983). High-risk products are believed to activate high elaboration or result in central route information processing of an advertisement (Bitner & Obermiller, 1985). In the context of this study, individuals who viewed the celebrity advertisement should use the central route of persuasion since the product being endorsed is perceived to be a high-risk product based on the tenets of the elaboration likelihood model on high-risk products. In this study, individuals who viewed the celebrity used the

peripheral route of persuasion regardless of whether or not they considered the dietary supplement advertised as a high-risk product. The results of the study show that an individual's risk perception of the product was not linked to their route of information processing in the celebrity advertisement and non-celebrity advertisement. Neither was there any interaction effect of the celebrity status on the individual's risk perception in processing the advertisement. This means that regardless of whether a celebrity endorser was used, their risk perception of the supplement was not affected, nor did it influence the route of information processing of the message. Nevertheless, the route of persuasion in the celebrity ad was not significantly different than the non-celebrity advertisement. This indicates that celebrity advertisements and non-celebrity advertisements had similar impacts.

Further analyses also show that the impact of the celebrity advertisement did not differ from the impact of the non-celebrity advertisement. When a source is viewed as highly credible, it leads to a more positive evaluation of a persuasive message, a positive attitude towards the product endorsed, and positive purchase intention. Conceptually, celebrities are found to be more credible than non-celebrity endorsers (Atkins & Block, 1983; Kaushik & Baliyan, 2017) as a result of the attention and recognition they enjoy from the public (Yöreş, 2017). Contrary to this argument, this study found no difference between the celebrity endorser and non-celebrity endorser on credibility, attitude toward the product, and purchase intention. They both led to a favorable attitude towards the dietary supplement and purchase intention to an extent; however, the impact on purchase intention was not significant.

Overall, this study shows that a celebrity and non-celebrity endorser has a similar impact on advertising a dietary supplement. The result of this is consistent with previous research on health-related products earlier mentioned in this paper by Bhutada et al. (2012) who examined

the impact of endorser credibility, endorser effectiveness, and consumers' involvement in direct-to-consumer advertising of prescription drugs by a celebrity and a non-celebrity endorser. Similarly, the result of their research showed no significant difference in the credibility and effectiveness between a celebrity and non-celebrity adverts as they both had similar impacts too. This does mean that a celebrity is not effective in advertising dietary supplements. The fact the individuals who viewed the celebrity advertisement used mostly the peripheral route of information processing shows that the celebrity was successful in creating a favorable attitude towards the supplement endorsed and positive purchase intention. However, the implication of this for marketers, dietary supplement/ health-related brands, and other businesses in the high-risk product/service category is that since celebrity endorsement is more expensive than non-celebrity advertising, they do not need to spend a lot of money hiring a celebrity endorser, if a non-celebrity can achieve the same marketing objectives (Bhutada et al., 2012).

Limitations and Suggestions for Further Studies

Firstly, this study had a limited sample of 132 people, which makes the results of the study not generalizable; the results may differ if there were more respondents. Secondly, the celebrity chosen for this study, Oprah Winfrey, is American, and the population was substantially spread across different countries. Participants were not asked if they recognized the celebrity. Third, the study used a fictitious brand of dietary supplement and advertisements not professionally designed to avoid the influence of participants' existing brand awareness, preferences, and user experience. This may have affected purchase intention. Fourth, this study was limited to dietary supplements, hence, results cannot be generalized for all high-risk products and services.

Further research can conduct similar studies using a real brand of dietary supplement and an advertisement that is professionally designed. Further, the impact of celebrity endorsement on advertising dietary supplements somewhat remains unclear, future research can explore more on dietary supplements and other health-related products using more survey respondents. Future research can also focus on other high-risk products, apart from health-related products to see if the same results will be obtained. Also, further studies should pre-test different types of high-risk products to help with choosing one that is considered higher risk.

Conclusion

Previous studies discussed earlier (e.g., Atkin & Block, 1983; Awasthi & Choraria, 2015; Friedman & Friedman, 1979; Hovland & Weiss, 1951; Kaushik & Baliyan, 2017; Lear et al., 2009; O'Mahony & Meenaghan, 1998; Petty et al., 1983; Silvera & Austad, 2004) have shown that celebrity endorsements are effective in enhancing brand image and evaluation. Celebrity's attractiveness, expertise, and endorser/product match lead to a more favorable attitude towards an advertisement (Atkin & Block, 1983; Dom et al., 2016). The attention and recognition celebrities get from the public are believed to make them more effective than non-celebrity endorsers (Yöreş, 2017). However, celebrity endorsements are believed to be less effective in high-risk product categories (high-risk products) and more effective in the low-risk products category (Bitner & Obermiller, 1985; Petty et al., 1983). Contrary to this argument, the results of this study show that the celebrity influenced individuals' attitude and purchase intention to some extent (not significant) despite the supplement endorsed being a high-risk product. However, when compared to the non-celebrity advertisement, results showed no significant difference between the impact of celebrity and non-celebrity endorsers.

The findings of this study are useful to advertisers in terms of consumer research. Marketers are interested in understanding the attitudes and behaviors of customers to determine the best strategy to best influence consumers' purchase intention. Before using a celebrity to endorse a high-risk product like a dietary supplement, marketers need to know if a celebrity will have more impact than a non-celebrity. Based on the results of this researcher, marketers may not need to incur the expense of using a celebrity to accomplish certain marketing objectives that can be accomplished by a non-celebrity endorser.

References

Arora, A., & Sahu, K. (2013). Celebrity endorsement: An effective marketing tool. *International Journal of Management Prudence, 5*(2), 27.

Atkin, C., & Block, M. (1983). Effectiveness of celebrity endorsers. *Journal of Advertising Research*, *23*(1), 57–61.

Aureliano-Silva, L., Lopes, E. L., Otávio Bandeira De Lamônica Freire, & Silva, D. d. (2015). The brand's effect on the evaluation of advertising endorsed by celebrities: An experimental study. *Brazilian Business Review, 12*(4), 57.

Awasthi, A. K., & Choraria, S. (2015). Effectiveness of celebrity endorsement advertisements: The role of customer imitation behaviour. *Journal of Creative Communications*, *10*(2), 215–234. doi:10.1177/0973258615597412

Bergkvist, L., & Zhou, K. Q. (2016). Celebrity endorsements: A literature review and research agenda. *International Journal of Advertising*, *35*(4), 642–663.

Bhattacherjee, A., & Sanford, C. (2006). Influence processes for information technology acceptance: An elaboration likelihood model. *MIS Quarterly, 30*(4), 805–825. doi:10.2307/25148755

Bhutada, N. S., Menon, A. M., Deshpande, A. D., & Perri, 3., Matthew. (2012). Impact of celebrity pitch in direct-to-consumer advertising of prescription drugs. *Health Marketing Quarterly, 29*(1), 35.

Bitner, M. J., & Obermiller, C. (1985). The elaboration likelihood model: Limitations and extensions in marketing. *Advances in Consumer Research, 12*, 420.

Cacioppo, J. T., & Petty, R. E. (1984). The elaboration likelihood model of persuasion. *Advances in Consumer Research, 11*, 673.

Chandra, V., & Hareendran, A. (2017). Research Methodology by Pearson 1st Edition. Pearson Education India. Retrieved from https://learning.oreilly.com/library/view/research-methodology/9789353067090/xhtml/chapter006.xhtml

Choi, S. M., & Rifon, N. J. (2007). Who is the celebrity in advertising? Understanding dimensions of celebrity images. *The Journal of Popular Culture, 40*(2), 304–324. doi:10.1111/j.1540-5931.2007. 00380.x

Choi, S. M., & Rifon, N. J. (2012). It is a match: The impact of congruence between celebrity image and consumer ideal self on endorsement effectiveness. *Psychology & Marketing*, *29*(9), 639–650. doi:10.1002/mar.20550

CI RT. (n.d.). Types of Experimental Research. Retrieved from https://cirt.gcu.edu/research/developmentresources/research_ready/experimental/design_types

Clark, C. R., & Horstmann, I. J. (2013). A model of advertising format competition: On the use of celebrities in ads: A model of advertising format competition. *Canadian Journal of Economics/Revue Canadienne d'Économique, 46*(4), 1606–1630. doi:10.1111/caje.12056

Dainton, E., & Zelley, E. (2005). Explaining Theories of Persuasion. *Applying Communication Theory for Professional Life: A Practical Introduction* (chapter 5). SAGE Publications. Thousand Oaks, Calif. ISBN-10 0761929142.

DeLorme, D. E., Huh, J., Reid, L. N., & An, S. (2012). Dietary supplement advertising in the US: A review and research agenda. *International Journal of Advertising*, *31*(3), 547–577. doi:10.2501/IJA-31-3-547-577

Dom, Syed Mazlan Syed Mat, Ramli, H. S. b., Chin, A. L. L., & Fern, T. T. (2016).

Determinants of the effectiveness of celebrity endorsement in advertisement. *The Journal of Developing Areas, 50*(5), 525–535. doi:10.1353/jda.2016.0033

Dowling, G. R., & Staelin, R. (1994). A model of perceived risk and intended risk-handling activity. *Journal of Consumer Research*, *21*(1), 119–134.

Elberse, A., & Verleun, J. (2012). The economic value of celebrity endorsements. *Journal of Advertising Research, 52*(2), 149–165. doi:10.2501/JAR-52-2-149-165

Erdogan, B. Z. (1999). Celebrity endorsement: A literature review. *Journal of Marketing Management*, *15*(4), 291–314. doi:10.1362/026725799784870379

Freberg, K., Graham, K., McGaughey, K., & Freberg, L. A. (2011). Who are the social media influencers? A study of public perceptions of personality. *Public Relations Review*, *37*(1), 90–92.

Friedman, H. H., & Friedman, L. (1979). Endorser effectiveness by product type. *Journal of Advertising Research, 19*(5), 63–71.

Harrison, K. (2017). B-List Celebrities Can Be Great For Your Brand On Instagram. Retrieved from https://www.forbes.com/sites/kateharrison/2017/08/03/b-list-celebrities-can-be-great-for-your-brand-on-instagram/#4d7434a93e61

Gardner, M. P. (1985). Does attitude toward the ad affect brand attitude under a brand evaluation set? *Journal of Marketing Research*, *22*(2), 192–198. doi:10.1177/002224378502200208

Giles, D. (2018). Twenty-first century celebrity: Fame in digital culture. Bingley, United Kingdom: Emerald Publishing.

Gribbons, B., & Herman, J. (1997). True and quasi-experimental designs. *Practical Assessment, Research & Evaluation*, *5*(14), 1–3.

Hovland, C. I., & Weiss, W. (1951). The influence of source credibility on communication effectiveness. *Public Opinion Quarterly*, *15*(4), 635–650.

Jones, S. (2018). When Celebrity Endorsements Go Wrong. Retrieved from https://blog.hollywoodbranded.com/when-celebrity-endorsements-go-wrong

Kantarmedia (2018). Are Alternative Treatments Gaining Momentum in 2018?. Retrieved from https://www.kantarmedia.com/us/thinking-and-resources/reports/are-alternative-treatments-gaining-momentum-in-2018

Karson, E. J., & Korgaonkar, P. K. (2001). *An experimental investigation of internet advertising and the elaboration likelihood model*. Taylor & Francis Group. doi:10.1080/10641734.2001.10505120

Kaushik, T., & Baliyan, R. (2017). A study on impact of celebrity and non-celebrity endorsed FMCG advertisement through online advertising on the consumer purchase behaviour. *Global Management Review, 11*(1), 27–42.

Kenton, W. (2020, March 12). Why Fast-Moving Consumer Goods Matter. Retrieved from https://www.investopedia.com/terms/f/fastmoving-consumer-goods-fmcg.asp

Kitchen, P. J., Kerr, G., Schultz, D. E., McColl, R., & Pals, H. (2014). The elaboration likelihood model: Review, critique and research agenda. *European Journal of Marketing*, *48*(11/12), 2033–2050.

Lear, K. E., Runyan, R. C., & Whitaker, W. H. (2009). Sports celebrity endorsements in retail products advertising. *International Journal of Retail & Distribution Management*, *37*(4), 308–321. doi:http://dx.doi.org.ezproxy.rit.edu/10.1108/09590550910948547

Malhotra, S. (2013). Impact of celebrity endorsement on a brand. *SSRN Electronic Journal*. doi:10.2139/ssrn.2361693

McCann, T. (2017). The highest paying celebrity endorsement deals of all time. Retrieved from http://www.greeningz.com/entertainment/highest-paying-celebrity-endorsement-deals/

McCracken, G. (1989). Who is the celebrity endorser? Cultural foundations of the endorsement process. *Journal of Consumer Research, 16*(3), 310–321. doi:10.1086/209217

Meltzer, L. (2018). Social Media "Influencers" add a New Twist to Advertising. Retrieved from: https://www.cbsnews.com/news/social-media-influencers-brand-advertising/

Mordorintelligence (2019, June). Global Dietary Supplements Market - Growth, Trends, Forecast (2019 -2024). EMIS Intelligence database accessed via Rochester Institute of Technology library (accessed 24 March 2020).

Mospan, C. M., & Alexander, K. M. (2018). Utilizing celebrity endorsements to teach over-the-counter medication and dietary supplement regulations. *Currents in Pharmacy Teaching and Learning*, *10*(11), 1507–1511.

Muda, M., Musa, R., & Putit, L. (2017). Celebrity endorsement in advertising: A double-edged sword. *Journal of ASIAN Behavioural Studies, 2*(3), 21. doi:10.21834/jabs.v2i3.188

Oh, H., & Jasper, C. R. (2006). Processing of apparel advertisements: Application and extension of elaboration likelihood model. *Clothing and Textiles Research Journal*, *24*(1), 15–32. doi:10.1177/0887302X0602400102

O'Mahony, S., & Meenaghan, T. (1998). The impact of celebrity endorsements on consumers. *Irish Marketing Review*, *10*(2), 15–24. Retrieved from https://ezproxy.rit.edu/login?url=https://search-proquest-com.ezproxy.rit.edu/docview/204576526?accountid=108

Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to

advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research, 10*(2), 135–146. doi:10.1086/208954

Petty, R. E., & Cacioppo, J. T. (1984). Source factors and the elaboration likelihood model of persuasion. *Advances in Consumer Research, 11*, 668.

Petty, R. E., & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. (pp. 123–205). Elsevier Science & Technology. doi:10.1016/S0065-2601(08)60214-2

Petty, R. E., Kasmer, J. A., Haugtvedt, C. P., & Cacioppo, J. T. (1987). Source and message factors in persuasion: A reply to Stiff's critique of the elaboration likelihood model. *Communication Monographs, 54*(3), 233–249. doi:10.1080/03637758709390229

Price, P. C., Chiang, I. C. A., & Jhangiani, R. (2018). Research methods in psychology: 2nd Canadian edition.

Priester, J. R., & Petty, R. E. (1995). Source attributions and persuasion: Perceived honesty as a determinant of message scrutiny. *Personality and Social Psychology Bulletin, 21*(6), 637–654. doi:10.1177/0146167295216010

ReportLinker (2020). Dietary Supplements Market Size, Share & Trends Analysis Report by Ingredient, By Form, By Application, By End User, By Distribution Channel, By Region And Segment Forecasts, 2020–2027. Retrieved from https://www.reportlinker.com/p05868784/Dietary-Supplements-Market-Size-Share-Trends-Analysis-Report-by-Ingredient-By-Form-By-Application-By-End-User-By-Distribution-Channel-By-Region-And-Segment-Forecasts.html?utm_source=GNW

Rollins, B., & Bhutada, N. (2014). Impact of celebrity endorsements in disease-specific direct-to-consumer (DTC) advertisements. *International Journal of Pharmaceutical and Healthcare Marketing*.

Saeed, R., Naseer, R., Haider, S., & Naz, U. (2014). Impact of celebrity and non-celebrity advertisement on consumer perception. *The Business & Management Review*, *4*(3), 154

Singh, M., Balasubramanian, S. K., & Chakraborty, G. (2000). A comparative analysis of three communication formats: Advertising, infomercial, and direct experience. *Journal of Advertising*, *29*(4), 59–75. doi:10.1080/00913367.2000.10673624

Silvera, D. H., & Austad, B. (2004). Factors predicting the effectiveness of celebrity endorsement advertisements. *European Journal of Marketing, 38*(11/12), 1509–1526. doi:10.1108/03090560410560218

Smith-Mady, M. (2017). Celebrity drug endorsements: Are consumers protected? *American Journal of Law & Medicine, 43*(1), 139–160. doi:10.1177/009885881770798

Spry, A., Pappu, R., & Cornwell, T. B. (2011). Celebrity endorsement, brand credibility and brand equity. *European Journal of Marketing*, *45*(6), 882–909. doi:http://dx.doi.org/10.1108/03090561111119958

Till, B. D., & Busler, M. (1998). Matching products with endorsers: Attractiveness versus expertise. *Journal of Consumer Marketing*, *15*(6), 576–586.

Williamson, K., & Johanson, G. (Eds.). (2017). *Research methods: information, systems, and contexts*. Chandos Publishing

Yöreş, F. Ç. (2017). Celebrity Endorsement: Developing A Brand Image in Housing Ads. Brand Management: Advancing Insights on, 175.

Appendix: Survey

Rochester Institute of Technology

INFORMED CONSENT

Title of Study: Impact of Celebrities on the Endorsement of High-Risk Products

Principal Investigator: Victoria Olaosebikan

Faculty Advisor: Tracy Worrell

What are some general things you should know about research studies?

We invite you to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate or to stop participating at any time without penalty. You are not guaranteed any personal benefits from participating in this study. If you don't understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above.

What is the purpose of this study?

The purpose of this research study is to investigate the impact of celebrities on endorsing high-risk products, with a focus on celebrity endorsement of dietary supplements. To gain a better understanding of how individuals process celebrity advertisement of dietary supplements, their level of involvement and cognitive effort, and if this it's any different than non-celebrity advertisement.

What will happen if you take part in the study?

Participants in this study will be exposed to either a celebrity or non-celebrity endorsement of a dietary supplement and will be asked to complete a one time survey with 36 questions and some basic demographic information. Some of the questions ask about the endorser's credibility, your level of involvement, your cognitive effort, your attitude, risk perception of the product and your purchase intention after viewing the advertisement . The survey is estimated to take 10 minutes. There are no right or wrong answers; we are just interested in your opinions. Your participation in this research is voluntary and it is your choice whether to participate or not. You may choose not to participate or to stop participating at any time without penalty or loss of benefits.

What if you have questions about this study?

If you have questions at any time about the study or the procedures, you may contact the Principal Investigator at vao7088@g.rit.edu. If you have other questions please contact the Human Subjects Research Office at hmfsrs@rit.edu. We don't anticipate any risks to you if you participate, but there may be some we don't know about.

Benefits

Knowledge gained from this study may help marketers and other entities interested in the topic of celebrity endorsement and dietary supplement. There are no direct benefits for you.

Confidentiality

The information in the study records will be kept confidential. This means we will do our best to make sure only people connected with the research will see your data. Data will be stored securely on password protected servers and computers. Only the researcher and her supervisor will have access to the data. The results will be presented together, and demographic data will only be used to describe the group of people who provided information. None of your individual responses will ever be presented alone. The results of the study will be shared only for academic purposes and may be presented at conferences or in journal articles. In rare instances, there may be safety or compliance issues that arise and require authorized representatives of Rochester Institute of Technology, including members of the Human Subjects Research Office (HSRO) or Institutional Review Board (IRB), or federal officials to access research records that identify you by name.

- o I consent, begin the study (1)
- o I do not consent, I do not wish to participate (2)

Instruction: Thank you for agreeing to take part in this study. Go through the advertisement below and then respond to the questions on the next page. To ensure confidentiality, the actual name of the supplement is not being used. There are no correct or incorrect answers in this survey.

ALL NATURE

ADULTS MULTI NUTRI

NEW

Support your overall wellness with All Nature Adult Multi Nutri tablets

1. Each serving is packed with key vitamins and nutrients that support your everyday needs to help you feel your best age

2. Whether you're looking to support antioxidant health or strong bones, our multivitamin supplement contains the necessary ingredients to meet your daily nutritional requirements

3. For additional wellness support, our unique formula contains probiotic to help replenish healthy bacteria and restore intestinal balance

Trying to be healthy as I can

Are you ready?

Join me!

Stay healthy with All Nature Adult Multi Nutri

- Oprah Winfrey

While I was looking at the advertisement:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
I tried to make an accurate judgment of the supplement (1)	o	o	o	o	o
I used a lot of mental effort to evaluate the possible values of the supplement for me (2)	o	o	o	o	o
I used the claims to	o	o	o	o	o

evaluate the supplement (3)					
I carefully considered the claims that the copy made about the supplement (4)	o	o	o	o	o
I gave a lot of thought to the copy in order to judge whether the supplement would be suitable for me (5)	o	o	o	o	o
I thought of the side effects of	o	o	o	o	o

the supplement for me (6)					
I paid a lot of attention to the endorser of the supplement (7)	o	o	o	o	o
I used the endorser to evaluate the supplement (8)	o	o	o	o	o
I gave a lot of thought to the endorser in order to judge whether the supplement would be suitable for me (9)	o	o	o	o	o

The advertisement held my attention (10)	o	o	o	o	o
While reading the copy, I was very involved (11)	o	o	o	o	o
This advertisement copy didn't have anything to do with me or my needs (12)	o	o	o	o	o
This supplement is a high-risk product (13)	o	o	o	o	o

I would take a dietary supplement not prescribed by my doctor (14)	o	o	o	o	o
The claims of the endorser are believable (15)	o	o	o	o	o
The claims of the endorser are strong (16)	o	o	o	o	o
The endorser is attractive (17)	o	o	o	o	o
The endorser is interesting (18)	o	o	o	o	o

The endorser is likable (19)	o	o	o	o	o
The endorser is beautiful (20)	o	o	o	o	o
The endorser uses the product (21)	o	o	o	o	o
The endorser knows about the products attributes-advantages (22)	o	o	o	o	o
The endorser knows the products attributes-	o	o	o	o	o

disadvantages (23)					
I trust the recommendation of the endorser (24)	o	o	o	o	o
My feeling towards the product is negative (25)	o	o	o	o	o
My feeling towards the product is positive (26)	o	o	o	o	o
I find the supplement appealing (27)	o	o	o	o	o

Section 2

	Extremely unlikely (1)	Somewhat unlikely (2)	Neither likely nor unlikely (3)	Somewhat likely (4)	Extremely likely (5)
I would like to purchase the supplement advertised (1)	o	o	o	o	o
I would you consider purchasing the supplement advertised (2)	o	o	o	o	o

I would consider purchasing the supplement based on just the presence of the celebrity in the advertisement (3)	o	o	o	o	o
I would consider purchasing the supplement based on just the claims in the advertisement (4)	o	o	o	o	o

The presence of the endorser increases the possibility that I will buy the supplement (5)	o	o	o	o	o
I would use the supplement (6)	o	o	o	o	o

Q34 What is your gender?

- o Male (1)
- o Female (2)
- o Other (3)

Q36 What is your ethnicity?

- o Hispanic and Latino Americans (1)
- o Black or African-American (2)
- o Asian (3)
- o Native Americans and Alaska Natives (4)
- o Native Hawaiians and Other Pacific Islanders (5)
- o Caucasian (6)

Q35 What is your age?

- o 18-24 years old (2)
- o 25-34 years old (3)
- o 35-44 years old (4)
- o 45-54 years old (5)
- o 55-64 years old (6)
- o 65-74 years old (7)
- o 75 years or older (8)