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The Rochester Institute of Technology

School of Communication

College of Liberal Arts

An Examination of NFL's "A Crucial Catch" Campaign:
NFL Athletes as Disease Prevention Advocates

by

Chyna Teresa Tribble

A Thesis submitted
in partial fulfillment of the Master of Science degree
in Communication & Media Technologies

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Dedication

I would like to dedicate this thesis to my loving, patient, encouraging, and selfless mother, Suzi, of whom without I would never have finished this thesis, or the challenges that transpired during its completion. I owe you my life, quite literally, and am so grateful that I was blessed with you as my mother! I love you, and thank you for always exhibiting the two life aphorisms that helped inspire me every step of the way:

"Today is a gift, that's why they call it the present."

"With God and a strong faith, all things are possible."

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Table of Contents

Dedication.....	3
Acknowledgments.....	4
Abstract.....	8
Introduction.....	9
Overview of the Campaign	9
Health Belief Model	10
Susceptibility.....	12
Severity.....	13
Barriers	13
Benefits.....	14
Cues to Action.....	14
Intention	15
Involvement.....	15
Fandom.....	17
Celebrity Endorsements and Intention	17
NFL Fanship.....	20
Survey.....	21
Exposure.....	22
Previous Experience with Breast Cancer	23
Hypotheses	23
Method.....	24
Sample and Data Collection	25
Measures.....	25
Procedure.....	26
Results.....	26
Discussion.....	29
Major Findings	29
Limitations	31
Suggestions for Future Research.....	33
Conclusion	34

References.....36

Appendix A: Survey42

Appendix B: Informed Consent44

Appendix C: Demographic Results45

AN EXAMINATION OF NFL'S "A CRUCIAL CATCH" CAMPAIGN:
NFL ATHLETES AS DISEASE PREVENTION ADVOCATES

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School of Communication

College of Liberal Arts

Degree: Master of Science in Communication & Media Technologies

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Abstract

This study investigated the National Football League's (NFL) "A Crucial Catch" campaign, identification with NFL athletes, exposure, NFL fanship, and intention to schedule a breast cancer screening and to talk about screenings with others. Participants ($N = 119$) were solicited through various social media outlets, and through an e-mail listserv from the School of Communication at Rochester Institute of Technology. The health belief model (Rosenstock, 1966) is used as the main theoretical framework. Hypotheses and research questions are investigated through an online survey mirroring Brown's (2011) valid survey questions investigating identification with NFL athletes. Statistically significant relationships were found between identification with NFL athletes and exposure, intention to schedule a breast cancer screening, and NFL fanship. NFL fanship was also significantly related to exposure to the campaign.

Keywords: identification, NFL, athletes, fanship, A Crucial Catch, breast cancer awareness, health belief model, public health campaigns

An Examination of NFL's "A Crucial Catch" Campaign:
NFL Athletes as Disease Prevention Advocates

Public health campaigns can increase awareness of a health issue, influence beliefs, prompt action, and demonstrate the benefit of a behavior change for the purpose of healthier living (Arkin, 2008). Numerous health-related organizations organized mass mediated health campaigns to promote healthy behaviors by educating the public about prevention and treatment of diseases (Atkin, 2001). Due to the number of messages that consumers are exposed to on a daily basis disease prevention campaign managers must find creative means of cutting through the clutter to reach intended audiences. Arkin (2008) suggests that when planning a campaign for cancer prevention it is important to employ a credible spokesperson that is "directly associated with the message... and who practice[s] the desired health habit" (p. 69) that they are advocating. Some health campaigns have attempted to pair a celebrity or celebrity athlete with a health-related promotion to increase awareness and/or to encourage disease prevention to attentive fans. Well known health-related campaign pairings include celebrity appearances in the "Got Milk?" milk mustache campaign which encourages the public to increase their milk consumption. Major League Baseball (MLB) athlete Mark McGwire promoted child abuse prevention (Brown, Basil, & Bocarnea, 2003), National Basketball Association (NBA) athlete Magic Johnson advocated for Human Immunodeficiency Virus (HIV) prevention and treatment (Basil, 1996), and National Football League (NFL) athletes advocated for breast cancer awareness and prevention during the "A Crucial Catch" campaign.

Overview of the Campaign

The NFL's "A Crucial Catch" campaign is an example of what Atkin (2001) would classify as an "adoption of a healthy practice" (p. 3). This campaign is presented in partnership

with the American Cancer Society (ACS) to encourage women over 40 years of age to schedule an annual mammogram to aid in the discovery of breast cancer at its earliest stages (Falzarano, 2013). This campaign begins each October during NFL games and community events to encourage women over the age of 40 to schedule a breast cancer screening to save lives through early detection. Those who have a family history of breast cancer and poor overall health and wellbeing are even more at risk. Early detection of breast cancer, along with increased technological advances, has enhanced the ability to save lives (American Cancer Society, 2013).

In this campaign, NFL athletes wear pink ribbon apparel on the field during games and community events throughout the month of October. In interviews and commercials that are broadcast on television and hosted on YouTube™ and NFL and team-specific websites, these athletes encourage women over 40 to take action to prevent breast cancer. Promotional efforts during this campaign are not limited to NFL players wearing the color pink to increase awareness, but also include events honoring women who have survived breast cancer in each team's community along with other forms of disease prevention action reminders. Many teams also take advantage of their home communities to stage events that attract many individuals. For example, the NFL's Buffalo Bills hosted an evening of entertainment in Niagara Falls where the falls were lit up pink, and women could receive information about breast cancer screenings (Jessop, 2012) or receive a screening through the Mobile Mammogram Coach (Stolzenburg, 2013). Arkin (2008) suggests campaign managers apply theoretical models like the health belief model (HBM) to aid in making health communication programs such as the above reviewed more effective.

Health Belief Model

The health belief model was first developed by social scientists Hochbaum, Rosenstock,

and Kegels (1952) in an attempt to explain why Americans were not taking health-related action to prevent against diseases. Its main hypothesis contends that the presence of three main factors is essential for an individual or group to partake in a health-related action (Rosenstock, Stretcher, & Becker, 1988). Rosenstock, Stretcher, and Becker (1988) explain that these factors include a health concern, perceived susceptibility or perceived threat of acquiring the disease, and perceived benefits of taking the health-related action minus the perceived threat, or the perceived cost of taking the health-related action. Later, Janz and Becker (1984) reviewed studies produced from 1974-1984 that applied the HBM as their main theoretical framework to determine which of the constructs of the model were most prevalent. To that point, the HBM was composed of five major constructs: (a) an individual's perceived susceptibility to a disease, (b) the perceived severity of a disease, (c) the perceived barriers to taking action to protect or fight the disease, (d) the perceived benefits to taking proposed action, and (e) cues to action, which motivate the overall intention to take the proposed action. A straightforward model of the HBM proposed by Ashford and Blinkhorn (1999) can be viewed in Figure 1.

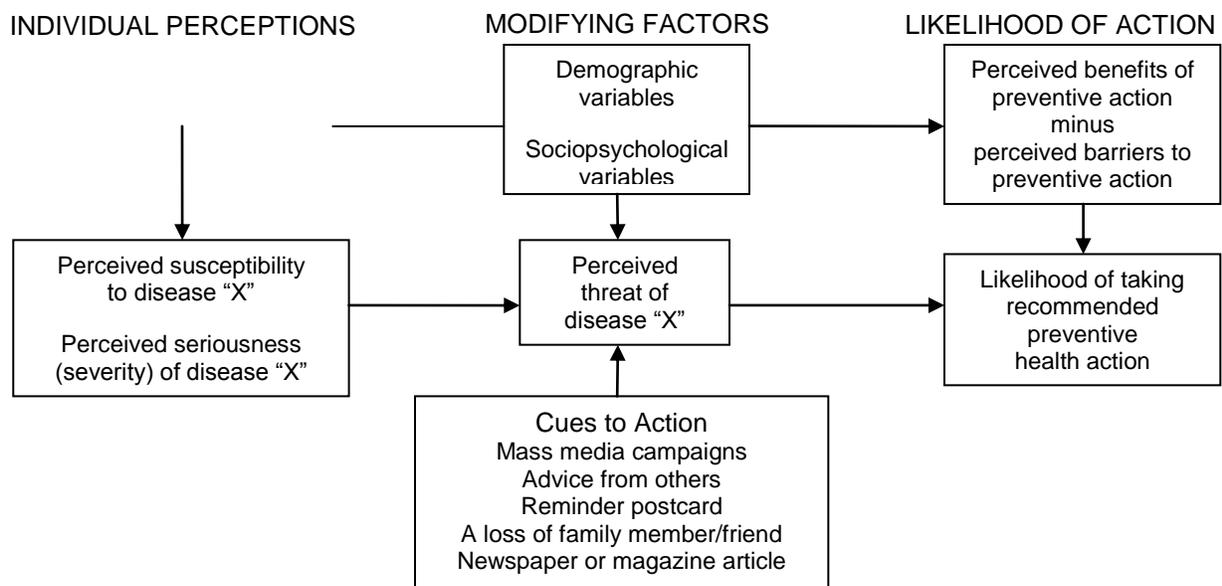


Figure 1. Ashford and Blinkhorn. (1999). Elements of the health belief model.

The five main constructs of the HBM are now explained as they relate to the campaign under investigation, and as they have prevailed in previously related studies.

Susceptibility

Susceptibility to a disease as defined by Janz and Becker (1984) is an individual's "subjective perception of the risk of contracting a condition" (p. 2). The "A Crucial Catch" campaign states that with age a woman's susceptibility to breast cancer increases. The fact that women over 40-years old are more susceptible to developing the disease (American Cancer Society, 2013) is why they are the primary audience for this campaign as well as a number of other breast cancer awareness campaigns.

In other studies, susceptibility has included the reluctance of patients to take the advice of dentists (Ashford & Blinkhorn, 1999). Janz and Becker (1984) found that the construct of perceived susceptibility was insignificant in most studies they investigated. They suggest that this, in part, could be due to the fact that the conceptualization of this construct is difficult (Janz & Becker, 1984). The NFL's "A Crucial Catch" campaign explicitly addresses the susceptibility to breast cancer, but without viewers of the campaign perceiving breast cancer as something severe, perceived susceptibility will not have much effect upon their healthcare actions.

Severity

Janz and Becker (1984) found that only 36% of the investigated studies using the HBM from 1974-84 found "severity" statistically significant. Quick (2010) investigated how media presented the severity and seriousness of using steroids and found that news reporting was minimal with respect to the severity of steroid use. Quick (2010) explained that "from a public health standpoint... Communicating the severity of a health threat is a key component of dissuading people from unhealthy lifestyles" (p. 254).

Barriers

The American Cancer Society (2013) cites "communication barriers and provider assumptions" as a major cause of racial/ethnic health disparities contributing to cancer mortality (p. 41). Although they have a lesser rate of development of the disease, African American women have a greater mortality rate than Caucasian women (American Cancer Society, 2013). "A Crucial Catch" campaign does not overtly explain barriers to scheduling a breast cancer screening for women over 40-years old, including those with minority racial or ethnic backgrounds. In some cities, however, the campaign collaborates with local hospitals to help aid women over 40 with limited health insurance or financial capabilities to acquire information and/or screenings as these women have disadvantaged backgrounds. For example, in Buffalo, NY, home of the NFL's Buffalo Bills, 2014 marked the third year of combined efforts with the Erie County Medical Center's Mobile Mammogram Coach to offer mammogram assistance to women from the inner-city region who may need help acquiring a prescription for a screening (ECMC, 2014). Helping women of minority backgrounds in the inner city is a way that this campaign addresses the barriers listed in the HBM.

Benefits

At its most basic inception the benefit of taking the recommended disease prevention action expressed in "A Crucial Catch" is the saving of lives through the early detection of breast cancer, hence, decreasing the morbidity and mortality due to breast cancer is a main goal of the campaign. This benefit is stated explicitly throughout the campaign. For example, the Buffalo Bills turn Niagara Falls pink and for one occasion created a "Peace Bridge" between Buffalo and Ontario, Canada with NFL players, fans, and breast cancer survivors (Graff, 2011). At this night-long event, there are ample opportunities for women to speak with one another to find out more

information about the importance of breast cancer screenings. Additionally, NFL teams hosts their own special community-wide events to increase awareness and to encourage women 40 and older to schedule a breast cancer screening.

Cues to Action

Cues to action, which can include previous experience and demographic variables, can "increase perceptions of susceptibility and severity, and in turn trigger the decision-making process" (Witte, 2007, p. 4). The construct of cues to action can be either internal, such as symptoms of a disease, or external, like a mass media campaign (Janz & Becker, 1984). The present study aims at investigating the contributions of external cues, specifically mass media campaigns, at predicting the likelihood of taking a disease prevention action. Cues to action is a very important construct because it "can increase perceptions of the severity and susceptibility of a [disease], which in turn increases the likelihood of performing the advocated behavior" (Quick, 2010, p. 248). If women over 40, the target of the NFL's "A Crucial Catch" campaign, view messages demonstrating the severity of the disease, their perceived severity and susceptibility of breast cancer may change, and thus in turn increase their likelihood of scheduling a breast cancer screening.

Intention

A 1996 study performed by Basil indicated that an individual's identification with Magic Johnson was significantly related to concern and intention to change a high-risk behavior with respect to HIV (Basil, 1996). Basil (1996) reported that "people's intention to perform advocated actions... depended on actual risk factors" (p. 11), which with breast cancer can include age, family history of breast cancer, and alcohol use (National Cancer Institute, 2012). Basil (1996) concluded that the more participants identify with Magic Johnson, the greater likelihood that

they will alter their perceptions of risk that HIV presents, as well as changing engagement in risky sexual behaviors.

Identification

Consistent with the constructs of the HBM, Brown and Basil (1995) found that identification with Magic Johnson was related to participant perceived risk and intention to take action. They found that the public's perceived involvement with Magic Johnson affected their response to his health-related call to action to prevent the transmission of HIV (Brown & Basil, 1995). Those individuals who felt a stronger connection to the famous basketball player had a higher intention to reduce their high-risk behavior. A key variable that determined the level of influence an athlete had on promoting a health-related behavior change, or the intention to change behavior, depended on fans' involvement or perceived closeness with the athlete (Brown & Basil, 1995). The construct of involvement in communication research often takes on one of four forms: (a) transportation, (b) parasocial interactions, (c) identification, and (d) worship (Brown, 2011). Most relevant to the present study are parasocial relationships and identification.

Involvement

Parasocial relationships, a form of involvement similar to identification, are born out of the perception fans have that a relationship exists with the celebrity that is known only to the fans themselves via their mass media exposure (Basil, 1996). Over time individual fans of such mass media personalities feel as if they have a relationship with the celebrity they have come to know from afar. Brown and Basil (2010) in basing their study on parasocial relationships found that such relationships, or involvement between a fan and a celebrity, can influence a fan's attitudes, beliefs, and actions. NFL fans may feel as though they experience a sort of involvement with their favorite NFL team or NFL athlete especially after great amounts of media

exposure to these athletes, including but not limited to television viewing, social networking, and live sporting events.

Participants in a dissertation revealed fans' memories of watching NFL football as children aided in forming their present fandom of NFL players (Scott, 2010). These repeated exposures of larger-than-life football players led to the formation of parasocial relationships from the fans' perspectives (Scott, 2012). A second form of involvement that could have occurred was identification. Although similar, and sometimes used interchangeably by researchers, Brown (2011) explains the difference in that "identification with a persona creates an ongoing experience of involvement that influences many aspects of media consumers' attitudes, values, beliefs and behavior long after media consumption" (p. 19). Additionally, Brown (2011) suggested that "scholars would benefit by embracing the concept and by building a consensus on the nature of identification and how to integrate it into other processes of involvement" (p. 12) in future research. For the present study the conceptual definition of "identification with NFL athletes" is modified from Brown's (2011) conceptualization of the term, and is defined as the process by which an NFL fan adopts the attitudes, values, beliefs, and/or behavior of the NFL athlete or team with which they have created a parasocial relationship or any type of identification. This concept is measured using Brown and Bocarnea's (2007) Celebrity-Persona Identification Scale.

The Celebrity-Persona Identification Scale (Brown & Bocarnea, 2007) consists of 20 Likert-type items. This scale relates well to the present study with Brown and Bocarnea (2007) observing, "fans frequently view a team or a player as an extension of themselves... [and] people commonly seek to adopt the values, beliefs, and behaviors of celebrities and media persona [with] whom they admire" (p. 303). Due to this observation it is hypothesized that individuals

who identify with the NFL athletes would more likely take part in the promoted preventative measures.

Fandom

Scott (2010) claims that fandom "serves as a way for fans to confirm or enhance their own identity by presenting themselves in ways that are consistent with the social group with which they identify" (p. 76). One means of exhibiting fandom includes wearing team merchandise. "A Crucial Catch" campaign produces merchandise including team apparel branded with the campaign logo and colors for NFL fans to purchase. With "a portion [of the sale] benefiting the fight against breast cancer" (Buffalobills.com, 2013, October 13), fans have the opportunity to support their team, exhibit their NFL fandom, and give to a worthy cause. In line with the fandom theory, promoting one's team or favorite athlete is something that fans consider to be essential as a part of their own identity. Basil (1996) claimed "if identification is the source of a celebrity's effectiveness, it is likely that this process of identification could make a significant contribution to behavior change" (p. 472). The present study surmises these results might apply not only toward a consumer's intention to purchase a product, but with respect to the HBM, also towards the intention to take the disease prevention action promoted in the "A Crucial Catch" campaign, especially for individuals who identify with campaign endorsers.

Celebrity Endorsements and Intention

Celebrity endorsers have "the power to instigate and inspire, enlighten and enrage, entertain and edify the consumer" (Crutchfield, 2010, p. 2). These endorsers have the ability to produce negative or positive effects for the brand that they represent. Examples include Tiger Woods slightly tarnishing Nike's brand after the truth came out about his extramarital affair (Crutchfield, 2010), or Michael Jordan significantly increasing revenue for the Chicago Bulls

and the NBA due to this celebrity-brand association (Scott, 2012). Researchers have investigated variables that are important to consider when choosing a celebrity for promotion of a brand, product, or event to help ensure the pairing is effective, while limiting the possibility of tarnishing a brand image. For example, it has been suggested that advertising campaigns should "consider highlighting the credibility of the celebrity endorser" (Tran, 2013, p. 158) to give consumers more reason to purchase the product advertised. These findings indicate that consumers who identify with a celebrity endorsing a product are more likely to intend to purchase that product than those who do not identify with the endorser (Tran, 2013).

Finding that celebrity credibility had the most significant influence on brand image, Lomboan (2013) explained that choosing a credible celebrity to represent a brand "can provide motivation to the consumer" (p. 793). This is an important finding not only for marketing research, but also provides useful information for public health and disease prevention research. In addition, Lomboan (2013) found that attractiveness, expertise, trustworthiness, and celebrity match-up are important variables to consider when choosing a celebrity endorser. Lee and Thorson (2008) investigated product-endorser match/mismatch. Interestingly, they proposed that a "moderate incongruence" between celebrity endorser and the endorsed product resulted in a higher purchase intention (Lee & Thorson, 2008) than a perfect match between the endorser and the endorsed. This suggests that the persuasiveness of a celebrity endorser is best when there is *just enough* of a product-promoter congruence to intrigue the consumer to think about an advertisement and cognitively process the mismatch (Lee & Thorson, 2008).

NFL athletes, the campaign endorsers of "A Crucial Catch" campaign, have only indirectly experienced suffering associated with breast cancer via loved ones so some may question their credibility for the campaign. Countering this, the campaign produces commercials

and YouTube™ videos exhibiting NFL players discussing their personal hardship of watching important women in their lives go through breast cancer, which may affect their perceived association with the disease hence giving credibility to their roles as promoters for this cause. Based on Lee and Thorson's (2008) findings, this moderate mismatch between celebrity (NFL athletes) and product (breast cancer awareness and prevention action encouragement) could persuade consumers to pay more attention to this campaign. Lee and Thorson (2008) discovered that when a consumer had a higher level of involvement with the advertised product, the level of congruence (match or mismatch) did not matter because consumers made the effort to understand the incongruent celebrity-product matchup because it concerned a product with which they felt involved. Applying this to the NFL's "A Crucial Catch" campaign, one may hypothesize that individuals who feel a sense of involvement or identification with the campaign endorsers would actively attempt to comprehend the moderately incongruent campaign. If the hypothesized is accurate then it would be reasonable to predict that NFL fans with higher levels of involvement will more likely make a concerted effort to expose themselves to the "A Crucial Catch" campaign than non-NFL fans.

Stevens and Rosenberger (2012) hypothesize that "following sport" will have a positive influence on identification. Furthermore, they suggest communication campaigns should be created to target specific audiences of "highly identified fans" to increase fan identification. The NFL's "A Crucial Catch" campaign targets a very specific fan niche: female football fans. In the past five years, the NFL has created a campaign ("Together We Make Football") to reach female fans that make up nearly 45% of the NFL fan base (Boudway, 2013). This campaign includes the sale of more fitted jerseys and team-branded high heels among other items. It is possible that this campaign that is aimed at allowing female fans to better express their fandom has helped the "A

Crucial Catch" gain more publicity. The bottom line: "A Crucial Catch" player-worn and signed "pink ribbon" merchandise auction raised over \$1.4 million in 2011 (Jessop, 2012). While Scott (2012) explained that "fan behavior can be represented by a host of actions including wearing team apparel, reading a team blog, attending a game, or checking game stats on a cell phone" (p. 28), the present study investigates more generally the level of an individual's NFL fanship based on the conceptualization of Hunt, Bristol, and Bashaw (1999).

NFL Fanship

Based on fan behaviors, Hunt et al. (1999) created a typology to classify levels of fandom for use by marketers in distinguishing differences in fan motivation and subsequent behaviors. They presented a classification schema of three groups consisting of a total of five types of fans. These groups consist of devoted, fanatical, and dysfunctional fans that are then divided by the way in which they act out their level of attachment to a team or an individual athlete. The entire fan typology consists of conceptualizations of five types of fans: (a) the temporary fan, (b) the local fan, (c) the devoted fan, (d) the fanatical fan, and (e) the dysfunctional fan. These fan-types are differentiated on topics such as possessing a self-concept of being a fan, geographical factors, time boundaries, the internalization of a win/externalization of a loss, and identity. The lack of conceptualization of fans for purposes of marketing at that time encouraged Hunt et al. (1999) to suggest that "the interaction between the fan's self and the sports consumptive object [whether it be a sport in general, or a specific league, or team] defines what a fan is" (pp. 440, 445).

While Hunt et al.'s (1999) fan typology consists of five types of fans the present study categorizes a participant's level of NFL fanship into three categories for simplicity: (a) a non-fan, which includes season-only fans; (b) a genuine fan, and (c) an extreme fan. These sections are distinguished by an individual's level of agreement with statements relating to their self-

concept, the externalization of a win, geographic constraint, deviation from social norms because of fanship, and identity. Consider an individual who has no self-concept of being a fan yet who may at times view or attend a game and root for a specific team for external reasons (e.g., being with friends who root for the team or being in a Superbowl pool). These fans would either be considered non-fans or temporary fans in the Hunt and associates' conceptualization since they only watch the game and *maybe* root for a team for a short period of time. In the present study, this type of individual would be considered a season-only or a non-fan due to their lack of self-concept of being a fan.

Survey

The survey tool used to investigate this construct was conducted in the months of May and June 2014, months after the Superbowl and months before the NFL pre-season began, to further enable the distinction of the non-fans or season-only fans from the more permanent NFL fans. Taking the survey in the off-season allows for the most accurate determination of one's level of NFL fanship year-round, not just immediately after the winning or losing of a game. The use of Hunt et al.'s (1999) internalization of a team win distinguishes a temporary season-only fan or non-fan from the genuine fan and extreme fan. Whereas the season-only fan would have a minimal desire to externalize a team win or internalize a loss during the off-season, it is assumed that a true fan (genuine or extreme) will continue to have thoughts of externalization of wins and internalization of losses year-round. Regarding geographic constraints, non-fans would likely change the team for which they are rooting if they were to move to an alternative location where another team was more popular. Genuine fans might do this, but extreme fans most definitely will not. The main differentiation between genuine and extreme fans lies in their perception of whether or not it is acceptable for them to act in socially deviant ways due to their NFL fanship.

Genuine fans will likely consider being an NFL fan a part of their identity yet they would not partake in socially unacceptable behaviors using their NFL fandom as justification. In Hunt et al.'s (1999) conceptualization of the sport fan, they assert, "being a fan is a necessary part of defining [oneself] and of presenting to others their self-identity" (p. 341). This also helps to distinguish a non-fan from a genuine or an extreme fan in the present study.

Hunt et al.'s (1999) fan typology is operationalized in the present research study by asking research participants five separate questions, each addressing one of the aforementioned topics related to being a fan (self-concept, externalization of a win, geographic constraint, deviation, and identity). Responses are then summed to determine where they fall on the spectrum of a NFL fan: (a) non-fans [includes temporary fan characteristics from Hunt et al.'s (1999) typology], (b) genuine fans, or (c) extreme fans.

Exposure

Dating back to the cultivation theory (Gerbner, 1969), individuals with minimal interpersonal exposure to a topic come to know the world through their mediated exposure in the media. With the advancement in communication technologies and the Internet, this extends to greater depths as people now have opportunities for exposure to the world around them, far and near, from a variety of sources. NFL fans, especially those who live in remote locations away from their favorite team, now have the opportunity to follow their team through communication outlets, which can include player blogs, YouTube™ videos, ESPN Inc. online, and social networking sites. Brown (2011) explained, "when audiences develop a liking for famous people... they tend to selectively expose themselves to media and events that feature the persona they like" (p. 18). It may thus be hypothesized that identification may be positively related to exposure to the NFL. For the purpose of this study, investigation into the variable of exposure to

"A Crucial Catch" campaign, regardless of the communication channel, will be investigated with a simple scale, exhibiting questions that investigate an individual's awareness of key features of the campaign. This scale will question individuals on their agreement with statements relating to their exposure to easily identifiable attributes of the campaign: (a) the pink color of cleats, (b) the presence of pink ribbon logos on the field, (c) the existence of breast cancer awareness events hosted in NFL team communities, (d) the NFL cheerleaders wearing pink during games, and (e) their exposure to the campaign.

Previous Experience with Breast Cancer

In Lee and Thorson's (2008) study, the use of fictional brands constituted a limitation but increased the construct validity by controlling for participant prior experience with a brand. However, this left a gap in the research employing an actual brand. The present study investigates a real brand with real people. If women over 40-years old, the target of the NFL's campaign, view messages presenting NFL athletes who have lost mothers to the disease, it could increase the perceived severity and susceptibility to breast cancer and in turn increase their likelihood to get a breast cancer screening. Consequently, a participant's previous experience with breast cancer is investigated to determine whether that, in any way, moderates other investigated variables. Other demographic variables relevant to this study have been suggested by Arkin (2008) and include educational attainment, age, and gender, all of which can directly have an impact on an individual's perceptions (Arkin, 2008). They are also investigated in the present study.

Hypotheses

It is hypothesized that those who identify with the NFL athletes promoting the "A Crucial Catch" campaign are more likely to have an intention of behavior change as suggested by the

athletes. Brown, Basil, and Bocarnea (2003) suggest that an athlete has the ability to encourage a health-related behavior change in those who identify with that athlete. Based on that finding, the following hypotheses and research questions are investigated:

H1. Identification with NFL athletes is significantly and positively related to exposure to the NFL's "A Crucial Catch" campaign.

H2. Identification with NFL athletes is significantly and positively related to intention to schedule a breast cancer screening.

H3. Identification with NFL athletes is significantly and positively related to intention of speaking with others about breast cancer screenings.

H4. NFL fanship is significantly and positively related to identification with NFL athletes.

H5. NFL fanship is significantly and positively related to exposure to the campaign.

Method

Wyatt (2007) reports that e-surveys are low-cost and allow for quick data collection. Consequently, an e-survey through the online survey tool kwiksurveys.com was selected for this study. This tool was selected because it has three of the advantages over paper surveys: (a) enforced branching, (b) required responses, and (c) the security option of password-protecting the survey (Wyatt, 2007). This tool also allows for printout versions of the same survey. With a robust sample size ($N = 119$), and the use of reliable and valid survey questions from Brown and Bocarnea (2007), this survey is composed of sections addressing topics of identification, exposure, intention to take action, NFL fanship, experience with breast cancer, and demographic questions.

Sample and Data Collection

Of the sample of 119 respondents, 88 (74%) were women and 31 (26%) were men with ages ranging from 18 to 88 years old. The mean age was 35. Participants were recruited through word of mouth, email, and social networking sources. Data collection for this study took place for 30 days from May 4, 2014 to June 4, 2014. Participants were solicited through a survey link posted to various social media websites, including Twitter™, Google+™, and Facebook™. Also, participants were solicited using personal e-mail contacts, and an e-mail listserv from the School of Communication at the Rochester Institute of Technology (RIT). Upon completion of the survey, a link to the survey was provided for participants to share the survey to increase sample size.

Measures

The variable of identification with NFL athletes was operationalized using a modified version of the Celebrity-Personal Identification Scale (Brown & Bocarnea, 2007). This scale asks for the level of agreement with statements like "NFL athletes and I share many of the same values," "I try to do things I believe NFL athletes would do," "I look to NFL athletes as role models," and "I advocate the same things that NFL athletes advocate" on a strongly agree to strongly disagree 5-point Likert-scale. This original scale is comprised of 20 items; however, only 19 items were used for this study. It has been extensively used for dissertations and research studies and possesses valid and reliable measures using as few as 10-15 items (Brown, 2014 March 14, personal communication).

This 19-item scale was used in Keas' (2008) study. To operationalize one's level of exposure to the "A Crucial Catch" campaign held in the month of October, a 5-point Likert scale comprised of 7 items was created (see Appendix A). Gender was operationalized asking

respondents to choose either male or female in a demographic question. Experience with breast cancer was operationalized using a 4-item scale that allowed for multiple items to be selected. NFL fanship is a construct created based on Hunt et al.'s (1999) classification of sports fan typology and is operationalized using measures in question 6 to determine a participant's level of NFL fanship: (a) a non-fan, (b) a moderate fan, or (c) an extreme fan. As suggested in Hunt et al.'s (1999) typology, constructs relating to self-concept, externalization of a win, identity, geographic constraint, and deviation were operationalized in a 5-point Likert-type scale. The highest level of completed education, and race/ethnicity are operationalized in the final two questions of the survey using suggested items from the National Cancer Institute's *The Pink Book* (Arkin, 2008).

Procedure

The RIT Internal Review Board granted permission to this study for the use of an online survey methodology in which participants were made aware that their participation was: (a) voluntary, (b) that they could discontinue participation at any time without loss of benefits of the study, and (c) that data collected from them would remain anonymous and only used for the purpose of this research study investigation (see Appendix B). In order to be able to participate and complete this survey, participants had to be 18 years old and agree to participate. The data collected from this survey were exported upon the completion of the collection period and analyzed using the SPSS software.

Results

Sample

Subjects participating in this study ($N = 119$) ranged in age from 19 to 88-years old; the preponderance of participants in this study were female (74%). The sample was overwhelmingly

Caucasian (84%). The highest educational attainment ranged from high school (8%) to doctoral (.9%). With respect to their personal experiences with breast cancer the majority knew someone who had/has experience with breast cancer (65%) or had indirectly experienced breast cancer struggles concerning a family member or a close friend with the disease (56%). Despite this prevalence of experience with breast cancer, directly or indirectly, 19% claim to have never had experience with the disease. Additional demographic information is presented in Appendix C.

Two methods of analysis were employed to determine whether there was a relationship between identification, exposure, intention, speaking with others about breast cancer screenings, and fanship. Spearman's rank correlation coefficients were used to test the relationships between identification with NFL athletes and exposure to the campaign, identification with NFL athletes and intention to get a breast cancer screening, identification with NFL athletes and intention to speak with others about screenings, NFL fanship and intention to schedule a screening and NFL fanship, and exposure to the "A Crucial Catch" campaign. A Mann-Whitney test was used to compare the mean ranks for men ($n = 27$) and women ($n = 72$) on participants' intention to schedule a breast cancer screening.

Results indicate a strong positive correlation ($r = .528$) with a strong statistically significant relationship ($p = .000$) between identification with NFL athletes and exposure to the NFL's "A Crucial Catch" campaign. The following statistical results were obtained upon analysis of the data (see Table 1).

There was a moderately positive ($r = .251$) and statistically significant relationship ($p = .006$) between identification with NFL athletes and intention to schedule a breast cancer screening.

A Mann-Whitney test indicates intention to schedule a breast cancer screening was

greater for women ($\mu = 56.84$) than for men ($\mu = 31.76$), ($n = 72$, $U = 479.5$, $p = .000$).

Spearman's correlation results indicate a very weak ($r = .154$) positive relationship with no statistical significance ($p = .094$) between identification with NFL athletes and intention to speak with others about scheduling a breast cancer screening.

Spearman's correlation results indicate a strong and positive ($r = .528$) correlation that was statistically significant ($p = .000$) between identification with NFL athletes and NFL fanship.

Spearman's correlation results indicate a moderately positive ($r = .396$) relationship with strong statistical significance ($p = .000$) between NFL fanship and exposure to the campaign.

Spearman's correlations compared different measures of educational attainment and intention to schedule a breast cancer screening. No statistically significant results were found.

Spearman's correlations also compared different measures of experience with breast cancer and intention to schedule a breast cancer screening. No statistically significant results were found.

Table 1

Correlations Between Variables and Identification with NFL Athletes

Variable	<i>n</i>	<i>r</i>	<i>p</i> -value
Exposure	118	.528	.000*
Intent to Schedule Screening	119	.251	.006*
Intent to Speak with Others	119	.154	.094

Note. * = statistically significant.

Discussion

The current study explored the NFL's "A Crucial Catch" breast cancer awareness campaign, which promotes the importance of breast cancer screenings, particularly for women 40-years and older, which may help in early detection of breast cancer thus saving lives. Since women 40-years and older are not the majority of NFL fans, other factors influencing the effective reach of this campaign were investigated. This study investigated the relationships between identification with "A Crucial Catch" campaign promoters, NFL athletes, and participants' exposure to the campaign, identification with NFL athletes and participants' intention to speak with others about screenings, identification with NFL athletes and participants' intention to schedule screenings, identification with NFL athletes and participants' NFL fanship, and participants' NFL fanship and their exposure to the campaign. Research findings in the order of the presented hypotheses are discussed below.

Major Findings

This study showed a strong, positive relationship between identification with NFL athletes and exposure to the "A Crucial Catch" campaign. As this sample increased in their identification with NFL athletes, their exposure to the NFL's "A Crucial Catch" campaign increased simultaneously. This study also demonstrated a moderately positive relationship between identification with NFL athletes and intention to schedule a breast cancer screening. As identification with NFL athletes increased, the intention to schedule a screening also increased. To this point, those with higher levels of identification with NFL athletes have an increased exposure to the "A Crucial Catch" campaign and have greater intent to schedule a breast cancer screening than those with lesser, or no, identification towards the athletes. When differences in means based on gender and intention alone were investigated more women ($\mu = 56.84$) than men

($\mu = 31.76$) had an intention to schedule a breast cancer screening. Research hypothesis 3 was rejected as no statistically significant difference was found between those that identify with NFL athletes and those that do not identify with NFL athletes and their intentions to speak with others about breast cancer screenings. Compared to Brown et al.'s (2003) study, this result is contradictory as their study found that the greater the fan's identification with MLB player Mark McGwire the greater their realization of the importance of speaking out against child abuse, a cause which he advocated. This finding leaves in question the benefit of the breast cancer awareness campaign being broadcast to an audience with a male majority as it was shown that this sample does not plan to speak with those they know about the importance of breast cancer screenings. However, the campaign's other part of the overall goal is to increase awareness of the disease, which has been demonstrated. Jessop (2012) cited the NFL in proclaiming that the "A Crucial Catch" campaign "reached more than 151 million viewers, including 58 million women age 18 and older" (p. 1) in 2011.

The current study showed a strong, positive relationship between identification with NFL athletes and NFL fanship. In essence, participants who felt a strong sense of fanship towards the NFL had a greater level of identification with NFL athletes. This hypothesis was presented as a check to insure that there was a clear, positive relationship between fanship and identification with NFL athletes. Similarly, Johnston (2004) found support in his hypothesis that predicted that loyal fans would view their fanship as a great part of their self-identity. Additionally, Johnston found that fans with greater loyalty had greater intention to spend money on merchandise as a means to exhibit their self-identification as a fan.

The "A Crucial Catch" campaign proved to be successful in reaching segmented audience members who identified with NFL athletes. This finding is very important for branding and

campaign planning for future "A Crucial Catch" campaigns. It shows that those who identify with NFL athletes have an increased exposure to the campaign and an increased intention to follow through with the campaign's suggestion of scheduling a breast cancer screening.

Wundersitz, Hutchinson, and Woolley (2010) suggest that "the effectiveness of mass media campaigns might be increased if message content and communication channels are tailored to the characteristics of these more narrowly defined segments or subgroups" (p. 10). Therefore, from a marketing standpoint, tailoring health-related messages like the "A Crucial Catch" to those fans that already identify with the athletes may increase the likelihood of message acceptance.

Tailoring this campaign to the greatest at-risk group of women 40-years and older who already identify with NFL athletes, although potentially a smaller number, might prove effective in saving lives. Other noteworthy findings include the lack of statistically significant evidence supporting the relationship between educational attainment and intention to schedule a screening and experience with breast cancer.

Limitations

The data in this study were gathered from a convenience sample, which means the results from this study are only applicable to the sample in question, not to a larger sample or population. It would be very useful for future research to retest the hypotheses by randomly sampling and surveying women over 40-years old since they are the demographic this campaign aims to reach with its disease prevention message. When investigating the awareness aspect of this campaign, and all participants' intention to speak with others about breast cancer screenings, new measurements should be distinctly tailored for men or women, as men most likely will not have much of an intention to schedule a breast cancer screening.

Research studies drawing inspiration from theories like the health belief model "can be

and are useful because they enrich, inform, and complement the practical technologies of health promotion and education" (Glanz, Rimer, & Viswanath, 2008, p. 38). Although this study was inspired by the HBM, the constructs were not directly investigated. Future studies examining this and other disease awareness and prevention campaigns will benefit from using previously validated survey items to directly measure how the HBM constructs explain or predict the outcomes of a campaign.

Investigating exposure to the "A Crucial Catch" campaign during the airing of the campaign during the NFL regular season would have been an ideal time to measure campaign exposure; however, this was not feasible for the planning and implementation of this particular study. This study depended on participant's recall of their exposure to common themes exhibited in "A Crucial Catch" six months after its airing. This leaves room for error in and of itself depending on participant recall months away from the campaign airing. However, this study found a relationship between identification with NFL athletes and exposure to "A Crucial Catch," and also between NFL fanship and exposure to the campaign. Future research would benefit from altering the items used to measure exposure since no previously validated measures were implemented to examine this variable. Future communication and disease prevention research would benefit from the development of a scale to accurately measure exposure to a health campaign and the timeline to measure exposure. A scale would be beneficial to particularly measure exposure to health campaigns that air by means of varying media much like this campaign, which aired live at the stadium, on television, on the Internet, and via cell phone or tablet.

Suggestions for Future Research

While Scott (2012) suggests that identification "influences individuals within the group

to enact behavioral group norms" (p. 3), this was not so regarding viewers' identification and intention to speak with others about breast cancer screenings. There was no statistically significant relationship between these variables, which presents an opportunity for future research. Intention to speak with others about breast cancer was measured using two items that directly inquired about the intent and level to do so. Future research might benefit by a more qualitative approach, asking participants about their intention to speak with others about disease prevention. This type of insight could greatly benefit future implementation of disease prevention programs and public health campaigns.

It would also be highly beneficial for future research to create a model demonstrating the best route or timing for disease prevention campaigns to air during sporting events. Using the elaboration likelihood model (ELM) as a theoretical foundation, this could allow health and disease prevention campaign managers to better position important messages during sporting events to effectively reach the most at-risk individuals.

Future research studies surrounding topics relating to health and disease prevention campaigns will benefit from employing the ELM. This cognitive processing model proposed by Petty and Cacioppo (1986) holds that people expend more effort on understanding and evaluating concerns of personal interest and relevance. This determines how information is processed either by central or peripheral routes. Insight derived from implementing the ELM into future studies would offer insight into which public relations strategies and aspects of this campaign served as most persuasive.

In this study, it is possible that people were distracted by the game and chose to focus more on the central than the peripheral route of the message in front of them: the football game instead of the breast cancer awareness and call to action campaign. Future research should

investigate where a participant's attention is focused during a game and participants' overall intention to perform the promoted action of scheduling a breast cancer screening. Using eye-tracking technology would be one way to investigate this; however, this might not be viable for most researchers without this technology being readily available and affordable. However, the potential of using ELM as the theoretical framework could benefit future researchers seeking a theory-driven approach. One simple method might be the playing of a video clip of a game where the campaign was in action and immediately following investigating participants' recall and intention to take action or to talk with others about the messages they saw in a survey.

Conclusion

The main purpose of the study was to investigate the NFL's "A Crucial Catch" breast cancer awareness and prevention campaign that takes place every year during the month of October. In particular, this study investigated the relationship between measures of identification with NFL athletes, exposure to the campaign, NFL fanship, intention to take the disease prevention action suggested by the campaign, and intention to talk with others about breast cancer screenings. While relationships were discovered between identification with NFL athletes and intention to schedule a breast cancer screening, among other findings, there is still much room for research into breast cancer awareness campaigns. There is a need for social science and hard science-based researchers to collaborate on investigations of this sort to complement each other with their specialized skills, so that more advances can be made in the fight against breast cancer.

One rationale for these types of collaborations can be found in the statistics. Although breast cancer five-year survival rates have increased significantly since the 1970s, there are overwhelming disparities for African American women as compared to White women (Cancer

Facts and Figures, 2013). Some authors cite this disparity resulting from "distinct trajectories of mortality in the adult age range" (Fenelon, 2013, p. 441), while others believe socioeconomic barriers are preventing comparable treatment for African American women (Brooks, Paschal, Sly, & Hsaio, 2009; Hunt & Whitman, 2014; Melnic, 2014). The collaboration of health care professionals, social scientific researchers, and public health specialists might open doors to help speed up the closing of this gap in health disparities relating to breast cancer.

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Appendix A:

Survey

Survey Consent

1) Do you consent to participate in this study?

Reminder: You have the right to discontinue participation at any time without any loss of benefits.

Yes, I consent to participate

No, I do not consent to participate

2) Express your level of agreement with the following statements related to NFL athletes based on the following scale:

Strongly disagree – disagree – neutral – agree – strongly agree

NFL athletes and I share many of the same values.

What is important to NFL athletes is important to me.

I try to model the behavior of NFL athletes.

I try to do the things I believe NFL athletes would do.

NFL athletes have shown me the best way to live my life.

I care about the same things NFL athletes care about.

I look to NFL athletes as role models.

I support those who support NFL athletes.

I would like to be more like NFL athletes.

NFL athletes have set an example for me of how to think and act.

I want to learn from NFL athletes as much as I can.

I believe many of the same things NFL athletes believe.

I feel that I am in unity with NFL athletes.

I have often thought about what it would be like to be an NFL athlete.

I aspire to become the kind of person NFL athletes are.

The qualities I see in NFL athletes are the same qualities I seek to develop in my own life.

I advocate the same things that NFL athletes advocate.

The things that make NFL athletes upset make me upset.

I sometimes imitate NFL athletes.

3) Please select your agreement with the following questions relating to exposure of the NFL A Crucial Catch breast cancer awareness campaign based on the following scale:

Strongly disagree – disagree – neutral – agree – strongly agree

NFL players wear pink cleats during NFL games in the month of October

NFL cheerleaders are dressed in pink and breast cancer awareness apparel during the October games

There are special on-field events at NFL games during breast cancer awareness month honoring women who have survived breast cancer

The NFL hosts community-wide events surrounding breast cancer awareness in the month of October

I have attended an event surrounding the NFL breast cancer awareness campaign during the month of October

I have viewed an event surrounding the NFL breast cancer awareness campaign during the month of October.

I have had exposure to the to the NFL's A Crucial Catch campaign

4) Please rate the following statements about your intention to take action regarding the following using the same scale:

Strongly disagree – disagree – neutral – agree – strongly agree

I intend to schedule a breast cancer screening in the future

I intend to speak to a health care professional about breast cancer screenings

I intend to speak with 1 or more women in my life about breast cancer screenings

I intend to speak with 1 or more women in my life over 40-years old about breast cancer screenings

5) Please explain your intention as selected above in question number 4.

6) Please rate your agreement with the following statements regarding your fanship towards the NFL using the following scale:

Strongly disagree – disagree – neutral – agree – strongly agree

Being an NFL fan is important to my self-concept

When my team wins, I internalize the win saying things like "We won" or "we played great

I consider my NFL affiliation or attachment as a significant part of identifying and expressing my self-concept to others

My favorite sports team would change if I moved to a different location

Because I am such a devoted fan to my team, I can act any way I want during a sports game, even if I break socially acceptable norms

Breast Cancer Experience

7) My experience with breast cancer is (check all that apply):

I had/have personal experience with breast cancer

I know someone who had/has experience with breast cancer

A family member or a close friend of mine has had experience with breast cancer

I have never had experience with breast cancer

Demographic Questions

8) Sex:

Male

Female

9) Which best describes your highest level of completed education?

High school (includes GED, high school equivalent)

Some college (no degree received)

2-year college/ technical school/ associates degree

College graduate

Some graduate school

Graduate degree

Doctorate degree

10) Would you describe yourself as:

American Indian / Alaskan Native

Asian / Pacific Islander

African American

Caucasian (non-Hispanic)

Hispanic

Other (Please Specify)

Appendix B:

Informed Consent

Informed Consent

Thesis Title: NFL's "A Crucial Catch" Examined

You are invited to join a research study that investigates a breast cancer awareness campaign with NFL players as the health advocates. The decision to join or not to join is up to you.

WHAT IS INVOLVED IN THE STUDY?

You will be asked to complete a survey composed of your experience with NFL football, demographic questions, your experience with breast cancer, and your intentions. This should take no longer than 25 minutes. Participation in this study is voluntary. You have the right not to participate at all or to discontinue participation at any time. There is no penalty or loss of benefits for refusing to participate or discontinuing participation.

RISK

This study involves minimal risk, if any, to any participants in this study.

CONFIDENTIALITY

Your name and email address will not be used when data from this study are published. Every effort will be made to keep research records, and other personal information confidential. We will take the following steps to keep information about you confidential, and to protect it from unauthorized disclosure, tampering, or damage. The primary researcher and the research advisors are the only individuals that will have access to survey data. Once the data files have been compiled, there will be no way to trace your responses to you.

CONTACT

If you have any questions about the research study, you may email the researcher, Chyna Teresa Tribble (ctt5194@rit.edu). If you have any questions about the rights of you as a research subject, or if you experience any unexpected physical or psychological discomforts, any injuries, or if you think that something unusual or unexpected is happening, please contact Heather Foti, Associate Director of the Human Subjects Research Office at the Rochester Institute of Technology at 585.475.7673.

Please print a copy of this consent form for your personal records or in the case that you may need to contact the researcher for any reason.

Appendix C:
Demographics

Sex:

	<i>Total</i>	<i>Percentage</i>
Male	31	26%
Female	88	74%

Highest level of completed educational attainment:

Mean: 2-year college/ technical school/ associates degree

Median: 2-year college/ technical school/ associates degree

Mode: Some college (no degree received)

	<i>Total</i>	<i>Percentage</i>
High school (includes GED, high school equivalent)	9	7.5%
Some college (no degree received)	40	34%
2-year college/ technical school/ associates degree	17	14%
College graduate	18	15%
Some graduate school	15	13%
Graduate degree	19	15.9%
Doctorate degree	1	.08%

Race/ ethnicity:

	<i>Total</i>	<i>Percentage</i>
American Indian / Alaskan Native	2	1.7%
Asian / Pacific Islander	4	3.4%
African American	8	6.7%
Caucasian (non-Hispanic)	94	79%
Hispanic	3	2.5%
Other (Please Specify)	8	6.7%