

“I LOVE BOOBIES”: THE INFLUENCE OF SEXUALIZED BREAST CANCER
CAMPAIGNS ON OBJECTIFICATION AND WOMEN’S HEALTH

by

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Submitted to the Graduate Faculty of the
College of Science and Engineering
Texas Christian University
in partial fulfillment of the requirements
for the degree of

Masters of Science

August 2014

ACKNOWLEDGEMENTS

This project would not have been possible without the support of many people. Many thanks to my advisor, Dr. Cathy R. Cox, who read my many revisions, she guided me through unexpected results and helped me work through writing challenges. Also thanks to my committee members, Dr. Sarah Hill, and Dr. Charles Lord, who offered valuable input and support from start to finish. And finally, thanks to my research assistants, Trevor Swanson, Katrina Fazelimanesh, and Tracy Strazzini for helping organize and run countless study sessions to collect the necessary data.

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“I Love Boobies”: The Influence of Sexualized Breast Cancer Campaigns on Objectification and Women’s Health

In 1996, in an attempt to increase breast cancer awareness, the New York Times ran a cover story entitled, “This Year’s Hot New Charity,” where Linda Evangelista posed topless with her arm draped across her barely covered breasts (King, 2004). The story not only glamorized the breast cancer awareness movement, but also initiated the sexualization of the disease in the media. Today, breast cancer is the most common form of cancer among women while also being the leading cause of cancer death in 20-49 year-olds (American Cancer Society, 2012). Unfortunately, despite the visibility of breast cancer awareness campaigns, physicians report that women rarely follow the recommended guidelines for early detection (American Cancer Society, 2014). This raises an important question about the effectiveness of such media campaigns on women’s psychological and physical health.

One perspective that may be useful in understanding the effectiveness of breast cancer campaigns is objectification theory (Fredrickson & Roberts, 1997). According to this perspective, the female body is a socially constructed object to be looked at and evaluated. Women in a state of objectification are thus likely to internalize other people’s perspectives about their bodies and focus more readily on their appearance. To date, the results of over 60 published studies provide empirical support for the negative consequences of objectification on women’s health (e.g., anxiety, depression, and restricted eating; Breines, Crocker, & Garcia, 2008; Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; Szymanski, Moffit, & Carr 2011; also see Moradi & Huang, 2008, for a review). Given the increase in the number of sexualized breast cancer campaigns in contemporary society, the purpose of the present research was to examine the extent to which sexy campaigns promote thoughts of objectification in women

(Study 1), and whether this heightened body focus increases body avoidance (i.e., discomfort with conducting breast self-exams; Study 2) and decreases participants' intentions to donate to breast cancer research (Study 3).

Breast Cancer Awareness

Breast cancer is the most commonly diagnosed cancer among women (American Cancer Society, 2011). Although the disease is more prevalent in women 40 years and older, age of diagnosis is declining, with a growing number of young women affected (i.e., 7% of all breast cancers in the U.S. involve 25-39 year-old women with 1 in 173 developing the disease; American Medical Association, 2013). Unfortunately, younger women have a lower rate of survival compared to their older counterparts because breast cancer is usually more advanced by the time of diagnosis (American Cancer Society; Thomas, Gao, Ray et al., 2003). Indeed, breast self-examinations (BSEs) are especially important for young women as mammograms are often ineffective given the density of their breast tissue (Buseman, Mouchawar, Calonge, & Byers, 2003; Lord et al., 2007; Rosenberg & Levy-Schwartz, 2003).

Although women are encouraged to perform BSEs at least once a month (e.g., American Cancer Society, 2012; National Cancer Institute, 2009; Susan G. Komen for the Cure, 2011), research suggests that less than 36%, with some estimates as low as 17%, of women conduct these procedures monthly (Champion & Miller, 1992; Friedman, Nelson, Webb, Hoffman, & Baer, 1994; Murray & McMillan, 1993; Tu, Reisch, Taplin, Kreuter, & Elmore, 2006).

According to the American Cancer Society (2009), these low rates cannot be blamed on a lack of awareness about such campaigns as 95% of women acknowledge that they should perform BSEs on a monthly basis (also see Millar, 1997). Further, adherence to these recommendations are often low even among those who routinely conduct BSEs; for example, Luszczynska (2004)

found that only 20% of women who examine their breasts carry out more than half of the recommended steps.

Recognizing the importance of BSEs and early detection, many non-profit and private organizations have used advertising campaigns to increase public awareness about the disease. For example, in today's society, pink ribbons are seen everywhere - on everything from toilet paper to sports uniforms (e.g., MLB, NFL, NBA) to buckets of fried chicken. More recently, several campaigns have used sex appeals as a way to gain attention and raise money for the cause. There is "Save the Ta-Tas," (www.savethetatas.org), an accessory and apparel line where individuals can purchase t-shirts, handbags, and liquid soap ("Boob Lube") to make "breast exams more fun." Other merchandising includes, "Save the Girls," "Save Second Base," "Project Boobies," "Hugs for Jugs," and "I Love Boobies," just to name a few. Additionally, more and more commercial and print advertisements are depicting sexualized women by focusing on their breasts (e.g., a camera panning a woman's chest) or using objects to mimic females' breasts (e.g., oranges placed to look like breasts; Sulik, 2012b). A recent "save the cupcakes" fundraiser for the Susan G. Komen for the Cure sold cupcakes to represent all types of ethnicities and sizes, including "mango melons," "java jugs," "honey nut hooters," and "rocker knockers" (Sulik, 2012a).

Unfortunately, as campaigns have increased in popularity, the diagnosis of breast cancer in young women has nearly doubled (American Medical Association, 2013) and remains the leading cause of cancer death in this population (American Cancer Society, 2012). One reason why sexualized breast cancer campaigns may be ineffective at reducing the disease is because they portray women as objects to be looked at or touched in a way that is dehumanizing to them. Thus, females may avoid aspects of their body (e.g., conducting a BSE) and hold negative

attitudes toward their bodies (e.g., feelings of shame and anxiety) to the extent that they perceive themselves as instruments for the sexual pleasure of others.

Objectification Theory

Throughout the history of the sexes, women have been perceived as inferior to men. On one hand, women are considered less rational, more emotional, physically weaker, and closely tied to the animal nature of humans (e.g., menstruation, childbirth, lactation; Goldenberg & Roberts, 2004). On the other hand, however, women are held in high regard if they are stripped of their natural qualities – denuded, deodorized, sanitized, adorned – becoming “objects” of beauty. Objectification is one such form of drapery that transforms a “natural” woman into a cultural symbol of attractiveness and male desire.

Objectification theory (Fredrickson & Roberts, 1997) describes the psychological process by which women internalize observers’ perspectives about their bodies and come to monitor their appearance. Sexual objectification occurs when a female’s body, body parts, or sexual functions are regarded as if they represent her as a person (Bartky, 1990). This form of objectification is consistent with an evolutionary perspective (e.g., Buss, 1989; Schmitt & Buss, 1996), which suggests that the female body, compared to the male body, attracts more attention because it serves as a sign of fertility and reproductive success. Such a shift in attention reduces a female to her bodily features thereby diminishing her value as a person (Heflick & Goldenberg, 2009; Heflick, Goldenberg, Cooper, & Puvia, 2011; Newheiser, LaFrance, Dovidio, 2010; Vaes, Paladino, & Puvia, 2011). Objectification can occur in dehumanizing and cruel ways; when, for example, women are used in sex trafficking (e.g., prostitution), sex industries, and pornography. But sexual objectification can also occur in seemingly benign ways, such as when women and

their body parts are used to sell food (e.g., Hooters), website domains (e.g., GoDaddy.com), and sports cars.

Many times, feelings of objection are elicited through the use of the media. For instance, in a longitudinal study of undergraduate college students, females reported more exposure to objectifying television shows and magazines than men, and subsequently reported more self-objectification and body surveillance (Aubrey, 2006). These findings are consistent with experimental work showing that women exposed to advertisements of scantily clad females reported an increased number of appearance-related concerns (Aubrey, Henson, Hopper, & Smith, 2009; Harper & Tiggemann, 2008). Although social media is perhaps the easiest and most popular way to elicit feelings of objectification, other manipulations involve the use of interpersonal interactions (i.e., hearing body-related comments, Swim, Hyers, Cohen, & Ferguson, 2001; activating thoughts of romantic relationships, Sanchez & Broccoli, 2008) and objectifying cues (e.g., being exposed to a male gaze, Calogero, 2004; being half-clothed in sports or a physical activity; Parsons & Betz, 2001). Women asked to wear and evaluate a one-piece swimsuit, for example, reported an increased number of body-related thoughts compared to those who wore and evaluated a sweater (Fredrickson & Roberts, 1997).

Unfortunately, increasing the focus on a woman's physicality can result in both psychological and behavioral consequences. Given that the standards of attractiveness for women's bodies have been getting thinner and more unrealistic in westernized cultures (Garner, Garfinkel, Schwartz, & Thompson, 1980), one consequence of objectification is lower self-esteem stemming from the inability to live up to cultural standards of value. For example, although a minority of women and girls are classified as being overweight in the United States, a majority of them report feeling fat and ashamed of their bodies (Silberstein, Stringel-Moore, &

Rodin, 1987). In support of this reasoning, several studies have shown that self-objectification, either measured as a dispositional trait or manipulated as a situational state, is associated with diminished self-worth (e.g., Rosenberg's self-esteem; Mercurio & Landry, 2008), higher feelings of body shame (Fredrickson et al., 1998; Tiggemann & Slater, 2001), anxiety, negative affect (Harper & Tiggemann, 2008), and depression (Muehlenkamp & Saris-Baglama, 2002; Szymanski, Moffit, & Carr, 2011). Further, a number of experiments demonstrate that body shame mediates the relationship between objectification and disordered eating (Noll & Fredrickson, 1998; Tiggemann & Slater, 2001), suggesting that women may restrict their diets in an attempt to avoid the shame of not living up to cultural standards of attractiveness.

Although evidence supports the negative consequences of objectification on psychological and physical health (e.g., eating, Daubenmier, 2005; Noll & Fredrickson, 1998; substance use & abuse, Carr & Szymanski, 2011; Harrell, Fredrickson, Pomerleau, & Nolen-Hoeksema, 2006), no research has examined women's attitudes and behaviors toward breast cancer. According to Sulik (2012a, 2012b), one way in which charities and public service announcements objectify women is through the use of their bodies as literal objects. For example, the Breast Cancer Awareness Body Paint Project uses the nude bodies of breast cancer survivors' to paint landscapes, animals, and superheroes – images unrelated to cancer but highlight the female form (i.e., breasts, buttocks). Further, many websites, such as Boobstagram (<http://boobstagram.fr/>) and the American Cancer Society (www.makingstrideswalk/boobs), use pictures of women's cleavages to increase awareness about the disease. This supports research showing that when women are sexually objectified, people (regardless of gender) are more likely to process their bodies in a more localized way by focusing on individual body parts like breasts (Gervais, Vesico, & Allen, 2011). Finally, as Sulik notes (2012a), many breast cancer campaigns

depict breasts as objects to be touched, or women as objects to be viewed by men. For instance, the group Rethink Breast Cancer (www.rethinkbreastcancer.com) runs commercials of barely dressed females in white swimsuits or wet t-shirts in front of a group of gazing men. Such advertisements can affect women negatively as research suggests that an internalized male gaze, not just any gaze, increases feelings of shame, anxiety, and diet intentions among women (Calogero, 2004).

Although this work begins to lay the foundation for understanding the link between sexualized breast cancer campaigns and feelings of objectification, a number of questions remain. Specifically, do people report greater feelings of objectification in the presence of sexy breast cancer slogans (“I Love Boobies”) compared to neutral ones? Further, how might the connection between objectification and sexualized breast cancer advertisements inform our understanding of why women engage in BSE behaviors and donate to research on breast cancer? The present research was designed to address these questions.

The Present Research

The present research is the first, to my knowledge, to examine the effects of sexy breast cancer campaigns on thoughts of objectification, negative attitudes toward the body, and donation intentions. Specifically, to the extent that an “I Love Boobies” advertisement increases self-objectification, women should report a greater accessibility of body-related thoughts in the presence of an “I Love Boobies” t-shirt compared to a neutral one. Study 1 was designed to test this possibility. Study 2, in turn, examined the consequences of increased body focus on women’s physical health. Research shows that women report greater body shame and distance themselves from their physical bodies when in a state of objectification (e.g., Grabe, Routledge, Cook, Andersen, & Arndt, 2005; for a review, see Fredrickson & Roberts, 1997; Roberts &

Pennebaker, 1995). Based on this, I tested a mediational model to investigate whether exposing women to a sexualized breast cancer video increased body-related concerns, which in turn, increased discomfort in conducting a BSE. Finally, Study 3 examined the consequences of objectification on women's willingness to donate to breast cancer research. Women, when objectified by others, are perceived as less human and less deserving of empathy (e.g., Linz, Donnerstein, & Penrod, 1988; Vaes, Paladino, & Puvia, 2011). Thus, it was hypothesized that participants would report fewer donation intentions following the presentation of a sexualized breast cancer prime.

It is important to note that the emotional and behavioral consequences of objectification are observed more readily in women than men. In the aforementioned research by Fredrickson et al. (1998; also see Quinn, Kallen, Twenge, & Fredrickson, 2006), trying on a swimsuit (compared to a sweater) led women to report more shame about their bodies and engage in restricted eating. Furthermore, women exhibited poorer cognitive performance on a math test, presumably because their attention was disrupted by feelings of objectification. None of these consequences were found for men. Given that the present research is interested in self-objectification following the presentation of sexualized breast cancer campaigns, only female participants were used in all experiments.

Study 1

This first study sought to establish the connection between sexy breast cancer slogans and self-objectification. In order to do this, participants were randomly assigned to complete materials in a room with an experimenter wearing an "I Love Boobies" versus a neutral ("Frogs for the Cure") t-shirt. The "I Love Boobies" t-shirt was selected given the popularity of this ad campaign in American society (e.g., Carollo, 2010; Dale, 2011; Moen, 2010). Next, participants

were asked to complete a lexical decision task designed to measure the accessibility of body-related thoughts. Following previous research (see e.g., Bargh & Chartrand, 2000; Fazio, 1990), participants were asked to quickly classify stimuli as being words and non-words, with the assumption that faster reaction times (RTs) to body-related words would serve as a measure of objectification (see e.g., Quinn, Kallen, Twenge, & Fredrickson, 2005 for similar procedures).

An additional goal of this research was to see if the experimenter's gender moderated these effects. According to objectification theory (Fredrickson & Roberts, 1997), one of the ways in which a body is sexualized is through the visual inspection of others. For example, research has shown that female participants who anticipated being stared at by a man reported greater body shame and social anxiety than those who anticipated being stared at by a woman (e.g., Calogero, 2004). This suggests that participants would report greater objectification in the presence of a male experimenter compared to a female experimenter. However, given the subtle nature of the current manipulation (i.e., wearing a shirt) compared to a more blatant one (i.e., intentional gaze), I did not anticipate any gender effects. Overall, it was hypothesized that women would exhibit faster RTs to body-related words in the presence of the "I Love Boobies" t-shirt compared to a neutral one ("Frogs for the Cure").

Method

Participants. Fifty-seven women ($M_{\text{age}} = 18.75$, $SD = 2.25$) participated in in exchange for course credit. The majority of women were White/Caucasian (81.9%).

Materials and Procedure. The following procedures were performed for all of the experiments reported herein. Specifically, 8-10 person sessions were conducted in a computer lab, and participants were told that they were taking part in a study on "personality and attitudes." After obtaining informed consent, everyone completed materials on an individual

basis. At the end of each study, participants were asked to report their reactions toward the study, along with demographic information (e.g., age, gender, & race). Once the participants completed the materials, they were thoroughly debriefed and thanked for their participation. The content and order of the materials for Study 1 are described below.

Breast cancer t-shirt. A male and female experimenter wore one of two breast cancer t-shirts. In the experimental condition, they wore a black t-shirt with the slogan “I Love Boobies” (www.keep-a-breast.org; See Appendix A). To see if the current results were specific to breast cancer or that of the sexualized breast, experimenters in the neutral condition wore a black t-shirt that supported breast cancer awareness on campus (“TCU Frogs for the Cure”). The results revealed that experimenter’s gender did not affect the obtained results ($p = .74$), and therefore, will not be discussed further.

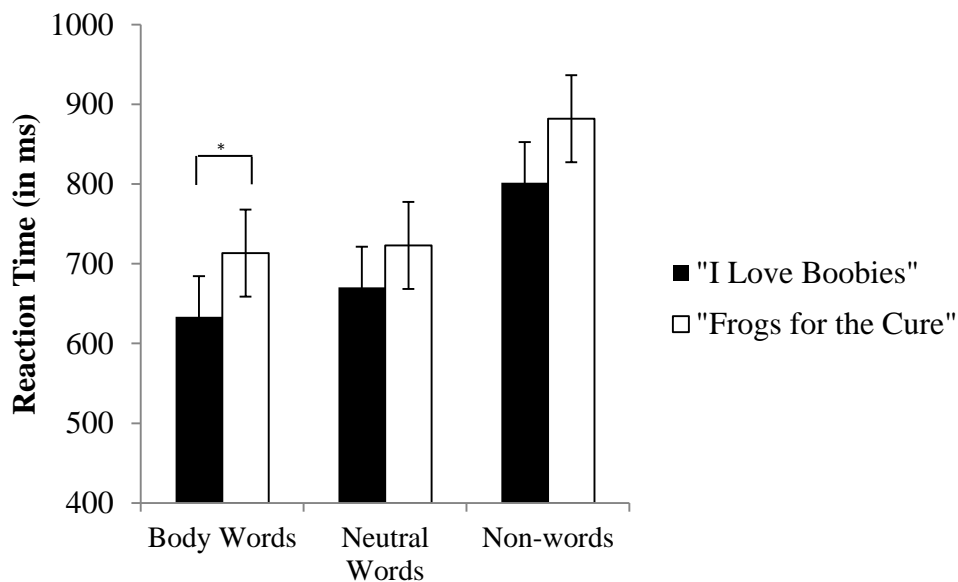
Objectification. MediaLab and Direct RT (Jarvis, 2008) software were used to present the word stimuli for the lexical decision task. Participants were told that a string of letters would appear on the middle of the screen and to decide whether the letters formed a word (pressing the right “shift” key) or non-word (pressing the left “shift” key). All words were presented for 1,000 milliseconds (ms) and were preceded and followed by a string of x’s, which served as a fixation point. Everyone was presented with 60 trials that displayed 14 body-related words (e.g., *body*, *shape*, *waist*) and 15 neutral words (e.g., *desk*, *picture*, *tree*). The 31 non-words (e.g., *fraw*, *quirf*, *zubra*) were created by changing one letter in nouns and verbs. Following Bargh and Chartrand (2000), responses on the lexical decision task less than 200 ms and greater than 2,000 ms were eliminated. Mean RTs were then computed for body ($\alpha = .86$), neutral ($\alpha = .81$), and non-words ($\alpha = .92$). For a complete list of words see Appendix A.

Results and Discussion

Independent *t*-tests were used to examine the effects of t-shirt (“I Love Boobies” vs. “Frogs for the Cure”) on RT scores. Whereas there was no significant difference between t-shirt conditions on neutral (“I Love Boobies” $M = 667.57$, $SD = 120.86$; “Frogs for the Cure” $M = 722.99$, $SD = 194.31$). and non-words (“I Love Boobies” $M = 806.54$, $SD = 206.84$; “Frogs for the Cure” $M = 881.88$, $SD = 194.31$; $ps \geq .07$), women had faster RTs to body-related words in the presence of an “I Love Boobies” t-shirt ($M = 631.39$, $SD = 92.53$) compared to a “Frogs for a Cure” t-shirt ($M = 713.55$, $SD = 109.42$), $t(51) = 2.67$, $p < .01$, $d = .75$. As shown in the figure below.

Figure 1. Reaction time (in ms) as a function of breast cancer awareness t-shirt (Study 1).

A faster (lower) score indicates greater body accessibility (i.e., objectification).



Looked at differently, participants reported faster RTs to body-related words compared neutral and non-words in the “I Love Boobies” condition, $Fs(1,52) \geq 7.97$, $ps \leq .007$, $d \geq .79$, with non-words being significantly higher than neutral, $F(1, 52) = 30.19$, $p < .001$, $d = .98$. In the

“Frogs for the Cure” condition, there was no significant difference between body-related and neutral words, $F(1,51) = .86, p = .36, d = .15$; however, both were significantly lower than non-words, $F_s(1,51) \geq 42.66, p_s \leq .001, d \geq 1.00$. The longer RTs to non-words in both conditions is not surprising given that people take significantly longer to process non-words compared to normal ones (i.e., full listing hypothesis; Butterworth, 1983).

These results provide initial evidence that sexualized breast cancer campaigns increase body related concerns among women, and thus feelings of objectification. Specifically, female participants experienced faster RTs to body-related words in the presence of an experimenter wearing an “I Love Boobies” t-shirt compared to the same person in a “Frogs for the Cure” t-shirt. Further, these results were specific to thoughts of one’s body in that women reported faster RTs to body-related words compared to neutral- and non-words in the sexy t-shirt condition.

Although these results provide support that sexualized breast cancer campaigns are detrimental to women because they increase attention on the body, there are some limitations that need to be addressed. First, Study 1 showed that feelings of objectification were specific to the “I Love Boobies” t-shirt and not the neutral one, suggesting that body-related thoughts are specific to sexy breast campaigns and not breast cancer in general. However, people might report faster RTs to both types of shirts compared to a neutral, non-cancerous one. Study 2 included a third condition wherein participants were exposed to a non-cancerous advertisement to serve as a neutral control condition. Second, given that sexualized breast cancer campaigns can be seen across a variety of product placements (e.g., apparel, bracelets), Study 2 sought to replicate the results from the first experiment using a television commercial rather than a t-shirt. This would extend the generalizability of the current findings. Lastly, of the research that has been conducted on objectification theory (see e.g., Moradi & Huang, 2008, for a review), a majority of this work

has focused on the psychological and physical consequences of increased body focus (e.g., restricted eating, habitual body monitoring, body shame). To make a convincing case that sexualized breast cancer campaigns are problematic for women because of increased body focus, it seems especially important to show the negative health effects of objectification on BSE intentions following a sexualized breast cancer campaign. This was an additional goal of Study 2.

Study 2

There is some evidence to suggest that women experience greater discomfort with their physical bodies when feeling objectified. For example, when women view themselves as objects, they relinquish control of their bodies in terms of both functioning and appearance. As Roberts and Pennebaker (1995) note, this can lead to a loss of personal information regarding one's physical states (e.g., sexual arousal, heart rate, stomach contractions). Thus, women may experience discomfort while performing BSEs because of the disconnection between themselves and their physical bodies following objectification. Another line of work shows that the creaturely nature of women can undermine their willingness to conduct BSEs. Goldenberg, Arndt, Hart, and Routledge (2008), for example, found that female participants were less likely to conduct a BSE on a breast model after reading an essay that emphasized the similarities between humans and animals compared to an essay about human uniqueness or no essay at all. Although Goldenberg et al. did not look at objectification per se, self-objectification serves an important function for women by stripping them of their creaturely nature and transforming them into objects of beauty and desire (Goldenberg & Roberts, 2004). Thus, it comes as no surprise when women objectify other women or when they objectify themselves.

Building on this research, Study 2 examined whether feelings of objectification mediate the relationship between exposure to sexy breast cancer slogans and breast health intentions. To test this idea, participants were randomly assigned to complete materials after viewing one of three videos: a commercial of a woman in a bikini swimsuit (sexualized breast advertisement), a commercial of women getting mammograms (neutral breast advertisement), or a commercial of a man and woman swimming (neutral advertisement). Following the manipulation, everyone completed the Self-objectification Questionnaire (SOQ; Fredrickson et al., 1998) as a different measure of objectification, followed by 6-item measure of BSE intentions (Arndt, Cook, Goldenberg, & Cox, 2007; Goldenberg, Cox, Arndt, & Goplen, 2007). Overall, three hypotheses were made. First, it was hypothesized that women would report greater objectification in the sexy breast cancer condition compared to the neutral cancer and non-cancerous conditions. Second, following previous research (e.g., Roberts & Pennebaker, 1995), to the extent that objectification leads to greater body avoidance, women should report greater discomfort with conducting BSEs after the sexualized breast cancer commercial compared to the other two commercials. Finally, I examined the mediating effects of objectification on the relationship between sexy breast cancer slogans and BSE intentions, hypothesizing that heightened feelings of objectification would result in greater discomfort while conducting a BSE for women exposed to the sexy campaign.

Method

Participants and Materials. Ninety-three women ($M_{age} = 18.48$, $SD = .91$) participated in exchange for course credit. Ten participants were excluded from the final analyses because of computer malfunctions or reporting strong negative reactions to the videos, which affected 10.75%

of the sample. The final sample consisted of 83 women ($M_{age} = 18.45$, $SD = .86$), with a majority of females being White/Caucasian (81.90%).

Video advertisement. Following a variety of personality questionnaires to maintain the cover story of the experiment (e.g., locus of control, Rotter, 1966; health optimism, Aspinwall & Brunhart, 1966; social desirability, Crowne & Marlowe, 1960), participants watched one of three video advertisements. In the sexy breast cancer condition, participants viewed a commercial of an attractive female wearing a white bikini at a pool party (http://www.youtube.com/watch?v=o_xEUi_OSHE). Near the end of the advertisement, the woman raises a wet t-shirt revealing a description of a breast cancer charity event, “Booby Ball” over her censored, nude breasts. To see if current results were specific to sexualized breast cancer campaigns or breast cancer campaigns in general, participants in the neutral breast cancer condition watched a video that described the importance of taking time to get mammograms (<http://youtu.be/gIZv9WtQ2b0>). Finally, participants in the neutral, non-cancerous condition watched a *Bud Light* commercial of a couple skinny dipping while unknowingly exposing themselves to a crowded bar located below the pool (<http://www.youtube.com/watch?v=dxksSp9hDXI>). This commercial was selected because the content of the advertisement was similar to the sexualized breast cancer commercial (i.e., barely dressed individuals in a pool); further, both commercials were similar with respect to humorous content.

Objectification. Participants completed the Self-Objectification Questionnaire (SOQ; Fredrickson et al., 1998) as the measure of objectification. This scale has been used extensively in prior research (e.g., see Fredrickson et al., 1998; Roberts & Noll, 1998; Noll & Fredrickson, 1998) and asks participants to indicate the importance of 10 attributes: 5 of which are associated

with physical appearance (e.g., weight, physical attractiveness, sex appeal) and 5 of which are related to competence (e.g., strength, physical coordination, energy level). In the current study, participants were asked to indicate how important they found each characteristic on a 9-point scale (1 = *not at all important*; 9 = *very important*). Scores were calculated by taking the average of the five competency items ($\alpha = .78$) and five appearance items ($\alpha = .83$) and creating a difference in scores (physical minus competency). A positive score indicated greater appearance focus (i.e., higher objectification).

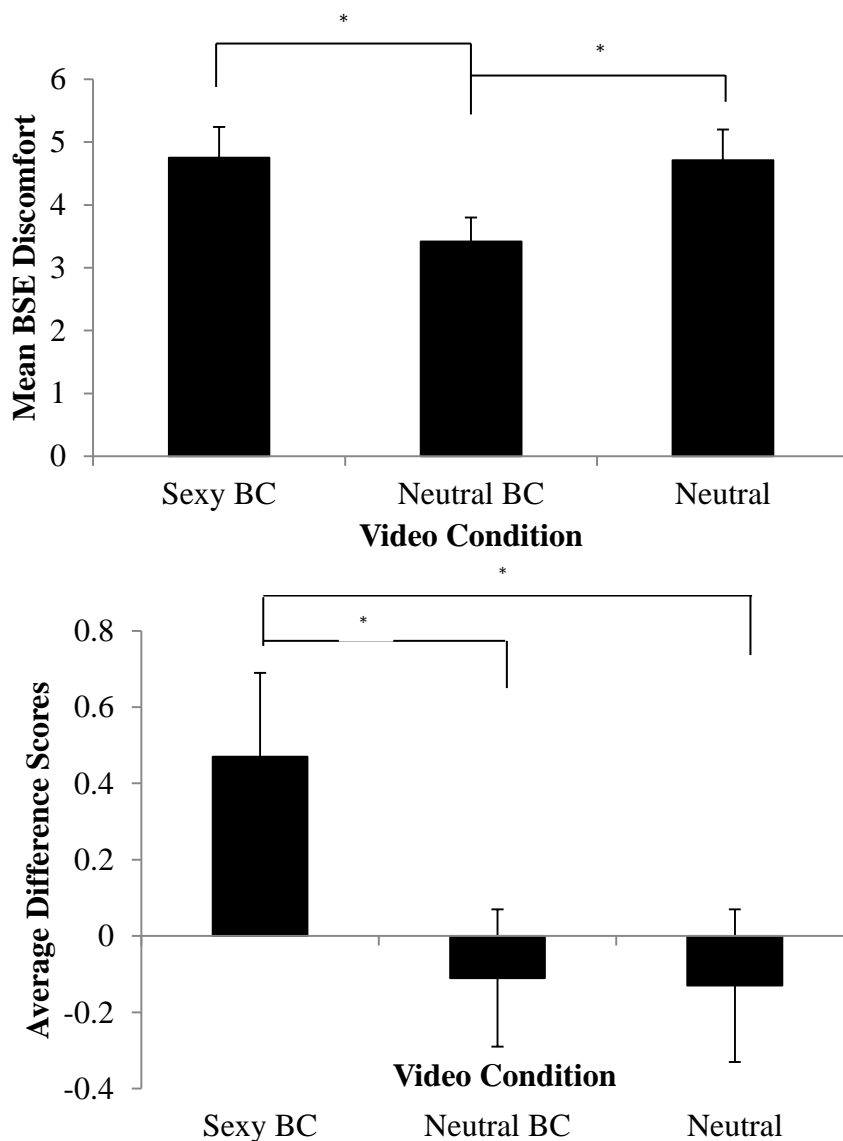
BSE intentions and discomfort. Following Arndt et al. (2007) and Goldenberg et al. (2008), participants were given four questions to assess their intentions to conduct a BSE. Example items included, “At this very moment, I feel particularly motivated to conduct a breast self-exam” and “How likely is it that you will perform a breast self-exam in the future?” ($\alpha = .80$). Two additional items assessed participants’ discomfort with conducting BSE (e.g., “At this very moment, the thought of conducting a breast self-exam makes me feel uncomfortable,” and “At this very moment, the thought of conducting a breast self-exam is unappealing;” ($\alpha = .77$). Responses were made on a 9-point scale (1 = *not at all*; 9 = *very true*). The average responses for the two subscales were calculated, with a higher score indicating greater BSE intentions and discomfort.

Results and Discussion

BSE intentions and discomfort. Separate one-way analysis of variance (ANOVA) tests examined the effect of video condition (sexy breast cancer, neutral breast cancer, vs. neutral non-cancerous videos) on the BSE subscales. The results revealed a significant effect of commercial on BSE discomfort, $F(2,80) = 3.00, p = .05, d = .55$, but not BSE intentions, $F(2,80) = 1.21, p = .33, d = .11$. Specifically, follow up tests revealed that, in comparison to the neutral breast cancer

condition ($M = 3.42$, $SD = 2.13$), women reported greater discomfort in conducting BSEs after watching the sexy breast cancer advertisement ($M = 4.75$, $SD = 2.70$), $t(60) = 2.15$, $p = .03$, $d = .56$, and neutral, non-cancerous advertisement ($M = 4.71$, $SD = 2.23$), $t(51) = 2.12$, $p = .04$, $d = .59$. Unexpectedly, however, there was no significant difference between the sexy breast cancer video and neutral, non-cancerous video, $t(49) = 0.50$, $p = .96$, $d = .01$ (see Figure 2).

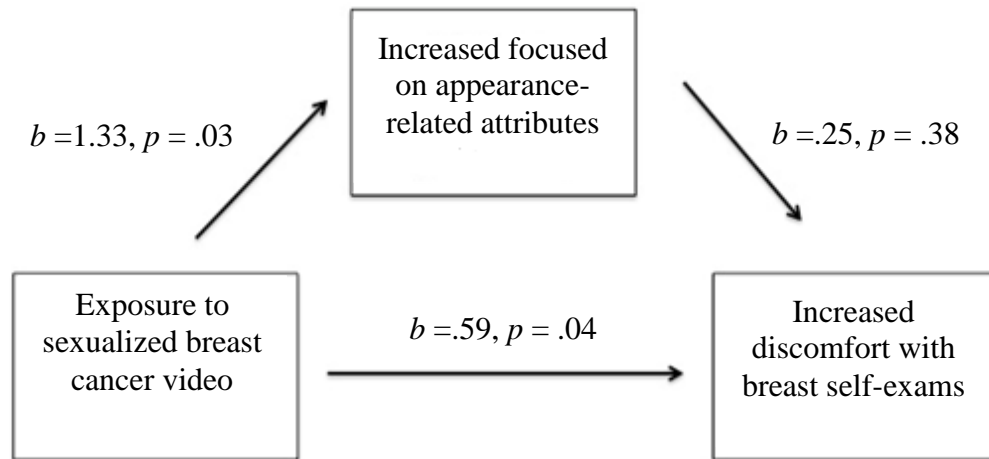
Figure 2. Breast self-exam discomfort (Top Panel; Study 2), and Self-objectification scores as a function of video type (Bottom Panel; Study 2).



Objectification. A one-way ANOVA (sexy breast cancer, neutral breast cancer, vs. neutral non-cancerous videos) was used to examine whether women report greater objectification after exposure to the sexualized breast cancer campaign compared to neutral breast cancer campaign and non-cancerous campaign. Results revealed a significant effect of video condition on feelings of objectification, $F(2,80) = 3.01, p = .05, d = .55$. Follow up tests showed that women who watched the sexy breast cancer video ($M = .47, SD = 1.21$) placed greater importance on appearance-related attributes than those who viewed the neutral breast cancer video ($M = -.11, SD = .99$), $t(60) = 2.10, p = .04, d = .54$, and non-cancerous video ($M = -.13, SD = .93$), $t(49) = 2.02, p = .05, d = .58$. The two neutral commercials did not significantly differ from one another, $t(51) = .077, p = .94, d = .02$ (see Figure 2).

Mediational analysis. A final analysis examined whether feelings of objectification mediated the relationship between viewing the sexualized breast cancer video (vs. neutral breast cancer video) and discomfort with BSEs. To test this hypothesis, Preacher and Hayes' (2004) bootstrapping procedure was used. Breast self-examination scores were regressed onto video condition (dummy coded), with thoughts of objectification (centered) entered as the mediator. Five-thousand bootstrap resamples were performed and the 95% confidence interval for the indirect effect was examined to see if it contains zero (non-significance). As previously mentioned, and following the first two steps of mediation (Baron & Kenny, 1986), there was a significant relationship between video watched and BSE discomfort, $b = .59 (SE = .28), t = 2.09, p = .04$, as well as, video condition and objectification, $b = 1.33 (SE = .62), t = 2.15, p = .03$. Unfortunately, there was no significant relationship between feelings of objectification and BSE discomfort when controlling for video condition (Step 3 of mediation), $b = .25 (SE = .29), t = .90, p = .38$. Although non-significant, the mediational model is presented in Figure 3.

Figure 3. Mediation analysis showing the role of objectification on the relationship between video prime (sexy breast cancer vs. neutral breast cancer) and BSE intentions (Study 2).



The current findings compliment Study 1 by showing that women experienced increased body focus following exposure to a sexualized breast cancer video compared to those who watched a neutral breast cancer video or non-cancerous video. Replicating the first experiment, these findings suggest that heightened feelings of objectification are specific to sexualized campaigns and not breast cancer campaigns in general. Second, women who viewed sexualized breast cancer commercial felt more uncomfortable with conducting BSEs compared to those who viewed the neutral breast cancer video, demonstrating one negative consequence of sexy breast cancer advertisements on women's health intentions. Unfortunately, however, women exposed to both sexy breast cancer and neutral, non-cancerous videos did not significantly differ in their BSE discomfort. One potential explanation for this unexpected result is the explicit nature of the neutral, non-cancerous video. By showing a couple skinny dipping on a date, the neutral video may have unintentionally elicited feelings of objectification in women. This was evident by the particularly strong, negative reactions that participants reported after viewing the video. To

address this limitation, Study 3 utilized a less explicit, non-cancerous video in the control condition.

Finally, while the results of the first two experiments demonstrate the detrimental effects of sexualized breast cancer campaigns on objectification and BSE discomfort, they say little about whether these advertisements influence women's donation intentions. Fiske (2009) argues that people must appreciate another's mind (i.e., acknowledge the same capacity for self-awareness, thought, emotion, & intentions as seen in ourselves) in order to empathize with others. Unfortunately, a growing body of research on objectification suggests that sexualized women are perceived as being less than human (i.e., dehumanization; Haslam, 2006; Haslam, Loughnan, Kashima, & Bain, 2008). For example, Heflick and Goldenberg (2009) and Loughnan et al. (2010) showed that females were evaluated as lacking morality, competence, and warmth when participants focused on the women's appearance (also see e.g., Heflick & Goldenberg, 2011). In light of these findings, women may be less likely to donate to breast cancer research in a state of objectification because of decreased empathy toward the cause. Study 3 was designed to test this possibility.

Study 3

The third experiment was designed with two goals in mind. First, many sexy breast cancer campaigns have emerged to raise money and draw attention to the disease. Thus, one goal of the present research was to look at their effectiveness on women's willingness to donate to breast cancer research. I also included a helping attitudes scale (Web, Green, & Brashear, 2000) to see if the results were specific to breast cancer or whether they generalize to helping behaviors in general. Second, one problem with sexy ad campaigns is that they may trivialize the disease thereby making it less of a threat for women. To rule out this possibility, the current study

included a question examining differences between video conditions on the perceived risk of being diagnosed with breast cancer.

Similar to the previous experiment, participants were randomly assigned to watch a sexy breast cancer video, a neutral breast cancer video, or a neutral non-cancerous video. Following this, everyone was asked to complete the SOQ followed by measures of donation intentions and perceived cancer threat. Overall, the following hypotheses were made. First, it was hypothesized that participants would be less willing to donate to breast cancer research in the sexy breast cancer video condition compared to the neutral breast cancer and non-cancerous conditions. Second, replicating the previous studies, sexy breast cancer video participants should report greater objectification in comparison to the neutral control conditions. Finally, to the extent that objectification mediates the relationship between sexy ad campaigns and donation intentions, it was hypothesized that women would give less money to breast cancer research when they feel objectified following a sexualized breast cancer prime.

Method

Participants and Materials. Eighty-nine women ($M_{age} = 19.10$, $SD = 1.60$) participated in exchange for course credit. A majority of the women were White/Caucasian (76.40%).

Video advertisement. Participants were exposed to the same sexualized and neutral breast cancer commercials described in Study 2. Unlike Study 2, however, participants in the neutral, non-cancerous condition watched a *Samsung Galaxy* commercial that took place at a poolside graduation party.

Objectification. Participants completed the same self-objectification questionnaire (SOQ) described in Study 2 (competency items [$\alpha = .80$] minus appearance items [$\alpha = .76$]).

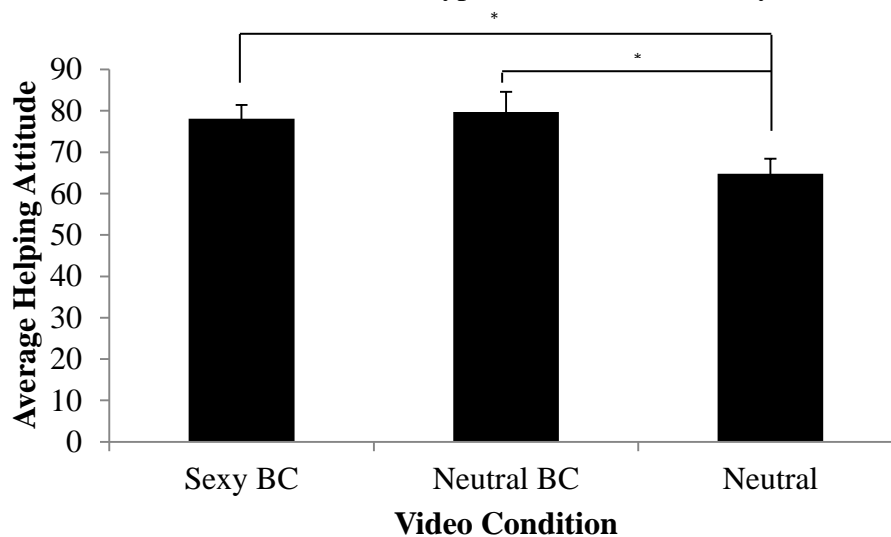
Donation intentions. Eight items assessed people's willingness to donate to breast cancer (Ranganathan & Henley, 2008). Example statements included, "Right now, I would be willing to donate money to breast cancer research," "I would recommend others to donate to breast cancer research," and "I would be willing to purchase products (e.g., bracelets, t-shirt) to support breast cancer research." Responses were made on a 100-point scale (0 = *not at all*; 100 = *very much*). An additional two items assessed the amount of money women would be willing to donate to breast cancer work by asking "If you could today, how much money would you give to support breast cancer research" and "How much money would you be willing to donate to breast cancer research in the future." Responses were reported on a 9-point scale (1 = *\$1.00*; 9 = *more than \$100.00*). Finally, to assess whether changes in helping are specific to breast cancer organizations, nine items measured people's tendency to help others in general (Web, Green, & Brashear, 2000) including, "Helping troubled people with their problems is important to me," "People should be more charitable to others in society" and "My image of charitable organization is positive." Responses were indicated on a 100 point scale (0 = *not at all*; 100 = *very much*). Scores for all measures were calculated by taking the average response for all items: breast cancer donation intentions ($\alpha = .86$), monetary donations to cancer research ($\alpha = .75$), and general helping ($\alpha = .89$).

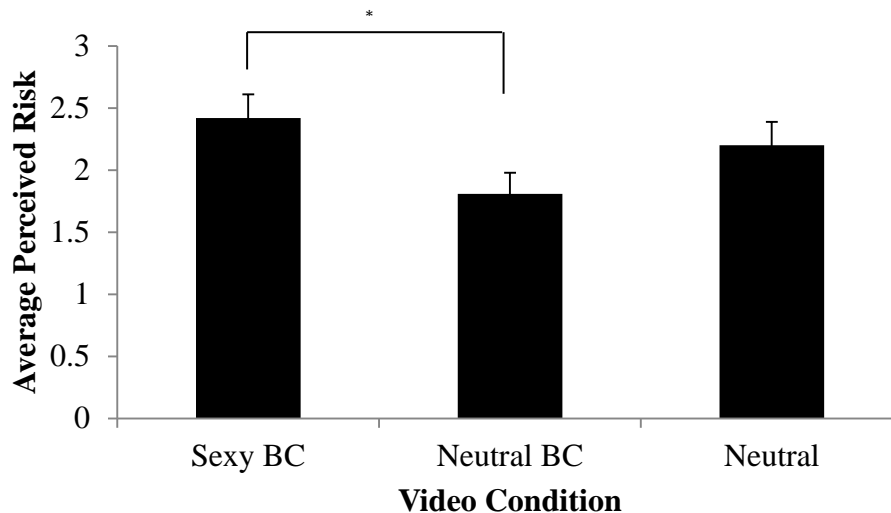
Attitude toward breast cancer. To determine whether the obtained effects were specific to objectification and not the trivialization of breast cancer as a disease, participants were asked to indicate their perceived risk of getting breast cancer on a 5-point scale (1 = *very low*; 5 = *very high*).

Results and Discussion

Donation intentions and helping. Separate one-way ANOVAs were performed to examine whether the type of commercial (sexy breast cancer, neutral breast cancer, vs. neutral non-cancerous videos) influenced donation intentions and general helping. Contrary to the first hypothesis, results revealed no significant effect of video on women's breast cancer donation intentions, $F(2,85) = .71, p = .49, d = .29$, and the dollar amount they were willing to donate, $F(2,86) = .67, p = .51, d = .29$. Conversely, there was a significant main effect of video on general helping, $F(2,86) = 4.83, p = .02, d = .63$ (see Figure 4), with women in neutral, non-cancerous condition ($M = 62.04, SD = 20.45$) less willing to help compared to either of the breast cancer conditions, $ts \geq 2.49, ps \leq .02, ds \geq .72$, which did not significantly differ from one another, $t(53) = .04, p = .97, d = .01$ (sexy breast $M = 78.62, SD = 19.15$; neutral breast $M = 78.37, SD = 25.71$).

Figure 4. General helping attitude (Top Panel; Study 3), and average perceived risk of breast cancer as a function of video type (Bottom Panel; Study 3).





Objectification and disease perception. Separate one-way ANOVAs were used to examine whether women reported greater objectification and trivialized breast cancer as a disease after exposure to the videos. Unfortunately, results revealed no significant effect of condition on feelings of objectification, $F(2,84) = .02, p = .99, d = .00$. However, there was a marginal effect of video on perceived risk of getting breast cancer, $F(2,84) = 2.69, p = .07, d = .50$. Specifically, women who watched the sexy breast cancer video ($M = 2.31, SD = .97$) perceived themselves to be at a higher risk for breast cancer compared to those who viewed the neutral breast cancer video ($M = 1.84, SD = .90, t(56) = 2.35, p = .02, d = .63$ (see Figure 4). There was no such difference for those who watched the sexy breast cancer video and those who watched the neutral, non-cancerous video ($M = 2.32, SD = 1.03, t(59) = .82, p = .42, d = .21$, or between the two neutral videos, $t(55) = 1.51, p = .14, d = .41$.

Mediational analysis. Given that the results did not meet the first two steps of mediation (Baron & Kenny, 1986), no additional analyses were conducted.

Although the present results did not support the current hypotheses, they did contribute to a better understanding of the relationship between sexualized breast cancer campaigns and related consequences. First, the results showed that women who watched either breast cancer

video reported more positive attitudes toward pro-social behaviors compared to those who watched the non-cancerous video. This suggests that sexualized breast cancer campaigns do not decrease helping behaviors in general. Second, in comparison to those who watched the neutral breast cancer video, women who watched a sexualized breast cancer video perceived themselves to be at higher risk of being diagnosed with breast cancer. This increased perception of risk suggests that negative consequences of sexualized breast campaigns are not a result of women taking the disease less seriously. In fact, research suggests that women in a state of objectification are socially motivated to improve their appearance through drastic measures (i.e., cosmetic surgery; Calogero, Pina, Park, & Rahemtulla, 2010). Although the current work did not find a significant effect of the sexy breast cancer commercial on objectification, it seems possible that women who are focused on their body may be more fearful of breast cancer because appearance concerns (e.g., mastectomy scars, hair loss). Future research should examine this possibility.

General Discussion

The purpose of the present research was to examine the interplay between sexualized breast cancer campaigns, feelings of objectification, and breast cancer attitudes in women. Study 1 showed that women experienced increased body focus in the presence of an “I Love Boobies” t-shirt compared to a neutral “Frogs for the Cure” shirt. Study 2 replicated these findings by demonstrating that women experienced increased feelings of objectification following exposure to a sexualized breast cancer video compared to a neutral breast cancer video or non-cancerous video. Further, the results showed that women reported greater discomfort with conducting a BSE after viewing a sexy versus neutral breast cancer commercial. Finally, Study 3 showed that sexualized breast cancer campaigns do not trivialize breast cancer nor do they decrease positive

attitudes toward helping. Interestingly, in all three studies, results were found regardless of whether women had a family member or friend diagnosed with breast cancer.

Although the current results did not support all of the proposed hypotheses, they have important implications for work on the objectification of women. These findings support research showing that feelings of objectification can be elicited through a variety of methodologies (e.g., sexualized images, visual gaze; Aubrey et al., 2009; Calegro, 2004; Harper & Tiggeman, 2008). However, the current studies expand upon this work by utilizing an unexplored objectification manipulation - breast cancer campaigns. This is important given the recent controversy concerning wearing the “I Heart Boobies” merchandise in public schools. Following a 3-year long court battle between two middle school students and the Pennsylvania school board, the U.S. Supreme Court will decide whether banning t-shirts and bracelets violates the first amendment to free speech (Associated Press, 2013). As the current research suggests, exposing young girls and women to sexualized breast cancer merchandise can have a profound impact on their self-perception. Not only will they be able to “save second base” and post pictures of their recently examined breasts online (a “boobstagram”), but exposure to such breast cancer propaganda will lead women to believe that choosing their objectification is culturally acceptable.

The present findings are also consistent with research showing that appearance-related concerns are detrimental to women’s physical health (e.g., Goldenberg & Roberts, 2004; Fredrickson & Roberts, 1997; Fredrickson et al., 1998; Moradi & Huange, 2008; Roberts, Noll, & Twenge, 1998; Roberts & Pennebaker, 1995). Specifically, Study 2 showed that exposure to sexualized commercials (both breast cancer-related & neutral) led women to report greater discomfort in conducting BSEs. These results have important implications for women with and

without breast cancer. Increased appearance concerns can lead women to distance themselves from their physical body (e.g., Johnston-Robledo, Wares, Fricker, & Pasek, 2007) and avoid preventative health behaviors and treatment. Further, objectifying advertisement campaigns have the potential to alienate women who have undergone major surgery to treat and prevent the reoccurrence of breast cancer (e.g., radical mastectomies). For example, although Angelina Jolie's recent double mastectomy received much praise from women around the world, her decision also received many negative comments: "poor Brad," the world is "mourning the death of her breasts," "she won't be as hot," and "her breasts were so awesome!" Because breast cancer survivors often struggle with accepting their body after treatment, there has been an unfortunate growing need for support groups (e.g., *Breast Cancer Open Group to Discuss Your Body Image*), books (e.g., *The Body Image Workbook: An Eight Step Program for Learning to Like Your Looks* and *Facing the Mirror with Cancer: A Guide to Using Makeup to Make a Difference*), and therapy programs (e.g., Body Image Therapy Group) to help these women manage appearance concerns (Buck, 2013). As the current results suggest, exposure to sexualized advertisements could increase women's body focus, which in turn, could make them feel as less of a woman, not "whole," or like they have lost control over their body as a result of their breast cancer diagnosis (Katz, 2012).

Finally, it was hypothesized that sexualized breast cancer advertisements would increase appearance focus and decrease the ability to empathize with women, thus decreasing donation intentions. However, Study 3's results found no significant difference in feelings of objectification or donation intentions among those who watched the sexy versus neutral breast cancer videos. Although attitudes towards contributing to breast cancer did not change, watching an advertisement discussing a "cause" increased positive attitudes toward general helping.

According to Petty and Cacioppo (1981), people process information heuristically (i.e., based on previous knowledge and/or experience) when they are under time pressure or when they are unmotivated to think about public service announcements. This superficial processing is relatively unsuccessful in changing specific attitudes and behaviors, but may influence attitudes toward more general helping (e.g., Bator & Cialdini, 2000). The breast cancer videos used in the current studies were both brief and did not provide information regarding how to donate to breast cancer research. This lack of information could result in little change in people's attitudes toward donating to breast cancer research but could also account for the increase in more general helping behaviors. To increase the effectiveness of breast cancer campaigns, it is important for future research to examine ways to spark audience interest and investment in the message content (Bator & Cialdini, 2000).

Although results from Studies 1 and 2 supported the proposed hypotheses, there are some limitations that need to be discussed. First, participants were below the age range associated with increased risk of breast cancer (40-70; American Cancer Society, 2014). This disparity in age could have decreased participants' concerns about getting breast cancer, which influenced their willingness to perform BSEs. Future research should examine the influence of sexualized breast cancer campaigns on health intentions in older, as well as, at-risk populations. Second, the age of participants may have decreased their ability to relate to those with breast cancer. Empathy towards others increases when people experience similar circumstances (Eklund, Andersson-Straberg, & Hansen, 2009) and when they perceive themselves as being close to others (Baston, et al., 1997; Cialdini, Brown, Lewis, Luce, and Neuberg, 1997). Thus, women in the current experiments may have felt less empathic towards those diagnosed with breast cancer, making them less willing to donate regardless of the video watched (Study 3). Researchers should

examine participants' empathy and connectedness as potential moderators in future studies on donation intentions.

Additionally, all of the experiments consisted of female participants only. Men's attitudes and behavior may also be affected by the sexualization of breast cancer campaigns. On one hand, research suggests that the "object" area of the brain becomes activated in men who view sexualized women (Cikara, Eberhardt, & Fiske, 2011), leading them to perceive women as less competent (Gray, Gray, & Wegner, 2007). Men may thus be less likely to donate to breast cancer research after exposure to sexy campaigns because they experience less empathy towards these objectified women (Haslam, 2006). On the other hand, however, some work suggests men are more likely to help attractive counterparts (Daniels & Berkowitz, 1963) and display increased helping when it serves as an opportunity to display their status to attractive women (Griskevicius et al., 2007). In this case, men may be more likely to donate to breast cancer research after watching "sexy" campaigns because these advertisements often use highly attractive women. This was recently supported by a "motor-boating for breast cancer" campaign where men paid women \$20 to allow them to rub their breasts with their faces (Huffington Post, 2013).

Finally, the video campaigns used in Studies 2 and 3 resulted in strong negative reactions toward the commercials. Research suggests that women who hold more conservative views often see sexualized images as being more unethical and manipulative and report greater feelings of negative affect and anger (Sengupta & Dahl, 2008). Because females in the current experiments were from a highly conservative region, it is possible reactions to the sexualized videos were intensified. To prevent women from experiencing such a strong negative reaction in the future, it may be beneficial to place them under cognitive load (Gilbert, Krull, & Pelham, 1988, Kron, Schul, Cohen, Hassin, 2010). Using cognitive load to limit the resources available would prevent

women from thinking too deeply about the sexualized material resulting in responses that are not emotionally driven (Sengupta & Dahl, 2008; Vohs, Sengupta, & Dahl, 2013).

Despite these limitations, the current research builds on previous work examining objectification to demonstrate the detrimental impact that sexualized breast cancer campaigns can have on women. These results have far reaching implications. For instance, glancing at a “Hugs for Jugs” bracelet on a co-worker’s arm has the potential to increase body awareness, discomfort with preventative health behaviors, and could potentially deter a woman from seeking treatment. In breast cancer survivors, these effects may be exacerbated. For example, women, who have undergone treatment for breast cancer (i.e., mastectomy, chemotherapy) and experience physical changes may see themselves as further from the cultural standards of beauty (e.g., Garner et al., 1980) resulting in increased body concerns (e.g., shame, anxiety (e.g., Tiggemann & Slater, 2001; Silberstein, Stringel-Moore, & Rodin, 1987) and decreased well-being (e.g., lower self-worth, depression; Mercurio & Landry, 2008; Muehlenkamp & Saris-Baglana, 2002). The current findings suggest that the effects of sexualized breast cancer campaigns on women are profound; equally influencing those who are personally affected by the disease and those who are not.

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APPENDIX A: MATERIALS

Sample Script

Hi, my name is _____ and I am a research assistant in the psychology department. We're interested in how personality influences the ability to categorize words. Specifically, you will begin by completing a few personality questionnaires. Then you will be asked to complete a word categorization task.

Before we begin I would like to go over a few things. The first thing you will see is the informed consent. It goes over your rights as a participant in the study. I need you to read this form before you begin the study. Also, you have as much time as you need to complete the study, but don't spend too much time on any particular question – that is, we are just looking for your first, gut-level response. When you are finished with the experiment, please sit quietly until everyone is finished. Finally, please take a minute to turn off your cell phones.

Any questions?

Independent Variable: T-Shirts (Study 1)

Body Focused Breast Cancer T-shirt:



Neutral Breast Cancer T-Shirt:



Example Informed Consent

Texas Christian University
Fort Worth, Texas

CONSENT TO PARTICIPATE IN RESEARCH

Title of Research: Personality and Word Categorization

Funding Agency/Sponsor: Not Applicable (N/A)

Study Investigators: Erin VanEnkevort (principle investigator) & Cathy Cox, Ph.D. (faculty advisor)

What is the purpose of the research?

The study is interested in understanding how personality relates to word categorization.

How many people will participate in this study?

There will be approximately 200 participants in this study.

What is my involvement for participating in this study?

Your participation will involve filling out a variety of questionnaire and evaluation forms.

How long am I expected to be in this study for and how much of my time is required?

The study will take about 30 minutes.

What are the risks of participating in this study?

Your participation in this research may expose you to potentially higher amounts of awareness about different personality characteristics that you may or may not possess and how these characteristics relate to different judgments, but is otherwise no more risky than your everyday activity. During the study you may also be asked questions about emotionally evocative topics. You are free to not answer any particular question if you choose, and to stop participating at any time during the experiment without any penalty or loss of credits to which you are entitled. The experimenter will inform you if any new information surfaces that may affect your willingness to participate.

What are the benefits for participating in this study?

You will receive credit towards your psychology course, plus first-hand experience of how psychology research is conducted.

What is an alternate procedure(s) that I can choose instead of participating in this study?

Alternatives to participation in experiments are made available upon request from Dr. Sarah E. Hill and/or Dr. Cathy R. Cox by the last experimental day of the semester.

How will my confidentiality be protected?

To insure confidentiality, you will complete all materials in a private environment and will place all materials in a blank confidential envelope. Data, along with consent forms, will be kept in a locked file cabinet. Only the investigators will have access to participant data.

Is my participation voluntary? Yes**Can I stop taking part in this research?** Yes**What are the procedures for withdrawal?**

A participant can withdraw at any time from the experiment. However, it is preferred that you get up quietly and tell the experimenter that you need to be excused from the experiment. Please do not disturb the other participants. You will be asked to talk with the experimenter about the nature of the study before leaving the experimental session.

Will I be given a copy of the consent document to keep?

Yes, if a copy of the consent form is specifically requested.

Who should I contact if I have questions regarding the study?

Erin A. VanEnkevort, Principle Investigator, Department of Psychology, 817-257-4231
(e.vanenkevort@tcu.edu)

Dr. Cathy R. Cox, Faculty Advisor, Department of Psychology, 817-257-6418 (c.cox@tcu.edu)

Who should I contact if I have concerns regarding my rights as a study participant?

Dr. Sarah E. Hill, Chair, Departmental Review Board, s.e.hill@tcu.edu, 817-257-6424

Dr. Timothy Barth, Associate Dean, Research and Graduate Studies; Chair, Intuitional Review Board, t.barth@tcu.edu, 817-257-6427

Your agreement below indicates that you have read the information provided above, you have received answers to all of your questions and have been told who to call if you have any more questions, you have freely decided to participate in this research, and you understand that you are not giving up any of your legal rights.

Have you read the consent information above, and do you agree to participate?*

- Yes, I have read the information above and would like to participate.
- No, I would not like to participate in this research

Participant Name: _____ **TCU Student ID:** _____

Lexical Decision Wordlist (Study1)Nonwords

Quert
Fraw
Trote
Zubra
Ilken
Torf
Kicmers
Tonkle
Kencil
Bax
Corf
Proom
Dyme
Nempt
Horte
Jarket
Unber
Holk
Wermer
Gramt
Rictes
Frub
Mench
Meist
Vicine
Sacket
Eascer
Suter
Orper
Quirf
Layse

Neutral Words

Doormat
Baseball
Picture
Tree
Chair
Magnet
Pencil
Express
Boat
Cloak
Affection
Radio
Cable
Desk
Pen

Body-Related Words

Body
Stomach
Shape
Waist
Posture
Legs
Breast
Physique
Arms
Hips
Curves
Face
Butt
Bust

Self-objectification Questionnaire (Studies 2 & 3)

We are interested in how people think about body characteristics. Listed below are 10 different body attributes, please indicate how important, RIGHT NOW at this very moment, each attribute is to YOUR physical self-concept using the scale provided.

1
2
3
4
5
6
7
8
9
 not at all important very important

- _____ 1. Physical coordination
- _____ 2. Health
- _____ 3. Weight
- _____ 4. Strength
- _____ 5. Sex appeal
- _____ 6. Physical attractiveness
- _____ 7. Energy level (e.g., stamina)
- _____ 8. Firm/sculpted muscles
- _____ 9. Physical fitness level]
- _____ 10. Measurements (e.g., chest, waist, hips)

Breast Self-Exam Intentions (Study 2)

We're interested in studying factors that influence people's health behaviors. Please answer each of the following questions as honestly as possible.

1. At this moment, I feel particularly motivated to conduct a breast self-exam.

1	2	3	4	5	6	7	8	9
not at all true								very true

2. At this moment, the thought of conducting a breast self-exam is particularly unappealing.

1	2	3	4	5	6	7	8	9
not at all true								very true

3. At this moment, the thought of conducting a breast self-exam makes me feel uncomfortable.

1	2	3	4	5	6	7	8	9
not at all true								very true

4. How likely it is that you will do a breast self-exam in the future?

1	2	3	4	5	6	7	8	9
not at all likely								extremely likely

5. How likely is it that you will do a breast self-exam this week?

1	2	3	4	5	6	7	8	9
not at all likely								extremely likely

6. How likely is it that you will do a breast self-exam this month?

1	2	3	4	5	6	7	8	9
not at all likely								extremely likely

Donation Intentions (Study 3)

Please respond to the following items with how you feel right now, at this very moment, by placing an “X” on the line.

1. I want to donate to breast cancer research.
 1-----100
 not at all very much
2. The next time I am given the opportunity, I will donate to breast cancer research.
 1-----100
 not at all very likely
3. How likely is it that you will donate money to breast cancer research in the future?
 1-----100
 not at all very likely
4. How likely is it that you will recommend donating to breast cancer research to another person in the future?
 1-----100
 not at all very likely
5. I will donate to breast cancer research in the future.
 1-----100
 not at all very likely
6. For you personally, how important is research on breast cancer?
 1-----100
 not at all important very important
7. How serious is breast cancer as a disease?
 1-----100
 not at all very serious
8. How likely are you to be diagnosed with breast cancer?
 1-----100
 not at all very likely
9. How likely is survival after being diagnosed with breast cancer?
 1-----100
 not at all very likely

Amount Willing to Donate (Study 3)

10. If you could donate today, how much money would you give to support breast cancer research?

1 = \$1.00

6 = \$30.00-\$50.00

2 = \$5.00

7 = \$50.00-\$75.00

3 = \$10.00

8 = \$75.00-\$100.00

4 = \$20.00

9 = More than \$100.00

5 = \$25.00

11. How much money would you be willing to donate to breast cancer research in the future?

1 = \$1.00

6 = \$30.00-\$50.00

2 = \$5.00

7 = \$50.00-\$75.00

3 = \$10.00

8 = \$75.00-\$100.00

4 = \$20.00

9 = More than \$100.00

5 = \$25.00

Attitude Towards Helping & Charities (Study 3)

Please respond to the following items with how you feel right now, at this very moment, by placing an "X" on the line.

1. People should be willing to help others that are less fortunate.
 1-----100
 not at all true very true
2. Helping troubled people with their problems is important to me.
 1-----100
 not at all true very true
3. People should be more charitable toward others in society.
 1-----100
 not at all true very true
4. People in need should receive support from others.
 1-----100
 not at all true very true
5. The money given to charities goes for good causes.
 1-----100
 not at all true very true
6. Much of the money donated to charity is wasted.
 1-----100
 not at all true very true
7. My image of charitable organization is positive.
 1-----100
 not at all true very true
8. Charitable organizations have been quite successful in helping the needy.
 1-----100
 not at all true very true
9. Charity organizations perform a useful function for society.
 1-----100
 not at all true very true

Sample Debriefing

Probing Questions

The reason why I'm asking all these questions is because there was a little more going on in the study than what I told you in the beginning. The reason that I didn't tell you everything at the beginning is because we wanted you to respond naturally without me influencing your responses. However, now that the study is done I can explain exactly what we were looking at. Does that sound good?

This study is interested in how breast cancer awareness apparel influences the evaluation of women. Specifically, some of you completed questionnaires in the presence of an experimenter wearing an "I love boobies" T-shirt, whereas others completed questionnaires with an experimenter wearing a neutral (e.g., plain or "Frogs for a Cure") T-shirt. Our primary dependent variable was accessibility of objectification related thoughts— that is we wanted to see whether people were quicker to categorize objectification related words (e.g., body, legs, breasts) compared to neutral (e.g., desk, chair) or non-words (e.g., qwert, derp). Further, we were interested in how increased body related thoughts affected well-being (e.g., affect, meaning in life) and related behavioral intentions (e.g., donating to breast cancer, breast cancer screening).

Does anyone have any questions?

Finally, before you leave, I would like to ask that you not talk about this experiment with other students in your psychology classes. That is because, if people come into the experiment knowing what it is about, it may influence the way they respond. Can you promise to do this?

Great!

Thank you for your time and participation in the study!

VITA

Erin Ann VanEnkevort was born March 29, 1987, in Escanaba, Michigan. She is the daughter of John Alan and Robin Marie VanEnkevort. A 2005 graduate of Bark River-Harris High School, Harris, Michigan, she received a Bachelor of Science degree in 2009 from Northern Michigan University, Marquette, Michigan where she double majored in Management of Health and Fitness and Graduate Preparatory Psychology. In 2011 she enrolled in graduate study at Texas Christian University, where she is pursuing her Doctor of Philosophy degree in Experimental Psychology.

ABSTRACT

“I LOVE BOOBIES”: THE INFLUENCE OF SEXUALIZED BREAST CANCER CAMPAIGNS ON OBJECTIFICATION AND WOMEN’S HEALTH

by Erin Ann VanEnkevort, M.S., 2014
Department of Psychology
Texas Christian University

Thesis Advisor: Cathy R. Cox, Assistant Professor of Psychology

More and more breast cancer campaigns are turning to sexualized images and slogans to gain attention and raise money. However, from the perspective of objectification theory, these campaigns can be detrimental to women’s psychological and physical health to the extent that they raise concerns about the body. The purpose of the present research was to examine the effects such sexy breast cancer slogans have on feelings of objectification, body attitudes, and donation intentions. Study 1 found that women reported a heightened accessibility of body-related thoughts in the presence of someone wearing an “I Love Boobies” t-shirt compared to a neutral one. Study 2 found that women reported increased discomfort with conducting breast self-examinations following a sexualized breast cancer prime. Finally, contrary to expectations, Study 3 showed that viewing a sexy breast cancer advertisement did not impact donation intentions. The implications of this research are further discussed.