

The Effect of Media, Body Image, and Gender on Sexual Self-Concept

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Abstract

This study analyzed the immediate effects of brief exposure to media on sexual concept, measured using the sexual self-efficacy, sexual self-consciousness, sexual self-esteem, and sexual self-assertiveness subscales from W. Snell's (2001) Multidimensional Sexual Self-Concept Questionnaire (MSSCQ). Media given to the participants were manipulated in control condition and two experimental media conditions. Media conditions were created by presenting participants with a neutral image, an image of an attractive couple, or an image of a nonattractive couple. Two other variables, gender and body image were also analyzed for their effect on sexual self-concept scores. Body image was assessed using the Appearance Evaluation subscale of the Multidimensional Body-Self Relations Questionnaire (MBSRQ; Cash, 1994) and results were used to form two groups. The experimental design was thus a 3 (Media: Attractive, Nonattractive, Control) x 2 (Gender: Male, Female) x 2 (Body Image: High, Low) factorial design. Results showed a main effect of media on sexual self-efficacy. Other findings approaching significance are discussed.

Keywords: sexual self-concept, gender, body image, media, factorial ANOVA

The Effect of Media, Body Image, and Gender on Sexual Self-Concept

Even a casual television or movie watcher may have noticed the tendency for mostly good-looking young people to be portrayed in media as sexual beings and that young, thin women's bodies tend to be idealized and sexualized. Media in America showcases people who possess youth and beauty as sexually desirable and as engaging in sexual activities (Hine, 2011; Murnen, Poinssatte, Huntsman, Goldfarb, & Glaser, 2015).

Current research supports this hypothesis. Eval and Finnerty (2009) analyzed the content of television portrayals of sexual activity. Analyzing a sample of ($n = 152$) televisions shows randomly drawn from 10 channels, they found that physical attractiveness was consistently associated with portrayals of sex: 84% of women and 78% of males engaging in sex in the portrayals were assessed as attractive or very attractive (Eval & Finnerty, 2009).

Research also shows that constant, idealized portrayals of individuals in media can lead to negative consequences. For example, many researchers have focused on the negative effects of different kinds of media, and the effect that consequent exposure to sexualized or idealized body types has on self-esteem and sexual health (Eyal & Finnerty, 2009; Hine, 2011; Manago, Ward, Lemm, Reed & Seabrook, 2015; Strubel, Petrie, & Pookulangara, 2016; Krawczyk & Thompsan, 2015). Research demonstrates that people who view attractive people on television, social media, or in media in general demonstrate lower self-esteem and other negative attitudes and behaviors, especially if they engage in comparing themselves with idealized models (Eyal & Finnerty, 2009; Manago et al., 2015; Strubel et al., 2016; Petrie, & Pookulangara, 2016; Krawczyk & Thompsan, 2015).

The Influence of Media on Sexual Self-Concept

Media changes the way people view themselves as sexual beings (Aubrey, 2007, Eval et al., 2009; Gamble 2017). For example, in a correlational study of female sexual self-concept, Aubrey (2007) found that the amount of media viewed by emerging adults may have a negative effect on sexual self-concept. Aubrey defined sexual self-concept as individuals' perception of the sexual aspects of themselves. Operationally, she used W. Snell and Papini's (1989) Sexuality Scale, the Sexual Assertiveness Scale (Morokoff et al., 1997) and the Affective and Motivational Orientation Related to Erotic Arousal Questionnaire (Hill & Preston, 1996) to measure sexual self-concept. Aubrey specifically targeted emerging adults because, during emerging adulthood, issues of sexual self-concept are particularly salient. This may be because, during this time period, sexual self-concept is developing as young adults gain more experience in sexual relationships and are more exposed to issues of sexuality. Aubrey tracked changes in the sexual self-concept of emerging adult females ($n = 149$) over time. She collected data twice, a year apart. Exposure to soap operas, prime-time dramas, and hours of television watched per day predicted a more negative sexual self-concept after one year.

Aubrey (2007) interpreted her results using a *cognitive information processing model* (Huesmann, 1997). A cognitive information processing model suggests that people use scripts they learn from observation to guide behavior. Therefore, from the point of view of this model one would posit that viewing mass media that objectifies and idealizes women results in learning scripts that negatively affect sexual self-concept. Interpreting the results from another angle, Aubrey also suggested that the negative effect of television viewing might have been due to social comparison (Festinger, 1954). It is possible that individuals compared themselves and

their experiences to the models on television and realized they fell short of what was depicted, leading to a negative affective state and negative sexual self- concept (Aubrey, 2007).

Sexual self-concept as a construct.

Broadly, most studies define sexual self-concept as the idea of oneself as a sexual being (Aubrey, 2007; Rostosky, Dekhtyar, Cupp, & Anderman, 2008; Snell, 2001). However, definitions of the sexual self-concept as a construct have varied in the research literature: Rostosky et al. (2008) described sexual self-concept as a multi-faceted idea of oneself as a sexual being. W. Snell's (2001) measure of sexual self-concept is multidimensional and incorporates twenty different aspects of self-concept. Earlier measures of sexual self-concept include W. Snell's (1998) Sexuality Scale, which defined sexual self-concept with fewer dimensions. Generally, the sexual self-concept may be thought of as an over-arching construct that includes cognitive, affective, and motivational components (W. Snell, 2001).

Research shows that certain components of the sexual self-concept can lead to important differences in sexual behaviors and health. For example, W. Snell (2001) found that females who had high levels of sexual optimism, sexual self-esteem, sexual satisfaction, and low levels of sexual depression and fear/apprehension were more likely to report greater sexual involvement, commitment to, and importance of their current partner. He also found that males with greater sexual assertiveness, sexual self-esteem, sexual satisfaction, and who did not believe the sexual aspects of their life were controlled by luck or chance also reported greater sexual involvement, commitment to, and importance of their current partner (W. Snell, 2001).

Because differences in the sexual self-concept are associated with differences in sexual attitudes and behavior, (Snell, 2001), the sexual self-concept is deeply important in the formation

of healthy sexual behaviors. In other words, understanding the way sexual self-concept develops has implications for guiding healthy sexual behavior and sexual relationships. Consequently, understanding factors that impact the sexual self-concept is vital to help people develop healthy sexual attitudes and behaviors.

For the purposes of my study, I will be examining sexual self-concept as a combination of a subset of cognitive, affective, and motivational components from W. Snell's (2001) Multi-dimensional Sexual Self-Concept Questionnaire (MSSCQ): sexual assertiveness, sexual self-esteem, sexual self-consciousness, and sexual self-efficacy. *Sexual self-efficacy* is defined as the belief that one can deal effectively with the sexual aspects of oneself (Bandura, 1986). *Sexual self-consciousness* is the tendency to think and reflect about the nature of one's own sexuality (W. Snell, Fisher, & Miller, 1991). *Sexual self-assertiveness* is the tendency to be highly decisive and self-reliant about the sexual aspects of one's life (W. Snell, Fisher, & Miller, 1991). *Sexual self-esteem* is a generalized tendency to positively evaluate one's own capacity to engage in healthy sexual behaviors and to experience one's sexuality in a satisfying and enjoyable way (W. Snell & Papini, 1989). I have chosen to study these dimensions as they are particularly implicated in research about media influences, gender and body image.

Media and sexual self-efficacy.

Recent research has shown that viewing media may change sexual self-efficacy; this change is likely moderated by self-objectification (Gapinski, Brownell, & La France, 2003). Self-objectification is the tendency to perceive one's body as if one were an outside observer (Harrison & Fredrickson, 2003). Self-objectification is characterized by body monitoring, in which individuals note discrepancies between their own body and perceived body ideals (Strubel et al., 2016). Gapinski et al. (2003) measured the effect of self-objectification on affective state

and self-efficacy. They induced self-objectification by placing the participants in a situation found by previous research to elicit self-objectification, trying on swimsuits (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998). Gapinski et al. found that self-objectification was associated with a more negative affective state and decreased self-efficacy. Because sexual self-efficacy is one aspect of overall self-efficacy, it is reasonable to assume that self-objectification will also cause decreased sexual self-efficacy.

Viewing idealized media induces self-objectification. For example, Harper and Tiggemann (2008) showed advertisements to female participants to assess their effect on the participants' mood, body satisfaction, and level of self-objectification. Harper and Tiggemann (2008) used advertisements that were prerated for the effectiveness and the appeal of the advertisement, the physical attractiveness of the female pictured, and how much the female pictured embodied a thin ideal. The researchers then chose only advertisements in which the females were rated as physically attractive and very thin. They found that female participants who viewed advertisements with an idealized thin woman reported increased negative mood, appearance anxiety, body dissatisfaction, and self-objectification (Harper & Tiggemann, 2008).

Harrison and Fredrickson (2003) exposed high school age females to various media containing females with different body types to assess the effect of viewing various body types on self-objectification. Older high school participants had higher self-objectification scores. It is possible that increased exposure to media and concern about their developing bodies induced the older high school participant's higher self-objectification scores. For white participants, viewing clips of female athletes participating in a sport that emphasize leanness in the athletes was associated with greater self-objectification. For participants of color, viewing clips of female athletes participating in a sport that does not emphasize leanness in the athletes was associated

with greater state self-objectification. The researchers interpreted this difference in terms of differences in messages adolescents receive about the ideal body: A larger body type is typically presented as more desirable among people of color, whereas for white people, a thin body is ideal. Harrison and Fredrickson concluded that media combined with cultural cues about ideal body types results in greater levels of self-objectification. As stated earlier, research shows a relationship between self-objectification and self-efficacy (Gapinski et al., 2003). Thus, theoretically, viewing highly attractive, idealized media images negatively influences sexual self-efficacy.

Behm-Marowitz and Mastro (2009) studied the effect of idealized and sexualized female video game characters on the self-concept. Because most video games depict hypersexualized and unrealistic standards for the female body, they predicted that playing a sexualized female character in a video game would result in lower levels of self-esteem and self-efficacy. They defined a sexualized female character by the extent to which the female character was idealized and exposed. They predicted that exposure to such images would influence how female participants conceptualized themselves.

Behm-Marowitz and Mastro (2009) interpreted their data through a social cognitive lens. Social-cognitive theory argues that individuals observe and organize information in a way that has personal meaning. They hypothesized that individuals observe the way females are portrayed in video games and incorporate that information into their own concept of self and others. Results of Behm-Marowitz and Mastro's study showed that male and female emerging adults exhibited gender differences on all of the variables that they studied, including self-esteem and self-efficacy; overall, women reported lower self-esteem and self-efficacy than men. They also found that women playing a sexualized female character reported lower self-efficacy than

participants playing no video game character. Together, these studies that examine media's influence on levels of self-objectification and the relationship of self-objectification to self-efficacy demonstrate that mass media depictions of idealized, attractive models can negatively affect the way women view themselves (Gapinski et al., 2003; Harper & Tiggemann, 2008; Harrison & Fredrickson, 2003; Jung, 2006).

Other research on the influence of media on sexual self-efficacy also demonstrates gender differences (Behm-Marowitz & Mastro, 2009). For example, Gamble (2017) found that viewing sexual media, such as television and movies with sexual content, was correlated with lower levels of sexual self-efficacy for men, measured over a two-month period. Gamble suggested that lowered self-efficacy is the result of men comparing their own experiences to idealized, unrealistic depictions. However, he did not find a significant relationship between type of media used and sexual self-efficacy for women. He theorized that men are more dependent on media cues for sexual confidence than women.

Media and sexual self-assertiveness.

Emmermink, Van Den Eijden, Bogt, and Vanwesenbeeck (2017) also examined sex differences on the self-concept, proposing a *social-tuning hypothesis* that might explain differences in sexual self-assertiveness between men and women. The social tuning hypothesis asserts that individuals conform to expectations that they perceive in the people with whom they interact, particularly their partners. Emmermink et al.'s study was an attempt to understand the pervasiveness of the sexual double standard, in which males tend to behave more dominantly and females to behave more submissively during sexual encounters. Emmermink et al. examined responses to items assessing sexual initiative-taking after participants read a scenario about a

potential sexual encounter with an attractive person who was described as holding traditional views about gender roles in relationships.

Emmermink et al. (2017) found that males who scored as less masculine on the Gender Typicality Scale (Altstötter-Gleich, 2004) and who thought their partners had traditional views of gender roles showed higher sexual initiative taking. No significant relationship was found for females. Emmermink et al. suggested that it is possible that some men rely heavily on social cues for sexual assertiveness; less masculine men relied more on social cues. They also suggested that there are mixed messages in Western society about the importance of agency for women which, along with frequent sexual idealization and objectification of females, means that exposure to media influence affects sexual assertiveness less for women than for men. Normative expectations individuals receive from idealized media portrayals exert influence differently for men and women, with men more sensitive to social cues about traditional gender expectations (Emmermink et al., 2017). However, further research on gender differences relating to sexual self-assertiveness and sexual self-concept as a whole must be conducted to understand conflicting results.

Media, sexual self-consciousness, and sexual self-esteem.

Some researchers have focused on the effect of media on self-consciousness and self-esteem. Wegner, Hartmann, and Giest (2000) hypothesized that female emerging adults who viewed photographs of thin models would report greater general self-consciousness and body self-consciousness. Wegner et al. defined self-consciousness (cf. W. Snell, 2001) as the tendency to examine one's inner self and feelings (Scheier & Carver, 1985). Operationally, they measured self-consciousness using two scales, the Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975) and the Body Self-Consciousness Scale (Miller, Murphy & Buss, 1981). The Self-

Consciousness Scale assessed how much each individual monitors inner thoughts and feelings, and awareness of the self as a social object, whereas the Body Self-Consciousness Scale measures sense of self-consciousness specifically in relationship to one's body.

Wegner et al. (2000) found that females who viewed photographs of thin female models scored significantly higher on measures of self-consciousness and body-consciousness than the participants who viewed control photographs. They concluded that mass media influences immediate scores on self-consciousness for females. Wegner et al. interpreted these results in terms of Festinger's social comparison theory, which suggests that one evaluates oneself based on comparing oneself with others (Festinger, 1954). In this case, viewing thin models led participants to compare their bodies to the models, resulting in increased self-consciousness and body consciousness. The researchers also suggested that increased self-consciousness may also be due to self-objectification. Wegner et al.'s study is consistent with the literature on sexual self-consciousness, because sexual self-consciousness, the tendency to think and reflect about the nature of one's own sexuality, is closely related to self-consciousness as used in the self-concept literature (W. Snell, Fisher, and Miller, 1991).

According to many studies, sexual self-esteem is also influenced by social cues and media consumption (Bleidorn et al., 2016; Dohnt & Tiggemann, 2006; Eyal & Finnerty, 2009; Hine, 2011; Krawczyk & Thompsan, 2015). In particular, Strubel et al. (2016) found a relationship between self-objectification and self-esteem. Specifically, they found that social comparisons made during social media usage was related to increased self-objectification and decreased self-esteem. Because self-objectification includes body monitoring in which women note discrepancies between their bodies and perceived body ideals, lowered self-esteem is a logical outcome for women who in engage in increased self-objectification (Strubel et al., 2016).

The Influence of Gender on Sexual Self-Concept

Besides media, gender is also relevant to the study of sexual self-concept. Research demonstrating gender differences in self-efficacy has already been discussed (e.g., Behm-Marwitz & Mastro, 2009; Gamble, 2017). However, other dimensions related to the sexual self-concept construct may also differ by gender. As previously discussed, Behm-Marowitz and Mastro (2009) found a general difference in self-esteem for men and women. Indeed, a review of the self-esteem literature reveals a general gender difference in self-esteem scores (Bleidorn, et al., 2016; Kim & Kamphaus, 2016; Ratliff & Oishi, 2013). Ratliff and Oishi (2013) found a difference in self-esteem for men and women following the success of one partner. Another study by Bleidorn et al. (2016) found higher self-esteem in men versus women generally. A study by Kim and Kamphaus (2017) also found a general gender difference for self-esteem. Because sexual self-esteem plays a role in sexual self-concept (W. Snell, 2001), a gender difference for self-esteem may have implications for sexual self-concept as well.

Because there is a gender difference in self-esteem, with men tending to possess higher self-esteem generally than women (Bleidorn, et al., 2016), it seems intuitive to say that men would also thus have a more positive *sexual* self-concept. However, this idea may be false: Research by Rostosky, Dekhtyar, Cupp, and Anderman (2008) found higher levels of sexual anxiety and lower self-efficacy scores for men compared to women. W. Snell (2001) administered the MSSCQ to both males and females and found that, compared to males, females reported greater motivation to avoid risky sex and greater sexual fear and apprehension towards sex than males. On the other hand, males reported greater belief in the role of luck and chance in sex, greater sexual-preoccupation, greater sexual -problem self-blame, and greater sexual motivation.

Whereas the research on sex differences is interesting and enlightening, the fact is that very little research on the effect of media has compared men and women, instead typically focusing only on one gender. An exception is Lewis and Weaver's (2016) study that focused on how gender differences influenced social comparisons made while watching reality television. Social comparison results in positive and negative emotions, depending on the direction of the comparison. For example, if people compare themselves to someone they perceive as inferior and dissimilar to themselves, they may experience pride and contempt. On the other hand, if they compare themselves to someone to someone perceived as a dissimilar superior, they may experience resentment, envy, and depression. Lewis and Weaver found that men experienced stronger social-comparison-related emotions than women, except in the case of empathy, where women showed a stronger reaction.

Social comparison theory (Festinger, 1954) has been used to explain the influence of media on sexual self-concept: Social comparisons people make while viewing media result in more negative sexual self-concept (Aubrey, 2007) Gender differences in social comparisons may explain differences in sexual self-concept for males and females. Perception of self becomes more negative when people compare themselves to an ideal model (Aubrey, 2007). Because men were shown to have stronger emotions related to social comparison while viewing media, it follows that men's perception of self is more affected by idealized media than women.

As previously discussed, researchers have found that media can influence affective states (Aubrey, 2007; Gapinski et al., 2003; Harper & Tiggemann, 2008). W. Snell (2001) includes affective components in his definition of sexual self-concept. Media influence on one's affective state may potentially alter one's sexual self-concept. Research supports this idea: research shows that idealized media negatively influences females' mood. For example, Jung (2006) found that

exposure to attractive models in media had a negative effect on women's anxiety and depression scores. Note that researchers did not look specifically for an effect on W. Snell's sexual self-concept dimensions, however, the research discussed here does show negative effects on variables that are *related* to sexual self-concept (Aubrey, 2007; Gapinski et al., 2003; Harper & Tiggemann, 2008; Jung, 2006).

Gendered differences in social comparisons also have implications for Emmermink's (2017) social tuning hypothesis, which attempts to explain gender differences in sexual self-efficacy based on the way individuals interpret social cues. They suggested that it is possible that, compared to women, a certain class of men relies more heavily on social cues for sexual assertiveness – this is somewhat supported by Lewis and Weaver's (2016) finding that men have stronger emotional reactions to media cues than women.

The Influence of Body Image on Sexual Self-Concept

Body image is the third variable that, along with gender and media, is an important predictor of sexual self-concept. Body image can be defined as a multi-dimensional construct related to self-perceptions, attitudes, feelings, and behaviors concerning one's own physical appearance (Cash, 1994). Although more studies are needed on the relationship of body image to sexual self-concept, past studies show that body image is related to the *quality* of sexual relationships (Brink et al., 2016). Evaluation of sexual function is a key part of sexual self-concept (W. Snell, 2001). Brink et al. (2016) examined the relationship between positive body image and sexual functioning. They found that body image is an important predictor of sexual functioning. They also examined the influence of romantic attachment and anxiety on sexual functioning: Participants were female emerging adults and young adults (18 – 35) who were either currently or previously sexually active. The researchers measured body image using the

Body Appreciation Scale (Avalos et al., 2005) and sexual function using the Female Sexual Function Index (Rosen et al., 2000). Brink et al. found that body appreciation predicted higher sexual desire and arousal. Because body image has been demonstrated to be important predictor of sexual function in Brink et al.'s study, it follows that it may also influence sexual self-concept.

Body image has important implications for the sexual self-concept. Body image evaluation includes a component of body shame, which includes negative evaluations of one's body and an emotional desire to hide one's body (Schooler et al., 2005). Research shows that sexual decision-making and body shame have implications for both sexual self-assertiveness and sexual self-efficacy (Schooler et al., 2005), and that body shame is related to self-objectification (Harrison & Fredrickson, 2003).

Schooler et al. (2005) specifically looked at the link between global body shame and sexual decision-making. Previous research has linked body shame to self-objectification and, thus, to decreased self-efficacy (Gapinski, Brownell, & La France, 2003; Harrison and Fredrickson, 2003). Schooler et al. studied emerging female adults, who were measured on body dissatisfaction, body shame, sexual self-assertiveness, and self-efficacy. Participants were also asked to report levels of sexual experience. Schooler et al. found that greater body comfort was a predictor of greater self-efficacy and sexual self-assertiveness. Body image self-consciousness negatively correlated with sexual assertiveness. Based on these findings, I believe that a more positive body image generally may predict a more positive sexual self-concept and, in particular, higher levels of sexual self-assertiveness, self-efficacy, self-esteem, and lower levels of sexual self-consciousness.

Summary of findings and present research directions.

My purpose in this study was to assess the effects of gender, body image, and brief exposure to media on sexual self-efficacy, sexual self-consciousness, sexual self-esteem, and sexual self-assertiveness. Together, a summary of previous findings shows that media may influence sexual self-concept (Behm-Marwitz & Mastro, 2009; Bleidorn et al., 2016; Emmermink et al., 2017; Eyal & Finnerty, 2009; Hine, 2011; Krawczyk & Thompsan, 2015; Managa et al., 2015; Strubel, J., Petrie, T. A., & Pookulangara, S., 2016; Wegner, Hartmann, & Giest (2000).

Gender also predicts differences in the sexual self-concept, based on research that found gender differences in self-esteem (Bleidorn et al., 2016; Kim & Kamphaus, 2017; Ratliff & Oishi, 2013). This is demonstrated in Rostosky's (2008), as well as Behm-Marwitz and Mastro's (2009) research that found a gender difference in self-efficacy and self-esteem scores. W. Snell (2001) found differences in sexual self-concept for males and females, and Strouse and Buerkel-Rothfuss's (1987) found gender differences in the predictive value of media for sexual permissiveness.

The fact that men have demonstrated higher general levels of self-esteem, self-efficacy, and self-assertiveness but differences in responding to media cues may mean that men are more responsive to the media manipulation (Beh-Marwitz & Mastro, 2009; Bleidorn et al., 2016; Emmermink et al., 2017; Gamble, 2017). Since my media manipulation generally predicts higher sexual self-concept scores when viewing a nonattractive image of a couple and lower scores when viewing an attractive image of a couple, it is likely that men may have higher scores on sexual self-concept than women in the nonattractive condition, yet lower scores than women in

the attractive condition. Body image also predicts differences in the perception of the sexual self: previous research found greater body comfort was a predictor of greater self-efficacy and sexual assertiveness as well as research that demonstrates a correlation between body image and improved sexual function (Brink et al., 2016; Schooler et al., 2005).

Based on these findings, I designed a 3 (Media Image: Attractive, Non-Attractive, Control) x 2 (Gender: Male, Female) x 2 (Body Image: High, Low) factorial design. I manipulated media by showing my participants either a neutral image, an image of a very attractive couple, or an image of a non-attractive couple. I also measured gender, body image (Cash, 1994), sexual self-efficacy, sexual self-consciousness, sexual self-esteem, and sexual self-assertiveness (W. Snell, 2001).

Using images of nonattractive individuals is an area unexplored in the research literature; as discussed previously in the introduction, past media manipulations generally used attractive, idealized, or sexualized models (Harper & Tiggemann, 2008; Harrison & Fredrickson, 2003; Jung, 2006; Wegner, Hartman, & Geist, 2000). Much research has shown that viewing sexualized or idealized media images leads to a more negative self-concept (Aubrey, 2007; Behm-Marwitz & Mastro, 2009; Gapinski et al., 2003; Harper & Tiggemann, 2008; Harrison & Fredrickson, 2003; Emmermink et al., 2017; Wegner et al., 2000). Social comparison theory supports the idea that exposure to media portrayals of nonattractive and non-idealized individuals may have the opposite effect on sexual self-concept to that of exposure to sexualized and idealized people in media. Individuals who are presented with non-idealized images will not experience the negative state induced by feelings of inferiority when comparing themselves to idealized images.

Previous research studying media influence has not typically shown couple imagery, with exceptions such as Harper and Tiggeman's (2008) study. The majority of research examines the link between the presentation of idealized images of individual women and changes in the self-concept (Behm-Marwitz & Mastro, 2009; Harper & Tiggemann, 2008; Harrison & Fredrickson, 2003; Wegner et al., 2000). Very few studies to date have examined the link between viewing idealized media portrayals of romantic relationships between couples and the sexual self-concept. It seems logical, however, if one is measuring the sexual self-concept, the effect of media images may be stronger if one uses images that are actually related to sexuality. It is not merely logical; the cognitive information processing model also supports such a prediction: Studies have used the cognitive information processing model to explain differences in the sexual self-concept due to media viewing (Aubrey, 2007). Applying the cognitive information processing model, which suggests that people use scripts they learn from observation to guide behavior, to my study's method, I suggest that viewing media images of two non-physically attractive people in a happy couple relationship may strengthen a script (Aubrey, 2007) that one does not have to conform to certain beauty standards to be in a satisfying couple relationship. On the other hand, exposure to media images of highly attractive, idealized couples would reinforce the script that physically idealized individuals are the ones who attain satisfying couple relationships. This would, in turn, result in a negative impact on the sexual self-concept.

My predictions are as follows:

1. Those who receive a media image of a traditionally non-attractive couple will show greater levels of sexual self-efficacy, sexual self-assertiveness, sexual self-esteem, and

lower levels of sexual self-consciousness compared to those who receive a picture of a highly attractive couple or a picture with no people in it.

2. Women will have significantly different scores for sexual self-efficacy, sexual self-esteem, sexual self-assertiveness, and sexual self-consciousness than men. Specifically, men will have higher scores than women in the non-attractive media condition, yet lower scores than women in the attractive media condition.
3. I predict a main effect of body image, such that higher levels of a more positive body image will predict higher levels of sexual self-assertiveness, self-efficacy, self-esteem, and lower levels of sexual self-consciousness.
4. I predict that there will be an interaction between body image and media condition: Individuals who already have an extremely positive body image may not be affected by internalizing a script that attractive people attain satisfying relationships, since those individuals already consider themselves to be attractive or highly attractive. However, people who assess themselves as low in attractiveness should be negatively affected by scripts that portray only attractive or highly attractive individuals in satisfying relationships. This prediction is consistent with Lewis and Weaver's (2016) study that focused on social comparisons made while watching reality television: People who compared themselves to someone to someone perceived as a dissimilar superior had a more negative reaction than those who compared themselves to someone perceived as a dissimilar inferior.

Method

Participants

Male and female emerging adults (14 men, 38 women, age range: 18 -23 years) from Houghton College's subject pool served as participants. I excluded 17 participants who did not meet my criteria for body image categories, leaving me with a smaller sample (11 men, 24 women, age range: 18 – 23 years). Participants were randomly assigned to the media conditions.

Procedure

Using a 3 (Media: Attractive, Non-Attractive, Control) x 2 (Gender: Male, Female) x 2 (Body Image: High, Low) factorial design, I measured the effects of media, gender, and body image on participants' sexual self-concept subscale scores.

I manipulated media by randomly assigning my participants to one of three conditions: In the attractive media condition, participants saw an image of a highly attractive couple. In the nonattractive media condition, participants saw an image of a nonattractive couple. In the control condition, participants saw an image showing a neutral image without people. For my neutral picture, I selected a picture with a nature scene so that no social comparisons would be drawn.

I obtained preratings for the images I provided in the attractive and non-attractive condition to determine whether they were attractive or unattractive. The images were prerated for physical attractiveness and likability. To obtain preratings, I sent out a survey to objective volunteer raters using SurveyMonkey. I asked the volunteers to rate the pictures of the couples using an 11-point scale, with "1" being very low in attractiveness and "11" being very high in attractiveness. Similarly, "1" was very low likeability and "11" was very high likability. I obtained preratings for likeability in order to ensure that the physical attractiveness of the image

was not confounded with a similar variable. The final attractive ($M = 9.4$, $SD = 1.36$) and non-attractive picture ($M = 5.4$, $SD = 1.5$) I selected were rated as significantly different in physical attractiveness, $t(8) = 2.9$, $p < .05$, two-tailed. The images were not rated as significantly different in likeability, $t(8) = 1.87$, $p > .05$, two-tailed.

I began by administering the questionnaire, which started with a body image assessment.) To measure body image, I used the Appearance Evaluation subscale of Cash's (1994) Multidimensional Body-Self Relations Questionnaire (MBSRQ - AE). This subscale measures body satisfaction (Cash, 1994). Items are rated on a 5-point scale ranging from 1 (definitely disagree) to 5 (definitely agree), with higher scores reflecting greater appearance satisfaction. A cross-validated principal-components analysis of the original database (Brown, Cash, & Mikulka, 1990) supports the internal consistency and reliability of the components of this measure. The AE subscale results in internally consistent ($\alpha = .88$; Brown, Cash, & Mikulka, 1990) and stable scores (3-month test–retest reliability $\alpha = .91$; Cash, 1994)

After participants completed the MBSRQ, I distributed the images and timed the participants as they viewed each image, allowing them to view it for 60 seconds before instructing them to turn it over and to continue with the completion of my questionnaire. I gave participants only 60 seconds to view the image because the purpose of my media manipulation was to assess the effect of *brief* exposure to media. Allowing only 60 seconds also ensured that each participant was exposed to the media cue for the same amount of time. My method is consistent with other studies that used similar methods, which also allowed participants 60 seconds for viewing media (cf. Wegner et al., 2000). To verify that participants viewed the picture, I asked them to write a short sentence about the picture.

After participants viewed the image for 60 seconds, I instructed the participants to continue on with the questionnaire. The next section of the questionnaire asked participants to respond to subscales from William Snell's (2001) Multidimensional Sexual Self-Concept Questionnaire (MSSCQ). Internal consistency of the 20 subscales on the MSSCQ was determined by calculating Cronbach alpha coefficients (W. Snell, 2001). Based on five items per subscale, the alphas on the 20 subscales ranged from .72 to .94 for all participants, from .63 to .93 for females, and from .66 to .93 for males (W. Snell, 2001). This scale has been used in sexuality research for almost 20 years (Bober, Suing, & Shepler, 2016; Rostosky et al., 2008; W. Snell, 1998).

For the purposes of my research, I included only the sexual self-efficacy, sexual self-consciousness, sexual self-assertiveness, and sexual self-esteem subscales from the MSSCQ. Participants were asked to respond to each item using a 5-point scale, with each item being scored from 0 to 4: not at all characteristic of me (0), slightly characteristic of me, (1), somewhat characteristic of me, (2), moderately characteristic of me (3), very characteristic of me (4). In order to create final subscale scores, the items on each subscale were averaged. In this way, higher scores correspond to greater amounts of the relevant MSSCQ dimension (W. Snell, 2001). Participants were also asked whether their response was based on a current, past, or imagined sexual relationship (W. Snell, 2001). In addition, I asked participants to report gender, age, race, religion, and class year.

Results

I analyzed my results using a 3 (Media: Attractive, Nonattractive, Control) x 2 (Gender: Male, Female) x 2 (Body Image: High, Low) factorial design with three between-subjects

factors. I measured sexual self-assertiveness, sexual self-efficacy, sexual self-esteem, and sexual self-consciousness as separate dependent variables.

To assign participants to body image groups, I used standard procedures. Cash (1994) provides adult norms for male and female scores on the MBSRQ. I compared my scales to these norms in order to split my participants into high and low body image categories. To do this, I established a range of scores that were average. Then, I included only scores that were outside this range; those above the average range were assigned to the high body image category and those below the average range were assigned to the low body image category. I calculated the range using the following formula: normative mean value $\pm$ 0.25(SD). The resulting range determined to be average for males ($M = 3.28 - M = 3.70$) was slightly higher than the normal range for females ($M = 3.14 - M = 3.58$). Therefore, males with scores higher than 3.7 were assigned to my high body image condition and males with scores lower than 3.28 were assigned to my low body image condition. Similarly, females with scores higher than 3.58 were assigned to my high body image condition and females with scores lower than 3.14 were assigned to my low body image condition.

Results for sexual self-efficacy.

To test the hypothesis that media, gender, and body image would affect self-efficacy scores, I ran a 3 (Media: Attractive, Non-Attractive, Control) x 2 (Gender: Male, Female) x 2 (Body Image: High, Low) factorial ANOVA with sexual self-efficacy as my dependent variable. I found a significant main effect for media, $F(2, 11) = 4.45, p = .02$. I ran *a priori* comparisons for the three conditions and found a significant difference between the nonattractive media condition and the control condition, $t(21) = 2.08, p = 0.02$, two-tailed.

There was no significant difference between the nonattractive media condition versus the attractive media condition, however, the means were in the predicted direction. Figure 1 shows the mean sexual self-efficacy scores for each media condition. As predicted, those in the nonattractive media condition had the highest levels of sexual self-efficacy ($M = 2.99$, $SE = 0.28$), those in the attractive media condition had lower levels of sexual self-efficacy ($M = 2.3$, $SE = 0.28$). Those in the control media condition had significantly lower levels of sexual self-efficacy ($M = 1.78$, $SE = 0.29$) compared to the nonattractive condition. No other significant main effects were found, but main effects for body image approached significance and were in the predicted direction, $F(1, 11) = 2.19$, $p = .15$. Figure 2 shows that participants with low body image scores also scored lower on sexual self-efficacy.

Two interactions also approached significance. The first one, Gender x Body Image, found a gender difference for sexual self-efficacy, $F(1, 11) = 2.19$, $p = .15$. Figure 4 depicts the interaction. Females reported similar sexual self-efficacy scores in both the high and low body image conditions. However, males reported lower sexual self-efficacy scores in the low body image condition than in the high body image condition. Media x Body Image also approached significance, $F(2, 11) = 2.33$, $p = .12$. Figure 8 depicts the interaction. This interaction, though nonsignificant, partially supported my prediction that there would be an interaction between media condition and body image for sexual self-concept scores. In the nonattractive media condition, participants with low body image reported higher sexual self-efficacy scores ($M = 3.23$, $SE = .47$) than participants in the high body image condition ($M = 2.75$, $SE = .31$). In the control and attractive media conditions, that finding was reversed: participants with low body image also scored lower on sexual self-efficacy.

I also found a consistent and interesting, though nonsignificant, pattern for Media x Gender x Body Image on sexual self-efficacy scores. This is depicted in Figure 5. In the control condition, males with low body image reported lower sexual self-efficacy ($M = 0.8$) compared to males with a high body image ($M = 2.1$). This pattern was the same for females: Low body image scores were accompanied by low sexual self-efficacy scores. However, in the nonattractive media condition males with low body image had sexual self-efficacy scores ($M = 3.2$) similar to that of males with high body image ($M = 3.4$). Interestingly, the pattern I found in the attractive media condition mimicked the pattern obtained in the control condition, with low scores in body image resulting in low scores on sexual self-efficacy.

Sexual self-esteem.

To test the hypothesis that media, gender, and body image would affect self-esteem scores, I ran a 3 (Media: Attractive, Non-Attractive, Control) x 2 (Gender: Male, Female) x 2 (Body Image: High, Low) factorial ANOVA with sexual self-esteem as my dependent variable. Although I did not find any significant differences, I did find an interaction that approached significance, Media x Body Image x Gender, $F(2, 11) = 2.28, p = .125$. This is depicted in Figure 6. Once again, a pattern similar to that found for sexual self-efficacy emerged: In the nonattractive media condition, males with low body image reported sexual self-esteem scores ($M = 2.2, SE = 0.96$) that were similar to males with high body image ($M = 2.9, SE = 0.55$). However, in the attractive media condition, males with low body image reported lower sexual self-esteem ($M = 1.2, SE = .96$) compared to males with high body image ($M = 2.87, SE = .55$). In the control condition, the reverse was found for males but not for females. Males with low body image reported higher sexual self-esteem scores. On the other hand, females with low body image reported lower sexual self-esteem in both the control and the attractive media conditions

but not in the nonattractive media condition. Females with low body image in the nonattractive media condition reported higher sexual self-esteem scores ($M = 2.93$, $SE = .55$) compared to females with high body image ($M = 1.90$, $SE = .48$).

Sexual self-assertiveness.

To test the hypothesis that media, gender, and body image would affect self-assertiveness scores, I ran a 3 (Media: Attractive, Non-Attractive, Control) x 2 (Gender: Male, Female) x 2 (Body Image: High, Low) factorial ANOVA with sexual self-assertiveness as my dependent variable. I found a main effect approaching significance for body image, $F(1, 11) = 3.82$, $p = .06$. As predicted, low body image was associated with lower sexual self-assertiveness ($M = 1.57$, $SE = 0.23$; $M = 2.12$, $SE = 0.16$). I also found an interaction approaching significance for Media x Body Image, $F(2, 11) = 3.25$, $p = .057$. As shown in Figure 9, the same pattern as I found for the previously-discussed subscales also emerged for this interaction as well: In the nonattractive media condition, sexual self-assertiveness scores were similar for both low ($M = 2.3$, $SE = 0.405$) and high body image participants ($M = 1.925$, $SE = 0.268$). However, in both the control and the attractive media condition, participants with low body image reported with lower sexual self-assertiveness. I found no other main effects or interactions for my data. This pattern also emerged in the Media x Body Image x Gender interaction, although the interaction did not approach significance.

Discussion

Although I only found one significant difference, I found several differences that approached significance. I also found an interesting pattern that remained similar across three dependent variable analyses.

My initial prediction, that media manipulation would affect sexual self-concept, was supported. I found a significant main effect for media on sexual self-efficacy. My prediction that sexual self-efficacy would be higher for those in the nonattractive condition was confirmed by the data. As shown in Figure 1, the means were in the predicted direction, since the scores in the nonattractive media condition were higher than both the attractive media condition and the control media condition. The fact that the scores in the attractive media condition were higher than those in the control condition points towards a strong effect of media manipulation. Participants were randomly assigned, but there was a smaller percentage of people in the control (25%) and nonattractive media conditions (55%) who reported either having been in a sexual relationship or currently being in a sexual relationship compared to the attractive media condition (75%). W. Snell (2001) found that individuals who reported that sexual intercourse was a part of their current relationship were characterized by greater self-efficacy, sexual assertiveness, and greater sexual satisfaction. On the other hand, participants who did not report being involved in any romantic relationship, sexual or not, reported greater sexual anxiety and lower levels of sexual self-esteem and sexual satisfaction (W. Snell, 2001). Considering this, it is surprising that the sexual self-efficacy scores in the nonattractive media condition were higher than the sexual self-efficacy scores in the attractive media condition. Since there was a much higher percentage of participants with a past or current sexual relationship in the attractive condition, sexual self-efficacy scores should have been higher for the attractive condition than the nonattractive condition if there was no effect of media manipulation. This points towards a strong effect of media manipulation that might have been much more obvious, and possibly significant, had not the difference in sexual relationship status confounded the conditions.

My prediction that participants with high body image would also report higher levels of sexual self-concept was partially supported by my analysis of two dependent variables, sexual self-efficacy and sexual self-assertiveness. I found a main effect approaching significance for body image on sexual self-efficacy and a main effect approaching significance for body image on sexual self-assertiveness. As predicted, low body image was associated with lower sexual self-assertiveness and sexual self-efficacy. This is clearly shown in Figures 2 and 3.

I predicted that I would find gender differences for sexual self-concept. This is partially supported in the results. The clearest example is the way that gender moderates the relationship between body image and sexual self-efficacy. This is demonstrated by the interaction approaching significance for Gender x Body Image on sexual self-efficacy scores. As shown in Figure 4, females reported similar sexual self-efficacy scores in both the high and low body image conditions. However, males with low body image also had lower sexual self-efficacy scores than females with low body image. At the same time, males with high body image had higher sexual self-efficacy scores than females with high body image. However, gender difference results were not consistent. As seen in Figure 5, females reported lower sexual self-efficacy than men in the nonattractive and attractive media conditions. However, in my analysis of sexual self-esteem, I found that female participants with low body image reported higher self-esteem than men with low body image in the nonattractive media condition. This contradicts the idea that males are more sensitive to social comparisons and social cues.

However, one of the most interesting parts of my analysis was that I found a consistent, though nonsignificant, pattern for Media x Gender x Body Image interactions as well as Media x Body Image interactions. This pattern occurred for three dependent variables, sexual self-efficacy, sexual self-assertiveness, and sexual self-esteem. I did not find any differences

approaching significance for sexual self-consciousness. Perhaps this is because sexual self-consciousness can be induced simply by asking questions about the body. Therefore, participants in every condition experienced similar levels of sexual self-consciousness.

The fact that I found such a strong pattern across three dependent variables is significant given my small sample size. Although I found only one significant main effect and the rest of my differences approached significance, it is likely that with the greater power of a larger sample size, I would find significant differences.

First, as seen in Figure 5, I found a pattern for Media x Body Image x Gender on sexual self-efficacy scores. In the control condition, males with low body image reported lower sexual self-efficacy compared to males with a high body image. This pattern was the same for females: Females with low body image scores also reported lower sexual self-efficacy. However, in the nonattractive media condition, males with low body image reported sexual self-efficacy scores very similar to that of males with high body image. Furthermore, females with low body image had higher sexual self-efficacy scores than females with high body image. Interestingly, the pattern I found in the attractive media condition mimicked the pattern obtained in the control condition, with low scores in body image resulting in low scores on sexual self-efficacy.

In my sexual self-esteem analysis shown in Figure 6, I also found a similar pattern in an interaction that approached significance, Media x Body Image x Gender. The only difference in the pattern was a gender difference, where males with low body image reported higher sexual self-esteem scores in the control condition. However, female scores in sexual self-esteem followed the pattern found in the sexual self-efficacy scores in every media condition. Female participants with low body image scored higher on sexual self-esteem in the nonattractive media

condition than participants with high body image, but that was reversed in the control and attractive media conditions.

Sexual self-assertiveness followed a similar pattern for the Media x Body Image x Gender interaction as well. As seen in Figure 7, in the nonattractive media condition sexual self-assertiveness scores were similar for both low and high body image participants. However, in both the control and the attractive media condition, participants with low body image reported with lower sexual self-assertiveness.

It is easier to see this pattern in the Media x Body Image interactions. In my sexual self-assertiveness analysis, I found a similar pattern in the Media x Body Image interaction approaching significance: In the nonattractive media condition, participants with low and high body image reported similar self-assertiveness scores. This result is depicted in Figure 9. However, in both the control and the attractive media condition, participants with low body image reported lower sexual self-assertiveness than those with high body image.

This also occurred in the interaction approaching significance for Media x Body Image on sexual self-efficacy scores, depicted in Figure 8. This interaction, though nonsignificant, partially supported my prediction that there would be an interaction between media and body image on sexual self-concept scores. For the nonattractive media condition, participants with low body image reported higher sexual self-efficacy scores than participants with high body image. In the control and attractive media conditions, that finding was reversed: participants with low body image also scored lower on sexual self-efficacy.

This pattern can best be explained by drawing from the cognitive information processing model (Huesmann, 1997). I predicted initially that there would be an interaction between media

and body image. My prediction was based on the hypothesis that individuals with a positive (high) body image would not be affected by a script (Aubrey, 2007) that attractive people attain satisfying relationships. However, people who assess themselves as low in attractiveness should be negatively affected by scripts that portray only attractive or highly attractive individuals in satisfying relationships. On the other hand, viewing media of two non-physically attractive people in a satisfying couple relationship may strengthen the script that one does not have to conform to certain beauty standards to be in a satisfying couple relationship. The data support this interpretation. I found the same pattern consistently across three dependent variables. For the nonattractive media condition, participants with low body image reported higher or similar sexual self-efficacy scores compared to participants with high body image. In the control and attractive media conditions, that finding was reversed: Participants with low body image also scored lower on sexual self-efficacy. However, it should be noted that this pattern was not completely uniform. There were slight gender differences. For example, males with low body image reported higher sexual self-esteem scores in the control condition for the Media x Gender x Body Image interaction. However, in every media condition for the Media x Gender x Body Image interaction, female scores for sexual self-esteem followed the same pattern found in the sexual self-efficacy scores. Since gender differences were inconsistent, it is difficult to draw conclusions about what caused gender differences.

It may be that social comparisons can occur without the presence of an outside stimulus. Perhaps for some people, simply asking questions about body image provokes an inward social comparison. Resulting affects may depend on the direction of the inward social comparison. For example, while answering questions about physical attractiveness, someone might picture someone less attractive to compare themselves with in order to answer the question. This inward

comparison may enhance feelings of pride and boost sexual self-concept (Lewis & Weaver, 2016). This might help explain the differences in the control media condition.

Limitations of This Study

This study had several limitations that should be discussed in terms of future research. First, exerting more experimental control over media may find a stronger effect of manipulation. Although I was able to find images that were not rated significantly different on likeability, there were other differences in the pictures, such as the setting and the pose of the couple. For the sake of experimental control, future researchers may want to develop their own images or media. Future researchers may also want to assess the sexual relationship status of their participants as an independent variable. More research should be done to see whether sexual relationship status does alter sexual self-efficacy scores.

Future research should also explore factors like race and ethnicity. Although I was unable to explore these variables in my own study, race and ethnic background are important for sexual self-concept. Previous research shows that Caucasian participants were more likely to report higher levels of sexual self-efficacy, sexual self-esteem, and sexual satisfaction (W. Snell, 2001). In addition, previous research shows that identification may moderate the effect of media on the perception of the self (Aubrey, 2007; Strubel et al., 2016). Therefore, non-Caucasian, heterosexual individuals may be affected differently by media portrayals of idealized relationships because these individuals do not identify as strongly with the models or actors portrayed in mass media. In future research, minority group identification should be explored as a moderating variable. This is especially important as media has been increasingly diversified in past years, with more minority groups, such as LGBT couples, being portrayed in media.

Whether this shift will have an impact on minority emerging adults' sexual self-concept ought to be explored.

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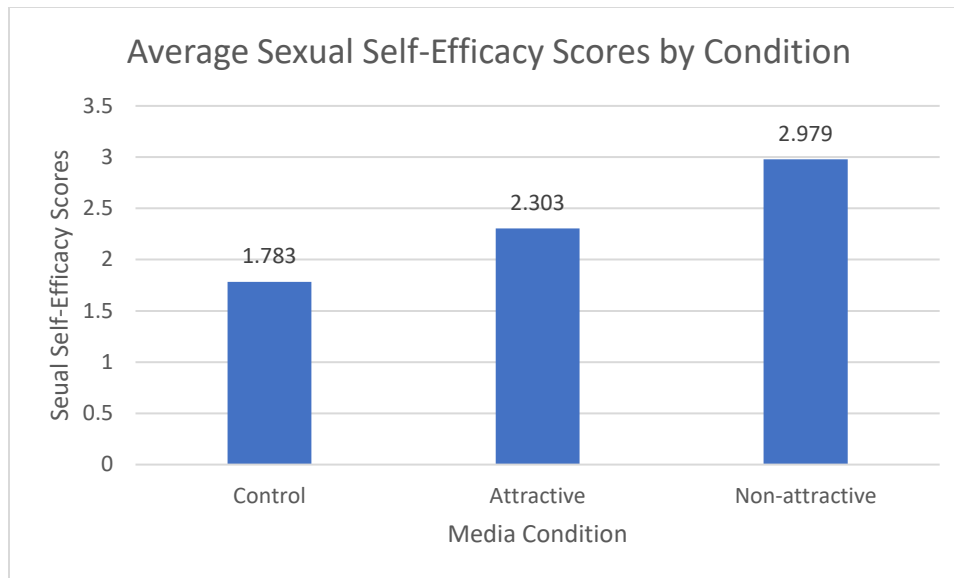


Figure 1. Average sexual self-efficacy scores according to media condition. Means are in predicted direction. Participants in non-attractive condition have higher sexual self-efficacy scores than those in attractive and control conditions.

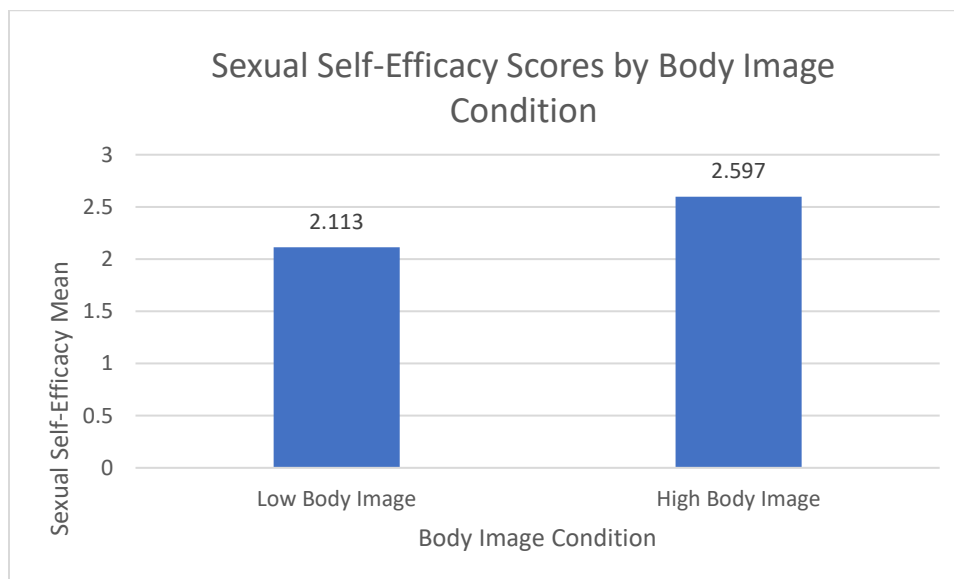


Figure 2. Average sexual self-efficacy scores according to body image condition. Participants with low body image scores also had lower sexual self-efficacy than participants with high body image scores.

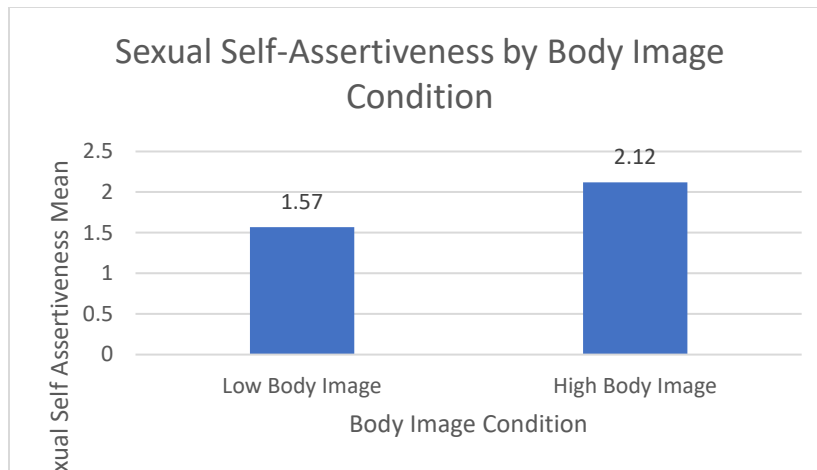


Figure 3. Average sexual self-assertiveness scores according to body image condition.

Participants with low body image scores also had lower sexual self-efficacy scores than participants with high body image scores.

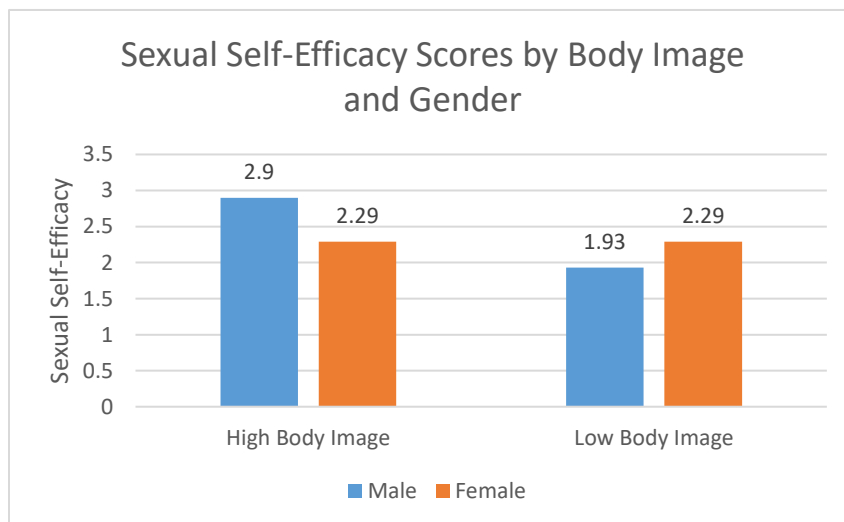


Figure 4. The interaction of Body Image x Gender on sexual self-efficacy. Males with low body image also had lower sexual self-efficacy scores than females with low body image. However, males with high body image had higher sexual self-efficacy scores than females with high body image. Gender moderates the relationship between body image and sexual self-efficacy.

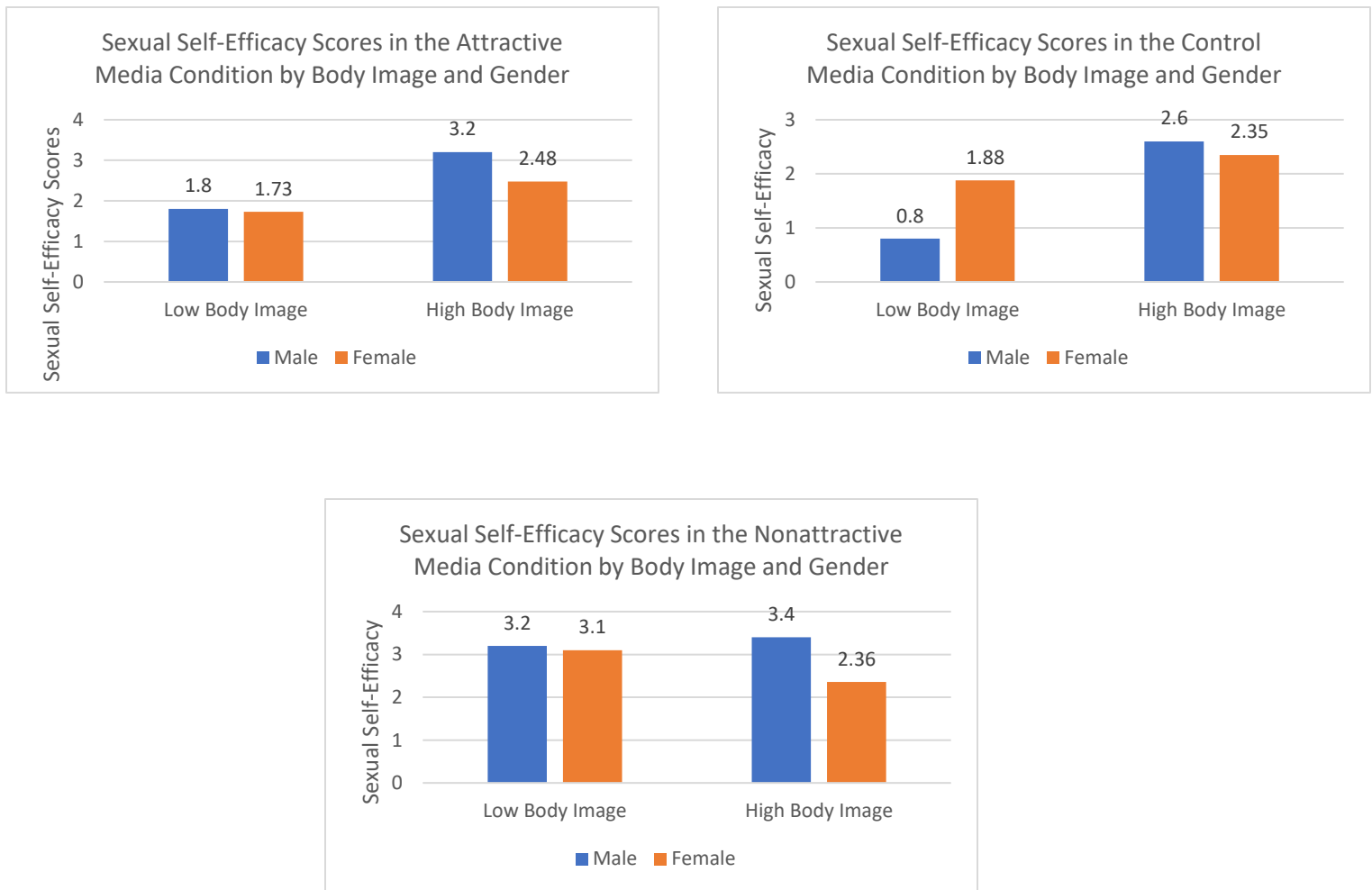


Figure 5. The interaction of Media x Body Image x Gender for sexual self-efficacy scores. In the attractive and control conditions, participants who reported low body image also reported lower sexual-self efficacy. In the nonattractive condition, participants who reported low body image reported higher or similar levels of sexual self-efficacy. Females tended to report lower sexual self-efficacy than males.



Figure 6. The interaction of Media x Gender x Body Image for sexual self-esteem scores. In the attractive conditions, participants who reported low body image also reported lower sexual self-esteem. In the control condition, men with low body image reported lower sexual self-esteem and women with low body image reported higher sexual self-esteem. In the nonattractive condition, participants who reported low body image reported higher or similar levels of sexual self-esteem.

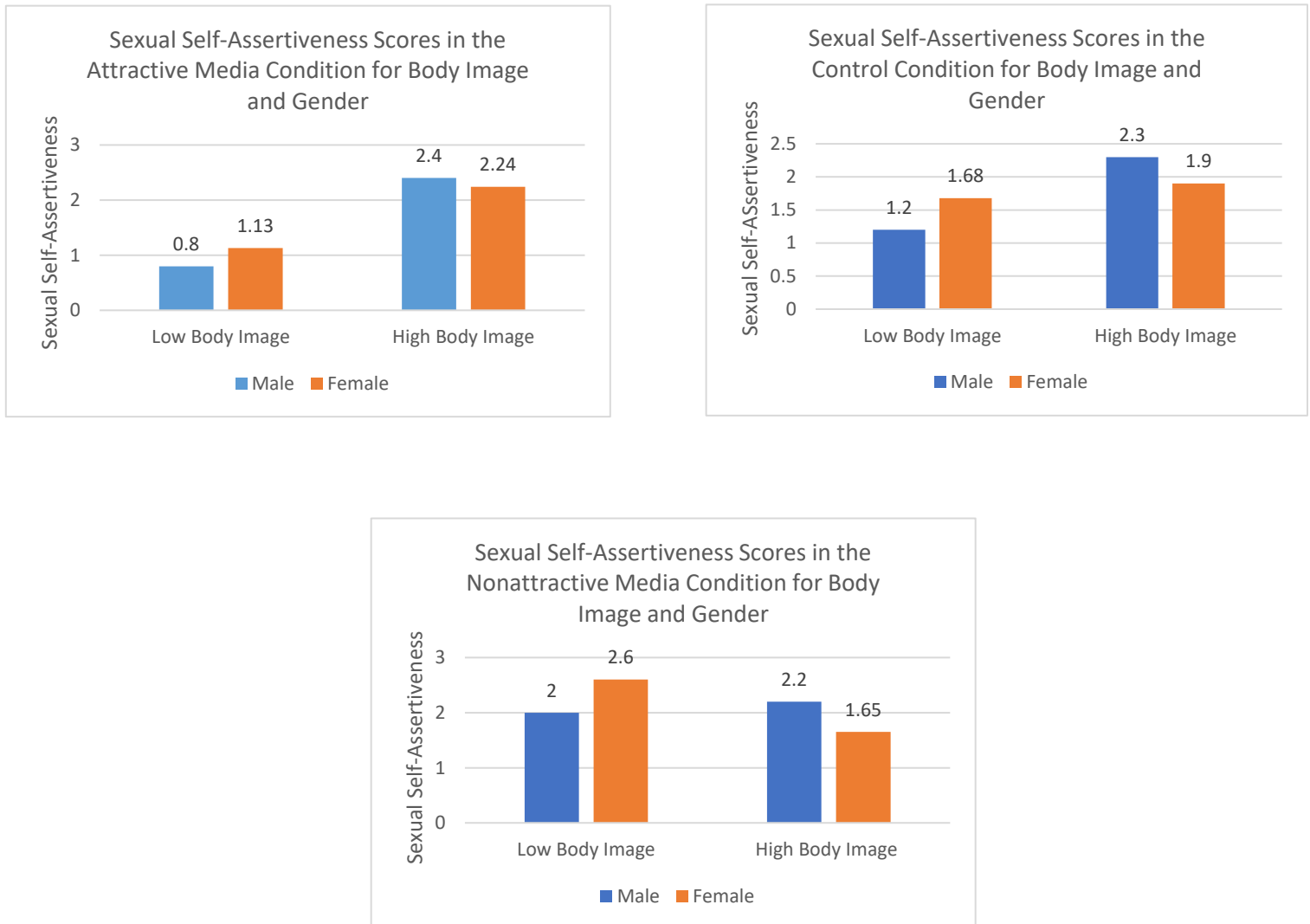


Figure 7. The interaction of Media x Gender x Body Image for sexual self-assertiveness scores.

In the attractive and control conditions, participants who reported low body image also reported lower sexual self-assertiveness. In the nonattractive condition, participants who reported low body image reported higher or similar levels of sexual self-efficacy.

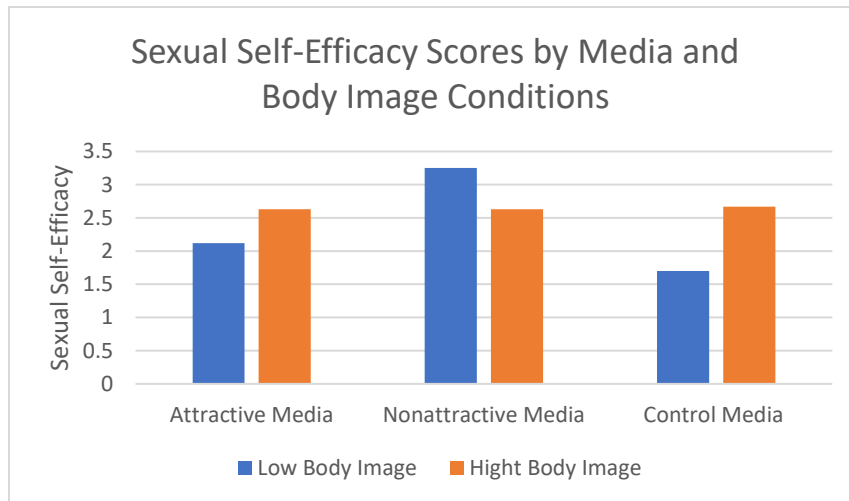


Figure 8. The interaction of Media x Body Image for sexual self-efficacy scores. In the nonattractive media condition, participants with low body image reported higher sexual self-efficacy. In the control and attractive media conditions, participants with low body image reported lower levels of sexual-self efficacy.

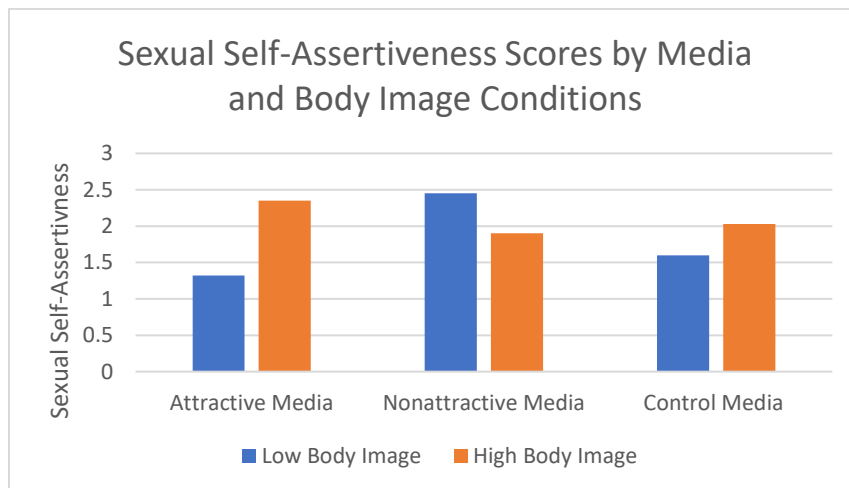


Figure 9. The interaction of Media x Body image for sexual self-assertiveness scores. In the nonattractive media condition, participants with low body image reported higher sexual self-assertiveness. However, in both the control and the attractive media condition, participants with low body image reported lower sexual self-assertiveness than those with high body image.