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# The Impact of Pornography on the Genital Body Image and Sexual Self-Efficacy of Female College Students

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The impact of pornography on the genital body image and sexual self-efficacy of female college students

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*A thesis submitted in partial fulfillment of the requirements for the degree*

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*Minnesota State University, Mankato*

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This paper has been examined and approved.

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### **Abstract**

Given its accessibility and growth in the past decade, internet pornography appears to be influencing the sexual scripts of young adults. That is, sexual expectations and behaviors are likely to be impacted by the consumption of online sexually explicit material. Pornography research documents more harmful effects (e.g., lower body image) in women viewing pornography compared to men (Albright, 2008). This experimental study aimed to explore the effects exposure to online sexually explicit material would have on the genital body image and sexual self-efficacy of 90 college women randomly assigned to three exposure conditions. Results indicated that group membership did not significantly impact the genital body image or sexual self-efficacy of college females. In other words, whether or not participants were exposed to pornography did not have an effect. The implications of pornography use and exposure are discussed.

*Keywords:* porn, sexually explicit material, genital body image, sexual self-efficacy

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## Introduction

Internet pornography is increasingly a prevalent part of the culture within the United States (US) and in many countries worldwide. Despite a decline in pornography revenues due to free online sexually explicit material (SEM), a recent study indicates there were 12.2 billion visits to the popular pornographic website Pornhub in 2015, equaling approximately 4.3 billion hours of viewing (Pornhub's 2015 Year in Review, 2015). More importantly, 60% of Pornhub visitors worldwide are millennials (i.e., the generation of people born between 1982 and 2004; Bolton et al., 2013), and approximately 50% of college students report viewing pornography online (Boies, 2002). The proliferation of internet pornography is undoubtedly associated with the technological progression of the modern world. The accessibility (i.e., thousands of pornographic websites are accessible 24 hours a day, 7 days a week), anonymity (i.e., the perception of inconspicuousness when viewing online sexual content), and affordability (i.e., a plethora of pornographic websites are free) of internet pornography has impacted the consumption of SEM, particularly for millennials (Braithewaite, Coulson, Keddington, & Fincham, 2015).

This influence is evident in that 60% of millennials are opting to use mobile devices, such as a tablet or smartphone, to view online SEM. In fact, mobile phone visits to Pornhub accounted for over half of the website's traffic shares, up from 45% in 2014. In general, there appears to be generational differences when consuming online porn; younger generations appear to consume porn for less time, late at night, and with more female consumption when compared to older generations (Pornhub, 2015). Not only are the methods for accessing pornography evolving, but the overall influence of internet pornography is changing (Berntson, Hoffman, & Luff, 2014). Research suggests that 93% of men and 62% of women will be exposed to

pornography in their adolescence whether or not it is intentional (Flood, 2007; Sabina, Wolak, & Finkelhor, 2008; Wolk, 2007). As a key element of sexual socialization, pornography provides a *sexual script* that guides the sexual behaviors of individuals, especially adolescents and young adults (Simon & Gagnon, 1984).

### **Theoretical Understanding of the Effects of Pornography Consumption**

**Sexual scripting theory.** The sexual scripting theory was developed by Gagnon and Simon (1973), and was introduced in response to the dominant biological model of sexuality. Simon and Gagnon (1984) argued that social factors are more crucial to the foundations of sexuality than biological drives. Language of theater is used to describe this socialization process; in the case of pornography, those who use porn are “actors” utilizing “scripts” to learn and understand their own sexual interactions. The sexual scripting theory states that through social learning (Hogben & Byrne, 1998) consumers use SEM scripts as a framework for sexual expectations and for navigating real-life sexual experiences (Gagnon & Simon, 1973).

A recent study investigated whether variables of sexual appeal and behavior were associated with online pornography among 245 college students within the scripting theory framework. The authors found that viewing SEM was positively related to the expansion of the participants’ appeal and practice of a variety of sex acts; in other words, a normalization and liberation of sexuality occurred for some (Weinberg, Williams, Kleiner, & Irizarry, 2010). The findings also indicated that gender mediated this relationship; women use sexual scripts, or engage in behavior reflecting pornographic acts, more than men. In accordance with this theory, the expectations and perceptions of pornography users are also influenced (Simon & Gagnon, 1984). Peter and Valkenburg (2010) found a relationship between pornography use in adolescents and beliefs that pornography reflects real-world behavior. Specifically, the more



pornography that is consumed, the more likely it was that an adolescent believes that it depicts actual sexual practices. Investigating the perceived realism of internet pornography may then be important for better understanding the sexual attitudes and behaviors of this generation of individuals. Recent research has also found a positive relationship between consumption of porn and requesting pornographic acts (e.g., asking partner to role play a scene viewed in porn) during sex, utilizing porn during sex, and intentionally imagine porn scenes to maintain arousal (Sun et al., 2013). These findings support the theory that pornography, while fantasy-based, is a powerful heuristic model for sexual behavior and thoughts in the lives of young adults.

**Social comparison theory.** The distinction between fantasy and reality becomes further distorted when the depictions of idealistic representations of male and female physiques are confused with more typically occurring body shapes and sizes. Social comparison theory posits that individuals compare themselves to others in order to determine whether their own evaluations of themselves on certain attributes are accurate (Festinger, 1954). Briefly stated, it addresses how comparison to others influences an individual's self-perceptions. This occurs when objective information regarding an individual's abilities or characteristics is not available; the consequences of this process, however, are dependent on whether comparisons are being made with someone perceived as better or worse. Women in particular may have a tendency to perceive and describe their own body according to overt traits (e.g., how one looks), as opposed to internal traits (e.g., what one can do) which can result from bodily objectification (McKinley & Hyde, 1996). The physical characteristics of women in online SEM are typically in line with cultural beauty standards in the U.S. (Sypeck et al., 2006), which has the potential to heighten attention towards the body. For instance, women in pornography, especially *Playboy* Playmates, on average have a C or D bust size, a body mass index of 17.6 (Gammon, 2015), low waist-to-

hip ratio (Sypeck et al., 2006), large bust-to-waist ratio (Seifert, 2005), while simultaneously retaining their curvaceous body form (Owens, 2000).

**Objectification theory.** Objectification theory states that being treated like a body existing for the pleasure of others is part of women's social context (Fredrickson & Roberts, 1997). This experience can lead to routine body monitoring that results in body shame and anxiety (Fredrickson & Roberts, 1997). Objectification theory aids in understanding why women in particular are susceptible to making social comparisons, especially as it relates to their physical bodies. In fact, Hesse-Biber et al. (2006) speculate that both the social comparison theory and objectification theory should be integrated to understand women's negative body image. Similar research that has integrated both theories have found that body shame was predicted by body surveillance, body comparison, and self-esteem in undergraduate women. In particular, those who made frequent surveillances and comparisons with others' bodies had significantly higher rates of disordered eating (Tylka & Sabik, 2010). Idealized media images may further compound this relationship. Experimental research indicates that exposure to sexualized images of female athletes and models leads to higher levels of self-objectification in college women when compared to non-sexualized images of female athletes and models (Daniels, 2009). Interestingly, women exposed to the sexualized images engaged in more physical self-descriptions and were likely to be negative which may be prompted by comparisons to such high beauty standards.

**Social learning theory.** In addition to the aforementioned theories, social learning theory guides the present investigation. This theory suggests that observing the rewards and consequences experienced by individuals in the media has an influence similar to a direct experience for the individual (Bandura, 1977); in other words, if positive consequences are

witnessed for particular sexual acts it leads to an increased probability that porn users will emulate those behaviors, or outcome expectancies (Bandura, 2001). Expectations about rewards act as reinforcers of behavior which is of particular importance when examining the impact of porn given it tends to be portrayed in a positive context (Hogben et al., 1998). It is important to note that if personal sexual morals (i.e., liberal-conservative ideology) are incongruent with what is depicted in SEM then it is less likely that sexual scripts will be acted on (Wright, Bae, & Funk, 2013). Wright et al. (2013) investigated the predictors and correlates of online pornography consumption in a nationally representative sample. Results were consistent with the social learning theory; porn users were more likely to engage in behaviors associated with pornography (e.g., sexual permissiveness) if it was consistent with sexual morals and if it would result in positive consequences. Thus, through social learning, those who watch online SEM may incorporate the behaviors viewed into their own sexual scripts if congruent with morals (Hogben & Byrne, 1998) while simultaneously making comparisons between the performers' sexual proficiency and physiques with their own (Morrison, Ellis, Morrison, Bearden, & Harriman, 2007). Yet the images and behaviors portrayed in internet pornography are far from the sexual lives of most and this discrepancy may have an impact on the esteem of SEM users (Braithwaite et al., 2015).

### **Review of the Effects of Internet Pornography**

Given the high prevalence of pornography use among millennials, it's important to note that exposure to SEM may be unintentional or accidental. An Australian study found that three-quarters of a representative sample of teenagers between the ages of 16-17 had accidentally stumbled upon pornography online (Flood, 2007). Similarly, a study by the Kaiser Family Foundation (2001) found that 70% of youth (15-17 years old) in the U.S. had unintentionally

been exposed to online SEM, with 9% reporting very frequent occurrences. Despite the unintentional nature of some exposure, most youth report not being upset by the experience (Wolak, Mitchell, & Finkelhor, 2007). Additionally, slightly less than half of adolescents who have access to the internet indicate that they visit pornographic sites out of sexual curiosity (Braun-Corville & Rojas, 2009). Visiting a sexual website may be a safe method for sexual exploration, and not necessarily a sign of deviant behavior. Naturally, as youth mature physically and emotionally they may be more interested in the availability of SEM and may seek out the material. Taking into account intentional and unintentional exposure, researchers have described the consumption of online pornography to be a normative experience (Sabina et al., 2008).

However, the literature overwhelmingly links exposure to online sexual content to increases in adolescents' risk, such as not using condoms (Luder, Berchtold, Akre, Michaud, & Suris, 2011), "one-night stands" (Braithwaite et al., 2015), substance use (Carroll et al., 2008), and accelerated onset of sexual activity (Villani, 2000). Research indicates that frequent exposure to internet pornography, regardless of motivation, is related to positive attitudes towards casual sex and more sexual uncertainty (i.e., ambiguity surrounding the development of sexual attitudes and beliefs about sexual exploration; Peter & Valkenburg, 2008b). Lo and Wei (2005) investigated the link between exposure to online SEM and sexual attitudes in Taiwanese adolescents and found that exposure was related to permissive sexual behaviors and positive attitudes towards uncommitted sexual acts. In the U.S., a similar study was conducted by Brown and L'Engle (2009) in which a longitudinal analysis was used to examine the outcomes of early online pornography exposure in adolescents. Early exposure for females predicted permissive sexual norms, engaging in oral sex and sexual intercourse by the age of 14 to 16 years old, as

well as less progressive gender roles, which has been supported by other studies (Kraus & Russell, 2008).

### *Gender-Specific Effects of Pornography Use*

There is a wealth of evidence to suggest that women are especially affected by pornography (Albright, 2008; Boynton, 1999), in that women report more negative consequences (e.g., lowered body image and increased pressure to mimic pornographic behaviors). In a Swedish qualitative study, the consequences of pornography on youth between the ages of 14 and 20 were examined in in-depth interviews and focus groups. The authors found that the women expressed more restrictive and hesitant feelings towards online SEM (Lofgren-Martenson et al., 2010). Correspondingly, Johansson and Hammaren (2007) surveyed 1,331 young adults and concluded that there is a trend to suggest that women are doubtful and ambivalent about internet pornography and its effects on their behaviors. Perhaps the participants' ambivalence stems from the criticism that pornography is produced specifically for a male target audience. This may be expected given that studies have found that approximately 88% and 49% of popular pornographic videos utilize physical (e.g., gagging) and verbal aggression (e.g., name-calling), respectively, towards women (Bridges, Wosnitzer, Scharrer, Sun, & Liberman, 2010; Cowan, Lee, Levy, & Snyder, 1988). Perpetrators of aggression are overwhelmingly men and the targets are typically women. Therefore, it is not surprising that most pornography research takes a harms-based perspective that frames exposure to SEM as resulting in negative behavioral and psychological impacts, with little attention paid to whether or not it may have positive influences (Ciclitira, 2002). It is noteworthy to mention the argument McKee (2005) makes regarding how *consent* is the key component when examining violence in sex acts and receiving or causing pain does not constitute violence in the context of pornography.

With regards to female bodily objectification, studies indicate that youth who are frequently exposed to internet pornography are more likely to perceive women as objects, with no difference between males and females (Peter & Valkenburg, 2007; Peter & Valkenburg, 2009). The objectification of women may be further complicated by the tendency for some adolescents to interpret internet pornography as realistic. Due to the nature of pornographic scripts, consumers may incorporate behaviors that encourage the treatment of women as objects (Tylka & Van Diest, 2015). However, a Dutch study of 471 adolescents found that perceived realism of the material and gender actually mediates the relationship between exposure and recreational attitudes toward sexual intercourse, suggesting that SEM exposure and gender are not directly related to these attitudes (Peter & Valkenburg, 2006b). Specifically, male youth were found to use internet SEM more than females, leading to higher perceived realism and perceived utility of pornography (Hald et al., 2008; Peter & Valkenburg, 2010). Indeed, a study conducted by the same authors demonstrated that the more sexual experiences a female adolescent had the less likely she was to consume pornography; this relationship was not demonstrated among male adolescents (Peter & Valkenburg, 2006a). Thus, it is highly possible that SEM material does not affect females to the same extent as it does for males. In turn, young women may be predominantly incorporating their own attitudes and behaviors towards sexual activities as opposed to integrating pornographic scripts.

The gender disparity is further illustrated by Carroll et al. (2008) who found that 87% of men consume internet pornography compared to 31% of women in a sample of 813 college students recruited from six universities around the US. Yet, acceptance of pornography among women was about one half (49%) and was a stronger correlate with cigarette smoking, binge drinking, alcohol use, and permissive sexual behaviors than was actual pornography use.

Interestingly, the authors found that acceptance was as strongly correlated to adolescents' risky sexual attitudes and behaviors as was their use of internet SEM. Other studies indicate that 1/3 of young women who do consume pornography report an impact on their sexual behavior (e.g., engaging in anal sex; Rogala & Tyden, 2003). Braun-Corville and Rojas (2009) investigated whether frequency of exposure was associated with this impact. Results suggest that the more frequently female adolescents visit pornographic websites, the more likely they will exhibit sexually permissive attitudes and engage in risky sexual behaviors (e.g., using drugs or alcohol during sex, sex with multiple partners). Frequency of consumption is also related to stronger interest in sex and more frequent sex-related thoughts (Peter & Valkenburg, 2008a). It is interesting to note, however, that sexist thoughts in particular have an inverse relationship with pornography use. That is, individuals who consumed internet SEM often displayed less sexist attitudes (Garos, Beggan, Kluck, & Easton, 2004).

While the literature is mixed regarding the outcomes and associations with consuming online SEM, there does appear to be a greater tendency for women to be more critical and less accepting of it (Albright, 2008). When examining the perceptions of college students regarding porn stars, common stereotypes were largely inaccurate (e.g., underestimation of work enjoyment, level of self-esteem, and having unprotected sex; Griffith, Hayworth, Adams, & Hart, 2013). Furthermore, Boynton (1999) analyzed discourse among 30 undergraduate females regarding images in 10 pornographic magazines aimed at a heterosexual male audience. The main finding that emerged was that participants discussed the images in a hostile manner, as well as acknowledged that they were not physically comparable to the models (i.e., not capable of reproducing similar body images; e.g., "I'd kill to have a body like that"). This may be applicable to internet pornography; Tsujimura et al. (2012) investigated eye-tracking in sexual

videos depicting intercourse and found that women viewed the women performers for a significantly longer duration than the male performers. The possibility exists that despite generally having more negative attitudes towards pornography, young women nonetheless compare themselves physically to female pornographic performers. The social comparison theory supports the notion that if individuals do not have an objective, non-social means of evaluating their behavior and thoughts it will lead to self-comparisons with others' abilities and opinions, especially to those who are perceived as better off (Festinger, 1954).

There is evidence to suggest that appearance-focused social comparisons by women have a negative impact on body satisfaction and weight-related thoughts (Leahey, Crowther, & Michelson, 2007). Specifically, women with high body-dissatisfaction engage in more appearance-focused comparisons with women perceived as "more attractive" when compared to women with low body dissatisfaction. Yet regardless of the level of body esteem, exposure to individuals who are believed to be more attractive is associated with decreases in body satisfaction and increases in negative affect (Leahey et al., 2007). A majority of the literature in the area of pornography emphasizes these negative associations (Johansson & Hammaren, 2007; Manning, 2006; Shaw, 2010). Albright (2008) conducted an exploratory study of over 15,000 participants in the U.S. which revealed that sexual intercourse between married couples is likely to decrease as a result of women's perception that their partner views their body negatively after consuming pornography.

Pornography use of one's partner appears to be a high risk factor for negative self-evaluations (Stewart & Szymanski, 2012; Tylka & Van Diest, 2015). In one study women reported a deterioration of sexual relations, feeling betrayed, and reappraising the relationship when their partner's involvement in pornography was discovered (Bergner & Bridges, 2002).



Shaw (2010) examined the impact of online pornography on the lives of 32 women through interviews and found beliefs surrounding their partner's dissatisfaction with them, beliefs that porn was perpetuating negative views about women, and the belief that their feelings of discomfort were not legitimate enough to bring up. Research shows that these may be legitimate concerns however, considering men report being more critical of their partner's body and being less interested in sex after viewing online SEM (Albright, 2008). Not surprisingly, more perceptions of problematic pornography use of the partner has been found to be negatively correlated with self-esteem, relationship quality, and sexual satisfaction (Stewart & Szymanski, 2012). These findings may explain why one of the strongest predictors of internet pornography consumption is lack of a happy marriage (Stack, Wasserman, & Kern, 2004).

Yet, there may be a distinction between impacts of personal pornography consumption versus a partner's pornography consumption. Morrison (2004) found a positive correlation when examining *personal* online porn consumption and sexual esteem in female undergraduate students. Self-esteem is considered a global construct that encompasses sexual self-concept, which refers to an individual's perceptions of themselves as a sexual human being and includes sexual esteem (Rostosky, Dekhatyar, Cupp, & Anderman, 2008). Rostosky and colleagues (2008) suggested that adolescents with higher self-concept predicted positive beliefs about their ability to handle a sexual experience well. However, the relationship between online SEM use in adolescence and sexual self-efficacy has not been researched. As previously mentioned, Peter and Valkenburg (2008b) examined the relationship between exposure to online pornography and sexual certainty in 2,343 Dutch adolescents aged 13-20 and found that exposure was associated with greater uncertainty. Sexual certainty and self-efficacy both appear to be important components of an adolescent's sexual self, but research suggests that they are distinct concepts

that should be investigated independently to get a more encompassing understanding of young adults' sexuality (Peter & Valkenburg, 2008b).

Similarly, limited research is available regarding online pornography use and genital body image. What is known is that college women have more negative genital perceptions when compared to men for both their own and their partner's genitals (Reinholtz & Muehlenhard, 1995). Indeed, when examining college female's discourse regarding their genitals, themes of dirtiness emerged, especially when discussing intercourse during menstruation. The authors noted that the women discussed their genitals with strong language often depicted by descriptions of excess and need (Fahs, 2014). Given what is known about the social comparison theory it would be rational to assume a negative association between genital body image and exposure to online SEM. Morrison et al. (2007) found a significant inverse relationship between internet porn and genital esteem in a sample of 188 college men. These findings are inconsistent with a study Morrison and colleagues (2004) conducted prior that indicated that exposure to SEM was not a significant correlate of genital self-image in men or women. A supplementary analysis revealed that greater levels of genital esteem for females is associated with greater consumption of online pornography.

### **Current Study and Hypotheses**

In sum, only a few studies have examined the relationship between exposure to online pornography and sexual self-efficacy and genital body image in young adults, and current research findings are inconsistent. More specifically, there is limited understanding regarding how exposure to pornography affects the genital body image and sexual self-efficacy of youth; this is particularly important when examining women who report the most negative impacts. No studies to date have utilized an experimental design to examine the impact of online SEM on

these variables, and filling this gap in the literature is important considering the potential harmful effects it may have on the sexuality of young adults. The primary purpose of this study is to investigate the impact porn may have on genital body image and sexual self-efficacy during early adulthood. During this time period of development, acquiring and maintaining a positive perception of one's own sexuality is key to learning healthy sexual practices; therefore, these constructs are important for further investigation. Based on previous research and theoretical models, it was hypothesized that the genital body image will be poorer in the group exposed to SEM with depictions of genitals compared to the groups exposed to non-genital SEM and no SEM. Additionally, it was expected that sexual self-efficacy would be poorer in the groups exposed to the genital SEM condition and non-genital SEM condition, but not the control condition.

## **Method**

### **Participants**

The participants were 90 female undergraduate students from a small, Midwestern US university. The ages of the participants ranged from 18 to 36 ( $M = 20.91$ ;  $SD = 2.95$ ). Overall, 74.4% were Caucasian, 6.7% were African American, 10% were Asian American, 4.4% were Latina/x, and 4.4% indicated that they were multiracial or of another ethnicity. With regards to sexual orientation, the sample consisted of 87.8% of participants identifying as heterosexual, 4.4% identifying as gay or lesbian, 5.6% identifying as bisexual or pansexual, and 1.1% identifying as asexual. No participants were excluded due to missing data or other confounds. For a complete description of the participants' demographic characteristics, please see Table 1.

### **Measures**

The Female Genital Self-Image Scale (FGSIS; Herbenick & Reece, 2010) is a 7-item self-report measure designed to examine women's genital self-image. Items are scored on a 4-point Likert scale with the anchors *strongly disagree* and *strongly agree*. Item scores are averaged to yield a total score between 1 and 4, with higher scores indicating greater levels of genital self-image. Herbenick and Reece found female genital self-image was positively correlated with women's sexual function. The scale has been shown to have good internal consistency ( $\alpha = .88$ ) and construct validity (Herbenick & Reece, 2010). A sample item is *I am satisfied with the appearance of my genitals*.

The Sexual Self-Efficacy Scale for Female Functioning (SSES-F; Bailes, Creti, Fichten, Libman, & Brender, 1998) is a self-report questionnaire, with 37 questions scored on a continuous rating scale from 10 (*quite uncertain*) to 100 (*quite certain*). Scores are averaged over all items to yield a total score between 0 and 100, with higher scores indicating greater levels of sexual self-efficacy. Specifically, the woman's confidence in being able to engage in certain sexual activities is being measured. The instrument includes the following subscales: Interpersonal Orgasm, Interpersonal Interest, Desire, Sensuality, Individual Arousal, Affect, Communication, Body Acceptance, and Refusal. Internal consistency coefficient for each of the eight subscales ranged from  $\alpha = .70$  to  $\alpha = .87$ . Overall, internal consistency for the test was high ( $\alpha = .93$ ). A sample item is *In general, feel good about your ability to respond sexually*.

## **Materials**

A pornography video from a popular adult website, Pornhub.com, was edited into two three-minute clips to create two conditions in the experiment; the first condition depicted female genitalia, and the second condition did not. Specifically, the genital condition showed the anatomies of the vulva to be small, including the labia, mons pubis, clitoris, and vaginal opening

which may not be representative of female genitalia. Additionally, there was neither pubic hair present nor discoloration present in any areas of the vulva. Both clips portrayed two professional Caucasian adults (male and female) nude performing consensual vaginal-penile sexual intercourse in a private, indoor setting. Some of the positions enacted by the performers would be considered unrealistic for the average individual engaging in sexual practices. For instance, one of the sexual positions involves the female performer lying on her stomach with her legs closed while the male performer straddles and penetrates her simultaneously. Other sexual characteristics of the performers may also not be representative of typically occurring bodies (e.g., large penis, large breasts) or sexual behaviors (e.g., moaning loudly continuously without taking vocal breaks). A control video condition was included that depicted a neutral nature scene of butterflies and flowers in the wild.

### **Procedure**

All procedures were approved by the Minnesota State University Institutional Review Board (see Appendix A), and data was collected between December 2015 and March 2016. In a private laboratory setting, each participant was randomly assigned to view one of three 3-minute video clips and then asked to complete a battery of measures. A deception component was introduced to reduce the transparency of the experiment, which entailed presenting the study as a memory test (as used in Sprankle, End, & Brentz, 2012). Specifically, participants were informed that their memory regarding the assigned clip would be measured after a short latency period had passed. During the latency period, participants were instructed to complete a battery of questionnaires for “other research studies” which included: a demographics form, Female Genital Self Image Scale, Sexual Self-Efficacy Scale for Female Functioning, Positive and Negative Affect Scale (PANAS), and a bogus 5-item memory quiz. The PANAS was considered

a “filler” questionnaire to prevent participants from accurately determining the study’s objective. The battery of surveys took approximately 20 minutes to complete.

After all tasks were completed participants were thoroughly debriefed. The debriefing included explaining the true purposes of the experiment and the reasons why deception was necessary for this study.

### Results

The average scores for the FGSIS in the current sample (i.e.,  $M = 2.99-3.10$ ,  $SD = .40-.50$ ) are comparable to that of the general population (i.e., 3.04; Herbenick et al., 2010). In contrast, the average score for SSES-F in the current study appeared to be slightly lower (i.e.,  $M = 74.49$ ,  $SD = 16.83$ ) than that of a representative sample of U.S. females (i.e.,  $M = 85.3$ ,  $SD = 22.58$ ; Hoyt, 2013). There are limitations to comparing the variable means for the current study to the means of other research studies due to potential quantitative differences in populations or utilizing only part of a measure. A MANOVA was conducted using genital body image and sexual self-efficacy scores as the dependent variables and the clip conditions as the independent variables, Wilk’s  $\lambda = .97$ ,  $F(2, 87) = .73$ ,  $p = .57$ , partial eta squared = .02. The non-significant finding indicates that group membership (i.e., genital, non-genital, or control conditions) did not have a significant effect on genital body image or sexual self-efficacy in this sample of young college females. In fact, the genital body image and sexual self-efficacy scores were slightly higher in the genital condition when compared to the controls, which was unexpected. This discrepancy was also observed between the genital and non-genital conditions; however, investigations between these conditions were exploratory. Thus, neither hypothesis was supported by our findings. For a description of the mean scores, see Table 2.

### Discussion

This study is the first to investigate the impact of pornography on genital body image and sexual self-efficacy using an experimental design. Findings indicated that whether or not participants were exposed to online pornography did not impact their genital body image or sexual self-efficacy. When the results are examined within the parameters of the sexual scripting and social comparison theory there appears to be little support for them. In accordance with these frameworks it was presumed that harm, and even danger (Flood, 2009), would be associated with exposure to online SEM among young adults. The findings are inconsistent with a majority of pornographic research studies that argue risk of harm, including decrements to genital body image and sexual self-efficacy, is evident when online pornography is consumed. Owens (2012) conducted a large literature review to investigate the impact of online pornography on the sexuality of adolescents and largely described negative effects and associations regarding exposure. Yet, the inability to establish an impact from online pornography on levels of genital body image and sexual self-efficacy of participants contradicts the harms-based perspective of pornography.

On the contrary, there is some research to suggest there are negligible, and potentially beneficial, effects of pornography. Cranney (2015) found that the relationship between online SEM use and breast-size dissatisfaction was null in a large sample of Swedish adults. Hald and Malamuth (2008) were also interested in assessing self-reported impacts of “hardcore” pornography consumption in a large representative Dutch sample; results indicated little to no negative effects and small to moderate positive effects of viewership. In particular, men experienced significantly more negative and positive affects when compared to women. This finding may be unexpected but has been supported by prior research. In a sample of 1,331 young

adults, men were found to hold negative attitudes towards online SEM, whereas women were positively inclined and enjoyed pornography (Johansson & Hammaren, 2007) which is supported by other research (Sabina, Wolak, & Finkelhor, 2008).

Other empirical studies have found beneficial outcomes as a result of consuming pornography for females. Results from Hill's (2011) dissertation indicate that female undergraduate students who view internet pornography reported significantly less problematic eating behaviors than those who do not. Additionally, there were no group differences on depression, body image, and anxiety. Furthermore, a recent study examining the perceptions of young Canadian adults regarding the influences of online porn use in interviews revealed a wide range of beneficial outcomes. Females reported feeling increased confidence in sexual situations; consumption allowed them to reject social regulation of sexuality, as well as experiencing enhanced body image (Hare et al., 2014). Correspondingly, Stulhofer, Busko and Landripet (2010) did not find a direct effect when examining the link between early exposure to SEM and sexual socialization among 650 young Croatian men. The authors argue that pornographic research ought to shift away from examining online SEM effects as a passive one-way process but rather an expansive, complex interaction. Similarly, researchers have previously stated that perhaps the literature needs to move away from promoting media literacy to protect consumers, but rather encourage a model that allows systems of education and the media to work together in enhancing consumer knowledge (McKee, 2007).

### **Limitations**

While this study has noteworthy findings, generalizations may not be applicable given participants are drawn from a convenience sample of college students. University students are not representative of the general population; thus, it is unknown whether similar impacts would



be evident among women who do not attend a post-secondary institution. Additionally, the participants in this study may differ qualitatively from females not comfortable in participating in a sexual health study, so the application of the study's results to this population of females is unclear. When examining sexual behaviors and attitudes participants may not be willing to fully divulge that sensitive information; more importantly, young adults who have not done sexual exploration or engaged in intercourse may not be fully in tune with their sexual attitudes and behaviors. Moreover, the video clips used in this study may be considered short in duration and not capable of producing effects in that time period. However, other research studies have found effects after participants are briefly exposed to sexual content (Brown et al., 2005). Another limitation is that the participants may not have identified with the female pornographic performer. Social learning theory states (Bandura, 1977) that learning occurs by observing a model with whom one identifies; the motivation to identify stems from the model possessing an appealing quality that one would like to also have. If there was no motivation for participants to identify with the performer, no effects are expected to take place. If identification took place, it may be the participants felt equal or superior to the performer in comparison.

### **Conclusion**

In sum, the results of this study suggest that brief exposure to online pornographic material does not impact levels of genital body image and sexual self-efficacy of female college students. Despite the methodological limitations, this study's designs provides data that may enhance the understanding of pornography consumption in the literature. Future research should investigate whether or not the same effects hold true for males and for individuals outside of the college setting. Additionally, negative correlations have been found between porn use and genital esteem and muscle satisfaction among gay males (Tylka, 2015), so this would also be an

important line of research to investigate. Lastly, future research may want to examine these variables between users of porn and non-users of porn. Slightly more than half of the females in this study did not access porn which may have been influential.

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**Appendix A**

Table 1

*Demographics of Study Sample*

Factor	Overall Sample	Factor	Overall Sample
<b>Age in years</b> <i>M(SD)</i>	20.91(2.95)	<b>School Year</b>	
<b>Race</b>		<i>n = 90</i>	
<i>n = 90</i>		% 1 <sup>st</sup> year	27.8
% Caucasian	74.4	% 2 <sup>nd</sup> year	16.7
% African American	6.7	% 3 <sup>rd</sup> year	27.8
% Asian American	10	% 4 <sup>th</sup> year	21.1
% Hispanic American	4.4	% 5 <sup>th</sup> year	3.3
% Multiracial	4.4	% Other	3.3
<b>Sexual Orientation</b>		<b>Religion</b>	
<i>n = 89</i>		<i>n = 90</i>	
% Heterosexual	87.8	% Strongly disagree	18.9
% Gay or lesbian	4.4	% Disagree	13.3
% Bi or pansexual	5.6	% Neither	14.4
% Asexual	1.1	% Agree	37.8
<b>Relationship Status</b>		% Strongly agree	15.6
<i>n = 89</i>		<b>Pornography</b>	
% Single	25.6	<i>n = 90</i>	
% Casually dating	17.8	% 0 hours	58.9
% Partnered	54.4	% <1 hour	36.7
% Legal partnership	1.1	% 1-2 hours	3.3
		% 2-3 hours	1.1

*Note.* The religion variable was concerning the statement “religion is very important to me.” The pornography variable was concerning approximately how many hours per week the participants spent accessing pornography.

Table 2

*Frequency of the IV*

Variable	Clip	Mean	Standard Deviation
Genital Body Image	1	3.07	.37
	2	3.05	.45
	3	2.98	.53
Sexual Self-Efficacy	1	77.85	17.00
	2	75.14	13.64
	3	72.71	17.47

*Note.* Clip 1 refers to the genital condition. Clip 2 refers to the non-genital condition. Clip 3 refers to the control condition.

**Appendix B**

**Female Genital Self Image Scale**

The following items are about how you feel about your own genitals (the vulva and the vagina). The word vulva refers to a woman’s external genitals (the parts that you can see from the outside such as the clitoris, pubic mound, and vaginal lips). The word vagina refers to the inside part, also sometimes called the “birth canal” (this is also the part where a penis may enter or where a tampon is inserted). Please indicate how strongly you agree or disagree with each statement.

Please mark an “X” in the box to indicate how strongly you agree or disagree with each statement.

	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
I feel positively about my genitals.				
I am satisfied with the appearance of my genitals.				
I would feel comfortable letting a sexual partner look at my genitals.				
I think my genitals smell fine.				
I think my genitals work the way they are supposed to work.				
I feel comfortable letting a healthcare provider examine my genitals.				
I am not embarrassed about my genitals.				

**Sexual Self-Efficacy Scale for Female Functioning**

**For women respondents only:**

Check the activities you think you could do if you were asked to do them today. For only those activities you checked in column I, rate your degree of confidence that you could do them by selecting a number from 10 to 100 using the scale given below in column II.

10	20	30	40	50	60	70	80	90	100
Quite Uncertain				Moderately Certain					Quite Certain

	I	II
	Check if you can do	Rate Confidence
1. Anticipate (think about) having intercourse without fear or anxiety.		
2. Feel comfortable being nude with the partner.		
3. Feel comfortable with your body.		
4. In general, feel good about your ability to respond sexually.		
5. Be interested in sex.		
6. Feel sexual desire for the partner.		
7. Feel sexually desirable to the partner.		
8. Initiate an exchange of affection without feeling obliged to have sexual relations.		
9. Initiate sexual activities.		
10. Refuse a sexual advance by the partner.		
11. Cope with the partner's refusal of your sexual advance.		
12. Ask the partner to provide the type and amount of sexual stimulation needed.		
13. Provide the partner with the type and amount of sexual stimulation requested.		
14. Deal with discrepancies in sexual preference between you and your partner.		
15. Enjoy an exchange of affection without having sexual relations.		
16. Enjoy a sexual encounter with a partner without having intercourse.		
17. Enjoy having your body caressed by the partner (excluding genitals and breasts).		
18. Enjoy having your genitals caressed by the partner.		
19. Enjoy having your breasts caressed by the partner.		
20. Enjoy caressing the partner's body (excluding		



genitals).

21. Enjoy caressing the partner's genitals.
  22. Enjoy intercourse.
  23. Enjoy a lovemaking encounter in which you do not reach orgasm.
  24. Feel sexually aroused in response to erotica (pictures, books, films, etc.).
  25. Become sexually aroused by masturbating when alone.
  26. Become sexually aroused during foreplay when both partners are clothed.
  27. Become sexually aroused during foreplay when both partners are nude.
  28. Maintain sexual arousal throughout a sexual encounter.
  29. Become sufficiently lubricated to engage in intercourse.
  30. Engage in intercourse without pain or discomfort.
  31. Have an orgasm while masturbating when alone.
  32. Have an orgasm while the partner stimulates you by means other than intercourse.
  33. Have an orgasm during intercourse with concurrent stimulation of the clitoris.
  34. Have an orgasm during intercourse without concurrent stimulation of the clitoris.
  35. Stimulate a partner to orgasm by means other than intercourse.
  36. Stimulate a partner to orgasm by means of intercourse.
  37. Reach orgasm within a reasonable period of time.
-

**PANAS Questionnaire**

This scale consists of a number of words that describe different feelings and emotions. Read each item and then list the number from the scale below next to each word. **Indicate to what extent you feel this way right now, that is, at the present moment *OR* indicate the extent you have felt this way over the past week (circle the instructions you followed when taking this measure).**

1	2	3	4	5
Very Slightly or Not at All	A little	Moderately	Quite a Bit	Extremely
_____ 1. Interested				_____ 11. Irritable
_____ 2. Distressed				_____ 12. Alert
_____ 3. Excited				_____ 13. Ashamed
_____ 4. Upset				_____ 14. Inspired
_____ 5. Strong				_____ 15. Nervous
_____ 6. Guilty				_____ 16. Determined
_____ 7. Scared				_____ 17. Attentive
_____ 8. Hostile				_____ 18. Jittery
_____ 9. Enthusiastic				_____ 19. Active
_____ 10. Proud				_____ 20. Afraid

### Appendix C

November 19, 2015

Dear Eric Sprankle, PsyD:

Re: IRB Proposal entitled "[823858-3] The Impact of Pornography on the Genital Body Image and Sexual Self-Efficacy of College Students"

Review Level: Level [II]

Your IRB Proposal has been approved as of November 19, 2015. On behalf of the Minnesota State University, Mankato IRB, we wish you success with your study. Remember that you must seek approval for any changes in your study, its design, funding source, consent process, or any part of the study that may affect participants in the study. Should any of the participants in your study suffer a research-related injury or other harmful outcome, you are required to report them to the Associate Vice-President of Research and Dean of Graduate Studies immediately.

The approval of your study is for one calendar year less a day from the approval date. When you complete your data collection or should you discontinue your study, you must submit a Closure request (see <http://grad.mnsu.edu/irb/continuation.html>). All documents related to this research must be stored for a minimum of three years following the date on your Closure request. Please include your IRBNet ID number with any correspondence with the IRB.

The Principal Investigator (PI) is responsible for maintaining signed consent forms in a secure location at MSU for 3 years following the submission of a Closure request. If the PI leaves MSU before the end of the 3-year timeline, he/she is responsible for following "Consent Form Maintenance" procedures posted online (see <http://grad.mnsu.edu/irb/storingconsentforms.pdf>).

Sincerely,

Mary Hadley, Ph.D.

IRB Coordinator