

# Pornography, Masculinity, and Sexual Aggression on College Campuses

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## Abstract

Past research has indicated that there is a relationship between pornography consumption and sexually aggressive behavior. This study sought to expand an understanding of that relationship by examining measures of masculinity among a sample of undergraduate heterosexual males ( $N = 152$ ) along with pornography consumption variables to assess the predictive value that both pornography consumption and varying levels of masculinity have on sexual aggression. Linear regression analyses indicate that males who had higher scores on the Likelihood of Sexual Force (LSF) measure consumed pornography more often and were more likely to watch male-dominant pornography. In addition, males who had higher scores on LSF exhibited higher masculinity scores on two scales. Results are discussed in the context of the complexities of masculinity and pornography consumption and the implications for prevention programs on college campuses.

## Keywords

sexuality, situational factors, sexual assault, media and violence, offenders

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Research on pornography consumption by young adults has sought to explain how and in what ways pornography impacts the people that view it. This includes what effects pornography consumption has on real-world interactions with prospective sexual partners as well as attitudes toward women (DeKeseredy, 2015; Ferguson & Hartley, 2009; Lim et al., 2016; Malamuth et al., 2000; McKee, 2007; Wright et al., 2016). Controversy in the field still exists regarding the relationship between pornography consumption and sexual aggression/sexual violence, but literature has found a consistent relationship between certain kinds and amounts of pornography consumption, some personality characteristics and a predisposition toward sexual aggression and the outcome of sexual violence (Carr & VanDeusen, 2004; Kingston et al., 2009; Malamuth et al., 2000; Seto et al., 2001).

In addition, using the confluence model (Malamuth et al., 1991, 2000), researchers have identified both pornography consumption (traditional print format) and adverse representations of masculinity, typically termed hostile masculinity, as contributing factors to sexual aggression (Abbey et al., 2011; Vega & Malamuth, 2007). The confluence model, which has been studied with both college students and community samples, has studied the relationship between hostile masculinity and its contribution to sexual aggression for over 25 years (Abbey et al., 2011; Malamuth et al., 1995). The hostile masculinity path, identified by the confluence model as a grouping of characteristics that exemplify hostility toward women, sexual arousal as a byproduct of aggression, and dominance and control over women, works in tandem with the sexual promiscuity path to predict sexual aggression (Malamuth et al., 1991, 1995). More recently, Baer et al. (2015) modernized the confluence model by including online pornography instead of only print pornography and replicated the relationship between hostile masculinity, sexual promiscuity, and pornography consumption in relation to sexual aggression, but found sex drive to be the driving factor in the relationship between pornography use and sexual aggression. This study sought to contribute to the literature in two ways: (a) To investigate how masculinity measured through two scales, the Masculine Behavior Scale (MBS) and the Gender Role Conflict Scale (GRCS), neither of which were designed to measure hostile masculinity as characterized above, relate to sexual aggression in college men (measured by disclosed perpetration as well as a hypothetical question that measures likelihood of sexual force) and (b) To extend the understanding of the relationship between pornography consumption and sexual aggression to include frequency of online pornography consumption, similar to Baer et al. (2015), and preferred types of online pornography.

## Masculinity and Sexual Aggression

Masculinity in American culture has been hypothesized to consist of a myriad of salient features usually involving lack of emotionality, independence from others, physical toughness, sexual prowess, and life success, all of which are socially contextualized (Brannon, 1976; Chafetz, 1974; Kimmel, 2008; O'Sullivan, 1993). Two specified forms of masculinity, hegemonic and hostile, discuss potential adverse representations of masculine characteristics to understand their relationship with sexual aggression.

Hegemonic masculinity frames men as dominant figures in society who exercise power and control over women (Connell, 1989; Katz, 2006). Theoretically hegemonic masculinity emphasizes strong adherence to gender roles and in turn, the restriction of traits associated with femininity, such as emotionality, and the valuing of traits such as domination, competition, aggression, and control (Connell, 1989; Connell & Messerschmidt, 2005; Katz, 2006; Murnen et al., 2002; Prohaska & Gailey, 2010). The college environment has been shown to be a contributing factor to male struggles with hegemonic masculinity (Davis & Laker, 2004; Edwards & Jones, 2009). As Smith et al. (2015) explain, given the complexities associated with studying hegemonic masculinity, there is limited understanding of the relationship between deconstructed dimensions of hegemonic masculinity and sexual violence. Smith et al. (2015) found that gender role stress and adherence to anti-feminine norms, both of which could arguably be constructs of hegemonic masculinity, predict sexual dominance and facilitate sexual aggression.

Hostile masculinity maintains similar core components of hegemonic masculinity (the desire for power and control), but moves further to reflect the ways some men, who may be unable to achieve other means of masculinity (money, status, power, satisfying relationships, etc.) may express their manhood through the exploitation of women (Prohaska & Gailey, 2010). Hostile masculinity is frequently operationalized as an attitude that endorses traditional and often rigid notions of masculinity that are coupled with hostility "toward, suspiciousness of, and/or a need for dominance over women" (Casey et al., 2017, p. 5). As explained earlier, the confluence model has identified a hostile masculinity pathway that can predict sexual aggression (Abbey et al., 2011; Casey et al., 2017; Malamuth et al., 1991).

With an understanding of the complexities of both hegemonic and hostile masculinity in regard to their relationship with sexual aggression, there remains a gap in the literature in regard to less adverse forms of masculinity and what kind of relationship, if any, these more general expressions of masculinity have with sexual aggression. The MBS (Snell, 1989) measures stereotypical masculine behaviors such as restricted emotionality and is unique

in that the scale identifies behaviors associated with masculinity, but is purposely designed to avoid a measure of aggression or more adverse form of masculinity which was measured in another scale (Snell, 1989). The GRCS (O'Neil et al., 1986) is yet another scale that assesses aspects of masculinity, but it is theorized to measure the strain associated with men feeling they cannot meet the standard of their socialized gender roles which causes negative effects, described as psychological dysfunction. This scale is designed to measure feelings, attitudes, and behaviors associated with gender-role conflict, not just stereotypical masculine behaviors, thus moving beyond the MBS. Although the scales have some overlapping conceptual groundings (both contain subscales that measure some form of need for success and issues with sharing emotion), they theoretically measure characteristics associated with masculinity in different ways. Neither measure was designed to study the more adverse form of masculinity discussed above (hostile masculinity), but both can provide insight into a more nuanced understanding of the differences between stereotypical masculine behaviors and more deep-seeded masculinity issues associated with gender-role conflict and how each contribute to sexual aggression. As such, this study utilized both scales to investigate the relationship between less adverse, more moderate levels of masculinity.

## **Pornography and Sexual Aggression**

The availability and usage of pornography have dramatically increased in the last 10 years because of the internet. Visitors to adult pornography websites per month have almost doubled from 58 million in 2006 to 107 million in 2016 (Luscombe, 2016). In addition, 64% of college-aged men admitted to watching pornography weekly and upon turning 18 years old, virtually all boys and the majority of girls will have seen online pornography at some point in their adolescence (Lahey, 2009; Sabina et al., 2008). Literature examining the effects of pornography (including print and electronic) consumption has identified both positive and negative outcomes. For example, some studies focusing on the more prosocial side of pornography consumption have found it to be a leisure activity that has educational benefits associated with understanding sexual desires and identity (McCormack & Wignall, 2017). Similarly, some studies have found no effect or minimal effect of engagement with pornography on proclivity toward sexually aggressive or violent behavior (Diamond et al., 2009; McCormack & Wignall, 2017; Sinkovic et al., 2012).

Although consensual, adult pornography in and of itself is not harmful, issues arise when there is an unrealistic portrayal of sexual interaction that degrades women (DeKeseredy, 2015; Klaassen & Peter, 2015; Wright & Donnerstein, 2014). In one study, 88% of a sample of pornographic films

involved males engaging in physical violence against female victims (Bridges et al., 2010). Studies have also found that pornography consumption is correlated with attitudes and behaviors supporting violence against women, reduced bystander intervention, and committing or attempting to commit a sexual assault or engaging in sexually aggressive behaviors (Carr & VanDeusen, 2004; Foubert & Bridges, 2017; Seto et al., 2001). In particular, the confluence model of sexual aggression has identified relationships between more pornography consumption, hostile masculinity, and sexual promiscuity in regard to increased sexual aggression (Baer et al., 2015; Hald et al., 2010; Kingston et al., 2009; Malamuth et al., 2000, 2012; Vega & Malamuth, 2007). Past studies investigating the impact of pornography and masculinity on sexual aggression have primarily focused on consumption of print pornography, with the exception of Baer et al. (2015). Given the statistics explained above about the use of online platforms to access pornography, further exploration of online pornography consumption is both relevant and timely.

## Current Study

The aim of this study was to further investigate the relationship between pornography consumption, masculinity, and sexual aggression. To do so, the outcome variable (dependent variable) was sexual aggression as measured by disclosed sexual perpetration *and* likelihood to use sexual force (a hypothetical question). Sexual perpetration was determined through the Sexual Experiences Survey–Perpetration Form (SES-PF; Koss et al., 2007) and likelihood of sexual force was determined by the Likelihood of Sexual Force (LSF; Malamuth et al., 1991) question. The predictor variables (independent variables) included pornography consumption which measured both frequency of consumption and preferred type of pornography, and masculinity as measured by two scales, The MBS (Snell, 1989) and the GRCS (Wester et al., 2012). It was hypothesized that males who watched more pornography and who preferred more extreme types of porn (violent/degrading) would be more likely to report perpetration and report greater likelihood of sexual force. In addition, it was hypothesized that men with higher scores on the masculinity indexes would also be more likely to report perpetration and report greater likelihood of sexual force.

## Method

### *Participants*

Subsequent to Institutional Review Board (IRB) approval, male undergraduates from a mid-sized Southwestern University were asked to partake in online

survey research on sexual aggression. The *Select Survey* program available through the university was utilized for the creation and administration of the survey, as well as data collection. Students were recruited from undergraduate classes in the criminology and criminal justice department and some were offered small amounts of extra credit for their participation (presented completion form which was not linked to individual responses). Students were able to access the survey link from any computer in any location, allowing for them to take the survey in their preferred environment. A total of 165 self-identified males (81% of original sample) completed the survey and were considered to meet the conditions necessary for inclusion (answered the majority of questions, correctly responded to attention check questions, and took longer than 10 min to complete the survey). Approximately 93% (152) of the sample identified as heterosexual, with the remaining 7% (12) as bisexual, gay, questioning, or other. Only males who identified as heterosexual (152) were included in analyses to narrow the analyses strictly to male/female sexual violence. Approximately 70% of males identified as Caucasian/White (116), 17% as Hispanic/Latino (28), and approximately 13% as another race or ethnicity (21; this includes African American/Black, Native American, Alaskan/Pacific Islander, or mixed race). In addition, 40% (66) of the sample was 18 years of age, 31% (51) was 19 years of age, and 29% (48) was 20 years of age or older.

## Measures

### *Independent variables*

**Pornography consumption.** Analyses were centered primarily around two pornography consumption questions. The first asked "How often do you seek out pornography on the internet" with the options being *Never* (0), *A few times out of curiosity* (1), *Once in a while* (2), *A few times a month* (3), *Once a week* (4), and *Every few days* (5). Consistent with procedures outlined by Malamuth et al. (2000) and Vega and Malamuth (2007), online pornography consumption was measured through a question that determines the frequency of exposure.

The second pornography question used in analyses asked what types of online pornography participants preferred. Participants could choose all that applied and options were fantasy/role-play, male-dominant/female-submissive (male initiates and takes assertive role), female-dominant/male-submissive (female initiates and takes assertive role), girl on girl, guy on guy, hardcore, bondage/discipline, sadomasochism, and forced sex. Variables were then created for each type individually and coded as "No they did not prefer this type" (0) or "Yes they did prefer this type" (1). Given that past literature has identified relationships between more extreme types of pornography consumption, such as hardcore and sadomasochism, and sexual behavior, an

extreme pornography variable was created that combined hardcore, sadomasochism, bondage, and forced sex with the same dichotomous “No” “Yes” categorization (Malamuth et al., 2000; Seto et al., 2001). These dichotomous variables were used in further analyses to assess the relationship between preferred pornography type and outcome variables.

Similar to the frequency of pornography consumption question described above, the pornography types question was developed specifically for the current survey in terms of a general measurement of what types of pornography participants prefer. These measures were based on the degree of exposure to types of pornography which is consistent with other methodological approaches taken by scholars in the field (Braun-Courville & Rojas, 2009; Grubbs et al., 2015; Malamuth et al., 2000; Traeen et al., 2014).

**MBS.** The MBS (Snell, 1989) is a 20-item scale with psychometrically confirmed factorial structure and reliability (subscale  $\alpha$  range from .69 to .89). The calculated reliability estimate for the scale in the study sample was also acceptable ( $\alpha = .88$ ). Using a Likert-type scale ranging of +2 to -2, respondents indicate their agreement with the statement provided. Items on each subscale are summed and higher scores indicate more stereotypical masculine behavior. Example items are as follows:

- I spend a great deal of my time pursuing a highly successful career.
- I don't usually discuss my feelings and emotions with others.

**Gender Role Conflict Scale–Short Form.** The Gender Role Conflict Scale–Short Form (GRCS-SF; Wester et al., 2012) is a 16-item scale measuring the construct of gender role conflict for males (O'Neil et al., 1986). The short form was developed and psychometrically validated in 2012 (subscale  $\alpha$  range from .77 to .80; Wester et al., 2012). Reliability estimates in the study sample were also acceptable ( $\alpha = .78$ ). Using a Likert-type scale ranging of +3 to -3, respondents indicate their agreement with the statement provided. Responses are summed and higher scores indicate higher levels of gender role conflict. Example items are as follows:

- Winning is a measure of my value and personal worth.
- Being smarter or physically stronger than other men is important to me.

### *Dependent variables*

**Sexual Experiences Survey–Short Form Perpetration.** The Sexual Experiences Survey–Short Form Perpetration (SES-SFP; Koss et al., 2007) is a

10-item scale that asks about sexual assault experiences that are perpetrator-oriented ranging from unwanted sexual acts like fondling/touching to oral/vaginal/anal penetration (as well as attempted but not completed acts). It also measures the way in which the sexual acts happened ranging from coercive tactics to forced sex. The measure asks respondents how many times in the past 12 months and since the age of 14 years have they engaged in certain acts (again ranging from sexually coercive acts to rape). For men, the SES has been shown to have good psychometric properties ( $\alpha = .89$ , test-retest reliability,  $r = .93$ ; Koss et al., 2007). The reliability estimate for the study sample was comparable ( $\alpha = .91$ ). The SES is the most widely used tool within the literature to assess self-report student sexual assault experiences from both the perpetrator and victim perspective.

This study was interested in a different timeframe of perpetration than the revised SES-SFP provides, so for every question the question asked “Since entering college . . .” In addition, respondents chose *yes*, *no*, or *maybe* in response to the SES-SFP questions, with the *maybe* option being an additional response option that is not in the revised SES-SFP. The inclusion of a *maybe* response was in an effort to incorporate literature that questions the understanding and interpretation of consent, sometimes referred to as sexual misperception in the literature (Bondurant & Donat, 1999; Jozkowski & Peterson, 2013; Kahn et al., 2003; Kolivas & Gross, 2007). Any *maybe* responses and *yes* responses that affirmed any type of perpetration were grouped together. Although it is difficult to interpret what a *maybe* response means, research has highlighted that men have broader interpretation of sexual cues and may therefore be unsure if consent was given (Bondurant & Donat, 1999; Kolivas & Gross, 2007). Any *yes* or *maybe* response to any question ranging from unwanted touching to penetration using any method ranging from coercion to force was used to construct a perpetrator variable that was dichotomous (0 = *no the individual has not perpetrated an act*, 1 = *yes the individual has perpetrated an act*). Only completed, not attempted, acts were included in the dichotomous perpetrator variable. Although the dichotomization of a perpetration variable deviates from the suggested scoring of the SES-SFP, it was utilized as a first step approach to investigate the relationship between perpetration, pornography, and masculinity.

**Likelihood of Sexual Force.** The LSF (Malamuth, 1981) is a single item that consists of the hypothetical question “If I knew I would never get caught and never be punished, I would consider using force to obtain sex.” Scores on this item highly correlate with the more extensive measure of Attraction to Sexual Aggression (Malamuth, 1989a, 1989b), and the item has good construct and predictive validity (Malamuth, 1989a, 1989b). For the purposes of this study,

the LSF was imbedded in the GRCS to not draw attention to it and the scaling of responses remained consistent with the GRCS with options ranging from 3 (*strongly agree*) to -3 (*strongly disagree*) with high scores meaning increased likelihood of using sexual force. Given the limitations inherent in self-report studies of actual perpetration, as measured by the SES-SF, the LSF was included to assess a propensity or potential to perpetrate.

## Procedure

The survey was created through *Select Survey*, a survey development program available through the university. Given that this was an online survey, participants were able to access it from any location that had internet access via a provided link. *Select Survey* provides a unique identifier for every participant's responses and to ensure anonymity, the option to include IP address associated with the responses was turned off. After electronically signing the informed consent page, participants answered a number of demographic-related questions, including questions that asked about their role in the university (clubs/sports/etc.). Participants were then prompted to answer questions regarding their internet usage, which had pornography consumption questions imbedded within. This methodology was purposeful, to not have respondents shy away from or answer dishonestly overt or overly detailed pornography questions. Embedding the pornography-related questions into other media consumption questions is suggested by Vega and Malamuth (2007) as a way to not draw attention to the pornography focus. In this section, participants were asked how often they are on the internet and what types of sites they regularly visit. Then, they were asked if they consume pornography, how often (ranging from a few times out of curiosity to every few days), and what kind (see the "Pornography Consumption" section under "Measures" for details). Participants then completed various measures of masculinity and sexual experiences. Attention check questions were imbedded at various points throughout the survey and consisted of the statement "I am reading every question of this survey before I respond" in which participants had to answer on a 5-point Likert-type scale ranging from *completely agree* to *completely disagree*.

## Analyses

Frequency and descriptive analyses were used for demographic variables and primary variables of interest including, (a) pornography consumption which included frequency of pornography consumption and type of pornography, (b) masculinity scales which are the MBS and GRCS, and (c) reported perpetration

and responses to the hypothetical question on likelihood of sexual force which are generated from the SES-SFP and LSF. Bivariate correlations (continuous variables) and point biserial correlations (dichotomous and continuous variables) were run to assess the relationships between predictor variables (pornography variables) and outcome variables (LSF and SES-SFP), and the relationship between the two masculinity scales (MBS and GRCS). Although the two masculinity scales were expected to be correlated, theoretically they measure different concepts; MBS measures moderate displays of stereotypical masculine behavior and GRCS measures feelings, attitudes, and behaviors associated with internal conflicts with prescribed gender-roles that can cause psychological. In addition, independent samples *t*-tests were used to compare perpetrators (as identified by the SES-SFP) and nonperpetrators on key variables. Due to the small *N* associated with identified perpetrators (measured by the SES-SFP), likelihood of perpetration (measured by the LSF) was used as the outcome variable for further analyses. Linear regression analyses were used to investigate the relationships between pornography consumption (frequency and type) and levels of masculinity (as measured via the GRCS and the MBS), on the outcome variable of hypothetical likelihood of sexual force (LSF). Given that the GRCS and MBS theoretically measure different constructs, two regression models were used to evaluate their independent effects on LSF.

## Results

### *Pornography Consumption*

Pornography consumption was assessed through two variables; one that measured how often or the frequency that the individual consumed pornography and one that assessed preference for various types of pornography. In regard to the frequency of pornography consumption, 10.6% of heterosexual males said they *never* sought out pornography and 37.1% sought it out every few days (see Table 1). The two most common types of preferred pornography viewed by heterosexual males was girl-on-girl pornography (36.8%) and male-dominant pornography (32.9%). Extreme pornography, which includes hardcore, sadomasochism, bondage, or forced sex, was preferred by 20.4% of the male heterosexual sample and 51.8% of males who watched pornography only consumed one type (see Table 1). In addition, frequency of pornography consumption was correlated with likelihood of sexual force (LSF;  $r = .20, p = .026$ ) as was preference for male-dominant pornography ( $r_{pb} = .20, p = .019$ ). All other point biserial correlations between types of pornography (such as girl-on-girl or extreme pornography) were not significantly related to likelihood of sexual force.

**Table 1.** Descriptive Statistics of Pornography, Masculinity, and Sexual Force.

Variable (Coding)	N (%)	M (SD)
Porn consumption (frequency)	132	3.17 (1.74)
Never (0)	14 (10.6)	
A few times out of curiosity (1)	7 (5.3)	
Once in a while (2)	35 (26.5)	
Few times a month (3)	12 (9.1)	
Once a week (4)	15 (11.4)	
Every few days (5)	49 (37.1)	
Porn consumption (type)	110	1.88 (1.30)
One type (1)	57 (51.8)	
Two types (2)	29 (26.4)	
Three types (3)	14 (12.7)	
Four or more (4)	10 (9.1)	
Extreme porn		
No (0)	88 (74.6)	
Yes (1)	30 (25.4)	
MBS	130	10.71 (11.94)
GRCS	146	4.77 (13.17)
Sexual force		
Perpetration (SES-SFP) <sup>a</sup>	12 (7.9)	
Likelihood (LSF) <sup>b</sup>	37 (24.3)	-2.54 (1.11)

Note. MBS = Masculine Behavior Scale; GRCS = Gender Role Conflict Scale; SES-SFP = Sexual Experiences Survey–Short Form Perpetration; LSF = Likelihood of Sexual Force.

<sup>a</sup>For Sexual Force Perpetration (as measured by the SES-SFP), *N* denotes the number of participants who responded “maybe” or “yes” to any of the perpetration questions. <sup>b</sup> For the Sexual Force Likelihood (as measured by the LSF), *N* denotes the number of participants who had higher likelihood of using sexual force.

### *Masculinity (MBS) and Gender Role Conflict (GRCS) Scales*

The range for heterosexual males on the MBS was -21 through 40 with higher scores meaning high masculinity. The range of scores on the GRCS was -32 to 48 with higher scores meaning more gender role conflict. For linear regression analyses, the summed scale scores were entered as predictors of likelihood of sexual force. The two scales, MBS and GRCS, were highly correlated ( $r = .54, p = .001$ ). As discussed in the “Analyses” section, the scales theoretically do not measure the exact same concept; therefore, both scales were used in further analyses (linear regressions) to assess their individual relationships with the outcome variables.

### **Sexual Assault Perpetration (SES-SFP) and Likelihood of Sexual Force (LSF)**

For the SES-SFP, which was the measure of actual sexual assault perpetration, approximately 8% (12 individuals) of the heterosexual male sample said they had (five of the 12) or maybe had (seven of the 12) perpetrated one or more of the unwanted sexual acts (see Table 1). Approximately, 67% (eight individuals) of perpetrators responded to how much they watch pornography. Of that 67%, all reported they watch pornography, half reported they watch it every few days, and 75% (six individuals) said they either watch male-dominant pornography or girl-on-girl pornography.

Independent sample *t*-tests were used to compare perpetrators (those that responded that they did perpetrate or may have) and nonperpetrators on frequency of pornography consumption, preferred type, and scores on MBS and GRCS. Given the small sample size of perpetrators, statistical power is limited to detect differences. There were no statistically significant differences between the two groups ( $ts < -1.85$ ,  $ps > .067$ ), although the means associated with perpetrators on all variables (pornography consumption, preference for male-dominant pornography, and scores on both the MBS and GRCS) were higher than the nonperpetration group.

The LSF, which was the single-item question that measured hypothetical likelihood to use sexual force with response options ranging from 3 (*strongly agree*) to -3 (*strongly disagree*), served as a secondary outcome variable ( $M = -2.54$ ,  $SD = 1.11$ ). Approximately, 24% of heterosexual males said they did not strongly disagree with the statement "If I was sure I would never get caught and would never be punished, I would consider using force to obtain sex," thus this group has the highest likelihood of sexual force. For the remainder of analyses in the following section, continuous scores on the LSF are used as the outcome variable due to the larger *N*.

### **Pornography Consumption, Masculinity, and Likelihood of Sexual Force**

Linear regression analyses were run to examine the relationships of pornography consumption (frequency and type) and masculinity (as measured via the GRCS and the MBS), on the outcome variable of hypothetical likelihood of sexual force (LSF) among the heterosexual male sample. In regard to the type of pornography preferred by participants, male-dominant pornography preference was the only type that was significantly correlated with the outcome variable and therefore was the only type included in the regression analyses. To address multicollinearity due to the high correlation between the

**Table 2.** Linear Regression Analyses—Effect of Porn Consumption (Frequency), Male-Dominant Porn, and MBS on Likelihood of Sexual Force ( $N = 110$ ).

Predictor Variable	Outcome Variable: Likelihood of Sexual Force			
	<i>B</i>	<i>SE</i>	$\beta$	<i>T</i>
Porn consumption (frequency)	.113	.051	.210	2.22*
Male-dominant porn	.347	.178	.181	1.95†
MBS	.015	.007	.198	2.14*
Porn Consumption $\times$ Male-Dominant Porn	.255	.106	.534	2.39*

Note. MBS = Masculine Behavior Scale.  
 † $p = .054$ . \* $p < .05$ .

**Table 3.** Linear Regression Analyses—Effect of Porn Consumption (Frequency), Male-Dominant Porn, and GRCS on Likelihood of Sexual Force ( $N = 126$ ).

Predictor Variable	Outcome Variable: Likelihood of Sexual Force			
	<i>B</i>	<i>SE</i>	$\beta$	<i>T</i>
Porn consumption (frequency)	.114	.051	.195	2.23*
Male-dominant porn	.420	.180	.201	2.34*
GRCS	.018	.006	.235	2.74**
Porn Consumption $\times$ Male-Dominant Porn	.239	.109	.463	2.18*

Note. GRCS = Gender Role Conflict Scale.  
 \* $p < .05$ . \*\* $p < .01$ .

MBS and GRCS, separate linear regression models were used to analyze each scales relationship with sexual force. All variables were entered into the regression model in Block 1 to assess their relationship with the outcome variable while accounting for the effects of the other variables. The overall  $R^2$  for the model that included the MBS was .115 and the  $R^2$  for the model that included the GRCS was .130. Tables 2 and 3 summarize the results. More pornography consumption was a significant predictor of higher LSF scores in both regression models (MBS model:  $\beta = .210, p = .027$ ; GRCS model:  $\beta = .195, p = .027$ ). Preference for male-dominant pornography was marginally significant in the model that included the MBS scale ( $\beta = .181, p = .054$ ) and was a significant predictor of higher LSF scores in the GRCS model ( $\beta = .180, p = .054$ ). Higher scores on the MBS were also a significant predictor

of increased LSF scores ( $\beta = .198, p = .035$ ; see Table 2), and higher scores on the GRCS were significant in the same direction ( $\beta = .235, p = .007$ ; see Table 3). Age and ethnicity were not significantly associated with the outcome measure in any of the models, nor did they modify any of the effects and were therefore excluded in the final models.

To further consider the effect of an interaction between frequency of pornography consumption and preference for male-dominant pornography, both models were run with an interaction term. The interaction term was a significant in both models with those who reported increased frequency of consuming pornography *and* a preference for male-dominant pornography scoring higher on the LSF (MBS model:  $\beta = .534, p = .018$ ; GRCS model:  $\beta = .463, p = .031$ ).

## Discussion

Overall, increased amounts of online pornography consumption (frequency) and male-dominant pornography consumption (type) were shown to be *unique* predictors of hypothetical likelihood of sexual force, as reported by heterosexual male undergraduates. Furthermore, there was an interaction between frequency and preference for male-dominant pornography in that those that reported consuming pornography more often and preferred male-dominant pornography were more likely to have higher scores on the LSF. In addition, higher masculinity scores (as measured by the MBS and GRCS) also appear to predict unique variance separate from pornography when entered into independent models. It was hypothesized that males who watched more online pornography (frequency), prefer more extreme types of porn (violent/degrading), and who score higher on masculinity indexes would be more likely to report perpetration and have higher scores of the LSF. Due to the small  $N$  associated with self-disclosed perpetration, we were limited to only using the outcome variable of hypothetical likelihood of sexual force for analyses. Given that, part of the hypotheses was supported in that males who watched more pornography (frequency) and who exhibited higher masculinity scores (as measured through the MBS and GRCS) did indeed have increased scores on the hypothetical likelihood of sexual force measure. Although our results did *not* indicate that men who preferred more extreme types of online pornography had increased hypothetical likelihood of sexual force, results did show that those who preferred male-dominant pornography had increased scores on the LSF. It could be argued that there is some conceptual overlap in the predictor variable of preference for male-dominant pornography and the LSF outcome variable, thus slightly limiting the conclusions that can be drawn.

As discussed in the beginning of this article, the confluence model has identified pornography consumption and hostile masculinity as contributing factors to sexual aggression (Abbey et al., 2011; Malamuth et al., 1996; Vega & Malamuth, 2007). Similarly, concepts associated with hegemonic masculinity such as gender role stress and anti-femininity have been linked to sexual aggressions (Smith et al., 2015). In addition, a review article of the drivers of male perpetration of intimate partner violence identified factors related to masculinity, including male entitlement and power over women, as well as the low social value of women in society as contributors to sexual violence (Jewkes, 2000). Katz (2006) discusses the overlap of aggression toward women and perceived masculinity with an understanding that not all men are violent toward women and therefore only some men adopt a dangerous form of masculine behavior. This study contributes to the understanding of what the “dangerous form” of masculinity, as Katz (2006) refers to it, entails in that high scores on both masculinity scales (one that measured general behaviors and feelings associated with masculinity and one that measured gender role conflict) indicated a higher hypothetical likelihood of using sexual force. Masculinity is clearly a multi-faceted construct, and this study provides a lens by which to interpret the relationship between varying levels and forms of masculinity and sexual aggression.

In regard to pornography consumption, results indicate that it is widespread among college men in this study, with approximately 90% having viewed it and almost 40% consuming it every few days. In addition, more pornography consumption is related to increased scores on the LSF. These results are consistent with literature on the prevalence of the consumption of pornography by college-aged males (Lahey, 2009; Martellozzo et al., 2016; Sabina et al., 2008) and literature that finds a relationship between sexual aggression/violence and pornography consumption (Carr & VanDeusen, 2004; Kingston et al., 2009; Malamuth et al., 2000). Literature has outlined a number of drivers of sexual aggression, many of which have been mentioned in this article with some having more predictive value than others. More importantly is the understanding that the combination of these drivers typically predicts the strongest likelihood of sexual aggression. Thus, many of these factors alone, such as pornography consumption, do not cause aggression but work in tandem with other factors, such as adverse forms of masculinity, psychopathy, or alcohol/drug consumption which make an individual more prone to aggression.

In addition, this study integrated preferred type of pornography as it relates to reported likelihood of sexual force. Male-dominant pornography was the only type of preferred pornography found to be a significant predictor of hypothetical likelihood of sexual force and the interaction between

male-dominant preference and frequency significantly predicted hypothetical likelihood of sexual force. Conversely, extreme pornography consumption (hardcore, sadomasochism, bondage, or forced sex) was *not* found to be a significant predictor of hypothetical likelihood of sexual force. Although this study's findings align with research in terms of the interaction effect between frequency and certain types of pornography, the findings deviated slightly from relevant literature in that extreme pornography was not found to be related to sexual force, while preference for male-dominant pornography was (Kingston et al., 2009; Malamuth et al., 2000). It is possible that this finding is related to seeking pornography through an online platform as past research that found the relationship between extreme pornography consumption and sexual aggression used traditional print pornography. Research that focuses on the more extreme types of pornography, while valuable, may not be capturing the full relationship between pornography interest and sexual aggression. In addition, further exploration of interactions between frequency of pornography consumption and types of pornography consumption will help further parse out the strongest predictors related to sexual aggression.

It should be noted that this research is not meant to demonize either pornography consumption nor masculinity. Moderate forms of each can be healthy and likely do not contribute to harmful behavior. A goal of the current research was to assess if and where levels of each have an impact on sexual assault inclination and behavior, and this research found that increased amounts of both pornography consumption and masculinity did in fact predict increased likelihood of sexual force (hypothetical question). This study contributes to the growing body of literature in the area by deepening the understanding of masculinity's contribution to sexual aggression and by incorporating preferred types of internet pornography consumption to better understand the relationship between pornography and sexual aggression.

### *Limitations and Future Research*

The self-report nature of surveys, especially those that cover sensitive topics such as sexual assault and pornography consumption, are always limited in terms of generalizability of the results because of respondents' unwillingness to disclose truthful information. Anonymity of responses was emphasized as well as the importance of honest answers throughout the survey. It should be noted that there are significant challenges in conducting research on sexual assault perpetration, both in the measurement of actual perpetration and reported likelihood of perpetration. While one of the goals of the study was to assess predictors of sexual assault perpetration, likelihood of sexual force (LSF) was the only outcome variable used due to the small sample size of

actual perpetrators identified through the SES-SFP. About 8% of college men in this study admit that they may have or have committed some form of unwanted sexual act, while almost a quarter (24.3%) of sampled college men indicated a slight possibility to total certainty that they would force sexual contact if they knew they would not get caught (likelihood variable).

Although there are construct definition limitations to making comparisons of sexual assault prevalence rates across studies, disclosed perpetration rates fell in an expected range (typically between 5% and 20%), especially given that the majority of respondents were freshman and only sexual experiences since entering college were measured (Abbey et al., 1998; Abbey & McAuslan, 2004; Koss et al., 1987; McDaniel & Rodriguez, 2017; Testa et al., 2015). It is difficult to term the low rate of self-identified perpetrators (as measured by the SES-SFP) as a limitation in this study, as the goal of research in this area is to effectively lower perpetration prevalence. As Testa et al. (2015) explain, research in the field has equated higher self-reported perpetration rates with more honest responses, which may be slightly misleading. Kolivas and Gross (2007) suggest that further research be conducted on the varying perspectives and understanding of sexual aggression from both victim and perpetrator. Some of the variation in prevalence rates of sexual assault that are self-reported from victims and perpetrators may be due to how each defines or perceives the behavior. By including a “maybe” response option, this study possibly tapped into an extension of perpetrator defined acts, but including the “maybe” responses in with the affirmative responses for analyses provides a less precise measure of perpetration.

In addition, determining likelihood of sexual force (LSF) can be problematic because high reported likelihood of sexual force does not necessarily translate directly into perpetration of sexual assault. The phrasing of the LSF was framed in a hypothetical scenario, and it is unknown how responses to hypothetical situations relate to actual behavior. With that said, the LSF highly correlates with the full measure of Attraction to Sexual Aggression (Malamuth, 1989a, 1989b), but again, more attraction to sexual aggression does not necessarily equate perpetration.

This study focused on a heteronormative sample and did not include the experiences of those who identified as same-sex. This is by no means to discount those experiences, and future research would benefit from further understanding nonheteronormative populations experiences of sexual assault in relation to pornography consumption and masculinity. Similarly, the sample consisted of mostly freshman male undergraduates taking criminal justice and criminology courses at one mid-sized rural university, and the sample size was relatively small. In addition, frequency of pornography consumption and likelihood of sexual force were single questions thus limiting

the variability of response options associated with these measures. There were no questions asked about sexual partners or relationship status, which would possibly provide more nuanced data when considering the relationship between pornography consumption, masculinity, and likelihood of sexual force.

This study purposely examined masculinity using two scales, the Masculine Behavior Scale (MBS) and the Gender Role Conflict Scale (GRCS), neither of which identifies high scores as signifying hostile or hegemonic masculinity. It will be important for future research to better articulate characteristics, feelings, and actions associated with hostile and hegemonic masculinity to fully interpret the relationship between sexual aggression and the complex construct of masculinity. In addition, it would be beneficial to analyze the subscale scores of the MBS and GRCS to possibly draw out factors that may be related to the concept of hostile masculinity and therefore be the driving force behind the association between masculinity and sexual force. For example, both the MBS and GRCS have subscales measuring similar concepts, that is, reliance on success. Although the scales measure these concepts in different ways (e.g., the MBS provides a surface-level measure of stereotypical behavioral such as *I do whatever I have to in order to work toward job success*, whereas the GRCS question *My need to work or study keep me from my family or leisure more than I would like* requires one to reflect on how they feel about attaining success), more thorough analysis of these factors and their overlap with Malamuth et al. (1996) construct of hostile masculinity could provide more insight into variations of masculinity and how they related to sexual violence.

Pornography consumption, the role of masculinity, and how both tie into sexual aggression is a compounded issue. When further contextualized to the use of sexual force/sexual assault on college campuses, a myriad of other social influences come into play such as rape culture and the representation of masculinity on college campuses. Research indicates that masculinity and male-involvement is an important piece to campus sexual assault prevention programs (Berkowitz, 2002; Foshee et al., 1998; Hong, 2000; Smith et al., 2015), but there is still a lack of consensus on the way in which masculinity is addressed and what approach is most effective in terms of reducing sexual violence. To the best of our knowledge, no campus sexual assault prevention programs directly address pornography consumption. This study suggests that high levels of masculinity and pornography consumption have predictive value in regard to hypothetical likelihood of sexual force and each should be incorporated into the discussion about prevention programs on college campuses.

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