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To cite this article: Marie-Ève Daspe, Marie-Pier Vaillancourt-Morel, Yvan Lussier, Stéphane Sabourin & Anik Ferron (2017): When Pornography Use Feels Out of Control: The Moderation Effect of Relationship and Sexual Satisfaction, Journal of Sex & Marital Therapy, DOI: [10.1080/0092623X.2017.1405301](https://doi.org/10.1080/0092623X.2017.1405301)

To link to this article: <https://doi.org/10.1080/0092623X.2017.1405301>



Accepted author version posted online: 27 Dec 2017.  
Published online: 15 Feb 2018.



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## When Pornography Use Feels Out of Control: The Moderation Effect of Relationship and Sexual Satisfaction

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### ABSTRACT

There is an understudied, meaningful distinction between high frequency of pornography use and the subjective feeling that this behavior is out of control. We examined whether the quality of a couple's relationship and sex life can strengthen or weaken the association between frequency of Internet pornography use and perceived lack of control over this behavior. In a sample of 1,036 participants, results showed that frequency of pornography use was more strongly associated with feeling out of control when relationship and sexual satisfaction were lower. Findings suggest that couple dissatisfaction puts the individual at risk of reporting out-of-control pornography use.

Pornography use is now common, even among individuals involved in a romantic relationship where opportunities for mutual sexual gratification are available (Bridges & Morokoff, 2011). In some contexts, pornography use can be a healthy, recreational, and positive sexual activity that promotes a permissive climate, open sexual communication, and satisfaction (Daneback, Træen, & Månsson, 2009; Kohut, Fisher, & Campbell, 2017; Poulsen, Busby, & Galovan, 2013). In others, this behavior is accompanied by psychological distress and a perceived lack of control over one's consumption (Grubbs, Stauner, Exline, Pargament, & Lindberg, 2015; Harper & Hodgins, 2016; Vaillancourt-Morel et al., 2017). Interestingly, recent empirical evidence suggests that perceived control over pornography use is a key issue with respect to the psychological and relational consequences of this behavior (Blais-Lecours, Vaillancourt-Morel, Sabourin, & Godbout, 2016; Harper, & Hodgins, 2016). Providing a more accurate portrait of the context that prevents or promotes the development of an out-of-control use of pornography is crucial for prevention and intervention efforts that target the needs of such a specific group of problematic pornography users. The current study examines whether the relational context, namely the quality of a couple's relationship and sex life, provides a certain level of immunity against the association between frequency of use and feeling out of control over Internet pornography use.

### *Perceived lack of control over pornography use*

A proportion of 17% of Internet pornography users are estimated to have an out-of-control or compulsive use (Cooper, Delmonico, & Burg, 2000). Problematic or compulsive Internet pornography use refers to a difficulty controlling a strong urge, even in inappropriate moments, and trouble stopping or decreasing this behavior (Griffiths, 2012; Kraus, Voon, & Potenza, 2016). Thus, compulsive pornography

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use is not restricted to high frequency use but also includes a pattern of out-of-control sexual fantasies, urges, or behaviors—sometimes referred to as “Internet sex addiction” (Griffiths, 2012). The distinction between frequency of use and feelings of control over pornography use is important. The frequency of pornography use constitutes an objective marker of behavioral engagement. Perceived compulsion, on the other hand, refers to a subjective feeling of inability to control one’s own consumption, regardless of its actual frequency (Grubbs, Volk, Exline, & Pargament, 2015). There is variability in the reported association between frequency of use and perceived compulsivity to pornography, with studies showing weak (.18; Grubbs et al., 2015; Grubbs et al., 2015) to strong correlations (.50; Blais-Lecours et al., 2016). Some individuals can therefore spend a lot of time consuming pornography while still feeling in control, whereas others might have a limited consumption but perceive their behaviors as compulsive.

Although no well-validated model of out-of-control pornography use has yet been proposed (Ley, Prause, & Finn, 2014; Montgomery-Graham, Kohut, Fisher, & Campbell, 2015), compulsivity with respect to Internet pornography use is associated with negative sexual and psychosocial outcomes (Harper & Hodgins, 2016; Vaillancourt-Morel et al., 2017). In addition, Grubbs et al. (2015) observed that perceived addiction is associated with psychological distress over and above time spent engaging in Internet pornography. The authors concluded that the subjective perception of one’s pornography use is particularly meaningful and that an exclusive attention to frequency of use is insufficient. We further argue that, because frequency of use and perception of control over pornography use are different but related constructs, there is a need to better understand the factors influencing the strength of their association. The current study focuses on relationship and sexual satisfaction, two key aspects of the relational context that are likely to magnify or minimize the connection between frequency of use and subjective perception of control toward pornography consumption.

### ***The role of the relational and sexual context***

In studies examining Internet pornography use among community-based samples (Cooper et al., 2000; Schwartz & Southern, 2000; Vaillancourt-Morel et al., 2017), about 57% of compulsive users were involved in a romantic relationship. These rates raise an important question: What causes some Internet pornography users with steady partners to fall into a downward spiral of perceived or actual lack of control over pornography use?

Relationship distress and dissatisfaction with one’s sex life are significant predictors of pornography use (Muusses, Kerkhof, & Finkenauer, 2015; Peter & Valkenburg, 2009; Stack, Wasserman, & Kern, 2004; Willoughby, Carroll, Busby, & Brown, 2016). In addition, compulsive sexual behaviors, although not limited to pornography, are thought to be partly related to situational stressors and dysfunctional coping with negative emotions and distress. Coleman (1991) argues that compulsive sexual behaviors constitute a coping mechanism designed to reduce or avoid anxiety and distress. Similarly, Cooper, Putnam, Planchon, and Boies (1999) suggest that individuals who have difficulty dealing with stress and negative emotions are more at risk of developing compulsive online sexual behaviors when facing stressful situations. Low relationship quality and sexual dissatisfaction constitute potential sources of distress that could lead some users to feel that they are losing control over their pornography use. As a result of interpersonal stress and insecurities induced by relationship and sexual dissatisfactions, some individuals may turn to Internet pornography as a dysfunctional way of avoiding or being distracted from negative emotions. The moderating role of romantic relationship factors in the association between frequency of use and perceived control over pornography use has not, however, been explored.

When examining the associations between frequency of use, control over pornography use, and relationship factors, several potential confounds need to be addressed. Regarding gender, studies have shown that pornography use is higher among men than women (Petersen & Hyde, 2010) and that men are overrepresented among samples of compulsive users (Vaillancourt-Morel et al., 2017; Wetterneck, Burgess, Short, Smith, & Cervantes, 2012). However, the association between frequency of pornography use and compulsive sexual behaviors is present in both women and men (Blais-Lecours et al., 2016; Klein, Rettenberger, & Briken, 2014). Regarding cohabitation status, most studies on pornography use have focused primarily on a specific relationship type (e.g., newlywed couples; Muusses et al., 2015; committed heterosexual couples; Bridges & Morokoff, 2011) or controlled for relationship status

(Carroll et al., 2008) without examining between-status disparities. In the current study, we examined the impact of cohabitation status (i.e., cohabiting and married individuals versus those who do not live with their partner) because excessive use of Internet pornography might be more likely to occur when partners do not live together and have more opportunity to engage in these behaviors, without fear of being caught. Similarly, having children might influence various aspects of pornography use, such as frequency and efforts to prevent children from being in contact with pornographic material. Finally, given the association between relationship length and both relationship and sexual satisfaction (Hadden, Smith, & Webster, 2014; Schmiedeberg & Schröder, 2016), its potential implication for the interplay between frequency of use, control over pornography use, and relationship factors deserves attention.

### **Overview of the current study**

Using a large sample of adults involved in a romantic relationship, the current study explored whether low relationship quality and sexual dissatisfaction strengthen or weaken the association between frequency of Internet pornography use and perceived lack of control over this behavior. First, we hypothesized a positive association between frequency of Internet pornography use and perceived lack of control over Internet pornography. We expected, however, that this association would be moderated by relationship and sexual satisfaction. More specifically, we hypothesized that individuals reporting lower relationship and sexual satisfaction would show a steeper increase in perceived lack of control associated with higher frequency of Internet pornography use. In contrast, we expected that the association between frequency and perceived lack of control over Internet pornography use would be weaker in individuals with high relationship and sexual satisfaction. This study also controls for the potential influence of various confounds, namely gender, cohabitation status, parenthood, and length of the relationship. Although we expected the mean level of frequency of use and perceived lack of control over pornography to vary according to these factors, we hypothesized that the moderation effect of relationship and sexual satisfaction on the association between these constructs would hold across gender, cohabitation status, parenthood, and length of the relationship.

## **Method**

### **Participants and procedure**

Participants were recruited via advertisements on Facebook and in local newspapers, and were asked to complete an online survey about pornography use and relationship functioning. The study was approved by the ethical board of the Université du Québec à Trois-Rivières. To be included, participants had to be aged 18 years or older and currently involved in a romantic relationship. The final analytic sample was composed of 1,036 participants (471 men and 565 women). Age ranged from 18 to 55 years, with most participants (76.4%,  $n = 791$ ) aged between 18 and 35 years. Length of the relationship ranged from less than a month to more than 10 years, with 83.9% ( $n = 868$ ) of the sample having been in a relationship for more than a year. Most participants (93.2%;  $n = 961$ ) reported being in an opposite-sex relationship whereas 6.8% ( $n = 70$ ) stated being in a same-sex relationship. Regarding relationship status, 30.1% ( $n = 311$ ) were dating without cohabiting, 54.3% ( $n = 561$ ) were cohabiting, and 15.6% ( $n = 161$ ) were married. A proportion of 34% ( $n = 350$ ) of the participants had children. The number of children ranged from one to more than seven, with the majority (95.7%,  $n = 335$ ) having one or two children. Regarding education, 0.6% ( $n = 6$ ) had no high school degree, 17.3% ( $n = 175$ ) had a high school or vocational training, 32.5% ( $n = 330$ ) had a pre-university degree, 34.0% ( $n = 345$ ) had an undergraduate degree, and 15.6% ( $n = 158$ ) had a graduate degree. Personal annual income ranged from less than \$25,000 to more than \$95,000 in Canadian currency, with most participants (76.9%,  $n = 787$ ) earning \$55,000 or less.

### **Measures**

#### **Internet pornography use**

Various items assessed the use of Internet pornography. One item asked participants whether they had watched sexual online material (video, webcam, pictures, etc.) in the past six months (0 = no, 1 = yes).

Participants who answered yes to this question were next asked about the frequency of their use of online sexual material. This item was rated on a 5-point Likert scale ranging from 1 (*less than once a month*) to 5 (*more than five times a week*). These two items were used to create the frequency variable used in the analysis, which varied from 0 (*no use in the past six months*) to 5 (*more than five times a week*). Then, for descriptive purposes, four items assessed more specifically the frequency of use of different types of sexual material (prerecorded videos, chat, direct videos, and pictures). Each of these items was rated on a 4-point Likert scale ranging from 0 (*never*) to 3 (*very often*).

### **Perceived lack of control over pornography use**

The following item assessed impression of control over pornography use: “To what extent do you feel in control of your use of online sexual material?” Participants answered on a 5-point Likert scale ranging from 1 (*completely in control*) to 5 (*not at all in control*).

### **Relationship satisfaction**

A four-item version of the Dyadic Adjustment Scale (DAS; Sabourin, Valois, & Lussier, 2005; Spanier, 1976) was used to assess relationship satisfaction. When needed, items were reverse-coded and summed to obtain a global score of relationship satisfaction. This global score ranged from 0 to 21, with a higher score indicating higher satisfaction. This four-item version of the DAS shows good psychometric properties (Sabourin et al., 2005). In the current study, Cronbach’s  $\alpha$  was .80.

### **Sexual satisfaction**

Sexual satisfaction was assessed using the following item: “With respect to the past month, to what extent are you satisfied with your sexual life in general?” This item was rated on a 6-point Likert scale, ranging from 1 (*extremely satisfied*) to 6 (*extremely unsatisfied*). The item was reverse-coded so that a higher score reflects higher sexual satisfaction. Previous research has demonstrated the validity of single-item measures to assess sexual satisfaction (Mark, Herbenick, Fortenberry, Sanders, & Reece, 2014).

### **Sociodemographic questionnaire**

Items regarding participants’ sociodemographic characteristics were used to gather information about gender, length of the relationship, children, and relationship status. The relationship status variable was dichotomized to compute a cohabitation status variable (0 = does not live with the partner, 1 = married or cohabitating). The children variable refers to the absence or presence of children (0 = no child, 1 = at least one child).

### **Statistical analyses**

Descriptive and correlational analyses were conducted using SPSS version 20. To handle missing data on the study variables (ranging from 0.7% for frequency of pornography use to 8.8% for sexual satisfaction), regression analyses were conducted in *Mplus* version 6.12 using the full information maximum likelihood estimation method (Muthén & Muthén, 1998–2015). Examination of the data revealed that all study variables were normally distributed except for perceived lack of control over pornography use, which was slightly positively skewed. Regression models were therefore conducted using a method of estimation that is robust to nonnormality (Maximum Likelihood Robust; Yuan & Bentler, 2000). Five outliers were found on the relationship satisfaction variable. Analyses were conducted with and without these outliers. Because their inclusion did not affect the results, the final analyses are based on all available data. Gender, length of the relationship, cohabitation status, and children were entered as covariates in the regression models.

**Table 1.** Descriptive statistics regarding Internet pornography use by men and women.

	Men		Women	
	%	<i>n</i>	%	<i>n</i>
Frequency of Use				
Not in the past 6 months	1.9	9	27.0	152
Less than once a month	3.4	16	28.2	159
Once or twice a month	15.0	70	25.9	146
Once or twice a week	29.2	136	15.3	86
3 to 5 times a week	26.0	121	2.7	15
More than 5 times a week	24.5	114	0.9	5
Types of Online Material Used <sup>a</sup>				
Prerecorded videos	93.7	419	92.4	367
Chat	16.1	69	5.8	23
Direct videos	23.5	105	6.3	25
Pictures	61.5	273	34.9	139

Note. <sup>a</sup>Only among participants who reported having used online sexual material in the past six months.

## Results

### Descriptive and preliminary statistics

A total of 84.5% (*n* = 875) of participants reported having used Internet pornography in the past six months (98.1% of men and 73.1% of women). Table 1 presents descriptive statistics regarding pornography use in the current sample. Results showed that among those who reported having used online sexual material, 80.3% (*n* = 371) of men and 25.5% (*n* = 106) of women have done so at least once a week. For both men and women, prerecorded videos were the most commonly used type of online sexual material.

Table 2 shows correlations, means, and standard deviations for all study variables across men and women. Results indicated that frequency of pornography use was positively associated with perceived lack of control for both men and women. Frequency of pornography use was negatively associated with sexual satisfaction in men. Perceived lack of control was negatively associated with relationship satisfaction and sexual satisfaction in men. Length of the relationship was negatively associated with frequency of pornography use in women and with relationship and sexual satisfaction in both men and women. Significant between-gender mean differences were observed for every study variable (see Table 2), with men showing higher frequency of pornography use, higher perceived lack of control over pornography use, as well as lower relationship and sexual satisfaction in comparison to women. Significant mean differences were also observed according to cohabitation status. Individuals who lived with their partner reported lower relationship satisfaction than those who lived separately,  $t(970) = 2.86, p = .003, d = .21$ , ( $M = 15.59, SD = 3.48$  for those cohabiting and  $M = 16.27, SD = 3.12$  for those not cohabiting). Individuals who lived with their partner also reported lower sexual satisfaction,  $t(941) = 6.18, p < .001, d = .43$ , compared to those who lived separately ( $M = 4.30, SD = 1.50$  for those cohabiting and  $M = 4.88, SD = 1.22$  for those not cohabiting). No significant difference was observed for frequency and perceived lack of control over pornography use across cohabitation status. Regarding parenthood, individuals with

**Table 2.** Correlation coefficients for the study variables and mean differences between men and women.

	1	2	3	4	5	Men		Women		<i>p</i>
						<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1. Frequency of use	—	.29***	-.06	-.12*	-.07	3.47	1.22	1.41	1.16	<.001
2. Perceived lack of control	.23***	—	-.21***	-.17***	.03	2.41	1.10	1.31	0.70	<.001
3. Relationship satisfaction	.08	-.05	—	.50***	-.20***	15.52	3.37	16.00	3.39	.028
4. Sexual satisfaction	-.01	-.05	.51***	—	-.25***	4.35	1.52	4.58	1.38	.017
5. Relationship length	-.12**	-.01	-.16***	-.25***	—	18.70	5.99	16.42	6.22	<.001

Note. Coefficients for men are above the diagonal and coefficients for women are below the diagonal.

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

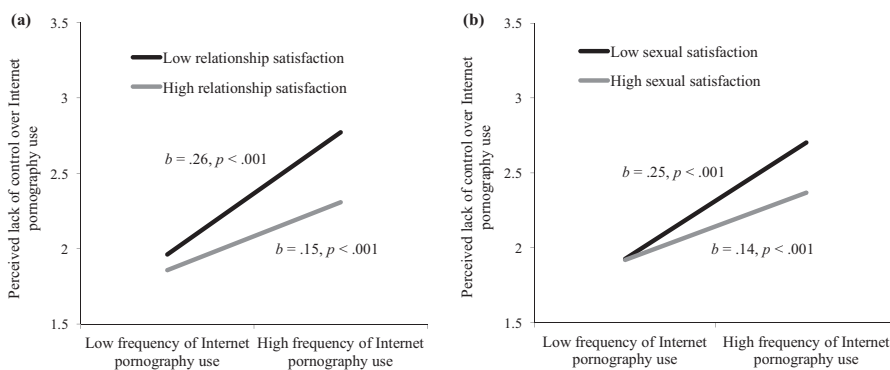
**Table 3.** Regression analyses for the moderating effect of relationship and sexual satisfaction in the association between frequency and perceived lack of control over Internet pornography use.

	<i>b</i>	<i>SE</i>	$\beta$	<i>p</i>
<b>Moderator: Relationship Satisfaction</b>				
Frequency of pornography use	.20	.02	.30	<.001
Relationship satisfaction	-.04	.01	-.14	<.001
Frequency $\times$ Relationship Satisfaction	-.02	.01	-.08	.002
Gender (1 = women)	-.66	.08	-.31	<.001
Length of the relationship	.01	.01	.04	.212
Cohabitation status (1 = cohabitation)	-.02	.07	-.01	.812
Children (1 = yes)	-.15	.06	-.07	.014
<b>Moderator: Sexual Satisfaction</b>				
Frequency of pornography use	.20	.02	.29	<.001
Sexual satisfaction	-.06	.02	-.08	.006
Frequency $\times$ Sexual Satisfaction	-.04	.01	-.08	.006
Gender (1 = women)	-.68	.08	-.32	<.001
Length of the relationship	.01	.01	.04	.233
Cohabitation status (1 = cohabitation)	-.03	.07	-.01	.711
Children (1 = yes)	-.12	.06	-.08	.049

children reported lower relationship satisfaction,  $t(966) = 5.33, p < .001, d = .37$  ( $M = 14.95, SD = 3.74$  for those with children and  $M = 16.23, SD = 3.11$  for those without children) and lower sexual satisfaction,  $t(936) = 4.16, p < .001, d = .30$  ( $M = 4.19, SD = 1.63$  for those with children and  $M = 4.63, SD = 1.32$  for those without children). No significant difference was observed for frequency of use and perceived lack of control over pornography use.

### Moderation effect of relationship and sexual satisfaction

Regression analyses were conducted to examine the association between frequency of use and perceived lack of control over pornography use, as well as the moderation effect of relationship and sexual satisfaction. The results are presented in Table 3. In the first model examining the moderation effect of relationship satisfaction, significant main effects were found for frequency of pornography use and relationship satisfaction in the prediction of perceived lack of control over pornography use. Of the control variables, a significant main effect was found for gender and parenthood. Being a man and having no child was associated with a greater perceived lack of control over pornography use. Results also suggested a significant interaction between frequency of use and relationship satisfaction. Test of simple slopes (see Figure 1, panel a) indicated that frequency was positively associated with perceived lack of control over pornography use for both individuals reporting high (+1 *SD* above the mean) and low (-1 *SD* below the mean) relationship satisfaction. This association was, however, weaker for individuals reporting high

**Figure 1.** Moderation effect of relationship satisfaction (panel a) and sexual satisfaction (panel b) on the association between frequency and perceived lack of control over Internet pornography use.

relationship satisfaction. The model explained 34.4% of the variance of perceived lack of control over pornography use.

Similar results were observed in the second model examining the moderation effect of sexual satisfaction (Table 3). Significant main effects were found for frequency of pornography use and sexual satisfaction. Of the control variables, being a man and having no child were once again associated with greater perceived lack of control over pornography use. In addition, a significant interaction between frequency of use and sexual satisfaction was observed. Simple slopes (Figure 1, panel b) suggested a positive association between frequency and perceived lack of control over pornography use for both individuals reporting high (+1 *SD* above the mean) and low (−1 *SD* below the mean) sexual satisfaction, with a weaker association for individuals reporting high sexual satisfaction. The model explained 33.5% of the variance of perceived lack of control over pornography use.

### ***Moderation effect of gender, cohabitation status, length of the relationship, and parenthood***

To further examine the possible influences of gender, cohabitation status, length of the relationship, and parenthood in the moderation effect of relationship and sexual satisfaction, a series of three-way interaction models was tested. Specifically, to examine whether gender moderated the interaction observed between frequency of pornography use and relationship satisfaction in the prediction of perceived lack of control over pornography use, all possible two-way and three-way interactions (Frequency of Pornography Use × Relationship Satisfaction × Gender) were entered into the regression model. Three-way interaction models were also tested for cohabitation status, length of the relationship, and parenthood. The same strategy was then applied to regression models investigating the moderating role of sexual satisfaction. All three-way interactions examined were nonsignificant, indicating that gender, cohabiting status, length of the relationship, and parenthood did not moderate the interaction between frequency of use and relationship and sexual satisfaction in the prediction of perceived lack of control over pornography use.

## **Discussion**

For most users, pornography is used in a recreational manner without associated impairment or distress. For some others, however, its use may become out of control to the point of compulsion (Rosser, Noor, & Iantaffi, 2014; Vaillancourt-Morel et al., 2017). The present study explored under which relational condition pornography use may become out of control. In a sample of community-based individuals involved in a romantic relationship, the current study is the first to examine the moderation effect of relationship and sexual satisfaction on the association between frequency of Internet pornography use and control over pornography use. The findings suggested a significant, positive association between frequency of use and perceived lack of control over pornography use. Consistent with our hypotheses, we also found that this association was moderated by relationship and sexual satisfaction and that these moderation effects held regardless of gender, cohabitation status, length of the relationship, and parenthood.

Virtually all men and a great majority of women in the current sample reported having used Internet pornography in the past six months. This is in line with previous work showing that Internet pornography use is not restricted to single individuals and that those involved in a romantic relationship are also likely to engage in this sexual activity (Bridges & Morokoff, 2011). These findings are also consistent with the well-established body of research showing that men report using pornography more often (Petersen & Hyde, 2010) and have less perceived control over their pornography use than women (Vaillancourt-Morel et al., 2017; Wetterneck et al., 2012). However, despite these differences in mean levels, gender did not significantly influence the moderation effect of relationship and sexual satisfaction in the association between frequency of use and perceived lack of control over pornography use. This suggests that these aspects of the relational context have a similar impact on perceived control over pornography consumption across men and women. Results also indicated that the current findings can be generalized across cohabitation status, length of the relationship, and parenthood.



### ***The role of relationship and sexual satisfaction***

The current study suggests that the relational context plays a significant role in magnifying or minimizing the impact of frequency of pornography use on perceived lack of control over this behavior. First, and consistent with our hypotheses, we observed that individuals who reported high relationship satisfaction had a weaker association between frequency of use and perceived lack of control over pornography use. In contrast, for individuals who reported low relationship satisfaction, frequency of pornography use was accompanied by a greater feeling of losing control over this behavior. Previous research indicates that relationship distress is an important stressor that takes a toll on individuals' psychological adjustment (Whisman & Baucom, 2012). Accordingly, and based on theoretical propositions linking compulsive sexual behaviors to dysfunctional coping strategies (Coleman, 1991; Cooper et al., 1999), the use of pornography might reflect attempts to deal with stress and negative emotions that arise from relationship difficulties (Muusses et al., 2015). In this context, the individual might be more likely to feel that he or she is losing control over some behaviors that aim to alleviate undesirable emotional states. Moreover, when romantic relationships are suffused with high levels of conflict and hostility, pornography might become a more or less conscious way of expressing anger toward the partner, perhaps especially if pornography use is disapproved of by the latter, and an attempt to create distance and regulate intimacy (Hall, 2014).

Second, and also consistent with our hypotheses, we found that the positive association between frequency of use and perceived lack of control over pornography use is stronger in individuals reporting low sexual satisfaction compared to individuals reporting high sexual satisfaction. As suggested by others (Kohut et al., 2017; Muusses et al., 2015), when dissatisfied with their sex life, individuals may use pornography to fulfill sexual needs that are not met in their romantic relationship, to make their sex life more stimulating, or to replace a partner who is seen as sexually frustrating or disappointing. In these sexual contexts where the individual compensates for an unsatisfactory sex life (Olmstead, Negash, Pasley, & Fincham, 2013), pornography use may become the only source of sexual gratification, making it more difficult to control consumption. Moreover, lower sexual satisfaction can also be the result of sexual dysfunctions (Sánchez-Fuentes, Santos-Iglesias, & Sierra, 2014; Velten & Margraf, 2017). Consequently, an increased consumption might lead to a lack of perceived control over the impulse to use pornography as an attempt to verify or reassure oneself about his or her sexual capacities, restore sexual self-esteem, or cope with the distress resulting from sexual difficulties.

In sum, we suggest that the relational and sexual contexts influence the association between frequency of use and control over pornography use via the meaning ascribed to these sexual activities and motivations to use pornography. In the context of a fulfilling relationship and sex life, pornography use might translate into recreational behaviors that are less likely to become problematic as their frequency increases. In contrast, when the relational context is marked by relationship distress and sexual dissatisfaction, pornography use might become a dysfunctional coping strategy, where out-of-control behaviors may become maladaptive. For example, pornography might be used as an emotion regulation device to deal with negative feelings caused by relationship and sexual dissatisfactions (Zillmann, 1988), or to escape, ignore, or disconnect from the reality of an unsatisfying sex and couple life (Peter & Valkenburg, 2010). The specific role of the relational context could partly explain the mixed findings reported in the literature with respect to the positive versus negative impacts of pornography use (Daneback et al., 2009; Grubbs et al., 2015; Harper & Hodgins, 2016; Poulsen et al., 2013). However, future research should aim to identify more directly the meanings, motivations, and attitudes toward pornography use according to the relational context.

### ***Limitations and future directions***

The current findings should be interpreted in light of a number of limitations. First, the study variables were assessed only at one point in time, which prevents any definitive conclusions regarding causal explanations and direction of effects. Longitudinal research is needed to establish the directionality of the results and clarify the mechanisms behind these associations. Second, some constructs examined in the current study were assessed through a single item. Even if previous research has demonstrated the

validity of single-item measures in sex research (Mark et al., 2014), future studies should aim to replicate these results using well-validated instruments with sound psychometric properties. Third, the exclusive use of self-reported measures is subject to shared-method variance and might result in an overestimation of the associations between the study variables. Fourth, the current study is based on a convenience sample of participants recruited through advertisement. Future studies using representative samples are needed to examine the generalizability of the findings. Fifth, the current survey gathered data from individuals currently in a relationship, without any information about their romantic partners. However, a clear picture of the relational context is best captured through the perspective of both partners, using the couple as the unit of analysis. Future research should use dyadic data to examine cross-partner effects regarding the associations between frequency of use, perceived lack of control over pornography use, as well as relationship and sexual satisfaction. Finally, the current study examined the impact of relationship and sexual satisfaction on the association between the frequency of use and perceived lack of control over pornography use, but dissatisfaction is a global, subjective indicator of relationship and sexual well-being. Thus, the specific dyadic or individual causes of dissatisfaction are unknown. It is plausible that pornography use itself or problems with intimacy evidenced by problematic pornography users contribute to relationship and sexual dissatisfaction. Future research is needed to better understand the negative relationship and sexual context that cause some Internet pornography users to lose control over their pornography use, as well as the mechanisms involved in the relation between pornography use and this negative couple context. Longitudinal research will allow us to understand how pornography use and relationship factors are tied and how their interrelations may lead to problematic pornography use.

## Conclusion

To date, most of the studies have looked at the impact of pornography use, or compulsive pornography use, on relationship outcomes (see Newstrom & Harris, 2016, for a review of the scientific documentation). However, this association is most probably bidirectional (Hall, 2014; Muusses et al., 2015; Peter & Valkenburg, 2009), and the role of the relational context on “pornography outcome” has been largely overlooked. The current study sheds some light on how relationship and sexual dissatisfaction can contribute to the development of problematic pornography use and suggests that in some cases out-of-control consumption may be a symptom of relationship difficulties.

Problematic Internet pornography use is one of the most frequent Internet-related reasons for seeking mental health services (Mitchell, Becker-Blease, & Finkelhor, 2005). Our results suggest that it is important for professionals to assess and understand the relational dynamics that may underlie out-of-control pornography use, regardless of whether the individual seeks consultation alone or with his or her partner. Professionals should explore and address the relational and sexual contexts that may influence one’s out-of-control pornography use, while also being cautious to avoid blaming the partner for the individual’s pornography consumption.

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