Cyberpsychology, Behavior, and Social Networking
Volume 19, Number 11, 2016
© Mary Ann Liebert, Inc.
DOI: 10.1089/cyber.2016.0364



# Cyberpornography: Time Use, Perceived Addiction, Sexual Functioning, and Sexual Satisfaction

Sarah Blais-Lecours, BA,[1] Marie-Pier Vaillancourt-Morel, PhD,[1] Stéphane Sabourin, PhD,[1] and Natacha Godbout, PhD[2]

**Abstract**

Using pornography through the Internet is now a common activity even if associated sexual outcomes, including sexual satisfaction, are highly variable. The present study tested a two-step sequential mediation model whereby cyberpornography time use is related to sexual satisfaction through the association with, in a first step, perceived addiction to cyberpornography (i.e., perceived compulsivity, effort to access, and distress toward pornography) and with, in a second step, sexual functioning problems (i.e., sexual dysfunction, compulsion, and avoidance). These differential associations were also examined across gender using model invariance across men and women. A sample of 832 adults from the community completed self-report online questionnaires. Results indicated that 51 percent of women and 90 percent of men reported viewing pornography through the Internet. Path analyses showed indirect complex associations in which cyberpornography time use is associated with sexual dissatisfaction through perceived addiction and sexual functioning problems. These patterns of associations held for both men and women.

**Keywords:** cyberpornography, sexual functioning, addiction, sexual satisfaction, gender

## Introduction

Over the past 10 years, with sexual content easily accessible through Internet, pornography viewing has become a typical pattern of behaviors, self-reportedly performed to increase sexual well-being and satisfaction.[1] Despite a lack of consensus about the definition of ''cyberpornography use,''[2] one common denominator seems to be the consumption of sexually explicit Internet material. Following a recent reanalysis of four large representative samples of American adults, Regnerus, Gordon, and Price[3] concluded that, over a given year, 69 percent of men and 40 percent of women intentionally viewed pornography. Whereas prevalence estimates are robust, it is less clear whether and under what conditions these behaviors become problematic or, on the contrary, increase sexual well-being and satisfaction. The available research evidence on this topic is not only recent and limited but also the examination of empirical data is inevitably shaped by complex moral, political, and social issues.[4] Unsurprisingly, recent scientific discussions are frequently polarized along a permissive–restrictive continuum.

Past results on pornography use outcomes are highly variable, especially with regard to sexual outcomes. Indeed, many individuals report that pornography consumption is associated with improvements in sexual life, increased sexual knowledge, and a more positive and permissive attitude about sexuality.[5–9] Likewise, Landripet and Štulhofer[10] concluded that, in heterosexual young men, pornography consumption does not seem to be related to desire, erectile, or orgasmic difficulties. These results stand in stark contrast with those of recent studies reporting that pornography use is associated with adverse sexual effects such as sexually compulsive behaviors, dependence to pornography, and risky sexual behaviors.[1,11–15] Sexual satisfaction is also either negatively[16,17] or positively[5,6,18,19] associated with viewing pornography. Whereas these contradictory findings are partly associated with between-study methodological discrepancies, the body of evidence remains small and it is important to identify factors that may explain the association between cyberpornography use and sexual well-being.

Because sexual dissatisfaction is common[20] and predicted by a wide array of psychosocial factors,[21] time spent consuming cyberpornography could most probably be associated with sexual dissatisfaction through multiple pathways, including sexual functioning problems. Because cyberpornography use may encourage some consumers to develop

[1]École de Psychologie, Université Laval, Québec, Canada.
[2]Département de Sexologie, Université du Québec à Montréal, Montréal, Canada.

unrealistic expectations, performance anxiety, less control over sexuality, and more concerns about their sexuality,[22,23] the development of sexual functioning problems examined through sexual dysfunction, compulsion, and avoidance could explain sexual dissatisfactions.

Past research endeavors on cyberpornography use have been mainly informed by a descriptive view of the phenomenon (i.e., the number of hours consuming cyberpornography).[24] Because social attitudes and personal meanings attached to cyberpornography viewing are rapidly evolving,[25] measures of cyberpornography use should also assess perceived addiction to cyberpornography. Time spent consuming cyberpornography may be associated with sexual functioning and satisfaction through users' subjective self-perception of internal pressures, interferences with daily life, and affects activated by these behaviors. In a recent 1-year longitudinal study, perceived addiction to cyberpornography was associated with psychological distress, even when controlling for time spent viewing cyberpornography.[12] There is thus a pressing need to integrate descriptive and subjective measures to better understand cyberpornography-related sexual functioning and satisfaction.

Pornography user's gender may also explain the contradictory outcomes of cyberpornography consumption. The differential association between pornography use and sexual functioning and satisfaction in women and men is understudied. Some differences are reported in the way men and women consume pornography, where men prefer to use pornography alone for arousal and masturbation, women tend to use it with their partner as part of their sexual activities.[8,26] These gender differences may have specific effects on the association between cyberpornography use and sexual functioning and satisfaction.

### *Current study*

The current study aimed to examine the factors that may explain the diversity of sexual outcomes associated with cyberpornography viewing. More specifically, the role of three variables was examined; perceived addiction to cyberpornography, sexual functioning problems, and gender. We tested a two-step sequential mediation model whereby cyberpornography time use is related to sexual satisfaction through the association with perceived addiction to cyberpornography (i.e., perceived compulsivity, effort to access, and distress toward cyberpornography) and where perceived addiction is associated with sexual satisfaction through sexual functioning problems (i.e., sexual dysfunction, compulsion, and avoidance). We also examined whether this sequential mediational model was invariant across gender. It was hypothesized that perceived addiction to cyberpornography and sexual functioning would play a mediational role between cyberpornography time use and sexual satisfaction and that the mediational model would vary across men and women.

## Methods

### *Participants and procedure*

A convenience sample of French-speaking men and women aged 18 or older was recruited in a Canadian province through university electronic lists, online classified advertisements, and social networks. Advertisements informed participants that the study was an online survey assessing the determinants of sexuality in adulthood. The study protocol and consent procedures were approved by an institutional review board. Of the 1,329 voluntary participants who started the survey, 832 (62.6 percent) completed the questions on cyberpornography use. Of these, 71.8 percent were women ($n = 597$) and 28.2 percent were men ($n = 235$) aged between 18 and 78 years ($M = 25.20$, $SD = 7.99$). A total of 35.3 percent were either married or cohabiting individuals ($n = 294$), 29.6 percent were dating ($n = 246$), and 33.3 percent were single ($n = 277$).

### *Measures*

Cyberpornography time use. Based on Grubbs et al.[12] and Wetterneck et al.[17] measures of pornography time use, using a single question, participants were asked to indicate their average amount (in minutes) of weekly use of cyberpornography over the last 6 months. Studies in sex research report high levels of test–retest reliability for self-reported sexual behaviors ($\rho = 0.84$–$0.96$)[27] and strong correlations between self-reported retrospective measures of sexual behaviors and daily diary estimates ($r = 0.87$).[28]

Perceived cyberpornography addiction. The Cyber Pornography Use Inventory[29] was used to assess three key dimensions of perceived addiction to cyberpornography: perceived compulsivity to cyberpornography (three items, e.g., I believe I am addicted to Internet pornography), intensity of efforts to access cyberpornography (three items, e.g., At times, I rearrange my schedule to be alone to view pornography), and emotional distress associated with cyberpornography use (three items, e.g., I feel ashamed after viewing pornography). Confirmatory factor analyses showed that each item of the three dimensions was significantly correlated with its respective factor, ranging from 0.52 to 0.92.[29] The alpha coefficients ranged from 0.68 to 0.91.

Sexual functioning. In the present study, sexual functioning was examined through sexual dysfunction, sexual compulsion, and sexual avoidance. For sexual dysfunction, the Arizona Sexual Experiences Scale (Brassard A, Bourassa M. 2012. Taduction française du Arizona Sexual Experiences Scale (ASEX) [French translation of the Arizona Sexual Experiences Scale (ASEX)]. Unpublished manuscript.)[30] was used to quantify sex drive, arousal, vaginal lubrication/penile erection, ability to reach orgasm, satisfaction from orgasm, and pain during sex. This questionnaire includes six Likert-type items, with a higher score indicating more sexual dysfunction. This scale demonstrated good psychometric properties: excellent internal consistency, strong test–retest reliability, and good construct validity.[30] The alpha coefficient was 0.73.

For sexual compulsion and avoidance, the Sexual Compulsivity Scale[31] and the Sexual Avoidance Subscale of the Sexual Aversion Scale[32] were used to respectively assess difficulties to manage sexual thoughts, concerns, and behaviors, as well as avoidant behaviors relating to sexual contact. These questionnaires include 10 Likert-type items. These scales were selected because of their psychometric qualities, good internal consistency,[33,34] and good temporal stability.[32,33] The alpha coefficient was 0.83 for sexual compulsivity and 0.86 for sexual avoidance.

Sexual satisfaction. The Global Measure of Sexual Satisfaction[35] was used to assess global satisfaction with various aspects of the sexual relationship. This questionnaire includes five items rated on 7-point bipolar scales: good-bad, pleasant-unpleasant, positive-negative, satisfying-unsatisfying, and valuable-worthless. A higher score reflects a higher level of sexual satisfaction. This measure was chosen because of its psychometric qualities in different samples; good internal consistency, strong temporal stability, and good construct validity.[35,36] The alpha coefficient for this measure was 0.91.

### *Statistical analyses*

Descriptive statistics was computed using SPSS 20 and path analyses, using M*plus*, version 7.[37] Bivariate analyses, a multivariate analysis of variance (MANOVA) and Pearson's correlations were used to examine sample characteristics, mean differences between men and women, and the relationships between study variables. Effect size magnitude was estimated based on Cohen's[38] guidelines, where $\eta^2 > 0.01$ was considered small, $\eta^2 > 0.09$ was medium, and $\eta^2 > 0.25$ was large.

Path analyses. A saturated path analysis model was first assessed in the full sample allowing residual terms of mediational variables to covary. Then, nonsignificant direct paths were removed to obtain a more parsimonious mediational model. The robust maximum likelihood estimator was used in all analyses. Based on most recommended guidelines,[39–41] overall model fit was tested by considering together the comparative fit index (CFI), the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), and the ratio of chi-square to degrees of freedom ($\chi^2/df$). A CFI value of 0.90 or higher, a RMSEA and a SRMR value below 0.05, and a $\chi^2/df$ less than three are indicators of good fit.[39,40]

Multiple group path analysis was used to determine if the model differed between men and women.[42,43] A saturated model, allowing all paths of the final model to be estimated freely between men and women, was compared to a model in which structural paths were constrained to be equal across gender using a corrected chi-square difference test (Satorra–Bentler scaled chi-square).[44] A significant chi-square difference test indicates that the mediational model varies between men and women.

## Results

### *Descriptive statistics*

Psychosexual variables across gender. In the present sample, 51.0 percent ($n = 304$) of women and 90.2 percent ($n = 211$) of men reported cyberpornography use; this gender difference was significant; $\chi^2(1) = 109.45$, $p < 0.001$, and Cramer's $V = 0.36$. Means and standard deviations for all psychosexual variables in the model according to gender are reported in Table 1. The MANOVA examining gender differences on psychosexual variables yielded a significant multivariate large effect, $F(8, 810) = 61.60$, $p < 0.001$, $\eta^2 = 0.378$, Wilks's $\Lambda = 0.622$. Therefore, univariate between-gender main effects were examined for individual dependent variables. To account for multiple tests being run, results were interpreted using a Bonferroni-corrected $p$ value of 0.006 (0.05/8 tests = 0.006). Using this significance level, univariate analyses indicated significant differences between men and women on all variables except for distress caused by cyberpornography use, sexual avoidance, and sexual satisfaction (Table 1). As compared with women, men reported significantly more cyberpornography time use, perceived compulsivity to cyberpornography, efforts to access cyberpornography, and sexual compulsivity.

Correlations among psychosexual variables. Correlations between psychosexual variables are reported in Table 2. All variables were significantly related with the exception of cyberpornography time use with distress caused by cyberpornography and with sexual avoidance. All psychosexual variables were negatively associated with sexual satisfaction with effect sizes ranging from small to large.

### *The mediational role of perceived addiction and sexual functioning in the association between time use and sexual satisfaction*

The main hypothesis of the present study was that perceived addiction to cyberpornography and sexual functioning would play a mediational role between cyberpornography time use and sexual satisfaction. The saturated model showed that, when indirect paths were estimated, five direct paths were nonsignificant: the paths from perceived addiction to sexual satisfaction and the paths from cyberpornography time use to sexual compulsivity and sexual avoidance. These paths

Table 1. Mean Differences for Psychosexual Variables Across Gender

| | *Gender* | | | | |
|---|---|---|---|---|---|
| *Variables* | *Women* n = *587* | *Men* n = *232* | F | p | $\eta^2$ |
| Internet pornography time use in minutes | 17.03 (40.91) | 75.32 (88.09) | 166.45 | <0.001* | 0.17 |
| Compulsive Internet pornography | 1.35 (0.88) | 2.90 (1.61) | 307.52 | <0.001* | 0.27 |
| Effort to access Internet pornography | 1.12 (0.44) | 1.66 (1.00) | 118.48 | <0.001* | 0.13 |
| Distress caused by Internet pornography | 1.99 (1.40) | 2.23 (1.55) | 4.61 | 0.032 | 0.01 |
| Sexual dysfunction | 16.91 (4.15) | 13.72 (3.92) | 101.46 | <0.001* | 0.11 |
| Sexual compulsivity | 14.27 (4.36) | 16.56 (5.18) | 41.42 | <0.001* | 0.05 |
| Sexual avoidance | 12.63 (4.08) | 13.29 (4.75) | 3.95 | 0.047 | 0.01 |
| Sexual satisfaction | 26.94 (6.26) | 25.76 (6.73) | 5.67 | 0.018 | 0.01 |

*significant at the Bonferroni corrected $p$ value = 0.006.

Table 2. Correlations Among Cyberpornography Time Use and Psychosexual Study Variables

| *Variables* | *1.* | *2.* | *3.* | *4.* | *5.* | *6.* | *7.* | *8.* |
|---|---|---|---|---|---|---|---|---|
| 1. Cyberpornography time use in minutes | — | | | | | | | |
| 2. Compulsive cyberpornography | 0.50*** | — | | | | | | |
| 3. Effort to access cyberpornography | 0.50*** | 0.62*** | — | | | | | |
| 4. Distress caused by cyberpornography | 0.03 | 0.19*** | 0.11** | — | | | | |
| 5. Sexual dysfunction | –0.19*** | –0.19*** | –0.14*** | 0.20*** | — | | | |
| 6. Sexual compulsivity | 0.30*** | 0.44*** | 0.43*** | 0.13*** | –0.16*** | — | | |
| 7. Sexual avoidance | 0.04 | 0.09** | 0.11** | 0.31*** | 0.31*** | 0.13*** | — | |
| 8. Sexual satisfaction | –0.09** | –0.11** | –0.10** | –0.20*** | –0.44*** | –0.15*** | –0.51*** | — |

Note: $n$ ranged between 826 and 832.
$^{**}p < 0.01$; $^{***}p < 0.001$.

were removed from the mediational model (Fig. 1). Results indicated good fit for this model: $\chi^2(5) = 4.16$, $p = 0.526$; RMSEA = 0.00, 90% CI: 0.00 to 0.04; CFI = 1.00; SRMR = 0.01; and $\chi^2/df = 0.83$.

The model indicates that cyberpornography time use is positively associated with perceived compulsivity to cyberpornography, which in return has two significant indirect effects on sexual satisfaction through a negative association with sexual dysfunction and a positive association with sexual compulsivity. The indirect effect through sexual dysfunction ($b = 0.34$, 95% CI: 0.19 to 0.52) predicted higher sexual satisfaction, while the one through sexual compulsivity is associated with lower sexual satisfaction ($b = –0.17$, 95% CI: –0.29 to –0.09). The indirect effect of perceived compulsivity on sexual satisfaction through sexual avoidance did not reach significance ($b = 0.04$, 95% CI: –0.13 to 0.20).

Pornography time use is positively associated with efforts to access cyberpornography, which have an indirect effect on sexual satisfaction through a positive association with sexual compulsivity, which in turn predicted lower sexual satisfaction. This negative indirect effect through sexual compulsivity was significant ($b = –0.32$, 95% CI: –0.55 to –0.16), while those involving sexual dysfunction ($b = –0.03$, 95% CI: –0.36 to 0.26) and sexual avoidance ($b = –0.32$, 95% CI: –0.70 to 0.02) were not.

Cyberpornography time use is not associated with distress arising from cyberpornography use. However, distress arising from cyberpornography use has a significant negative indirect effect on sexual satisfaction through increased sexual dysfunction ($b = –0.38$, 95% CI: –0.54 to –0.24) and sexual avoidance ($b = –0.50$, 95% CI: –0.67 to –0.35), whereas the indirect effect through sexual compulsivity ($b = –0.03$, 95% CI: –0.08 to 0.003) was nonsignificant.

### *Gender invariance of the mediational model*

The comparison of the mediational model, in which all paths were freely estimated between men and women, to the model in which structural paths were constrained to be equal across men and women produced a nonsignificant chi-square difference, $\chi_{difference}^2(17) = 15.44$, $p = 0.564$. Thus, the mediational model presented in Figure 1 held for men and women. This invariant mediational model between men and women proved satisfactory; $\chi^2(27) = 23.64$, $p = 0.650$; RMSEA = 0.00, 90% CI: 0.00 to 0.03; CFI = 1.00; SRMR = 0.03; and $\chi^2/df = 0.88$.

## Discussion

Viewing pornography through the Internet is increasingly becoming a socially normative activity. In the present sample, cyberpornography was widely used, with almost all men and 50 percent of women having viewed sexually explicit Internet material over the last 6 months. This gender difference is substantial and confirm the gender prevalence difference observed in past studies.[3,17,45,46] This result should be tempered by the general social context, where

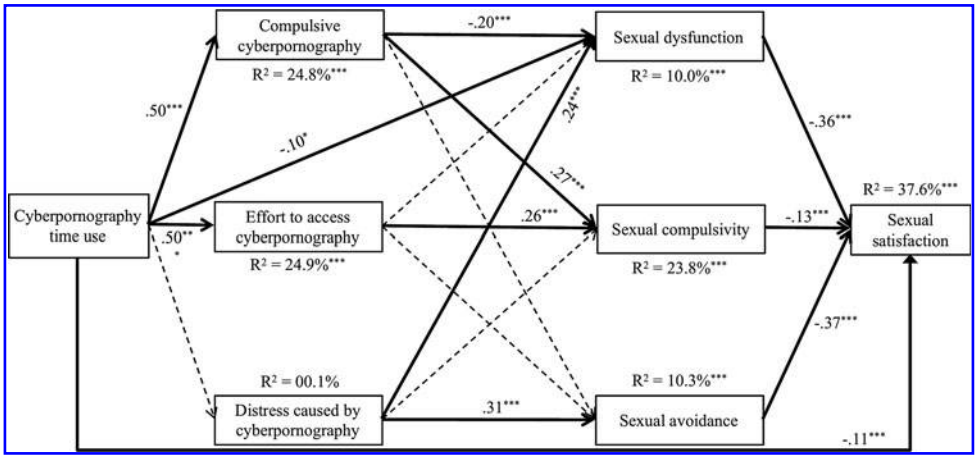


**FIG. 1.** Path analysis model of perceived addiction to cyberpornography and sexual functioning as mediators of the association between cyberpornography time use and sexual satisfaction. $^{*}p < 0.05$. $^{**}p < 0.01$. $^{***}p < 0.001$. Covariances between mediators are estimated in the model, but not reported to avoid confusion.

attitudes toward women's pornography use are generally more ambiguous or negative.[47] This may have led women, as compared to men, to underreport pornography consumption because of shame associated with this sexual behavior or because of a social desirability bias. Indeed, findings from Shaughnessy et al.[45] showed that women report more negative attitudes toward cyberpornography (e.g., online sex is morally wrong or dirty), which was related to their tendency to consume less pornography than men. Despite this possibility, these gender differences may also reflect the fact that, because men traditionally were and still are the main consumers of cyberpornography, most sexual scenarios depicted in videos are generally oriented toward men's needs, fantasies, and preferences and may be less attractive to some women.

Apart from this gender prevalence difference, a complex pattern of findings emerges from the present study. First, even when controlling for perceived addiction to cyberpornography and overall sexual functioning, cyberpornography use remained directly associated with sexual dissatisfaction. Even though this negative direct association was of small magnitude, time spent viewing cyberpornography seems to be a robust predictor of lower sexual satisfaction. However, because of the cross-sectional nature of our design, it is difficult to determine whether viewing cyberpornography causally increases sexual dissatisfaction or if women and men who are less satisfied sexually tend to increase their use of cyberpornography. Another interesting possibility would be that these two variables are causally related through a reciprocal nonrecursive model. Future longitudinal studies will shed light on these causal hypotheses.

In addition to this direct effect, cyberpornography use was also associated with sexual satisfaction through different indirect pathways. First, cyberpornography viewing was related to perceived compulsivity to cyberpornography, which, in turn, was associated with overall sexual compulsion and, ultimately, with sexual dissatisfaction. This finding is consistent with recent past studies.[48] Another pathway linked cyberpornography use to perceived compulsivity to cyberpornography, which was related to higher sexual satisfaction through lower sexual dysfunction. In our results, this is the only positive effect cyberpornography use has on sexual satisfaction. This positive association may be explained by the protective effect of regular sexual behaviors on sexual dysfunction and, therefore, on sexual satisfaction or it could be that individuals with sexual dysfunctions are not compulsively attracted to cyberpornography use given their sexual problems. Finally, another pathway showed that distress caused by cyberpornography, which was not explained by time spent viewing cyberpornography, predicted higher sexual dysfunction and sexual avoidance, both of which were associated with lower sexual satisfaction. In this pathway, the negative affects experienced when viewing cyberpornography might probably be exacerbated by the confrontation with these self-reported sexual dysfunctions.[49] These complex mediation results support Hald's[50] proposal; studies need to address possible moderators or mediators of the relationship between cyberpornography use and sexual difficulties.

These direct and mediational pathways proved to be invariant for women and men. Even if past investigations reported that men use cyberpornography more often than women, as in the present study, and that the type of sexual fantasies searched online and the reasons for using online pornography differ,[8,51] our results highlight that psychosexual outcomes are similar for men and women. Thus, we observed negative psychosexual functioning in both women and men.

Even if the negative association between cyberpornography use and sexual satisfaction for men and women clearly stem from our results, it is important to interpret the present findings in the light of potential limitations. The correlational and cross-sectional nature of this study precludes definitive conclusions about the causal sequence proposed in our study. In addition, the generalizability of our results may be limited by the use of a convenience sample and a sampling strategy that excluded individuals without Internet access. In addition, there is a potential self-selection bias when recruiting individuals who volunteer to participate in an online sexuality research. Finally, the current studies relied exclusively on online questionnaires, which may lead to report bias.[52] Particularly, asking participants to retrospectively report their cyberpornography time use in the last 6 months is subject to recall biases. Future studies should replicate our findings with a multiple-item prospective measure of cyberpornography use and examine the temporal stability of cyberpornography behaviors.

### *Clinical implications*

Standard routine assessment should provide health professionals with detailed information on frequency, type of content viewed, and intensity of cyberpornography behaviors, as well as users' subjective self-perception of internal pressures, interferences with daily life, and affects activated by the consumption. The current results suggest that evidence-based practice should rely on the assessment of the correlates of any level of cyberpornography use and therapists may respond with informed concern because of its possible association with negative sexual outcomes.

Our findings suggest the value of a better understanding of the personal and relational motivations and affects underlying cyberpornography use to help underline the specific mechanisms involved for each user, hereby facilitating the development of effective interventions within a biopsychosocial framework.[53] For example, users for whom cyberpornography is a maladaptive coping strategy may benefit from affect regulation training or mentalization-based interventions,[54] while social situations' exposure or social skills' training may help consumers using cyberpornography to reduce loneliness or boredom.[55] When cyberpornography is used to avoid couple difficulties, individuals and their partner may benefit from couple therapy and psychoeducational interventions, where both partners are helped to understand personal and relational triggers of pornography use.[56] However, more studies are needed to document the efficacy of these interventions and develop empirically-driven therapeutic guidelines to improve sexual well-being.

## Acknowledgments

Sarah Blais-Lecours was supported by a doctoral fellowship from the Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse (CRIPCAS). Marie-Pier Vaillancourt-Morel was supported by doctoral fellowships from the Social Sciences and Humanities Research Council (SSHRC), the Fonds de recherche du Québec–Société et Culture (FRQ-SC), and the CRIPCAS.

Natacha Godbout was supported by a research scholar grant from the Fonds de recherche du Québec–Santé. The authors thank Hélène Paradis and Bei Feng for their assistance with the statistical analyses.

### Author Disclosure Statement

No competing financial interests exist.

### References

1. Griffiths MD. Internet sex addiction: a review of empirical research. Addiction Research & Theory 2012; 20:111–124.
2. Short MB, Black L, Smith AH, et al. A review of Internet pornography use research: methodology and content from the past 10 years. Cyberpsychology, Behavior, and Social Networking 2012; 15:13–23.
3. Regnerus M, Gordon D, Price J. Documenting pornography use in America: a comparative analysis of methodological approaches. Journal of Sex Research 2016; 53:873–881.
4. Person C. (2015) Pornography: ''Soft-core'' liberalization of indecent material in Europe. In Knill C, Adam C, Hurka S, eds. *On the road to permissiveness? Change and convergence of moral regulation in Europe*. Oxford, UK: Oxford University Press, pp. 102–128.
5. Daneback K, Træen B, Månsson S-A. Use of pornography in a random sample of Norwegian heterosexual couples. Archives of Sexual Behavior 2009; 38:746–753.
6. Hald GM, Malamuth NM. Self-perceived effects of pornography consumption. Archives of Sexual Behavior 2008; 37:614–625.
7. Prause N, Pfaus J. Viewing sexual stimuli associated with greater sexual responsiveness, not erectile dysfunction. Sexual Medicine 2015; 3:90–98.
8. Bridges AJ, Morokoff PJ. Sexual media use and relational satisfaction in heterosexual couples. Personal Relationships 2011; 18:562–585.
9. Maddox AM, Rhoades GK, Markman HJ. Viewing sexually-explicit materials alone or together: associations with relationship quality. Archives of Sexual Behavior 2011; 40:441–448.
10. Landripet I, Štulhofer A. Is pornography use associated with sexual difficulties and dysfunctions among younger heterosexual men? The Journal of Sexual Medicine 2015; 12:1136–1139.
11. Philaretou AG, Mahfouz AY, Allen KR. Use of Internet pornography and men's well-being. International Journal of Men's Health 2005; 4:149–169.
12. Grubbs JB, Stauner N, Exline JJ, et al. Perceived addiction to Internet pornography and psychological distress: examining relationships concurrently and over time. Psychology of Addictive Behaviors 2015; 29:1056–1067.
13. Ross MW, Mansson SA, Daneback K. Prevalence, severity, and correlates of problematic sexual Internet use in Swedish men and women. Archives of Sexual Behavior 2012; 41:459–466.
14. Twohig MP, Crosby JM, Cox JM. Viewing Internet pornography: for whom is it problematic, how, and why? Sexual Addiction & Compulsivity 2009; 16:253–266.
15. Wright PJ, Randall AK. Internet pornography exposure and risky sexual behavior among adult males in the United States. Computers in Human Behavior 2012; 28:1410–1416.
16. Poulsen FO, Busby DM, Galovan AM. Pornography use: who uses it and how it is associated with couple outcomes. Journal of Sex Research 2013; 50:72–83.
17. Wetterneck CT, Burgess AJ, Short MB, et al. The role of sexual compulsivity, impulsivity, and experiential avoidance in Internet pornography use. The Psychological Record 2012; 62:3–18.
18. Green BA, Carnes S, Carnes PJ, et al. Cybersex addiction patterns in a clinical sample of homosexual, heterosexual, and bisexual men and women. Sexual Addiction & Compulsivity 2012; 19:77–98.
19. Grov C, Gillespie BJ, Royce T, et al. Perceived consequences of casual online sexual activities on heterosexual relationships: A U.S. Online survey. Archives of Sexual Behavior 2011; 40:429–439.
20. Mulhall J, King R, Glina S, et al. Importance of and satisfaction with sex among men and women worldwide: results of the global better sex survey. The Journal of Sexual Medicine 2008; 5:788–795.
21. Sánchez-Fuentes MdM, Santos-Iglesias P, Sierra JC. A systematic review of sexual satisfaction. International Journal of Clinical and Health Psychology 2014; 14:67–75.
22. Strasburger VC. Adolescents, sex and the media. Adolescent Medicine: State of the Art Reviews 2012; 23: 15–33.
23. Owens EW, Behun RJ, Manning JC, et al. The impact of Internet pornography on adolescents: a review of the research. Sexual Addiction & Compulsivity 2012; 19:99–122.
24. Muusses LD, Kerkhof P, Finkenauer C. Internet pornography and relationship quality: a longitudinal study of within and between partner effects of adjustment, sexual satisfaction and sexually explicit Internet material among newlyweds. Computers in Human Behavior 2015; 45:77–84.
25. Montgomery-Graham S, Kohut T, Fisher W, et al. How the popular media rushes to judgment about pornography and relationships while research lags behind. The Canadian Journal of Human Sexuality 2015; 24:243–256.
26. Mansson S-A. (2000) Commercial sexuality. In Lewin B, ed. *Sex in Sweden: on the Swedish sexual life 1996*. Stockholm: National Institute of Public Health, pp. 233–259.
27. Durant LE, Carey MP. Self-administered questionnaires versus face-to-face interviews in assessing sexual behavior in young women. Archives of Sexual Behavior 2000; 29:309–322.
28. Leigh BC, Gillmore MR, Morrison DM. Comparison of diary and retrospective measures for recording alcohol consumption and sexual activity. Journal of Clinical Epidemiology 1998; 51:119–127.
29. Grubbs JB, Volk F, Exline JJ, et al. Internet pornography use: perceived addiction, psychological distress, and the validation of a brief measure. Journal of Sex & Marital Therapy 2015; 41:83–106.
30. McGahuey CA, Gelenberg AJ, Laukes CA, et al. The Arizona Sexual Experience Scale (ASEX): reliability and validity. Journal of Sex & Marital Therapy 2000; 26:25–40.
31. Kalichman SC, Johnson JR, Adair V, et al. Sexual sensation seeking: scale development and predicting AIDS-risk behavior among homosexually active men. Journal of Personality Assessment 1994; 62:385–397.
32. Katz RC, Gipson M, Turner S. Brief report: recent findings on the Sexual Aversion Scale. Journal of Sex & Marital Therapy 1992; 18:141–146.
33. Kalichman SC, Rompa D. Sexual sensation seeking and sexual compulsivity scales: reliability, validity, and predicting HIV risk behavior. Journal of Personality Assessment 1995; 65:585–601.

34. La Rocque CL, Cioe J. An evaluation of the relationship between body image and sexual avoidance. Journal of Sex Research 2011; 48:397–408.
35. Lawrance K-A, Byers SE. Sexual satisfaction in long-term heterosexual relationships: the interpersonal exchange model of sexual satisfaction. Personal Relationships 1995; 2:267–285.
36. Byers ES, Demmons S, Lawrance K-A. Sexual satisfaction within dating relationships: a test of the interpersonal exchange model of sexual satisfaction. Journal of Social and Personal Relationships 1998; 15:257–267.
37. Muthén LK, Muthén BO. (1998–2012) *Mplus user's guide.* 7th ed. Los Angeles, CA: Muthén & Muthén.
38. Cohen J. (1988) *Statistical power analysis for the behavioral sciences.* Hillsdale, NJ: Lawrence Erlbaum Associates.
39. Kline RB. (2010) *Principles and practice of structural equation modeling.* 3rd ed. New York: Guilford Press.
40. McDonald RP, Ho M-HR. Principles and practice in reporting structural equation analyses. Psychological Methods 2002; 7:64–82.
41. Hooper D, Coughlan J, Mullen M. Structural equation modelling: guidelines for determining model fit. The Electronic Journal of Business Research Methods 2008; 6:53–60.
42. Dimitrov DM. Comparing groups on latent variables: a structural equation modeling approach. Work 2006; 26: 429–436.
43. Edwards JR, Lambert LS. Methods for integrating moderation and mediation: a general analytical framework using moderated path analysis. Psychological Methods 2007; 12:1–22.
44. Satorra A, Bentler PM. A scaled difference chi-square test statistic for moment structure analysis. Psychometrika 2001; 66:507–514.
45. Shaughnessy K, Byers ES, Walsh L. Online sexual activity experience of heterosexual students: gender similarities and differences. Archives of Sexual Behavior 2011; 40:419–427.
46. Cooper A, Morahan-Martin J, Mathy RM, et al. Toward an increased understanding of user demographics in online sexual activities. Journal of Sex & Marital Therapy 2002; 28:105–129.
47. Wright PJ, Bae S, Funk M. United States women and pornography through four decades: exposure, attitudes, behaviors, individual differences. Archives of Sexual Behavior 2013; 42:1131–1144.
48. Starks TJ, Grov C, Parsons JT. Sexual compulsivity and interpersonal functioning: sexual relationship quality and sexual health in gay relationships. Health Psychology 2013; 32:1047–1056.
49. Bronner G, Ben-Zion IZ. Unusual masturbatory practice as an etiological factor in the diagnosis and treatment of sexual dysfunction in young men. The Journal of Sexual Medicine 2014; 11:1798–1806.
50. Hald GM. Comment on: is pornography use associated with sexual difficulties and dysfunctions among younger heterosexual men? The Journal of Sexual Medicine 2015; 12:1140–1141.
51. Hald GM. Gender differences in pornography consumption among young heterosexual Danish adults. Archives of Sexual Behavior 2006; 35:577–585.
52. Chan D. (2009) So why ask me? Are self-report data really that bad? In Lance CE, Vandenberg RJ, eds. *Statistical and methodological myths and urban legends*. New York: Routledge, pp. 309–336.
53. Hall P. A biopsychosocial view of sex addiction. Sexual and Relationship Therapy 2011; 26:217–228.
54. Berry MD, Berry PD. Mentalization-based therapy for sexual addiction: foundations for a clinical model. Sexual and Relationship Therapy 2014; 29:245–260.
55. Yoder VC, Virden III TB, Amin K. Internet pornography and loneliness: an association? Sexual Addiction & Compulsivity 2005; 12:19–44.
56. Bird MH. Sexual addiction and marriage and family therapy: facilitating individual and relationship healing through couple therapy. Journal of Marital and Family Therapy 2006; 32:297–311.

Address correspondence to:
*Dr. Marie-Pier Vaillancourt-Morel*
*École de Psychologie*
*Université Laval*
*Pavillon Félix-Antoine-Savard*
*2325 rue des Bibliothèques, bureau 1234*
*Québec G1V 0A6*
*Canada*

*E-mail:* marie-pier.vaillancourt-morel.1@ulaval.ca