FULL-LENGTH REPORT

Journal of Behavioral Addictions 8(1), pp. 88–93 (2019)
DOI: 10.1556/2006.7.2018.134
First published online January 11, 2019

Self-reported addiction to pornography in a nationally representative sample: The roles of use habits, religiousness, and moral incongruence

JOSHUA B. GRUBBS[1]*, SHANE W. KRAUS[2] and SAMUEL L. PERRY[3]

[1]Department of Psychology, Bowling Green State University, Bowling Green, OH, USA
[2]VISN 1 New England MIRECC, Edith Nourse Rogers Memorial Veterans Hospital, University of Massachusetts Medical School, Worcester, MA, USA
[3]Department of Sociology, University of Oklahoma, Norman, OK, USA

(Received: June 29, 2018; revised manuscript received: November 14, 2018; accepted: November 24, 2018)

Background and aims: Despite controversies regarding its existence as a legitimate mental health condition, self-reports of pornography addiction seem to occur regularly. In the United States, prior works using various sampling techniques, such as undergraduate samples and online convenience samples, have consistently demonstrated that some pornography users report feeling dysregulated or out of control in their use. Even so, there has been very little work in US nationally representative samples to examine self-reported pornography addiction. *Methods:* This study sought to examine self-reported pornography addiction in a US nationally representative sample of adult Internet users ($N = 2{,}075$). *Results:* The results indicated that most participants had viewed pornography within their lifetimes ($n = 1{,}461$), with just over half reporting some use in the past year ($n = 1{,}056$). Moreover, roughly 11% of men and 3% of women reported some agreement with the statement "I am addicted to pornography." Across all participants, such feelings were most strongly associated with male gender, younger age, greater religiousness, greater moral incongruence regarding pornography use, and greater use of pornography. *Discussion and conclusion:* Collectively, these findings are consistent with prior works that have noted that self-reported pornography addiction is a complex phenomenon that is predicted by both objective behavior and subjective moral evaluations of that behavior.

Keywords: pornography addiction, perceived addiction, moral incongruence, self-perception, compulsive sexual behavior disorder, hypersexual disorder

INTRODUCTION

Pornography use is an immensely common behavior pattern in the developed world, with some US studies reporting that up to 70% of men and 40% have used pornography within the past year (Regnerus, Gordon, & Price, 2016) and some Australian studies reporting similar rates (76% of men and 41% of women within the past year; Rissel et al., 2017). Even so, pornography use is controversial, with various academic sources claiming that such use is likely to have negative effects (Hilton, 2013), likely to have positive effects (Ley, Prause, & Finn, 2014), or likely to have mixed effects (Hald & Malamuth, 2008). Of particular focus in such controversies has been the purported propensity of some pornography users to become addicted or compulsive in their use (for reviews, see Duffy, Dawson, & das Nair, 2016; Williams, 2017).

Historically, there has been no psychiatric diagnosis that would include the notion of pornography addiction. However, the ICD-11 has included a diagnosis of compulsive sexual behavior disorder (CSBD; Kraus et al., 2018; World Health Organization, 2018), which may subsume the notion of addictive or compulsive use of pornography (Kraus et al., 2018). The premise of this diagnosis is highly controversial, fueling intense critical commentary in psychiatry, and psychology more generally (Humphreys, 2018; Kraus, Voon, & Potenza, 2016). Even so, a number of people are willing to self-identify as feeling addicted to pornography, despite the unsettled science on the issue (Duffy et al., 2016). In short, a number of studies support the idea that some people endorse self-reported pornography addiction (Grubbs, Exline, Pargament, Hook, & Carlisle, 2015; Grubbs, Wilt, Exline, Pargament, & Kraus, 2018).

Interestingly, a number of prior studies have found that the strongest predictors of self-reported pornography addiction, particularly in non-clinical populations, are religiousness and moral incongruence regarding pornography use – described as a discrepancy between beliefs about pornography use (i.e., that it is wrong) and pornography use behaviors – rather than objective behavior or dysregulation (Grubbs et al., 2015; Grubbs, Wilt, et al., 2018; Leonhardt, Willoughby, & Young-Petersen, 2018). Moreover, the diagnostic criteria for CSBD explicitly note that moral

* Corresponding author: Joshua B. Grubbs, PhD; Department of Psychology, Bowling Green State University, 822 E Merry Street, Bowling Green, OH 43403, USA; Phone: +1 419 372 2301; Fax: +1 419 372 6013; E-mail: GrubbsJ@BGSU.edu

judgments or religious beliefs cannot be the driving factors behind self-reported problems of excessive sexual behavior (Kraus et al., 2018). Collectively, these trends illustrate that there may be important differences between true behavioral dysregulation and self-perceptions regarding pornography use (for reviews, see Grubbs & Perry, 2018; Grubbs, Perry, Wilt, & Reid, 2018). Yet, most studies examining links between religiousness, moral incongruence, and self-reported pornography addiction have relied on limited sampling methods (e.g., undergraduate samples, Mechanical Turk; with the notable exception of Rissel et al., 2017, which examined pornography use and self-reported addiction in an Australian national sample). Such samples, although useful for initial inquiries, are not adequate to fully establish the scope of the relationships between pornography use, religiousness, moral incongruence, and self-reported addiction. Moreover, to date, there have been no US nationally representative examinations of self-reported addiction to pornography.

Given such background, the purpose of the present work was multifaceted. Primarily, we sought to establish US nationally representative statistics for pornography use and self-reported pornography addiction. Additionally, we sought to address sampling limitations of past works that examined self-reported addiction to pornography, moral incongruence, and religiousness by examining these constructs in a cross-sectional US nationally representative sample.

Broadly speaking, we expected to find that pornography use rates would be roughly comparable to prior estimates (e.g., 46% of men and 16% of women reporting use within the past week). We further expected to find that self-reported pornography addiction would be endorsed at much lower rates, likely occurring at rates that would be comparable to other behavioral addictions (e.g., 3%–7%) and prior national studies of self-reported addiction in Australia (e.g., 1%–3%, Rissel et al., 2017). Finally, consistent with previously referenced literature (Grubbs et al., 2015; Grubbs, Wilt, et al., 2018), we expected to find that moral incongruence, religiousness, and pornography use frequency would all emerge as distinct predictors of self-reported addiction to pornography.

METHODS

Using Qualtrics Omnibus service, we recruited a US nationally representative (based on 2010 census norms for age, gender, race, ethnicity, income, and US Census region), cross-sectional study of adult Internet users [$N = 2,075$; 51% women ($n = 1,059$), 49% men ($n = 1,016$); $M_{age} = 44.8$, $SD = 16.7$). Analyses were limited to adults who acknowledged a lifetime history of ever viewing pornography ($N = 1,461$, 59% men; 74% White/Caucasian; 11% Black/African-American; 10% Hispanic/Latinx; 2% Asian/Pacific-Islander; 3% other; Census region: northeast 19%, midwest 23%, west 21%, and south 37%). Lifetime history of pornography viewing was assessed via an affirmative response to the following question: "In your lifetime, have you ever viewed pornography?" Consistent with current recommendations (e.g., Short, Black, Smith, Wetterneck, & Wells, 2012), we provided a custom (i.e., developed by the authors) definition of pornography for participants, noting that "Pornography refers to any sexually explicit films, video clips or pictures displaying the genital area, which intends to sexually arouse the viewer; this may be seen on the Internet, in a magazine, in a book, or on television."

Unless otherwise noted, all measures were on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*).

Self-reported pornography-related problems were measured using three face-valid single item, as well as the mean of three items ($\alpha = .81$). These three items were developed to represent one of the subscales of the Cyber-Pornography Use Inventory-9, with slight refinements for readability: Access Efforts ("I have put off things I needed to do in order to view pornography"), Perceived Compulsivity ("I am addicted to pornography"), and Emotional Distress ("I feel depressed after viewing pornography;" Grubbs et al., 2015). These three items were selected as they briefly assess cognitive (Perceived Compulsivity), behavioral (Access Efforts), and emotional (Emotional Distress) aspects of problematic pornography use.

Moral incongruence regarding pornography use was assessed via one item that was administered to pornography users ("I believe that pornography use is morally wrong"). As has been noted in previous works (Perry, 2017; Perry & Whitehead, 2018), moral disapproval of pornography use among pornography users implies moral incongruence regarding use.

Pornography use was measured using two items: a 12-month frequency of use measure ranging from 1 (*never*) to 8 (*more than once per day*) and a free-response estimate of minutes spent viewing pornography per day.

Religiousness was assessed via the mean of three items generated for this study (e.g., "I attend religious services regularly," "Being religious is important to me," and "I consider myself religious," $\alpha = .92$).

All analyses were conducted in the *psych* package for R Statistical Software (Revelle, 2014). Descriptive statistics for all scales are reported in Table 1. Item response distributions for key variables are available in Table 2. Our primary outcomes were measures of self-reported pornography-related problems (either the single items or the aggregate scale), all of which were subject to cross-sectional correlations (Table 1) and hierarchical, multivariable regressions (Table 3) examining the unique variance in self-reported addiction accounted for by (Model 2) religiousness and (Model 3) moral incongruence, above and beyond a series of variables entered in Model 1 (age, gender, pornography use frequency, and pornography use daily average). Across analyses, Holm adjusted test statistics were used when evaluating statistical significance in order to correct for increased error due to multiple comparisons (Revelle, 2014).

Ethics

Prior to data collection, the methods and measures for this study, as well as the study hypotheses, were pre-registered via the Open Science Framework (https://osf.io/nxywf/). The methods and materials for this study were approved by the institutional review board at Bowling Green State University. All participants completed an informed consent prior to their participation in the study.

Table 1. Pearson's correlations between included measures

	M	*SD*	1	2	3	4	5	6	7	8	9	10
1. Age	44.80	16.70	–	.220	−.220	−.127	−.168	−.182	−.109	−.178	.034	.045
2. Gender: male	–	–		–	.313	.050	.186	.175	.041	.154	−.004	−.045
3. Frequency of pornography use	3.69	2.41			–	.354	.393	.293	.008	.263	−.165	−.106
4. Average minutes per day of pornography use	10.65	22.33				–	.201	.161	.018	.144	−.041	−.006
5. "I am addicted to Internet pornography"	2.07	1.62					–	.694	.489	.844	.319	.205
6. "I have put off things I needed to do in order to view pornography"	2.09	1.66						–	.585	.887	.348	.194
7. "I feel depressed after viewing pornography"	2.49	1.80							–	.824	.618	.317
8. Three-item self-reported addiction	2.22	1.44								–	.511	.283
9. Moral incongruence	3.02	1.97									–	.447
10. Religiousness	4.10	1.95										–

Note. All correlations with absolute values greater than |.12| are significant at $p < .001$ level with Holm adjusted test statistics. *SD*: standard deviation.

RESULTS

We found statistically distinguishable differences by gender (Table 2) for all variables, except emotional distress, and moral incongruence. Among those who self-reported pornography use, men reported greater levels of use, self-reported compulsivity, and self-reported access efforts.

Across correlations (Table 1), all included variables (religiousness, moral incongruence, age, gender, pornography use frequency, and average daily pornography use) emerged as associates of self-reported addiction, with religiousness, moral incongruence, pornography use frequency, and average daily use of pornography all emerging as positive associates of self-reported addiction, and age emerging as a negative associate of self-reported addiction. Moving further, in regression analyses (Table 3), all key variables emerged as predictors of self-reported addiction and access efforts, with moral incongruence and religiousness accounting for substantial amounts of variance in self-reported addiction in each step of the regression.

DISCUSSION

At the outset of this work, we sought to examine US national rates for pornography use and self-reported pornography addiction, as well as test the relationships between pornography use, religiousness, moral incongruence, and self-reported pornography addiction. To accomplish this end, we conducted a nationally representative study of adults in the United States. Across our results, our hypotheses were generally supported.

Regarding pornography use frequency, our findings are roughly consistent with Regnerus et al.'s (2016) work that also reported on US nationally representative statistics, which found that 46% of men and 16% of women report intentional pornography use within the past week. Although we note that Regnerus et al.'s findings more closely match our findings regarding monthly use (e.g., 47% for men and 16% for women in this study, compared to 46% and 16%, respectively, in Regnerus et al., 2016), there were key methodological differences in how we asked about pornography use in comparison to that prior work. Specifically, we asked about pornography use frequency (see measures above), whereas Regnerus et al. reported data asking about most recent pornography use (e.g., "When did you last intentionally look at pornography?"). In any case, our results, taken in conjunction with past findings, suggest that pornography use on a monthly-or-greater frequency is common among men and not uncommon among women.

Regarding self-reported addiction, responses to the item "I am addicted to pornography" indicated that some level of agreement with that item was not wholly uncommon. Although such self-reports are not linked to diagnostic standards of any sort, our findings indicate that, in the US population, some level of self-reported pornography addiction was slightly more common than we had hypothesized, with up to 11% of men agreeing at least slightly and up to 3% of men agreeing strongly with the statement. Rates were much lower among women, with only 3% agreeing with that

Table 2. Gender breakdown for item response distributions for key variables and mean comparisons on each

"I believe that pornography use is morally wrong" [$\chi^2(6) = 18.019$, $p = .006$; women, $M = 3.04$, $SD = 1.97$; men, $M = 3.02$, $SD = 1.96$; $t(1,459) = 0.15$, $p = .882$]							
	Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
Women	194 (32%)	111 (19%)	41 (7%)	115 (19%)	59 (10%)	21 (4%)	56 (9%)
Men	284 (33%)	145 (17%)	90 (10%)	161 (19%)	55 (6%)	57 (7%)	72 (8%)
Total	478 (33%)	256 (18%)	131 (9%)	276 (19%)	114 (8%)	78 (5%)	128 (9%)
"I am addicted to pornography" [$\chi^2(6) = 72.55$, $p < .001$; women, $M = 1.71$, $SD = 1.37$; men, $M = 2.32$, $SD = 1.72$; $t(1,459) = 7.23$, $p < .001$]							
	N/A Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
Women	886 (84%)	68 (6%)	22 (2%)	54 (5%)	8 (1%)	10 (1%)	11 (1%)
Men	597 (57%)	155 (15%)	60 (6%)	108 (11%)	45 (4%)	36 (4%)	30 (3%)
Total	1,468 (70%)	223 (11%)	82 (4%)	162 (8%)	53 (3%)	46 (2%)	41 (2%)
"I have put off things I needed to do to view pornography." [$\chi^2(6) = 57.789$, $p < .001$; women, $M = 1.74$, $SD = 1.39$; men, $M = 2.34$, $SD = 1.78$; $t(1,459) = 6.78$, $p < .001$]							
	N/A Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
Women	874 (82%)	80 (8%)	17 (2%)	55 (5%)	13 (1%)	8 (1%)	12 (1%)
Men	597 (58%)	149 (15%)	41 (4%)	97 (10%)	63 (6%)	39 (4%)	30 (3%)
Total	1,471 (71%)	229 (11%)	58 (3%)	152 (7%)	76 (4%)	47 (2%)	42 (2%)
"I feel depressed after viewing pornography" [$\chi^2(6) = 7.462$, $p = .280$; women, $M = 2.39$, $SD = 1.78$; men, $M = 2.55$, $SD = 1.81$; $t(1,459) = 1.55$, $p = .120$]							
	N/A Strongly disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree
Women	749 (71%)	109 (10%)	28 (3%)	96 (9%)	34 (3%)	12 (1%)	31 (3%)
Men	525 (52%)	167 (16%)	56 (6%)	133 (13%)	61 (6%)	29 (3%)	45 (4%)
Total	1,274 (61%)	276 (13%)	84 (4%)	229 (11%)	95 (5%)	41 (2%)	76 (4%)
"Within the past year, how often have you viewed pornography?" [$\chi^2(7) = 149.954$, $p < .001$; $M = 1.71$, $SD = 1.37$; men, $M = 2.32$, $SD = 1.72$; $t(1,459) = 7.23$, $p < .001$]							
	N/A Never	Once or Twice	A few times	Once a month	Two or three times a month	Once a week	A few times a week	Once a day or more
Women	705 (67%)	99 (9%)	85 (8%)	37 (3%)	52 (5%)	27 (3%)	34 (3%)	20 (2%)
Men	312 (30%)	98 (10%)	126 (12%)	51 (5%)	97 (10%)	98 (10%)	151 (15%)	83 (8%)
Total	1,017 (50%)	197 (9%)	211 (10%)	88 (4%)	149 (7%)	125 (6%)	185 (9%)	103 (5%)

Note. Percentages represent percentage of the total sample ($N = 2,075$), not percentages of pornography users ($n = 1,461$), with the exception of moral incongruence, for which percentages only represent users ($n = 1,461$). χ^2 and independent *t*-test values represent comparisons among pornography users only ($n = 1,461$). N/A = no self-reported exposures to pornography were not included in questions (462 women and 152 men). *SD*: standard deviation.

Table 3. Hierarchical multivariable regression predicting self-reported addiction to Internet pornography

	Model 1						Model 2						Model 3					
	PC	AE	ED	3-item			PC	AE	ED	3-item			PC	AE	ED	3-item		
	β	β	β	β	VIF		β	β	β	β	VIF		β	β	β	β	VIF	
Age	−.128**	−.183**	−.150**	−.181**	1.23		−.131**	−.186**	−.154**	−.184**	1.23		−.120**	−.174**	−.135**	−.168**	1.24	
Gender: male	.123**	.170**	.101**	.153**	1.41		.121**	.168*	.098**	.150**	1.30		.101**	.146**	.062*	.119**	1.31	
Frequency of pornography use	.300**	.174**	−.062*	.153**	1.30		.330**	.201**	−.023	.191**	1.42		.380**	.255**	.065*	.267**	1.45	
Average minutes per day	.072*	.068*	.016	.059*	1.15		.062*	.059*	.003	.047*	1.15		.060*	.057*	.000	.044*	1.15	
Religiousness							.249**	.224**	.324**	.314**	1.01		.098**	.061*	.059*	.085**	1.26	
Moral incongruence													.345**	.374**	.607**	.525**	1.28	
R^2	.176	.124	.020	.104			.237	.174	.124	.201			.330	.283	.412	.417		
ΔR^2							.061	.050	.103	.097			.093	.109	.288	.216		
F for ΔR^2	77.82**	51.60**	7.48**	42.12**			116.10**	87.32**	171.23**	176.86**			201.55**	221.194**	71.59**	537.58**		

Note. β: standardized estimates; PC: "I am addicted to pornography;" AE: "I have put off things I needed to do in order to view pornography;" ED: "I feel depressed after viewing pornography;" 3-item: aggregate of previous three items; VIF: variance inflation factor.
*$p < .05$. **$p < .001$ (Holm adjusted test statistics).

statement at least slightly and only 1% agreeing strongly. Strong agreement rates were comparable to rates of users in Australia who self-identified as addicted to pornography (e.g., 3% of men and 1% of women; Rissel et al., 2017, compared to 3% of men and 1% of women presently).

Finally, we examined how pornography use, religiousness, and moral incongruence might predict self-reported addiction to pornography. We were specifically interested in testing the unique contributions of religiousness and moral incongruence to self-reported addiction. Using individual items (one of which assessed perceived compulsivity) and the aggregate of those items, we found that younger age, male gender, greater pornography use, greater religiousness, and greater moral incongruence were associated with higher reports of addiction. We also noted that the individual contributions of both moral incongruence (Step 3 of our regressions) and religiousness (Step 2 of our regressions) to self-reported addiction were quite substantial. This extends and strongly supports the model of pornography problems due to moral incongruence put forth in recent literature (Grubbs & Perry, 2018; Grubbs, Perry, et al., 2018). By extending prior works to a US sample, these findings contribute to the body of literature that now very strongly suggests that religiousness and moral disapproval are important factors in determining self-reported pornography addiction in non-clinical samples.

Finally, we would note that the results of our survey, despite clear importance, should be interpreted with caution. Our findings were correlational in nature. Although the findings of the present work are cross-sectional, given that they are consistent with recently published longitudinal findings (Grubbs, Wilt, et al., 2018) and theoretical models of moral incongruence (Grubbs & Perry, 2018; Grubbs, Perry, et al., 2018), it is not unreasonable to speculate that they are directional in nature. Even so, future longitudinal, nationally representative studies are needed. Additionally, this study relied on face-valid, brief, self-report measures throughout. Future works in similar samples with more comprehensive assessments are also needed, particularly as assessment becomes more precise with regard to the new CSBD diagnosis in the ICD-11. We would also note that, due to the brevity of this survey and time constraints associated with nationally representative works, we did not assess many other variables (e.g., impulsivity and compulsive sexuality more generally) that might mitigate or moderate the relationships we have described herein. We would also note that we only assessed these constructs among Internet using adults in the US, and as such, our findings might not generalize to people who consume pornography via other media forms (e.g., magazines, DVDs, and cable television) or non-Internet users.

CONCLUSIONS

Given recently intensified debates around the correct classification, diagnosis, and treatment of compulsive sexuality and the inclusion CSBD in the ICD-11, these findings bear direct implications for both practice and research. Pornography use is common in the US, with large subsets of both men and women using frequently. Similarly, self-reported

feelings of addiction to pornography are not uncommon. Whereas other types of addictive behavior (e.g., substance abuse or gambling disorder) are primarily determined by behavior, self-reported pornography addiction and perhaps, compulsive sexuality more generally are more complex. Personal morality and religiousness also seem to shape interpretations of personal behavior, which should be considered by clinicians and researchers when interacting with patients expressing self-reported problems associated with pornography use and/or self-reported feelings of addiction.

Funding sources: This project was supported by institutional funding provided to JBG by Bowling Green State University as a part of his faculty startup funds. The sponsors had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Authors' contribution: Dr. JBG had full access to all the data in the study and takes full responsibility for the integrity of the data and the accuracy of the data analysis; acquisition, analysis, or interpretation of data; drafting of the manuscript; statistical analysis; obtained funding; administrative, technical, or material support. JBG, SWK, and SLP contributed in study concept and design; contributed in critical revision of the manuscript for important intellectual content; and study supervision.

Conflict of interest: No disclosures are reported by the authors.

Acknowledgements: Study materials, design, and hypotheses were preregistered prior to data collection via the Open Science Framework (osf.io/nxywf).

REFERENCES

Duffy, A., Dawson, D. L., & das Nair, R. (2016). Pornography addiction in adults: A systematic review of definitions and reported impact. *The Journal of Sexual Medicine, 13*(5), 760–777. doi:10.1016/j.jsxm.2016.03.002

Grubbs, J. B., Exline, J. J., Pargament, K. I., Hook, J. N., & Carlisle, R. D. (2015). Transgression as addiction: Religiosity and moral disapproval as predictors of perceived addiction to pornography. *Archives of Sexual Behavior, 44*(1), 125–136. doi:10.1007/s10508-013-0257-z

Grubbs, J. B., & Perry, S. L. (2018). Moral incongruence and pornography use: A critical review and integration. *The Journal of Sex Research*. Advance online publication. 1–9. doi:10.1080/00224499.2018.1427204

Grubbs, J. B., Perry, S. L., Wilt, J. A., & Reid, R. C. (2018). Pornography problems due to moral incongruence: An integrative model with a systematic review and meta-analysis. *Archives of Sexual Behavior*. Advance online publication. doi:10.1007/s10508-018-1248-x

Grubbs, J. B., Wilt, J. A., Exline, J. J., Pargament, K. I., & Kraus, S. W. (2018). Moral disapproval and perceived addiction to Internet pornography: A longitudinal examination. *Addiction, 113*(3), 496–506. doi:10.1111/add.14007

Hald, G. M., & Malamuth, N. M. (2008). Self-perceived effects of pornography consumption. *Archives of Sexual Behavior, 37*(4), 614–625. doi:10.1007/s10508-007-9212-1

Hilton, D. L., Jr. (2013). Pornography addiction – A supranormal stimulus considered in the context of neuroplasticity. *Socioaffective Neuroscience & Psychology, 3*(1), 20767. doi:10.3402/snp.v3i0.20767

Humphreys, K. (2018). Of moral judgments and sexual addictions. *Addiction, 113*(3), 387–388. doi:10.1111/add.14066

Kraus, S. W., Krueger, R. B., Briken, P., First, M. B., Stein, D. J., Kaplan, M. S., Voon, V., Abdo, C. H. N., Grant, J. E., Atalla, E., & Reed, G. M. (2018). Compulsive sexual behaviour disorder in the ICD-11. *World Psychiatry, 17*(1), 109–110. doi:10.1002/wps.20499

Kraus, S. W., Voon, V., & Potenza, M. N. (2016). Should compulsive sexual behavior be considered an addiction? *Addiction, 111*(12), 2097–2106. doi:10.1111/add.13297

Leonhardt, N. D., Willoughby, B. J., & Young-Petersen, B. (2018). Damaged goods: Perception of pornography addiction as a mediator between religiosity and relationship anxiety surrounding pornography use. *Journal of Sex Research, 55*(3), 357–368. doi:10.1080/00224499.2017.1295013

Ley, D. J., Prause, N., & Finn, P. (2014). The emperor has no clothes: A review of the 'pornography addiction' model. *Current Sexual Health Reports, 6*(2), 94–105. doi:10.1007/s11930-014-0016-8

Perry, S. L. (2017). Pornography use and depressive symptoms: Examining the role of moral incongruence. *Society and Mental Health, 8*(3), 195–213. doi:10.1177/2156869317728373

Perry, S. L., & Whitehead, A. L. (2018). Only bad for believers? Religion, pornography use, and sexual satisfaction among American men. *Journal of Sex Research*. Advance online publication. doi:10.1080/00224499.2017.1423017

Regnerus, M., Gordon, D., & Price, J. (2016). Documenting pornography use in America: A comparative analysis of methodological approaches. *The Journal of Sex Research, 53*(7), 873–881. doi:10.1080/00224499.2015.1096886

Revelle, W. (2014). *psych: Procedures for psychological, psychometric, and personality research* (Vol. 165). Evanston, IL: Northwestern University.

Rissel, C., Richters, J., de Visser, R. O., McKee, A., Yeung, A., & Caruana, T. (2017). A profile of pornography users in Australia: Findings from the second Australian study of health and relationships. *The Journal of Sex Research, 54*(2), 227–240. doi:10.1080/00224499.2016.1191597

Short, M. B., Black, L., Smith, A. H., Wetterneck, C. T., & Wells, D. E. (2012). A review of Internet pornography use research: Methodology and content from the past 10 years. *Cyberpsychology, Behavior, and Social Networking, 15*(1), 13–23. doi:10.1089/cyber.2010.0477

Williams, D. J. (2017). The framing of frequent sexual behavior and/or pornography viewing as addiction: Some concerns for social work. *Journal of Social Work, 17*(5), 616–623. doi:10.1177/1468017316644701

World Health Organization. (2018). *ICD-11*. Retrieved June 29, 2018, from https://icd.who.int/