Self-Identification as a Pornography Addict: Examining the Roles of Pornography Use, Religiousness, and Moral Incongruence.

Joshua B. Grubbs, Jennifer T. Grant, & Joel Engelman
Bowling Green State University

Abstract

At present, the scientific community has not reached a consensus regarding whether or not people may be become addicted to or compulsive in use of pornography. Even so, a substantial number of people report feeling that their use of pornography is dysregulated or out of control. Whereas prior works considered self-reported feelings of addiction via indirect scales or dimensional measures, the present work examined what might lead someone to specifically identify as a pornography addict. Consistent with prior research, pre-registered hypotheses predicted that religiousness, moral disapproval, and average daily pornography use would emerge as consistent predictors of self-identification as a pornography addict. Four samples, involving adult pornography users (Sample 1, $N=829$, $M_{age} = 33.3$; $SD = 9.4$; Sample 2, $N=424$, $M_{age} = 33.6$; $SD = 9.1$; Sample 4, $N = 736$, $M_{age} = 48.0$; $SD = 15.8$) and undergraduates (Sample 3, $N=231$, $M_{age} = 19.3$; $SD = 1.8$), were collected. Across all three samples, male gender, moral incongruence, and average daily pornography use consistently emerged as predictors of self-identification as a pornography addict. In contrast to prior literature indicating that moral incongruence and religiousness are the best predictors of self-reported feelings of addiction (measured dimensionally), results from all four samples indicated that male gender and average daily pornography use were the most strongly associated with self-identification as a pornography addict, although moral incongruence consistently emerged as a robust and unique predictors of such self-identification.

Internet Pornography Use (IPU) is a common recreational activity throughout the United States (Price, Patterson, Regnerus, & Walley, 2016; Regnerus, Gordon, & Price, 2016) and the developed world (Chen, Leung, Chen, & Yang, 2013; Rissel et al., 2017; Ross, Månsson, & Daneback, 2012). Despite its popularity, IPU remains controversial in popular (Foubert, 2016; Ley, 2016) and academic literatures (Chisholm & Gall, 2015; Ley, Prause, & Finn, 2014). At the heart of these controversies have been the ongoing debates about whether or not IPU can become addictive—that is, whether or not individuals may become dysregulated or compulsive in their use of pornography (Clarkson & Kopaczewski, 2013; Duffy, Dawson, & das Nair, 2016). The recent inclusion of Compulsive Sexual Behavior disorder in the *ICD-11* suggests that there is increasing awareness of such a possibility in the mental health community (Kraus et al., 2018; World Health Organization, 2018). This new recognition is consistent with the considerable body of evidence that many people (especially men) may report feelings of addiction or compulsivity related to their IPU (Cavallion, 2008, 2009; Grubbs, Sessoms, Wheeler, & Volk, 2010), and many organizations and social groups are full of individuals who self-identify as having been addicted to internet pornography. The present work sought to

examine these factors, specifically focusing on what might prompt someone to self-identify as addicted to internet pornography.

Problematic Pornography use

Shortly after the advent of the internet, technology quickly became a venue for the propagation of pornography (Johnson, 1996). Following this recognition, reports quickly emerged, detailing the potential for IPU to become unregulated and out of control for some people (Cooper, 1998). In the two decades that followed these initial reports, hundreds of empirical articles have described the various ways that IPU may be problematic for some individuals (Duffy et al., 2016; Short, Black, Smith, Wetterneck, & Wells, 2012; Walton, Cantor, Bhullar, & Lykins, 2017; Wright, Tokunaga, & Kraus, 2016), with many of these reports focusing on the potential for users of pornography to become excessive or compulsive in their use (Byers, Menzies, & O'Grady, 2004; Cooper, Delmonico, & Burg, 2000; Young, 2008). Even so, this preponderance of theoretical and empirical attention has not been without contention.

Along with the rise in literature focused on the problems associated with IPU, critical commentaries (Barak & Fisher, 2002; Barak, Fisher, Belfry, & Lashambe, 1999; Fisher & Barak, 2001) and empirical

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

reports (Byers et al., 2004; Kohut, Fisher, & Campbell, 2017) also emerged. Many of these commentaries noted that IPU was not inherently problematic and that there was a need for research that explored positive associates of IPU. Such contentions have continued into the present (Ley, 2016; Ley et al., 2014; Williams, 2017). In short, the field is currently divided about the nature of IPU, with a great deal of contention related to whether or not pornography can be seen as addictive.

Arguably, much of the negative attention that internet pornography has received could be attributed to third-person effects, wherein individuals believe strongly in the negative effects of internet pornography on others (Lee & Tamborini, 2005; Zhao & Cai, 2008). Such a contention is particularly supported by the body of literature suggesting that beliefs regarding the addictive nature of pornography seem to be particularly endemic in conservative religious subcultures, which often have specific prohibitions against pornography use (MacInnis & Hodson, 2016; Thomas, 2016; Thomas, Alper, & Gleason, 2017). Moreover, the social framing of pornography as a societal evil by various popular and, in some cases, academic sources has likely led to a greater belief in the ability of pornography to be problematic (Montgomery-Graham, Kohut, Fisher, & Campbell, 2015). However, both academic literature and popular media are replete with reported cases of first-person effects, or, more succinctly, of individuals self-reporting an addiction to pornography. These popular trends are also well-documented in empirical literature, with numerous studies documenting the tendency of some individuals to believe themselves addicted to internet pornography (Cavaglioni, 2009; Chisholm & Gall, 2015; Gola et al., 2017; Gola, Lewczuk, & Skorko, 2016; Gola & Potenza, 2016).

Given such popularity in the general public, it is unsurprising that problematic IPU is also commonly encountered in clinical practice (Crosby & Twohig, 2016; Kalman, 2008; Mitchell, Becker-Blease, &

Finkelhor, 2005; Twohig & Crosby, 2010). In field trials for the *DSM-5*, IPU was the most commonly reported compulsive sexual behavior seen in clinical settings (Reid et al., 2012). Additionally, across a variety of mental health settings, clientele often present with complaints of problematic or compulsive IPU (Gola et al., 2016; Kraus, Martino, & Potenza, 2016; Sutton, Stratton, Pytyck, Kolla, & Cantor, 2015). Such popularity also extends to mental health professionals as well, with counselors from a variety of training backgrounds purporting to treat such problems (Short, Wetterneck, Bistricky, Shutter, & Chase, 2016). In sum, there is a preponderance of evidence suggesting that many people believe themselves to be addicted to internet pornography and that many of these individuals are seeking professional mental health treatment for these perceived problems, despite the lack of consensus in the scientific community about the accuracy of such perceptions.

Self-Reported Pornography Addiction

Given the discrepancy between popular perception and the state of current science on pornography and addiction, more recent work has focused on self-reported feelings of addiction to internet pornography (Blais-Lecours, Vaillancourt-Morel, Sabourin, & Godbout, 2016; Duffy et al., 2016).¹ Generally speaking, self-reported feelings of addiction to internet pornography refer to the tendency of an individual to self-identify as being dysregulated in his or her IPU, regardless of whether or not that self-perception is consistent with true behavioral problems. Importantly, self-reported feelings of addiction are not necessarily an accurate indicator of one's behavior. Past works have consistently found that such feelings (as measured by the Perceived Compulsivity subscale of the Cyber Pornography Use Inventory-9) are better predicted by individual difference variables—such as religiousness, moral incongruence about pornography use (i.e., using pornography even when one morally

¹ Of note, prior literature has often been varied in how it frames or describes individuals' self-reports of problems associated with IPU. Prior works by the present author have variously used the terms "perceived addiction to internet pornography" and "pornography problems due to moral incongruence" (Grubbs, Perry, Wilt, & Reid, 2018; Grubbs, Volk, Exline, & Pargament, 2015). Other literature has similarly used the "self-perceived pornography addiction" (Duffy, Dawson, & das Nair, 2016). Still

other literature has used terms such as "problematic pornography use" or "problematic pornography viewing" (Borgogna, McDermott, Browning, Beach, & Aita, 2018; Kor et al., 2014). For the present work, we have chosen to use the term "self-reported feelings of addiction," by which we mean self-reported feelings of compulsivity or loss of control. Where relevant, we have noted in citations what measure was used to assess such feelings.

This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

disapproves of that behavior), and male gender—than by IPU itself (Grubbs, Exline, Pargament, Hook, & Carlisle, 2015; Grubbs, Perry, Wilt, & Reid, 2018; Grubbs, Wilt, Exline, Pargament, & Kraus, 2018). Even so, this is not to say that such feelings are independent of pornography use behaviors either, as numerous studies have shown that feelings of addiction to pornography (as measured by the Perceived Compulsivity subscale of the CPUI-9) are often associated with greater use of pornography (Grubbs, Wilt, et al., 2018).

Even though self-reported feelings of addiction may not wholly map onto actual behavior patterns, there is evidence that they may be a clinical concern. Specifically, self-reported feelings of addiction are likely a source of meaningful clinical impairment, as prior works have linked them cross-sectionally with psychological distress (using the CPUI-9; Grubbs, Volk, Exline, & Pargament, 2015), religious and spiritual difficulties (using the Perceived Compulsivity subscale of the CPUI-9; Wilt, Cooper, Grubbs, Exline, & Pargament, 2016), relational difficulties (using a modified version of the Kalichman Sexual Compulsivity Scale focused on pornography; Leonhardt, Willoughby, & Young-Petersen, 2018), alcohol consumption (using a translation of the Cyber Pornography Use Inventory; Morelli, Bianchi, Baiocco, Pezzuti, & Chirumbolo, 2017), problematic gaming (using a Hungarian version of the CPUI-9; Bóthe, Tóth-Király, & Orosz, 2015), and sexual distress (using the Perceived Compulsivity subscale of the CPUI-9; Vaillancourt-Morel et al., 2017; Volk, Thomas, Sosin, Jacob, & Moen, 2016). Prior works have also shown that self-reported feelings of addiction to pornography predict both general psychological distress (using a latent variable estimation of the CPUI-9; Grubbs, Stauner, Exline, Pargament, & Lindberg, 2015) and religious and spiritual difficulties over time (using the CPUI-9 full score; Grubbs, Exline, Pargament, Volk, & Lindberg, 2017).

In conclusion, there is a body of literature showing 1) that the potential for IPU to be addictive or dysregulated remains controversial in mental health literature, 2) that many individuals express some self-reported feelings of addiction to IPU, 3) that such self-reported feelings are often predicted by religiousness and moral incongruence about IPU, 4) that such self-perceptions are likely associated with a range of clinical

concerns, regardless of their diagnostic accuracy, and 5) that these concerns are often encountered in clinical practice. However, there is still a need for research that specifically examines what factors might contribute to an individual definitively stating that he or she is addicted to internet pornography. Although there is much research examining how individuals might feel dysregulated in their pornography use, there is limited research examining what would cause someone to state that they are “addicted to” internet pornography or that they are an internet pornography “addict.”

The majority of prior works examining self-reported feelings of addiction have relied on ordinal scale measurement (e.g., ratings on Likert scales), which may not fully capture whether or not a person believes themselves to be addicted to pornography. Although ordinal scale measurement is an almost universally accepted means of assessment that allows for nuanced studies of complex constructs, there may exist meaningful differences between binary responses and such scales. Rating some agreement on a Likert scale with a statement such as “Even when I don’t want to view online pornography, I feel drawn to it” (Grubbs, Volk, et al., 2015) or “Sometimes my desire to view pornography is so great I lose control” (Leonhardt et al., 2018) may be qualitatively different than describing oneself as “addicted to” internet pornography or calling oneself an internet pornography “addict.” As such, the present study was designed to specifically examine individuals who would self-identify as addicted to pornography. More simply, we sought to examine what factors are associated with stating that one is definitively addicted to pornography. Importantly, we did not design the present study to highlight weaknesses in prior literature or to indicate problems with past works using ordinal measurement. Ordinal, scalar measures are most often superior to binary responses. However, to date, binary identification as addicted to pornography has not been explored. As such, the present work was designed to add to an already rich body of research and to add nuance to a controversial research domain.

The Present Study

The hypotheses for this study were registered via the Open Science Framework before data analysis began (<https://osf.io/jf59m/>). As noted in our registration, some data had been collected at the time of registration, but analyses had not commenced nor had

the authors examined the data in any way. As such, all registered hypotheses were created with no knowledge of the findings and there was no Hypothesizing After the Results are Known (Kerr, 1998)(Grubbs, Grant, & Engelman, 2019). Consistent with this registration, we specifically predicted the following:

1. Primarily, we expected to find that, consistent with prior work on self-reported feelings of addiction to pornography (Grubbs, Wilt, et al., 2018; Volk et al., 2016), religiousness, moral incongruence (i.e., moral disapproval of IPU among pornography users), and IPU itself would each predict self-identification as a pornography addict in a binary response format.
2. We also expected to find that, consistent with prior literature on self-reported feelings of addiction to pornography, moral incongruence among pornography users would be the best and most consistent predictor of self-identification as a pornography addict in a binary response format.

Method

For the present work, we analyzed data from four samples of online pornography users. Each of these samples were part of larger data collection efforts than the variables analyzed for this study. Each study was slightly different than the other three and involved separate participants. Complete descriptions of each data collection effort, including all measures involved in the studies, are available on the Open Science Framework (Sample 1: <https://osf.io/6esb4/>; Sample 2: <https://osf.io/n29xw/>; Sample 3: <https://osf.io/hxgsy/>; Sample 4: <https://osf.io/rm46n/>). All studies were approved via the institutional review board of the first author of this study.

Participants and Procedure

Sample 1. Participants for Sample 1 were adult web-users ($N=1,052$) recruited via Amazon's Mechanical Turk (Buhrmester, Kwang, & Gosling, 2011; Chandler & Shapiro, 2016; Shapiro, Chandler, & Mueller, 2013) as part of a larger data collection effort examining pornography use, sexual behaviors, and a variety of individual difference variables. We limited

analyses to those who had acknowledged online IPU within the past year ($N=829$; $M_{age} = 33.3$; $SD = 9.4$; 56.7% men). Regarding sexual orientation, participants identified primarily heterosexual (86%), followed by bisexual (8%), gay (2%), lesbian (2%), and "other" (3%). Participants were predominantly White/Caucasian (79%), followed by African-American/Black (10.1%), Latinx/Hispanic (7%), Asian/Pacific-Islander (8%), Native-American/Alaska-Native (3%), or "other" (2%).

Sample 2. Participants for Sample 2 were adult web-users ($N = 881$) recruited as part of a larger data collection effort examining compulsive behavior patterns more broadly, with a specific focus on gambling behaviors. All recruited participants had endorsed some gambling behaviors within the past year. We limited analyses to those who had not participated in our first study (overlap, $n = 209$) and who acknowledged IPU within the past year ($N=424$; $M_{age} = 33.6$; $SD = 9.1$; 52.4% men). Regarding sexual orientation, participants identified primarily as heterosexual (85%), followed by bisexual (8%), gay or lesbian (5%), and "other" (2%). Participants were predominantly White/Caucasian (74%), followed by African-American/Black (13%), Latinx/Hispanic (11%), Asian/Pacific-Islander (9%), Native-American/Alaska-Native (2%), or "other" (2%).

Sample 3. Participants for Sample 3 were undergraduate students ($N=463$) in psychology classes at a large public university in the Midwest. These students completed key measures as part of a larger data collection effort examining IPU, sexual behaviors, and a variety of individual difference variables. We limited analyses to those who had acknowledged IPU within the past year ($N=231$; $M_{age} = 19.3$; $SD = 1.8$; 39.8% men). Regarding sexual orientation, participants identified primarily as heterosexual (79%), followed by bisexual (12%), gay or lesbian (4%), and "other" (5%). Participants were predominantly White/Caucasian (83%), followed by African-American/Black (13%), Latinx/Hispanic (5%), Asian/Pacific-Islander (3%), Native-American/Alaska-Native (2%), or "other" (2%).

Sample 4. Participants for Sample 3 were adult internet users in the U.S. ($N=1,063$) that were approximately matched to 2010 U.S. nationally representative norms (based on U.S. Census data) for age, gender, ethnicity, race, U.S. Census region, and income. This non-probability sample was recruited and

compensated by the Turkprime panel service (Litman, Robinson, & Abberbock, 2017). Participant completed key measures as part of a larger data collection effort examining IPU, sexual behaviors, and a variety of individual difference variables. We limited analyses to those who acknowledged intentional use of IPU in their adult lives ($N=736$; $M_{age} = 48.0$; $SD = 15.8$; 58.1% men). Regarding sexual orientation, participants identified primarily as heterosexual (90%), followed by bisexual (4%), gay or lesbian (4%), and “other” (2%). Participants were predominantly White/Caucasian (75%), followed by African-American/Black (12%), Latinx/Hispanic (6%), Asian/Pacific-Islander (8%), Native-American/Alaska-Native (4%), or “other” (1%). Participants were free to select multiple racial affiliations, which resulted in final percentages exceeding 100%.

Measures

Summary statistics for all included measures are available in Table 1.

Pornography use. For all samples, we measured IPU in two ways, assessing both frequency of use and average daily use. In samples 1-3, we asked all participants to indicate how often they had viewed pornography over the past year on a scale of 1 (*0 Times*) to 5 (*10 or more times*). As all analyses were restricted to those who had viewed pornography within the past year, available responses were from 2 (*1-3 times*) to 5 (*10 or more times*). In sample 4, we asked participants to rate how often they had viewed pornography over the past year on a scale of 1 (*not at all*) to 8 (*once a day or more*). Additionally, all participants in all samples reported their average daily use of pornography in hours per day.

Moral Incongruence. We measured moral incongruence regarding IPU using the same four items described in previous studies of this topic (Grubbs, Exline, et al., 2015; Grubbs, Wilt, et al., 2018). These items require participants to rate their agreement with statements such as “I believe pornography use is morally wrong” on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*).

Self-Identification as a Pornography Addict.

Participants responded to two prompts regarding self-identification as a pornography addict by rating them

either as being “True” or “False.” The first statement was: “I believe that I am addicted to internet pornography.” The second statement was: “I would call myself an internet pornography addict.” Comparisons of gender and sexual orientation for participants based on responses to these questions are available in Table 2.

Religiousness. For Samples 1 and 3, participants answered questions about religious involvement. These measures were omitted from Sample 2. To assess religious participation, participants responded to a 5-item version of a previously published scale (Exline, Yali, & Sanderson, 2000). Participants rated how often they had engaged in certain religious behaviors (e.g., “Over the past week, how often have you prayed?” or “Over the past week, how often have you attended religious services?”) on a scale of 1 (*not at all*) to 5 (*multiple times per day*). Participants also completed a measure of religious belief salience (Blaine & Crocker, 1995). This measure requires participants to respond to four items (e.g., “Being a religious/spiritual person is important to me”), on a scale of 0 (*strongly disagree*) to 10 (*strongly agree*). Consistent with prior studies on this topic (Grubbs, Exline, et al., 2015; Grubbs, Wilt, et al., 2018), we standardized all items on both scales and aggregated them (using a mean score) into a single index of religiousness.

For Sample 4, religiousness was assessed as the mean of three items: “I consider myself religious,” “Being religious is important to me,” and “I attend religious services regularly.” Responses were recorded on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*).

Analytic Plan

Consistent with our pre-registered analytic plan, we tested our hypotheses using logistic regression analyses across all four samples to see what variables would be associated with a greater likelihood of endorsing an affirmative or “true” response to either self-identification statement (i.e., “I would call myself a pornography addict” or “I believe I am addicted to internet pornography.”).

In addition, we also conducted bivariate correlation analyses and independent t-tests based on responses to self-identification questions.² These analyses were conducted in an exploratory capacity and

² Due to the ordinal nature of some of our data (e.g., pornography use frequency) and the extreme skew of some

variables (e.g., average daily use of pornography), we also conducted these exploratory analyses using non-parametric

were not registered prior to this study. For these analyses, aggregate effects across studies were computed (Goh, Hall, & Rosenthal, 2016).

Results

Descriptive statistics for all included variables are available in Table 1.

Exploratory Analyses

Chi-square contingency analyses of participant gender and sexual orientation based on responses to addiction statements (2x2 comparisons) revealed a very uniform pattern of findings. Across all 8 comparisons for gender (all four samples on both statements), we consistently found that men were overrepresented among affirmative responses. That is, men were substantively more likely to endorse each statement. In contrast, in 7 of 8 comparisons based on sexual orientation (2x2 comparisons with sexual orientation coded as 1 = heterosexual and 0 = non-heterosexual), there were no significant differences based on responses to addiction statements.

Mean comparisons (with t-tests and effect sizes), including aggregate effects, are summarized in Table 3. Across all four samples for both statements, those who self-identified as addicted to internet pornography reported greater use of pornography daily, greater use of pornography over the past year, and greater moral incongruence about their IPU. Aggregate effects across all three samples (Goh et al., 2016) indicated that the effect size for both IPU variables (average daily use and frequency over past year) was large, with self-identified addicts reporting substantially higher rates of use. Aggregate effects for moral incongruence were moderate in size, with self-identified addicts consistently reporting higher levels of incongruence. Results for religiousness were inconsistent between samples, but the aggregate effects were significant and small in magnitude, suggesting that those who identified as addicts were, on average, slightly more religious than their non-addict counterparts.

Correlation coefficients with aggregate effect sizes (Goh et al., 2016) are summarized in Table 4. Aggregate effects revealed consistently positive and moderate correlations between average daily IPU and

self-identification, and consistently small-to-moderate positive correlations between self-identification and frequency of use, moral incongruence, and male gender. Results for religiousness were inconsistent between samples. Additionally, correlations between religiousness and moral incongruence were quite substantive (Sample 1, $r = .534$ [.481, .582], $p < .001$; Sample 3, $r = .522$ [.419, .612], $p < .001$; Sample 4, $r = .517$ [.462, .568], $p < .001$).

Pre-Registered Analyses

Key hypotheses were tested using logistic regression. For the statement “I believe I am addicted to internet pornography,” across all four samples, average daily use, moral incongruence, and male gender were each uniquely associated with substantially higher odds of responding affirmatively. These results are summarized in Table 5.

For the statement, “I would call myself a pornography addict,” across all three samples, average daily use and male gender were associated with a greater likelihood of responding affirmatively. In Samples 1, 2, and 4, moral incongruence and past year frequency were also associated with greater odds of endorsing such a statement, though neither reached statistical significance in Sample 3. These results are summarized in Table 6.

Discussion

At the outset of this study, we sought to examine what factors might be associated with a willingness to self-identify as addicted to internet pornography. Whereas past works chose to examine similar questions dimensionally (i.e., assessing self-reported feelings of addiction on ordinal scales; Grubbs, Exline, et al., 2015; Leonhardt et al., 2018), the present work specifically asked participants binary response questions assessing whether or not they saw themselves as addicted to pornography. Past works examining self-reported feelings of addiction as a dimensional construct often revealed that moral incongruence was one of the strongest associates or best predictors of self-reported feelings of addiction, alongside male gender itself (Grubbs, Wilt, et al., 2018; Volk et al., 2016). In contrast to this prior work and to our pre-registered hypotheses, the present work consistently found that

tests (Mann-Whitney’s test and Spearman’s Rho). In all cases, results did not meaningfully differ in terms of sign, relative size, or significance. As such, for the sake of conciseness and brevity,

we have omitted these non-parametric tests from our final results.

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

male gender and average daily use were the best predictors of self-identification as a pornography addict, though moral incongruence remained an important contributing factor in each analysis. Such a discrepancy suggests that there is a qualitative difference between dimensional ratings of self-reported feelings of addiction and binary endorsement of addiction. Importantly, these findings were evident even in divergent samples (e.g., adults online vs. college students vs. a sample matched to U.S. demographic norms), suggesting that these results may generalize to the larger population. Even so, we urge caution in interpreting these results, as binary response formats are inherently limited, with less variance than scalar approaches or ordinal rating systems.

In an exploratory capacity, we examined how self-identified addicts differed from non-addicts in terms of average IPU, frequency of IPU, religiousness, and moral incongruence. We consistently found differences between self-identified addicts and non-addicts on most variables. Self-identified addicts reported substantially greater use of pornography, more frequent use of pornography, more moral incongruence about their use, and slightly higher levels of religiousness. Furthermore, in exploratory correlational analyses, across three samples, the most consistent associates of self-identification as an addict were male gender, average daily use of pornography, and moral incongruence. Again, religiousness was associated with greater likelihood of self-identification as an addict, but these associations were small in magnitude.

Collectively, our findings are consistent with a body of prior literature suggesting that many people are likely to experience moral incongruence about their pornography use (Perry, 2018a; Whitehead & Perry, 2017) and that individuals who are morally incongruent about their IPU may be more prone to experience mental health concerns, such as anxiety, depression, and reduced happiness in life (Kwee, Dominguez, & Ferrell, 2007; Nelson, Padilla-Walker, & Carroll, 2010; Patterson & Price, 2012; Perry, 2018b). However, the present work also adds much needed nuance to understandings of self-reported feelings of addiction. Whereas past work in community (i.e., non-clinical) samples has suggested self-reported feelings of addiction may predominantly be a function of moral scruples or religiousness, our binary analysis suggests that self-

identification as an addict is robustly associated with IPU itself. More succinctly, the present work suggests that individuals who self-label as addicted to pornography are likely engaging in more average daily use of pornography and greater frequency of pornography use. Those who identify as addicts are engaging in IPU more often and spending more time in IPU. Even so, as our results consistently indicated, this increase in objective behavior dysregulation does not obviate the role of moral incongruence. Across samples, we consistently found that higher levels of moral incongruence about IPU were uniquely associated with greater likelihood of self-identification as a pornography addict, above and beyond the explanatory power of alternate variables. In short, these findings seem mostly consistent with prior literature on this topic (Grubbs & Perry, 2019; Grubbs, Perry, et al., 2018).

Collectively, our results are likely relevant to both research and clinical domains. In regards to research, our work speaks to the need for continued inquiry into the specific mechanisms that might cause a person to view their pornography use as problematic. Although time spent viewing pornography might be of importance, individual differences in personal morality may also be key variables. Furthermore, these findings also contribute to the larger debates about the nature of internet pornography addiction in general. Specifically, consistent with prior works differentiating between self-reported feelings of addiction and actual patterns of dysregulated behavior, the present work again illustrates that pornography addiction is not as cleanly defined as other known addictive behavior patterns (e.g., substance use or gambling disorder). Although self-identifying as a pornography addict is indeed associated with greater use of pornography, it is also associated with greater feelings of moral incongruence, slightly higher rates of religiousness, and with male gender, suggesting that use alone does not fully account for such statements.

Clinically, our work bears important implications for practitioners in various settings. Prior works focused on self-reported feelings of addiction to internet pornography often focused on the clear discrepancy between perception and reality (e.g., Grubbs et al., 2015). However, among those who actually self-identify as addicted to pornography, pornography use was indeed quite elevated. This stands somewhat in contrast to prior works in clinical samples have found that time

spent viewing pornography is not often a driving factor in seeking help for pornography-related problems (Kraus et al., 2016). As such, the results of our analyses suggest that clinical encounters with self-identified pornography addicts should be approached with a careful examination of both objective behavior patterns (i.e., use, disruption, consequences) and subjective experiences of one's own use (i.e., moral incongruence, guilt, shame), in order to help determine the proper focus and direction of clinical care (for further recommendations, see: Brand, Antons, Wegmann, & Potenza, 2018; Grubbs, Perry, et al., 2018; Kraus & Sweeney, 2018)

Just emotional distress?

We also believe the present findings should be considered in light of recent literature related to the CPUI-9, which has been widely used in prior works on self-reported pornography addiction. Some recent works (Brand et al., 2018; Fernandez, Tee, & Fernandez, 2017), have posited that links in prior literature (using the CPUI-9) between moral incongruence and self-reported pornography addiction may in part be a function of emotional distress over use, as captured by the Emotional Distress subscale of the CPUI-9. These authors suggest that past literature may artificially inflate the association between moral incongruence and self-reported feelings of pornography addiction by potentially conflating emotional distress over pornography use with a perceived loss of control over pornography use (e.g., only using the CPUI-9 total score that involves both subscales). However, the original work linking moral incongruence to self-reported feelings of addiction intentionally and clearly removed emotional distress from estimates of self-reported pornography addiction (Grubbs, Exline, et al., 2015) and more recent research has examined emotional distress separately from self-reported compulsivity (Grubbs, Wilt, et al., 2018). In short, prior estimates of the link between moral incongruence and self-reported feelings of addiction intentionally controlled for this consideration. Moreover, there exists utility in assessing emotional distress in predicting self-reported feelings of addiction to pornography. It is likely that many people may find a perceived loss of control to be emotionally distressing. That is, the conceptual meaning of the residualized Perceived Compulsivity variable (after statistically controlling for emotional distress over use)

is somewhat unclear. Separating perceived compulsivity from emotional distress may be unsound conceptually, as it likely only measuring that aspect of a perceived lack of control that the individual does not find distressing.

When the above literature is considered in concert with the results of the present study, we would contend that they collectively suggest that the present work is both slightly divergent from our original hypotheses and consistent with prior works on the role of moral incongruence in predicting pornography-related problems. Importantly, however, we would acknowledge that these findings may also be consistent with a focus on moral incongruence that is independent of religious belief (Brand et al., 2018; Vaillancourt-Morel & Bergeron, 2018; Wright, 2018). That is, it is possible that moral incongruence is associated with feelings of addiction in general, independent of religiousness, or that incongruence may actually flow from feelings of dysregulation or from other domains of value and opinions. These are possibilities that should be carefully considered in future longitudinal works.

Limitations and Future Directions

The present work sought to simplify current understandings of self-reported feelings of addiction by directly examining what factors predicted participants' willingness to self-identify as addicted to pornography. Although this binary approach adds nuance to prior literature on the topic, it is not without limitations. Primarily, as is the case with much of the literature on this topic, our sample was limited to adults in the U.S. Although preliminary works in Europe (Bóthe et al., 2015; Cardoso et al., 2018) and Southeast Asia (Fernandez et al., 2017) have also examined self-reported feelings of addiction to internet pornography, there is some evidence that non-Western cultures may not demonstrate the same tendencies as U.S. samples (Fernandez et al., 2017). Furthermore, although our findings were replicated across four distinct samples, we urge caution in interpreting the results, particularly in clinical settings. Self-reported self-identification as a pornography addict is not necessarily equivalent with seeking help for pornography related problems. As such, future work replicating the present study with treatment seeking individuals (e.g., Gola et al., 2016; Kraus et al., 2016; Lewczuk, Szmyd, Skorko, & Gola, 2017) is warranted. We also noted that, consistent with a body of prior work (Gola et al., 2017; Grubbs, Wilt, et

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

al., 2018; Kraus et al., 2016), self-reported feelings of addiction or self-identification as a pornography addict was strongly associated with male gender. Although this specific finding was not a focus of our work, it appears to be a consistent pattern in current research (Duffy et al., 2016), suggesting that gender is an important component of understanding self-reported feelings of addiction. Despite this consistency, there is very little research (to date) specifically examining why men seem to be experiencing perceptions of addiction at rates so much higher than women, which suggests an area in need of specific research. Future work should explicitly consider whether or not gender is a moderator of the links between pornography use, moral incongruence, and reported problems associated with pornography use. We also note that a range of individual difference variables, coping styles, defense mechanisms, and attachment styles could be related to the self-reported experience of addiction to pornography. Our work did not consider any such variables, and it is our belief that future research would be wise to consider the roles that various other individual difference variables may play in predicting these outcomes. Finally, despite our simplified focus on binary self-identification, our samples relied exclusively on self-report, the limitations of which are well-known (Chan, 2009), and purely cross-sectional designs, precluding causal inferences. As such, we see a need for future research using experimental and longitudinal methods (for examples, see: Fernandez et al., 2017; Grubbs, Wilt, et al., 2018).

Conclusion

Pornography use is and will likely remain a controversial behavior. Similarly, controversies about the appropriate classification of problematic IPU (e.g., addiction vs. impulsivity vs. compulsivity vs. pornography problems due to moral incongruence vs. some combination of the above factors) are also likely to continue for the foreseeable future. Even so, mental health and sexual health professionals are likely to encounter clientele seeking treatment for their own self-perceived problems associated with IPU. The present work, using four samples and over 2,000 participants, demonstrates that individuals who self-report pornography addiction are likely experiencing greater use of pornography (both in terms of frequency and time spent using), alongside feelings of incongruence about their behavior and slightly higher religiousness.

Collectively, these findings suggest that mental and sexual health professionals should take the concerns of clients identifying as pornography addicts seriously, while also considering the roles of both self-perception and behavioral dysregulation.

References

- Barak, A., & Fisher, W. A. (2002). The future of Internet sexuality. In *Sex and the Internet: A guide book for clinicians* (pp. 267–280).
- Barak, A., Fisher, W., Belfry, S., & Lashambe, D. (1999). Sex, guys, and cyberspace. *Journal of Psychology & Human Sexuality*, 11, 63–91.
https://doi.org/10.1300/J056v11n01_04
- Blaine, B., & Crocker, J. (1995). Religiousness, race, and psychological well-being: Exploring social psychological mediators. *Personality and Social Psychology Bulletin*, 21, 1031–1041.
- Blais-Lecours, S., Vaillancourt-Morel, M.-P., Sabourin, S., & Godbout, N. (2016). Cyberpornography: Time use, perceived addiction, sexual functioning, and sexual satisfaction. *Cyberpsychology, Behavior, and Social Networking*, 19, 649–655.
<https://doi.org/10.1089/cyber.2016.0364>
- Borgogna, N. C., McDermott, R. C., Browning, B. R., Beach, J. D., & Aita, S. L. (2018). How does traditional masculinity relate to men and women's problematic pornography viewing? *Sex Roles*. <https://doi.org/10.1007/s11199-018-0967-8>
- Bóthe, B., Tóth-Király, I., & Orosz, G. (2015). Clarifying the links among online gaming, internet use, drinking motives, and online pornography use. *Games for Health Journal*, 4, 107–112.
<https://doi.org/10.1089/g4h.2014.0054>
- Brand, M., Antons, S., Wegmann, E., & Potenza, M. N. (2018). Theoretical assumptions on pornography problems due to moral incongruence and mechanisms of addictive or compulsive use of pornography: Are the two “conditions” as theoretically distinct as suggested? [Commentary]. *Archives of Sexual Behavior*.
<https://doi.org/10.1007/s10508-018-1293-5>
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

- inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, 6, 3–5.
- Byers, L. J., Menzies, K. S., & O'Grady, W. L. (2004). The impact of computer variables on the viewing and sending of sexually explicit material on the internet: testing Cooper's "Triple-A Engine." *Canadian Journal of Human Sexuality*, 13, 157–169.
- Cardoso, J., Ramos, C., Almeida, T., Gomes, A., Fernandes, A., & Ribeiro, R. (2018). 117 Cyber pornography use inventory-9: factor structure and psychometric properties in the Portuguese population. *The Journal of Sexual Medicine*, 15, S177.
- Cavaglion, G. (2008). Voices of coping in an Italian self-help virtual community of cyberporn dependents. *CyberPsychology & Behavior*, 11, 599–601. <https://doi.org/10.1089/cpb.2007.0204>
- Cavaglion, G. (2009). Cyber-porn dependence: Voices of distress in an Italian Internet self-help community. *International Journal of Mental Health and Addiction*, 7, 295–310. <https://doi.org/10.1007/s11469-008-9175-z>
- Chan, D. (2009). So why ask me? Are self-report data really that bad. In C. E. Lance & R. J. Vandenberg (Eds.), *Statistical and methodological myths and urban legends: Doctrine, verity and fable in the organizational and social sciences* (pp. 311–338). New York: Routledge.
- Chandler, J., & Shapiro, D. (2016). Conducting clinical research using crowdsourced convenience samples. *Annual Review of Clinical Psychology*, 12, 53–81. <https://doi.org/10.1146/annurev-clinpsy-021815-093623>
- Chen, A.-S., Leung, M., Chen, C.-H., & Yang, S. C. (2013). Exposure to Internet Pornography Among Taiwanese Adolescents. *Social Behavior and Personality: An International Journal*, 41, 157–164. <https://doi.org/10.2224/sbp.2013.41.1.157>
- Chisholm, M., & Gall, T. L. (2015). Shame and the X-rated Addiction: The Role of Spirituality in Treating Male Pornography Addiction. *Sexual Addiction & Compulsivity*, 22, 259–272. <https://doi.org/10.1080/10720162.2015.1066279>
- Clarkson, J., & Kopaczewski, S. (2013). Pornography addiction and the medicalization of free speech. *Journal of Communication Inquiry*, 37, 128–148. <https://doi.org/10.1177/0196859913482330>
- Cooper, A. (1998). Sexuality and the Internet: Surfing into the new millennium. *CyberPsychology & Behavior*, 1, 187–193. <https://doi.org/10.1089/cpb.1998.1.187>
- Cooper, A., Delmonico, D. L., & Burg, R. (2000). Cybersex users, abusers, and compulsives: New findings and implications. *Sexual Addiction & Compulsivity*, 7, 5–29. <https://doi.org/10.1080/10720160008400205>
- Crosby, J. M., & Twohig, M. P. (2016). Acceptance and commitment therapy for problematic internet pornography use: A randomized trial. *Behavior Therapy*, 47, 355–366. <https://doi.org/10.1016/j.beth.2016.02.001>
- 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, 760–777. <https://doi.org/10.1016/j.jsxm.2016.03.002>
- Exline, J. J., Yali, A. M., & Sanderson, W. C. (2000). Guilt, discord, and alienation: The role of religious strain in depression and suicidality. *Journal of Clinical Psychology*, 56, 1481–1496.
- Fernandez, D. P., Tee, E. Y. J., & Fernandez, E. F. (2017). Do Cyber Pornography Use Inventory-9 scores reflect actual compulsivity in internet pornography use? Exploring the role of abstinence effort. *Sexual Addiction & Compulsivity*, 24, 156–179. <https://doi.org/10.1080/10720162.2017.1344166>
- Fisher, W. A., & Barak, A. (2001). Internet pornography: A social psychological perspective on internet sexuality. *The Journal of Sex Research*, 38, 312–323. <https://doi.org/10.1080/00224490109552102>
- Foubert, J. D. (2016). *How Pornography Harms: Today's Research, Scholarly Perspectives, and Real Life Stories*. Bloomington, IN: Liferich Publishing.
- Goh, J. X., Hall, J. A., & Rosenthal, R. (2016). Mini meta-analysis of your own studies: Some arguments on why and a primer on how. *Social and Personality Psychology Compass*, 10, 535–549. <https://doi.org/10.1111/spc3.12267>

This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

- Gola, M., Lewczuk, K., & Skorko, M. (2016). What matters: Quantity or quality of pornography use? Psychological and behavioral factors of seeking treatment for problematic pornography use. *The Journal of Sexual Medicine*, 13, 815–824. <https://doi.org/10.1016/j.jsxm.2016.02.169>
- Gola, M., & Potenza, M. N. (2016). Paroxetine treatment of problematic pornography use: A case series. *Journal of Behavioral Addictions*, 5, 529–532. <https://doi.org/10.1556/2006.5.2016.046>
- Gola, M., Wordecha, M., Sescousse, G., Lew-Starowicz, M., Kossowski, B., Wypych, M., ... Marchewka, A. (2017). Can Pornography be Addictive? An fMRI Study of Men Seeking Treatment for Problematic Pornography Use. *Neuropsychopharmacology*, 42, 2021–2031. <https://doi.org/10.1038/npp.2017.78>
- 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, 125–136. <https://doi.org/10.1007/s10508-013-0257-z>
- Grubbs, J. B., Exline, J. J., Pargament, K. I., Volk, F., & Lindberg, M. J. (2017). Internet pornography use, perceived addiction, and religious/spiritual struggles. *Archives of Sexual Behavior*, 46, 1733–1745. <https://doi.org/10.1007/s10508-016-0772-9>
- Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>
- Grubbs, J. B., & Perry, S. L. (2019). Moral Incongruence and Pornography Use: A Critical Review and Integration. *The Journal of Sex Research*, 56, 29–37. <https://doi.org/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*. <https://doi.org/10.1007/s10508-018-1248-x>
- Grubbs, J. B., Sessoms, J., Wheeler, D. M., & Volk, F. (2010). The Cyber-Pornography Use Inventory: The development of a new assessment instrument. *Sexual Addiction & Compulsivity*, 17, 106–126. <https://doi.org/10.1080/10720161003776166>
- Grubbs, J. B., Stauner, N., Exline, J. J., Pargament, K. I., & Lindberg, M. J. (2015). Perceived addiction to Internet pornography and psychological distress: Examining relationships concurrently and over time. *Psychology of Addictive Behaviors*, 29, 1056–1067.
- Grubbs, J. B., Volk, F., Exline, J. J., & Pargament, K. I. (2015). Internet pornography use: Perceived addiction, psychological distress, and the validation of a brief measure. *Journal of Sex & Marital Therapy*, 41, 83–106. <https://doi.org/10.1080/0092623X.2013.842192>
- 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, 496–506. <https://doi.org/10.1111/add.14007>
- Johnson, P. (1996). Pornography drives technology: Why not to censor the Internet. *Fed. Comm. Lj*, 49, 217.
- Kalman, T. P. (2008). Clinical encounters with Internet pornography. *Journal of the American Academy of Psychoanalysis and Dynamic Psychiatry*, 36, 593–618.
- Kerr, N. L. (1998). HARKing: Hypothesizing after the results are known. *Personality and Social Psychology Review*, 2, 196–217.
- Kohut, T., Fisher, W. A., & Campbell, L. (2017). Perceived effects of pornography on the couple relationship: Initial findings of open-ended, participant-informed, “bottom-up” research. *Archives of Sexual Behavior*, 46, 585–602. <https://doi.org/10.1007/s10508-016-0783-6>
- Kor, A., Zilcha-Mano, S., Fogel, Y. A., Mikulincer, M., Reid, R. C., & Potenza, M. N. (2014). Psychometric development of the Problematic Pornography Use Scale. *Addictive Behaviors*, 39, 861–868. <https://doi.org/10.1016/j.addbeh.2014.01.027>

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

- Kraus, S. W., Krueger, R. B., Briken, P., First, M. B., Stein, D. J., Kaplan, M. S., ... Reed, G. M. (2018). Compulsive sexual behaviour disorder in the ICD-11. *World Psychiatry*, 17, 109–110. <https://doi.org/10.1002/wps.20499>
- Kraus, S. W., Martino, S., & Potenza, M. N. (2016). Clinical characteristics of men interested in seeking treatment for use of pornography. *Journal of Behavioral Addictions*, 5, 169–178. <https://doi.org/10.1556/2006.5.2016.036>
- Kraus, S. W., & Sweeney, P. J. (2018). Hitting the target: Considerations for differential diagnosis when treating individuals for problematic use of pornography [Commentary]. *Archives of Sexual Behavior*. <https://doi.org/10.1007/s10508-018-1301-9>
- Kwee, W. A., Dominguez, A. W., & Ferrell, D. (2007). Sexual addiction and Christian college men: Conceptual, assessment, and treatment challenges. *J Psychol Christ*, 26, 3–13.
- Lee, B., & Tamborini, R. (2005). Third-Person Effect and Internet Pornography: The Influence of Collectivism and Internet Self-Efficacy. *Journal of Communication*, 55, 292–310. <https://doi.org/10.1111/j.1460-2466.2005.tb02673.x>
- 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, 357–368. <https://doi.org/10.1080/00224499.2017.1295013>
- Lewczuk, K., Szmyd, J., Skorko, M., & Gola, M. (2017). Treatment seeking for problematic pornography use among women. *Journal of Behavioral Addictions*, 6, 445–456. <https://doi.org/10.1556/2006.6.2017.063>
- Ley, D. J. (2016). *Ethical porn for dicks: A man's guide to responsible viewing pleasure*. Berkeley, CA: ThreeL Media.
- 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, 94–105. <https://doi.org/10.1007/s11930-014-0016-8>
- Litman, L., Robinson, J., & Abberbock, T. (2017). TurkPrime.com: A versatile crowdsourcing data acquisition platform for the behavioral sciences. *Behavior Research Methods*, 49, 433–442. <https://doi.org/10.3758/s13428-016-0727-z>
- MacInnis, C. C., & Hodson, G. (2016). Surfing for sexual sin: Relations between religiousness and viewing sexual content online. *Sexual Addiction & Compulsivity*, 23, 196–210. <https://doi.org/10.1080/10720162.2015.1130000>
- Mitchell, K. J., Becker-Blease, K. A., & Finkelhor, D. (2005). Inventory of Problematic Internet Experiences Encountered in Clinical Practice. *Professional Psychology: Research and Practice*, 36, 498–509. <https://doi.org/10.1037/0735-7028.36.5.498>
- Montgomery-Graham, S., Kohut, T., Fisher, W., & Campbell, L. (2015). How the popular media rushes to judgment about pornography and relationships while research lags behind. *The Canadian Journal of Human Sexuality*, 24, 243–256.
- Morelli, M., Bianchi, D., Baiocco, R., Pezzuti, L., & Chirumbolo, A. (2017). Sexting behaviors and cyber pornography addiction among adolescents: The moderating role of alcohol consumption. *Sexuality Research and Social Policy*, 14, 113–121. <https://doi.org/10.1007/s13178-016-0234-0>
- Nelson, L. J., Padilla-Walker, L. M., & Carroll, J. S. (2010). "I believe it is wrong but I still do it": A comparison of religious young men who do versus do not use pornography. *Psychology of Religion and Spirituality*, 2, 136–147. <https://doi.org/10.1037/a0019127>
- Patterson, R., & Price, J. (2012). Pornography, religion, and the happiness gap: Does pornography impact the actively religious differently? *Journal for the Scientific Study of Religion*, 51, 79–89.
- Perry, S. L. (2018a). Not practicing what you preach: Religion and incongruence between pornography beliefs and usage. *Journal of Sex Research*, 55, 369–380. <https://doi.org/10.1080/00224499.2017.1333569>
- Perry, S. L. (2018b). Pornography use and depressive symptoms: Examining the role of moral

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

- incongruence. *Society and Mental Health*, 8, 195–213.
<https://doi.org/10.1177/2156869317728373>
- Price, J., Patterson, R., Regnerus, M., & Walley, J. (2016). How much more xxx is generation x consuming? Evidence of changing attitudes and behaviors related to pornography since 1973. *The Journal of Sex Research*, 53, 12–20.
<https://doi.org/10.1080/00224499.2014.1003773>
- Regnerus, M., Gordon, D., & Price, J. (2016). Documenting pornography use in America: a comparative analysis of methodological approaches. *The Journal of Sex Research*, 53, 873–881.
- Reid, R. C., Carpenter, B. N., Hook, J. N., Garos, S., Manning, J. C., Gilliland, R., ... Fong, T. (2012). Report of findings in a DSM-5 field trial for hypersexual disorder. *The Journal of Sexual Medicine*, 9, 2868–2877.
- Rissel, C., Richters, J., Visser, R. O. de, McKee, A., Yeung, A., & Caruana, T. (2017). A profile of pornography users in Australia: Findings from the Second Australian Study of Health and Relationships. *Journal of Sex Research*, 54, 227–240.
<https://doi.org/10.1080/00224499.2016.1191597>
- Ross, M. W., Månsson, S.-A., & Daneback, K. (2012). Prevalence, severity, and correlates of problematic sexual internet use in Swedish men and women. *Archives of Sexual Behavior*, 41, 459–466. <https://doi.org/10.1007/s10508-011-9762-0>
- Shapiro, D. N., Chandler, J., & Mueller, P. A. (2013). Using Mechanical Turk to study clinical populations. *Clinical Psychological Science*, 1, 213–220.
- 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, 13–23.
<https://doi.org/10.1089/cyber.2010.0477>
- Short, M. B., Wetterneck, C. T., Bistricky, S. L., Shutter, T., & Chase, T. E. (2016). Clinicians' beliefs, observations, and treatment effectiveness regarding clients' sexual addiction and internet pornography use. *Community Mental Health Journal*, 52, 1070–1081.
<https://doi.org/10.1007/s10597-016-0034-2>
- Sutton, K. S., Stratton, N., Pytyck, J., Kolla, N. J., & Cantor, J. M. (2015). Patient characteristics by type of hypersexuality referral: A quantitative chart review of 115 consecutive male cases. *Journal of Sex & Marital Therapy*, 41, 563–580.
<https://doi.org/10.1080/0092623X.2014.935539>
- Thomas, J. N. (2016). The development and deployment of the idea of pornography addiction within American Evangelicalism. *Sexual Addiction & Compulsivity*, 23, 182–195.
<https://doi.org/10.1080/10720162.2016.1140603>
- Thomas, J. N., Alper, B. A., & Gleason, S. A. (2017). Anti-pornography narratives as self-fulfilling prophecies: Religious variation in the effect that pornography viewing has on the marital happiness of husbands. *Review of Religious Research*, 1–27. <https://doi.org/10.1007/s13644-017-0301-x>
- Twohig, M. P., & Crosby, J. M. (2010). Acceptance and commitment therapy as a treatment for problematic internet pornography viewing. *Behavior Therapy*, 41, 285–295.
<https://doi.org/10.1016/j.beth.2009.06.002>
- Vaillancourt-Morel, M.-P., & Bergeron, S. (2018). Self-perceived problematic pornography use: Beyond individual differences and religiosity [Commentary]. *Archives of Sexual Behavior*.
<https://doi.org/10.1007/s10508-018-1292-6>
- Vaillancourt-Morel, M.-P., Blais-Lecours, S., Labadie, C., Bergeron, S., Sabourin, S., & Godbout, N. (2017). Profiles of cyberpornography use and sexual well-being in adults. *The Journal of Sexual Medicine*, 14, 78–85.
<https://doi.org/10.1016/j.jsxm.2016.10.016>
- Volk, F., Thomas, J., Sosin, L., Jacob, V., & Moen, C. (2016). Religiosity, developmental context, and sexual shame in pornography users: A serial mediation model. *Sexual Addiction & Compulsivity*, 23, 244–259.
<https://doi.org/10.1080/10720162.2016.1151391>

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

- Walton, M. T., Cantor, J. M., Bhullar, N., & Lykins, A. D. (2017). Hypersexuality: A critical review and introduction to the “Sexhavior Cycle.” *Archives of Sexual Behavior*, 1–21.
<https://doi.org/10.1007/s10508-017-0991-8>
- Whitehead, A. L., & Perry, S. L. (2017). Unbuckling the Bible belt: A state-level analysis of religious factors and google searches for porn. *The Journal of Sex Research*, 0, 1–11.
<https://doi.org/10.1080/00224499.2017.1278736>
- 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, 616–623.
<https://doi.org/10.1177/1468017316644701>
- Wilt, J. A., Cooper, E. B., Grubbs, J. B., Exline, J. J., & Pargament, K. I. (2016). Associations of perceived addiction to internet pornography with religious/spiritual and psychological functioning. *Sexual Addiction & Compulsivity*, 23, 260–278.
<https://doi.org/10.1080/10720162.2016.1140604>
- World Health Organization. (2018). ICD-11. Retrieved June 29, 2018, from <https://icd.who.int/>
- Wright, P. J. (2018). Dysregulated pornography use and the possibility of a unipathway approach [Commentary]. *Archives of Sexual Behavior*.
<https://doi.org/10.1007/s10508-018-1277-5>
- Wright, P. J., Tokunaga, R. S., & Kraus, A. (2016). A meta-analysis of pornography consumption and actual acts of sexual aggression in general population studies: Pornography and sexual aggression. *Journal of Communication*, 66, 183–205.
<https://doi.org/10.1111/jcom.12201>
- Young, K. S. (2008). Internet sex addiction: Risk factors, stages of development, and treatment. *American Behavioral Scientist*, 52, 21–37.
- Zhao, X., & Cai, X. (2008). From Self-Enhancement to Supporting Censorship: The Third-Person Effect Process in the Case of Internet Pornography. *Mass Communication and Society*, 11, 437–462.
<https://doi.org/10.1080/15205430802071258>

This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

Table 1
Descriptive Statistics for Included Variables

		Sample 1 (N=829)			Sample 2 (N=424)			Sample 3 (N=231)			Sample 4 (N=736)		
	<u>Poss. Range</u>	<u>M</u>	<u>SD</u>	<u>α</u>	<u>M</u>	<u>SD</u>	<u>α</u>	<u>M</u>	<u>SD</u>	<u>α</u>	<u>M</u>	<u>SD</u>	<u>α</u>
Average Daily Use (in hours)	1-12	0.60	1.25	-	0.54	1.04	-	0.33	0.38	-	0.16	0.30	-
Past Year Frequency	2-5	3.90	1.49	-	3.40	1.71	-	4.26	1.15	-	3.56	2.53	-
Religiousness	-	-	-	.943	-	-	-	-	-	.939	3.88	2.01	.921
Moral Incongruence	1-7	2.17	0.10	.937	2.12	1.76	.944	2.90	1.85	.935	2.91	2.00	.949

*given the ordinal nature of this particular variable, median values were also calculated. Sample 1, Median = 5; Sample 2, Median = 4; Sample 3, Median = 5. For Sample 4, this value ranged from 1 (*not at all*) to 8 (*once a day or more*), Median = 3 (*a few times*)

This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

Table 2
Gender and Sexual Orientation of Respondents to Key Variables

	“I am addicted to internet pornography”		“I would call myself an internet pornography addict.”	
	“True”	“False”	“True”	“False”
Sample 1:	N=104; 85% Men; 92% Heterosexual	N=699, 53% Men, 84% Heterosexual	N=85; 87% Men; 91% Heterosexual	N=712, 53% Men, 85% Heterosexual
	Gender: ($\chi^2[1]=37.70$, $p<.001$) Sexual Orientation: ($\chi^2[1]=4.54$, $p=.033$)		Gender: ($\chi^2[1]=36.23$, $p<.001$) Sexual Orientation: ($\chi^2[1]=2.11$, $p=.146$)	
Sample 2:	N=53, 78% Men, 85% Heterosexual	N=365, 49% Men, 85% Heterosexual	N=47, 77% Men, 83% Heterosexual	N=369, 49% Men, 85% Heterosexual
	Gender: ($\chi^2[1]=21.78$, $p<.001$) Sexual Orientation: ($\chi^2[1]=.00$, $p=.956$)		Gender: ($\chi^2[1]=18.37$, $p<.001$) Sexual Orientation: ($\chi^2[1]=1.83$, $p=.669$)	
Sample 3:	N=27, 82% Men, 89% Heterosexual	N=196, 34% Men, 78% Heterosexual	N=31, 81% Men, 84% Heterosexual	N=196, 33% Men, 79% Heterosexual
	Gender: ($\chi^2[1]=24.24$, $p<.001$) Sexual Orientation: ($\chi^2[1]=1.90$, $p=.168$)		Gender: ($\chi^2[1]=25.35$, $p<.001$) Sexual Orientation: ($\chi^2[1]=.437$, $p=.508$)	
Sample 4	N=58, 88% Men, 90% Heterosexual	N=678, 55% Men, 90% Heterosexual	N=51, 88% Men, 88% Heterosexual	N=685, 55% Men, 90% Heterosexual
	Gender: ($\chi^2[1]=23.32$, $p<.001$) Sexual Orientation: ($\chi^2[1]=.035$, $p=.851$)		Gender: ($\chi^2[1]=23.47$, $p<.001$) Sexual Orientation: ($\chi^2[1]=.282$, $p=.595$)	

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

Table 3

Mean Comparisons (Independent *t*-Tests[¥]) and Effect Sizes with 95% confidence intervals Based on Responses to Key Statements.

	“I believe I am addicted to internet pornography”					“I would call myself an internet pornography addict”				
	True	False	<i>t</i>	<i>p</i> -value	<i>d</i>	True	False	<i>t</i>	<i>p</i> -value	<i>d</i>
Avg. Daily Use	1.64 (2.43)	0.45 (0.86)	9.60	<.001	1.00	1.42 (2.04)	0.50 (1.08)	6.58	<.001	0.75
	1.45 (2.16)	0.44 (0.75)	7.08	<.001	0.97	1.58 (2.31)	0.43 (0.73)	7.68	<.001	1.11
	0.48 (0.37)	0.29 (0.33)	2.76	.006	0.57	0.47 (0.36)	0.29 (0.33)	2.59	.010	0.54
	0.49 (0.58)	0.13 (0.25)	9.29	<.001	1.27	0.51 (0.63)	0.13 (0.24)	9.48	<.001	1.38
	Aggregate Effect Size, Cohen’s <i>d</i> = 0.98 [0.74, 1.21]					Aggregate Effect Size, Cohen’s <i>d</i> = 0.94 [0.60, 1.28]				
Past Year Freq.	4.62 (0.92)	4.21 (1.18)	3.34	<.001	0.36	4.71 (0.84)	4.21 (1.18)	3.80 [¥]	<.001	0.43
	4.78 (0.74)	3.41 (1.68)	5.94	<.001	0.86	4.67 (0.88)	3.43 (1.68)	5.05 [¥]	<.001	0.77
	4.92 (0.28)	4.11 (1.20)	3.34	<.001	0.71	4.74 (0.71)	4.13 (1.2)	2.58 [¥]	.011	0.53
	6.10 (1.90)	3.36 (2.46)	8.28	<.001	1.13	6.29 (1.91)	3.38 (2.45)	8.31	<.001	1.21
	Aggregate Effect Size, Cohen’s <i>d</i> = 0.76 [0.42, 1.10]					Aggregate Effect Size, Cohen’s <i>d</i> = 0.73 [0.39, 1.08]				
Religiousness	0.19 (0.91)	-0.16 (0.75)	4.18	.001	0.44	0.09 (0.884)	-0.133 (0.768)	2.48	.013	0.29
	-	-	-	-	-	-	-	-	-	-
	0.045 (0.808)	-0.095 (0.784)	0.82	.411	0.18	-0.01 (0.83)	-0.09 (0.78)	0.46	.649	0.10
	4.12 (2.00)	3.60 (2.01)	1.91	.057	0.28	4.1 (1.99)	3.60 (2.01)	1.89	.059	0.27
	Aggregate Effect Size, Cohen’s <i>d</i> = 0.34 [0.17, .51]					Aggregate Effect Size, Cohen’s <i>d</i> = 0.24 [0.08, .40]				
Moral Incongruence	3.23 (1.88)	2.01 (1.47)	7.56	<.001	0.80	3.062 (1.864)	2.071 (1.514)	5.55	<.001	0.64
	2.718 (2.084)	2.057 (1.714)	2.62	.009	0.37	2.89 (2.1)	2.04 (1.7)	3.23	.001	0.49
	4.21 (2.18)	2.729 (1.73)	3.85	<.001	0.82	3.79 (2.11)	2.78 (1.78)	2.65	.009	0.55
	3.87 (1.88)	2.82 (1.99)	3.88	<.001	0.53	3.93 (1.79)	2.83 (1.99)	3.85	<.001	0.56
	Aggregate Effect Size, Cohen’s <i>d</i> = 0.64 [0.41, 0.84]					Aggregate Effect Size, Cohen’s <i>d</i> = 0.57 [0.43, 0.71]				

[¥]Due to the presence of ordinal data and concerns about non-normal distributions, non-parametric comparisons were also conducted (Mann-Whitney’s test), with no differences from independent *t*-tests in sign, relative size, or statistical significance. As such, in order to enhance readability of presented data, only the results of the parametric tests are reported herein.

1 = Sample 1, 2 = Sample 2, 3 = Sample 3

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

Table 4

Pearson[‡] Correlations and Aggregate Effects Between Key Variables.

		"I believe I am addicted to internet pornography"	"I would call myself an internet pornography addict."	Average Daily Use	Past Year Frequency
Avg. Daily Use	1	.321 [.258, .382] [†]	.227 [.16, .292]	-	-
	2	.299 [.218, .375]	.321 [.242, .397]	-	-
	3	.198 [.057, .331]	.186 [.044, .320]	-	-
	4	.324 [.258, .388]	.33 [.264, .393]	-	-
	Aggregate:	<u>.316 [.274, .357]</u>	<u>.280 [.210, .351]</u>	-	-
Past Year Frequency	1	.117 [.049, .185]	.133 [.065, .201]	-.020 [-.088, .048]	-
	2	.254 [.171, .333]	.218 [.134, .299]	.254 [.171, .333]	-
	3	.238 [.098, .368]	.185 [.044, .319]	.181 [.042, .314]	-
	4	.292 [.225, .357]	.293 [.226, .358]	.523 [.469, .574]	-
	Aggregate:	<u>.227 [.141, .314]</u>	<u>.212 [.134, .291]</u>	<u>.253 [.003, .499]</u>	-
Religiousness	1	.149 [.079, .217]	.089 [.019, .159]	.313 [.248, .376]	-.306 [-.365, -.244]
	2	-	-	-	-
	3	.062 [-.085, .206]	.034 [-.113, .179]	.141 [-.006, .281]	-.01 [-.148, .129]
	4	.07 [-.002, .142]	.07 [-.003, .141]	-.068 [-.140, .003]	-.182 [-.251, -.112]
	Aggregate:	<u>.103 [.041, .164]</u>	<u>.074 [.028, .121]</u>	<u>.133 [-.095, .360]</u>	<u>-.177 [-.346, -.008]</u>
Moral Incongruence	1	.258 [.192, .322]	.193 [.125, .259]	.295 [.231, .357]	-.127 [-.194, -.058]
	2	.115 [.029, .199]	.141 [.055, .225]	.044 [-.043, .129]	-.191 [-.273, -.106]
	3	.271 [.134, .399]	.190 [.049, .324]	.021 [-.122, .163]	.11 [-.033, .249]
	4	.142 [.07, .212]	.141 [.069, .211]	-.079 [-.150, -.007]	-.174 [-.243, -.103]
	Aggregate:	<u>.197 [.117, .276]</u>	<u>.167 [.125, .209]</u>	<u>.074 [-.091, .240]</u>	<u>-.104 [-.231, .023]</u>
Male Gender	1	.217 [.150, .282]	.213 [.146, .279]	.119 [.051, .185]	.443 [.390, .493]
	2	.206 [.121, .287]	.189 [.104, .271]	.07 [-.016, .155]	.362 [.287, .432]
	3	.354 [.222, .473]	.349 [.217, .468]	.089 [-.052, .226]	.308 [.182, .424]
	4	.178 [.107, .247]	.179 [.108, .248]	.239 [.170, .306]	.391 [.328, .450]
	Aggregate:	<u>.229 [.167, .291]</u>	<u>.222 [.163, .282]</u>	<u>.137 [.056, .218]</u>	<u>.411 [.351, .471]</u>

[‡]Spearman's rho was also calculated across samples, with no differences from Pearson product moment correlations in sign, relative size, or statistical significance.

[†]95% confidence interval within brackets; Sample 1, N=829; Sample 2, N=424; Sample 3, N=231; Sample 4, N=736; Aggregate, N = 2,220

1 = Sample 1, 2 = Sample 2, 3 = Sample 3, 4 = Sample 4

[This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

Table 5

Logistic Regression Predicting Affirmative Responses to the Statement, "I believe I am addicted to internet pornography."

	Sample 1				Sample 2				Sample 3				Sample 4			
	<u>B</u>	<u>SE</u>	<u>OR</u> <u>[95% C.I.]</u>	<u>Sig.</u>	<u>B</u>	<u>SE</u>	<u>OR</u> <u>[95% C.I.]</u>	<u>Sig.</u>	<u>B</u>	<u>SE</u>	<u>OR</u> <u>[95% C.I.]</u>	<u>Sig.</u>	<u>B</u>	<u>SE</u>	<u>OR</u> <u>[95% C.I.]</u>	<u>Sig.</u>
Avg. Daily Use	0.42	0.08	1.52 [1.29, 1.79]	< .001	0.47	0.13	1.60 [1.24, 2.05]	< .001	2.11	0.67	8.23 [2.22, 30.54]	.002	1.23	0.39	3.42 [1.58, 7.42]	.002
Past Year Freq.	0.50	0.16	1.65 [1.21, 2.24]	.002	0.81	0.21	2.25 [1.50, 3.38]	< .001	1.27	0.65	3.56 [0.99, 12.81]	.052	.396	0.08	1.49 [1.27, 1.74]	<.001
Relig.	-0.05	0.18	0.94 [0.66, 1.36]	.768	-	-	-	-	-0.64	0.41	0.53 [0.23, 1.18]	.119	.058	0.09	1.06 [0.89, 1.26]	.520
Moral Inc.	0.40	0.08	1.49 [1.26, 1.75]	< .001	0.29	0.08	1.33 [1.14, 1.57]	< .001	0.54	0.18	1.71 [1.21, 2.42]	.002	.406	0.10	1.50 [1.25, 1.81]	.00
Male Gender	1.37	0.32	3.92 [2.09, 7.34]	< .001	1.12	0.39	3.05 [1.43, 6.52]	.005	1.80	0.57	6.04 [1.99, 18.29]	.001	.908	0.46	2.48 [1.02, 6.05]	.046
Cox & Snell $R^2 = .151$					Cox & Snell $R^2 = .149$				Cox & Snell $R^2 = .217$				Cox & Snell $R^2 = .138$			
Nagelkerke $R^2 = .277$					Nagelkerke $R^2 = .305$				Nagelkerke $R^2 = .406$				Nagelkerke $R^2 = .327$			

B = Estimate; SE = Standard Error; OR = Odds Ratio; Sig. = Obtained p-value

This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>

Table 6

Logistic Regression predicting affirmative responses to the statement: "I would call myself an internet pornography addict"

	Sample 1				Sample 2				Sample 3				Sample 4			
	<u>B</u>	<u>SE</u>	<u>OR</u> <u>[95% C.I.]</u>	<u>Sig.</u>	<u>B</u>	<u>SE</u>	<u>OR</u> <u>[95% C.I.]</u>	<u>Sig.</u>	<u>B</u>	<u>SE</u>	<u>OR</u> <u>[95% C.I.]</u>	<u>Sig.</u>	<u>B</u>	<u>SE</u>	<u>OR</u> <u>[95% C.I.]</u>	<u>Sig.</u>
Avg. Daily Use	0.31	0.08	1.36 [1.17, 1.59]	< .001	0.52	0.13	1.69 [1.30, 2.19]	< .001	1.50	0.56	4.50 [1.49, 13.57]	.008	1.24	.40	3.46 [1.58, 7.61]	.002
Past Year Freq.	0.56	0.18	1.74 [1.24, 2.45]	.002	0.64	0.18	1.89 [1.33, 2.70]	< .001	0.42	0.31	1.52 [0.82, 2.79]	.173	0.44	0.09	1.55 [1.30, 1.85]	<.001
Relig.	- 0.12	0.20	0.89 [0.61, 1.31]	.554	-	-	-	-	-0.48	0.36	0.62 [0.31, 1.26]	.187	0.06	0.10	1.06 [.88, 1.29]	.511
Moral Inc.	0.35	0.09	1.41 [1.19, 1.68]	< .001	0.33	0.09	1.39 [1.18, 1.65]	< .001	0.29	0.14	1.33 [1.00, 1.78]	.054	.44	0.53	1.55 [1.27, 1.89]	<.001
Male Gender	1.52	0.36	4.56 [2.27, 9.16]	< .001	1.17	0.41	3.23 [1.44, 7.24]	.005	1.83	0.51	6.22 [2.30, 16.82]	<.001	1.10	0.53	3.01 [1.07, 8.41]	<.001
Cox & Snell R^2 = .111					Cox & Snell R^2 = .138				Cox & Snell R^2 = .163				Cox & Snell R^2 = .140			
Nagelkerke R^2 = .221					Nagelkerke R^2 = .299				Nagelkerke R^2 = .293				Nagelkerke R^2 = .354			

B = Estimate; SE = Standard Error; OR = Odds Ratio; Sig. = Obtained p-value

This is an author-accepted pre-print of the article:

Grubbs, J. B., Grant, J. T., & Engelman, J. (2019). Self-identification as a pornography addict: Examining the roles of pornography use, religiousness, and moral incongruence. *Sexual Addiction & Compulsivity*. <https://doi.org/10.1080/10720162.2019.1565848>