

# Reliability, Validity, and Psychometric Development of the Pornography Consumption Inventory in a Sample of Hypersexual Men

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*Abstract: This article reports the psychometric evaluation of the Pornography Consumption Inventory (PCI) which was developed to assess motivations for pornography use among hypersexual men. Initial factor structure and item analysis were conducted in a sample of men (N = 105) seeking to reduce their pornography consumption (Study 1) yielding a four-factor solution. In a second sample of treatment seeking hypersexual men (N = 107) we further investigated the properties of the PCI using confirmatory factor analytic procedures, reliability indices, and explored PCI associations with several other constructs to establish convergent and discriminant validity. These studies demonstrate psychometric evidence for the PCI items which measure tendencies of hypersexual men to consume pornography (1) for sexual pleasure, (2) to escape, cope, or avoid uncomfortable emotional experiences or stress, (3) to satisfy sexual curiosity, and (4) to satisfy desires for excitement, novelty, and variety.*

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**Keywords:** pornography, hypersexual disorder, sexual compulsivity, sex addiction

The current proposed classification criteria for Hypersexual Disorder (HD) in the forthcoming DSM-V include repetitive and intense preoccupation with sexual thoughts, urges, and behaviors that cause adverse consequences leading to clinically significant distress or impairment in social, occupational, or other important areas of functioning (Kafka, 2010a, 2010b). Patients meeting criteria for HD engage in maladaptive patterns of sexual behavior in

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response to dysphoric mood states or stressful life events (Reid, 2010; Reid, Carpenter, Spackman, & Willes, 2008). A hallmark of this proposed disorder includes multiple unsuccessful attempts to control or diminish the amount of time consumed by sexual fantasies, urges, and behaviors (Kafka, 2010a; Kaplan & Krueger, 2010; Reid, Carpenter, Gilliland, & Karim, 2010). One outlet for hypersexual behavior involves pornography consumption or spending an excessive amount of time with sexual fantasies or pornographic thoughts. Despite anecdotal observations about characteristics of hypersexual patients, little is known about the motivation for using pornography in this population. This paper attempts to fill this gap in the literature through the development of a new measure, the Pornography Consumption Inventory (PCI), which was designed to assess the function of pornography use among hypersexual men.

### **Defining Pornography**

Understanding habitual and excessive pornography consumption depends, in part, on how pornography is defined, yet attempts to classify material as pornographic have been somewhat elusive, as other researchers have noted (Ayres & Haddock, 2009; Daneback, Træen, & Mansson, 2009; Kingston, Malamuth, Fedoroff, & Marshall, 2009). Despite differences among conceptualizations of pornography, most agree that it contains sexually explicit material depicting naked or semi-naked bodies engaged in genital stimulation or sexual acts (Træen, Sørheim-Nilsen, & Stigum, 2006). For the purposes of this study, material is considered pornographic if it (1) creates or elicits sexual feelings or thoughts and (2) contains explicit images or descriptions of sexual acts involving the genitals (e.g., vaginal or anal intercourse, oral sex, masturbation). This definition has been used among other sex researchers in operationalizing a working definition of pornography (Hald & Malamuth, 2008).

### **Hypothesized Functions of Pornography in Hypersexual Men**

A comprehensive literature review about pornography, its purported effects, and the highly debated ethical and moralistic perspectives for and against pornography use is beyond the scope of this article. Furthermore, the degree to which previous findings from research on pornography may or may not apply to hypersexual populations is a matter for future scientific inquiry. Rather, the focus of this study was to determine the function of pornography use in a patient sample of hypersexual men and how it might be related to characteristics of hypersexuality as reported in the literature and operationalized in the proposed DSM-V classification criteria for HD (Kafka, 2010a).

Previous research investigating motivation to use pornography has largely drawn upon college samples of convenience, in which several concepts have emerged (Boies, 2002; Paul & Shim, 2008). Some have suggested that those who lack satisfying sexual partnerships may turn to pornography as a way to meet their sexual needs or explore stigmatized aspects of their sexuality (McKenna, Green, & Smith, 2001). Others suggest people turn to pornography for social value, to relieve stress or sexual frustration, to cope with boredom, to manage their moods, and to

enhance sexual fantasies (Paul & Shim, 2008). In discussing motivations with hypersexual patients who were participating in group psychotherapy, we found evidence for some of these perspectives and subsequently hypothesized four concepts that we anticipated would be associated with the function of pornography in hypersexual men.

First, we hypothesized that pornography would be used to cope with or avoid uncomfortable emotions and stressful experiences. This is consistent with one of the criteria for HD, and several studies have found evidence that hypersexual men disproportionately use sex as an escape from emotional distress when compared with controls (Reid, Carpenter, & Lloyd, 2009). For example, hypersexual patients appear to use sex to cope with or defend against shame (Adams & Robinson, 2001; Reed, 2000; Reid, 2010; Reid, Harper, & Anderson, 2009; Wilson, 2000). Empirical evidence also shows that emotional dysregulation, especially feelings of demoralization, predicts greater levels of hypersexual behavior (Reid & Carpenter, 2009a) and increased levels of loneliness (Yoder, Virden, & Amin, 2005). Vulnerability to stress proneness has also been observed in hypersexual men (Reid et al., 2008). Furthermore, the notion of escaping from self-awareness of unpleasant mood states has been observed among individuals engaging in HIV risk behaviors, including unprotected sex (Williams, Elwood, & Bowen, 2000). We expected that the tendencies of hypersexual men to use sex as a way to cope with uncomfortable affect or to relieve stress would extend to the consumption of pornography.

Second, we hypothesized that pornography consumption would be used to satisfy sexual curiosity. Although this has not been addressed in the current literature on hypersexuality, clinically speaking, patients have indicated that at times they seek out pornography because they are interested in learning more about a sexual practice or what others are doing sexually. Subsequently, they find themselves lured into hours of viewing pornography online or in other venues where adult content is available. Patients who experience uncertainty related to their sexual preference also seek out pornography in an attempt to explore and make sense of their sexual identity. In reviewing the literature about curiosity we found support for exploratory sensation-seeking behavior among individuals with sensory curiosity (Litman & Spielberg, 2003; Reio, Petrosko, Wiswell, & Thongsukmag, 2006), which is common among hypersexual men. It is also widely acknowledged that curiosity is a strong motivator of human behavior (Kashdan & Roberts, 2004; Reeve, 1989) and that it is highly correlated with behaviors related to risk and with a desire for intensely sensational experiences (Litman, Collins, & Spielberg, 2005). Because many of these characteristics have also been observed in hypersexual men, we expected that the consumption of pornography with a desire to learn more about sexual activities, including the sexual practices of others, would capture aspects of sexual curiosity in our patient sample.

Third, we hypothesized that pornography would be used to facilitate sexual pleasure. However, as noted by others, the sexual pleasure obtained by hypersexual patients is usually temporary and followed by feelings of guilt, shame, and a lack of fulfillment or satisfaction (Quadland, 1985; Reid, 2010; Reid et al., 2009). Furthermore, pursuit of sex is often secondary to the primary need to disconnect in order to obtain relief from emotional distress (Tice,

Bratslavsky, & Baumeister, 2001). As a result, we anticipated that items related to sexual pleasure would form a unique factor in our scale development but that this factor would also show a strong positive correlation with emotional avoidance items.

Fourth, we hypothesized that hypersexual men would use pornography to satisfy desires for excitement, fantasy, novelty, and variety. One rationale for this concept was derived in part from research linking individuals with poor impulse control, including substance abusers and those with gambling problems, with a high need for excitement, arousal, and sensation-seeking (Baron & Dickerson, 1999; Gaither & Sellbom, 2003; Petry, 2000). Furthermore, tendencies of excitement or sensation seeking have been observed in previous samples of hypersexual men, including those who engage in HIV risk behaviors (Kalichman & Rompa, 1995). Associations between excitement seeking and boredom susceptibility also warranted inclusion in our hypothesis, given the relationship between boredom proneness and increased solitary sexual behaviors in adults (Gana, Trouillet, Martin, & Toffart, 2001) and research that has linked boredom proneness to hypersexual behavior among gay men (Chaney & Blalock, 2006; Chaney & Chang, 2005).

## **Purpose of Studies**

In our first study, we developed an initial item pool for the PCI and administered it to a sample of men who were seeking help to reduce their pornography consumption. Item reduction, exploratory factor analysis, and assessment of the preliminary psychometrics for the scale were part of this study. In our second study, we administered the PCI to an outpatient sample of hypersexual men to provide additional support for the validity of the PCI using confirmatory factor analytic procedures. Study 2 was also designed to test our hypotheses noted above and sought to establish additional evidence for discriminant and concurrent validity of the PCI. In summary, we anticipated that items related to pornography consumption among hypersexual men would cluster in four factors reflecting the following tendencies for pornography consumption: (1) it is used to cope with or avoid uncomfortable emotions and stressful experiences, (2) it is used to satisfy sexual curiosity, (3) it is used to facilitate sexual pleasure, and (4) it is used to satisfy desires for excitement, fantasy, novelty, and variety.

## **Study 1**

### **Method**

#### **Participants and Procedure**

Participants ( $N = 105$ ) were recruited from an online paid-subscription website that offered coaching and psycho-education for individuals who self-identified as being addicted to pornography. Study procedures were conducted in accordance with the policies, rules, and guidelines of the sponsoring university's Institutional Review Board, and all participants consented prior to anonymously completing a demographic questionnaire and the initial item pool for the PCI. Participants received no compensation for their participation. Technology was employed to eliminate multiple responding, and only registered users of the site could

participate. Ethnic representation among the sample of male participants included Hispanic ( $n = 4$ ), Asian ( $n = 4$ ), African American ( $n = 6$ ), Caucasian ( $n = 89$ ), and other ( $n = 2$ ), and participants ranged in age from 18 to 73 years of age ( $M = 36.5$ ,  $SD = 12.4$ ). Relationship status included 40 men who had never married (38.1%), 54 who were married (52%), 9 who were separated or divorced (6.7%), and 2 who were widowed (1.9%). Participants were queried about the frequency of their pornography consumption, which ranged from several times daily to multiple times weekly with a small portion of participants reporting they had abstained for several weeks. Each participant reported on current weekly consumption and was grouped according to time spent:  $\geq 3$  hours ( $n = 5$ ), 2–3 hours ( $n = 13$ ), 1–2 hours ( $n = 28$ ), 1 hour ( $n = 18$ ), and  $\leq 30$  minutes ( $n = 41$ ).

### **Initial Item Pool of the PCI**

The initial item pool for the PCI was derived from multiple sources including clinical experience, existing measures related to pornography, and theoretical literature related to the construct of hypersexuality as reflected in our four a priori hypotheses. To address item construction limitations noted in other research we created items following recommendations from several experts in test development (Anastasi, 1988; Comrey, 1988; DeVellis, 1991; Jackson, 1970, 1971; Neill & Jackson, 1970; Noar, 2003). Specifically, items were written in clear and concise language that (a) avoided double-barreled queries; (b) avoided the use of double negatives, which can lend ambiguity to test items; (c) was free from gender bias; (d) was at an eighth- or ninth-grade reading level so that the meaning and content of statements would be easily understood; and (e) covered the breadth of the hypothesized content domain.

Initially, 38 items were generated using a 5-point response format (1 = Never Like Me, 2 = Rarely Like Me, 3 = Somewhat Like Me, 4 = Often Like Me, 5 = Very Often Like Me) with all items fully labeled with the Likert response categories in an effort to increase the interpretability of responses and reduce ambiguity associated with item endorsement (Weijters, Cabooter, & Schillewaert, in press). All items were evaluated by two licensed clinical psychologists, a board-certified psychiatrist, and a licensed clinical social worker using the criteria outlined above, and these individuals made recommendations for relevance, clarity, brevity, and singularity (Fishman & Galgeura, 2003). Feedback was assessed and incorporated, reducing the initial pool to 34 items. The PCI instructions to respondents were as follows: *“Below are a number of statements that explain various reasons why people use pornography. Please respond to each statement and indicate the degree to which it describes you. For this questionnaire, pornography should be defined as material that (1) creates or elicits sexual feelings or thoughts and (2) contains explicit exposure or descriptions of sexual acts involving the genitals, such as vaginal or anal intercourse, oral sex, or masturbation.”*

## **Results**

### **Preliminary Analysis**

Several criteria were assessed to determine item reduction based on the data obtained in our sample. An item difficulty index was calculated to explore the frequency of endorsement so more variability in the composite scores could be generated. Items with a moderate difficulty

index were considered more desirable because they maximize item variance and therefore give greater opportunity to distinguish between test takers. Next, we examined the item discrimination index, which is an item scale correlation coefficient of the individual items and the total scale score. Items with an index rating above .8 were considered ideal items because such items discriminate between high and low scorers on the test. Finally, item reliability index scores above .4 were judged to be sufficiently discriminating in retaining items.

Data were examined for extreme scores, heterogeneity of variance, sphericity, and tolerance. Data met the requirements of test assumptions of normality, linearity, homoscedasticity, homogeneity, and multicollinearity. Subsequently no transformations were conducted. A trimmed mean (5%) was calculated to eliminate a few extreme scores that might disproportionately impact the mean.

The factor structure of the PCI was initially explored using principal component analysis with varimax rotation. The number of factors retained was based on an examination of eigenvalue and scree plot criteria combined with the criterion mentioned above, reducing the scale to 15 items with a four-factor solution. Although we had included items related to boredom proneness, which we expected to cluster with sensation-seeking items (e.g., “I turn to it in order to avoid feelings of boredom” and “I turn to it when I’m feeling restless”), these items were eliminated based on our criteria. For example, one item was removed because of a low factor loading and others were removed because they had complex factor loadings across two factors. An examination of the Kaiser-Meyer-Olkin measure of sampling adequacy indicated the sample was factorable (KMO = .783), and Bartlett’s Test of Sphericity was significant [ $\chi^2(105) = 709.72, p < .001$ ]. We named the factors Emotional Avoidance, Sexual Curiosity, Excitement Seeking, and Sexual Pleasure, which accounted for 30.2%, 19.3%, 11.2%, and 8.5% of the total item variance respectively. The item loadings for each of the factors, alpha coefficients, means, and standard deviations for the subscales are listed in Table 1.

### **Reliability**

Reliability analysis of the scale, calculated using Cronbach’s alpha coefficient, found high internal reliability for the overall scale ( $\alpha = .83$ ) and subscales (Emotional Avoidance [ $\alpha = .85$ ], Sexual Curiosity [ $\alpha = .87$ ], Excitement Seeking [ $\alpha = .73$ ], and Sexual Pleasure [ $\alpha = .71$ ]), suggesting the PCI is an internally consistent measure.

### **Validity**

Some modest evidence for convergent and divergent validity comes from within the subscales of the PCI (see Table 2). Specifically, Emotional Avoidance was positively correlated with Excitement Seeking ( $r = .30, p < .05$ ) and Sexual Pleasure ( $r = .30, p < .05$ ), but not with Sexual Curiosity ( $r = .06, ns$ ). All respective subscales were positively correlated with the overall PCI total scale score. On the Flesch Reading Ease Test the items yielded a score of 66, suggesting that individuals with a seventh-grade level of education or higher can read and understand the test items.

Table 1. Factor Loadings for PCI Items, Alpha Coefficients, Means, and Standard Deviations

Item	Factor Loadings	
	Study 1	Study 2
<i>Pornography Consumption Inventory Total Scale</i> ( $\alpha = .83, M = 53.6, SD = 8.9$ )		
<i>Factor 1: Emotional Avoidance</i> ( $\alpha = .85, M = 20.1, SD = 4.3$ )		
2. It provides an opportunity to be distracted from life's challenges	.73	.90
3. I turn to it when I'm feeling down, sad, or lonely	.82	.87
10. I use it to change my mood when I am anxious, stressed, or angry	.72	.86
12. I use it to avoid feeling uncomfortable or unpleasant emotions	.81	.90
15. I use it to disconnect from unpleasant circumstances or situations I experience	.82	.94
<i>Factor 2: Sexual Curiosity</i> ( $\alpha = .87, M = 9.3, SD = 4.1$ )		
1. I use it to learn more about a sexual activity or practice	.77	.85
4. I'm curious about what types of sex other people have	.86	.74
8. I use it to expand my knowledge about sexual possibilities	.80	.85
13. It fuels an interest I have to understand more about sex	.89	.88
<i>Factor 3: Excitement Seeking</i> ( $\alpha = .73, M = 11.3, SD = 2.7$ )		
5. I use it to escape into a fantasy world	.85	.90
6. I use it to provide some novelty or variety in my life	.79	.80
11. It gives me a sense of excitement	.60	.76
<i>Factor 4: Sexual Pleasure</i> ( $\alpha = .71, M = 12.9, SD = 2.2$ )		
7. I use it to sexually arouse myself	.50	.92
9. I use it to feel physical pleasure	.83	.84
14. I use it to help me masturbate, for a physical release	.89	.84

Factor Loadings Study 1: Principal Component Analysis with Varimax Rotation  
 Factor Loadings Study 2: Confirmatory Factor Analysis

### Relationships for High and Low Pornography Consumption

We divided the participants into two separate groups based on time spent consuming pornography daily: those who reported spending 1 hour or less ( $n = 59$ ) and those who reported spending more than 1 hour ( $n = 46$ ). Using a one-way analysis of variance to examine the group differences, we found that the only significant factor that differed between the groups was Emotional Avoidance [ $F(1,104) = 22.9, p < .0001$ ], suggesting that greater time spent consuming pornography is correlated with a greater propensity to use pornography to avoid uncomfortable emotions and relieve stress. Correlations between frequency of pornography consumption and PCI subscales were modest, but significantly correlated with Emotional Avoidance ( $r = .16, p < .05$ ) and Sexual Pleasure ( $r = .16, p < .05$ ). It's plausible that these low correlations reflect individual change in the sample, given the participants' desire to seek help and reduce their pornography consumption.

Table 2. Correlations for PCI Total and Subscale Scores

PCI Scales	Pornography Consumption Inventory				PCI Total
	Emotional Avoidance	Sexual Curiosity	Excitement Seeking	Sexual Pleasure	
<i>Study 1</i>					
Emotional Avoidance	—	.056	.303*	.303*	.680**
Sexual Curiosity		—	.275*	.203*	.631**
Excitement Seeking			—	.436*	.699**
Sexual Pleasure				—	.629**
PCI Total Score					—

\*\*  $p < .01$  (2-tailed), \*  $p < .05$  (2-tailed)

## Discussion

The results of Study 1 provide initial support for the reliability and factor structure of the PCI and its subscales. The PCI was shown to be an internally consistent four-factor measure with loadings that cluster on the respective subscales to which they were hypothesized and in a manner that also reflects meaningful content and validity of subscale items. Collectively, these results provide preliminary evidence that the PCI is an effective brief self-report measure that assesses the function of pornography consumption among a sample of men who self-identify as hypersexual. Higher scores on the PCI also appear to reflect a greater propensity to consume pornography to cope with difficult emotions or stress.

## Study 2

The purpose of this second study was to replicate and confirm the factor structure of the PCI using structural equation modeling with a new sample. We also sought to determine if evidence supported our conceptualization of pornography consumption among hypersexual men that was also consistent with existing literature about hypersexual behavior. Although partial support was obtained for our hypotheses given the factor structure that emerged for the PCI in our first study, we sought to strengthen the evidence for these relationships by including measures in this second study that captured the constructs of stress vulnerability, loneliness, emotional distress, impulsivity, fantasy, and self-discipline in order to obtain additional support for discriminant and convergent validity of the PCI. If significant correlations between measures of these constructs and the PCI subscales emerged in the hypothesized direction, empirical support would be established for our conceptualization of pornography consumption among hypersexual men.

## Method

### Participants and Procedure

Consecutive patients who were seeking treatment for hypersexual behavior were recruited to participate from outpatient clinics in the Los Angeles area. Study procedures were conducted in accordance with the policies, rules, and guidelines of the sponsoring university's Institutional Review Board, and all participants consented prior to completing a demographic

questionnaire and the study measures. Patients received no compensation for their participation; however, the results of their testing were given to their primary therapist for clinical purposes related to treatment. We had a favorable response rate of 94% who agreed and consented to participate. Ethnic representation among participants ( $N = 107$ ) included Hispanic ( $n = 5$ ), Asian ( $n = 2$ ), African American ( $n = 1$ ), and Caucasian ( $n = 99$ ). Participants ranged from 19 to 64 years of age ( $M = 34.7$ ,  $SD = 9.9$ ). Relationship status included 39 men who had never married (36%), 50 who were married (47%), 2 who were cohabitating (2%), 6 who were remarried (6%), and 10 who were separated or divorced (9%). Nine participants (8%) identified themselves as gay, 2 identified themselves as bisexual (2%), and 96 (90%) identified themselves as heterosexual.

The definition of hypersexual behavior in the present study was consistent with criteria for HD and required individuals to exhibit the following symptoms for a minimum of six months: (1) difficulty controlling sexual thoughts, urges, and behaviors; (2) tendencies to repeatedly use sexual fantasies, urges, and behaviors as a way of coping with unpleasant feelings or stress; (3) a continued pattern of engaging in hypersexual behavior despite the risk of physical harm or emotional harm to self or others; and (4) volitional impairment across interpersonal, social, or occupational domains (Kafka, 2010a; Reid & Carpenter, 2009b; Reid, Karim, McCrory, & Carpenter, 2010). Furthermore, the symptoms could not occur exclusively within the context of another Axis I disorder (e.g., the manic phase of bipolar disorder), be substance induced, or occur in relation to neurological pathology (Coleman, 1991; Kafka, 1997, 2001; Reid, Carpenter, & Lloyd, 2009). Hypersexual behavior was also considered distinct and separate from the phenomena of persistent sexual arousal syndrome in which an individual experiences persistent sexual arousal in the absence of desire (Leiblum & Seehuus, 2009; Mahoney & Zarate, 2007). Symptoms associated with hypersexual behavior in the present study required participants to exhibit a pattern of hypersexual behavior related to pornography consumption; however, they were not excluded from the study if they engaged in other hypersexual behaviors including relational sexual activities. Although symptoms of hypersexual behavior were assessed with a clinical interview, elevated scores on the Hypersexual Behavior Inventory were used as the means of classifying patients as hypersexual in the present investigation.

Descriptive data related to the frequency of pornography consumption in this study was unavailable. However, clinical chart reviews for the majority of the patients suggested two patterns of pornography usage. First, a pattern of episodic use was prevalent in that patients reported bingeing on pornography for hours across several days followed by a week or two (in some cases a month or more) without any consumption. Second, the frequency of pornography use appeared less important than the context in which patients would look at pornography (e.g., using at work despite the risk of being terminated). A defining characteristic of these patients, compared to those who report using pornography recreationally, was that these patients felt powerless to regulate cravings and urges for sex and would subsequently act on these impulses despite possible risks associated with such behavior.

In addition to self-reported problems with compulsive pornography use and masturbation, a portion of patients reported multiple extra-marital affairs (16%), habitual solicitation of commercial sex workers (10%), and excessive unprotected sex with multiple anonymous partners (19%). None of the participants in this study met criteria for a paraphilic disorder, although we acknowledge that paraphilic tendencies can occur comorbidly with hypersexual behavior (Kafka, 2001, 2010b; Kafka & Hennen, 2003).

The patients in this study reported numerous adverse consequences related to their hypersexual behavior, including job loss, significant financial difficulties, legal problems, emotionally hurting someone they cared about, divorce, and public humiliation. As noted in other studies, our sample also reported relationship distress in their primary romantic dyads (Reid, Carpenter, & Draper, in press; Reid, Carpenter, Draper, & Manning, 2010; Reid & Woolley, 2006). Some of the college-aged participants sacrificed grades, failed classes, and were even expelled from school for poor performance related to their hypersexual behavior. Several participants had contracted sexually transmitted diseases from high-risk sexual behavior. Patients frequently reported feeling driven by, compelled by, or obsessed with an intense preoccupation and desire for sex despite the negative consequences associated with such behavior.

## Measures

**Pornography Consumption Inventory (PCI).** See the final description of this scale based on Study 1 and 2 in Appendix A, which we recommend to future investigators who wish to use the PCI in research or clinical work.

**Hypersexual Behavior Inventory (HBI).** The HBI is a 19-item Likert scale yielding a 3-factor solution that uses a 5-point response format with categories fully labeled (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = Very Often). Scores range from 19 to 95, higher scores reflecting greater hypersexual behavior, with scores  $\geq 53$  regarded as a cutoff for those experiencing difficulties with hypersexuality (Reid & Garos, 2007). Scale items capture aspects of the DSM-5 proposed classification criteria, such as engaging in sex in response to stress (e.g., “Doing something sexual helps me cope with stress”) or dysphoric mood (e.g., “I turn to sexual activities when I experience unpleasant feelings”) or multiple unsuccessful attempts to diminish or control sexual thoughts, urges, and behaviors (e.g., “Even though I promised myself I would not repeat a sexual behavior, I find myself returning to it over and over again”). Impairment in social, occupational, or other important areas of functioning are also captured by several items (e.g., “My sexual activities interfere with aspects of my life such as work or school” and “My sexual thoughts and fantasies distract me from accomplishing important tasks”). The scale has been used in college, community, and patient samples and has demonstrated high overall reliability ( $\alpha=.95$ ) and subscale reliability values of  $\alpha=.91$  on the Control subscale,  $\alpha=.91$  on the Coping subscale, and  $\alpha=.89$  on the Consequences subscale (Reid, 2010; Reid, Carpenter, & Lloyd, 2009; Reid et al., 2009; Reid et al., 2010). Test-retest reliability was derived from a sample of college students ( $N = 81$ ) over a two-week period. The total HBI score ( $r = .85$ ), the Control subscale ( $r = .87$ ), the Coping subscale ( $r = .87$ ), and the Consequences subscale ( $r =$

.88) all showed high correlations between the first and second administrations, suggesting excellent test-retest reliability over a two-week time interval. Confirmatory factor analysis (CFA) has provided support for the factor structure, showing an acceptable goodness of fit with a Root Mean Square Error of Approximation (RMSEA) of .05 and a Comparative Fit Index (CFI) of .95 (Reid & Garos, 2007). Internal consistency of the measure in the present sample was high ( $\alpha = .92$ )

**NEO Personality Inventory—Revised (NEO-PI-R).** The NEO-PI-R, designed to measure the Five Factor Model (FFM) of personality, was used to assess self-reported personality traits (Costa & McCrae, 1992). The NEO has 240 items consisting of self-statements such as “I am a worrier,” answered on a 5-point Likert scale with categories fully labeled (Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree). The NEO assesses 30 facets, 6 for each dimension of the FFM. Raw scores are standardized as T-scores ( $M = 50$ ,  $SD = 10$ ) using respective sex norms reported in the NEO manual. Evidence on convergent and discriminant validity is presented in the NEO manual, including cross-observer agreement and prediction of external criteria (e.g., psychological well-being, needs, motives, creativity, educational/occupational achievements, and coping mechanisms). In the present study, we were specifically interested in the facets of Anxiety, Depression, Impulsiveness, Positive Emotions, Fantasy, Self-Discipline, and Vulnerability (which measures stress proneness).

**UCLA Loneliness Scale—Version 3 (UCLA-LS).** The UCLA-LS is a 20-item unidimensional Likert scale that uses a 4-point response format with categories fully labeled (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Always). Several items are reverse scored to address response bias, and total scale scores range from 20 to 80, with higher scores reflecting greater levels of loneliness. The UCLA-LS was developed to assess subjective feelings of loneliness or social isolation and includes items such as “How often do you feel that you lack companionship?” and “How often do you feel that there is no one you can turn to?” Psychometric properties of the scale demonstrate high internal consistency ( $\alpha = .89$  to  $.94$  across samples) and adequate test-retest reliability ( $r = .73$ ) over a 12-month period (Russell, 1996; Russell, Peplau, & Cutrona, 1980). Internal consistency of the measure in the present sample was high ( $\alpha = .94$ ).

**Perceived Stress Scale (PSS).** The PSS is a 10-item unifactor Likert-type scale with a 5-point response format with categories fully labeled (0 = Never, 1 = Almost Never, 2 = Sometimes, 3 = Fairly Often, and 4 = Very Often). Items 4, 5, 7, and 8 are reverse scored prior to summation of all scale items, yielding a total PSS score. Scores range from 0 to 40, with higher scores reflecting greater levels of perceived stress (Cohen & Williamson, 1988). The PSS purports to measure the degree to which situations are appraised as stressful, with items querying how unpredictable, uncontrollable, and burdened respondents felt about aspects of their lives to be. The scale also includes a number of queries about current levels of stress experienced by respondents. Sample items include “How often have you felt nervous and stressed?” and “How often have you found that you could not cope with all thing things that you had to do?” Normative data have been collected on a community sample ( $N = 2,387$ ). Means and standard

deviations vary slightly depending on income level, gender, and smoking status. Overall, the combined sample of men and women in the norming data yielded a mean of 13.02 ( $SD = 6.35$ ). The mean scores for the sample of men ( $n = 960, M = 12.1, SD = 5.9$ ) were significantly lower than for the sample of women ( $n = 1,427, M = 13.7, SD = 6.35$ ). Reliability analysis of the scale showed high internal consistency ( $\alpha = .78$ ). Test-retest reliability is unavailable for the 10-item PSS; however, the previous 14-item version of the PSS demonstrated stability over time ( $r = .85$ ; Cohen, Kamarck, & Mermelstein, 1983). Internal consistency of the measure in the present sample was high ( $\alpha = .90$ ).

## **Analysis**

The confirmatory factor analysis (CFA) was conducted using the EQS structural equations modeling program (Bentler, 2006). CFA is considered the method of choice when validating a personality assessment instrument developed with factor analytic procedures. CFA is superior to typical exploratory factor analytic procedures because fit indexes are available that can verify the viability and plausibility of the factor structure under consideration. Goodness-of-fit of the model was assessed with the maximum-likelihood (ML) chi-square statistic, the Comparative Fit Index (CFI), the Satorra-Bentler  $\chi^2$  (S-B $\chi^2$ ), and the Robust Comparative Fit Index (RCFI). Robust statistics are preferable if there is significant multivariate kurtosis in the data. The data set was only moderately kurtose (normalized kurtosis estimate = 7.22). The CFI and RCFI have a range from 0 to 1. They report the improvement in fit of a hypothesized model over a model of complete independence in which no relations exist among the measured components of a latent variable or among the latent variables, which in this case are analogous to the hypothesized factors. A CFI or RCFI of .95 or greater is desirable (Hu & Bentler, 1999).

## **Results**

### **Confirmatory Factor Analysis**

The initial CFA had an acceptable fit and did not require the addition of any non-hypothesized associations to improve the fit [ML $\chi^2(84) = 150.87$ ; CFI = .95; S-B  $\chi^2(84) = 125.47$ , RCFI = .97]. Factor loadings are reported from the CFA in Table 2 and in Figure 1. In most cases, this study's factor loadings are higher in the CFA than those obtained in Study 1 using PCA with varimax rotation. Table 3 reports correlations among the hypothesized factors in the CFA.

### **Reliability**

Reliability analysis of the PCI for this second sample was somewhat improved compared to the sample in Study 1. Cronbach's alpha coefficients demonstrated high internal reliability for the overall scale ( $\alpha = .93$ ) and subscales (Emotional Avoidance [ $\alpha = .95$ ], Sexual Curiosity [ $\alpha = .89$ ], Excitement Seeking [ $\alpha = .85$ ], and Sexual Pleasure [ $\alpha = .90$ ]), replicating support that confirms the PCI as an internally consistent measure. The overall scale test-retest reliability was high ( $r = .86, p < .01$ ) based on a subset of patients ( $n = 34$ ) who completed the scale a second

time after a two-week interval, demonstrating further support for the stability of the PCI across the test-retest measure point.

*Table 3. Correlations for PCI Subscales in the Confirmatory Factor Analysis*

PCI Scales	Pornography Consumption Inventory			
	Emotional Avoidance	Sexual Curiosity	Excitement Seeking	Sexual Pleasure
<i>Study 2</i>				
Emotional Avoidance	—	.377***	.805***	.678***
Sexual Curiosity		—	.513***	.290**
Excitement Seeking			—	.770*
Sexual Pleasure				—

\*\*\*  $p < .001$  (2-tailed), \*\*  $p < .01$  (2-tailed)

### Validity

In order to establish discriminant validity for the PCI and its subscales, we used measures that were significantly associated with other phenomena that would be expected to diverge from aspects of pornography consumption as measured by the PCI. As can be seen in Table 4, as measured by the NEO-PI-R, the PCI subscale of Emotional Avoidance was negatively correlated with Positive Emotions ( $r = -.36, p < .01$ ), as would be expected. The subscale of Sexual Curiosity is unrelated to loneliness ( $r = .21, ns$ ) as measured by the UCLA-LS as well as to NEO-PI-R facets of Anxiety ( $r = .13, ns$ ), Depression ( $r = .16, ns$ ), Vulnerability ( $r = .18, ns$ ), Positive Emotions ( $r = -.07, ns$ ), and Self-Discipline ( $r = -.17, ns$ ). We would expect this given that Sexual Curiosity is not hypothesized to be influenced by emotional dysregulation. The subscale of Sexual Pleasure was unrelated to scores on the UCLA-LS ( $r = .21, ns$ ) as well as to Positive Emotions ( $r = -.15, ns$ ).

Concurrent validity was explored by correlations between the PCI scores and several facets of personality as measured by the NEO-PI-R, the UCLA-LS, and the Hypersexual Behavior Inventory. As expected, the subscale Emotional Avoidance was positively correlated with loneliness ( $r = .31, p < .01$ ) and NEO-PI-R facets of Anxiety ( $r = .31, p < .01$ ), Depression ( $r = .40, p < .01$ ), Impulsiveness ( $r = .40, p < .01$ ), Vulnerability ( $r = .29, p < .01$ ), and Fantasy ( $r = .25, p < .01$ ) and negatively correlated with Positive Emotions ( $r = -.36, p < .01$ ). The Sexual Curiosity subscale was positively correlated with Impulsiveness ( $r = .23, p < .05$ ) and Fantasy ( $r = .27, p < .01$ ).

### Comparisons with Study Scales Norming Data

Comparisons of scores from our hypersexual subjects to the normative data of the study measures are also shown in Table 5 (a  $z$ -test was used for comparisons since we lacked a control group and because the respective norming samples for each scale are assumed to provide

population parameters). As can be seen, the hypersexual patients reported significantly higher levels of loneliness, anxiety, depression, impulsivity, and higher levels of perceived stress. They

*Table 4. Correlations for PCI Total and Subscale Scores with Study Variables*

Variable	<u>Pornography Consumption Inventory</u>				
	Total PCI	Emotional Avoidance	Sexual Curiosity	Excitement Seeking	Sexual Pleasure
<u>PCI Total Scale Score</u>	—	.893**	.637**	.883**	.771**
Emotional Avoidance		—	.353**	.731**	.625**
Sexual Curiosity			—	.481**	.262**
Excitement Seeking				—	.669**
Sexual Pleasure					—
UCLA Loneliness	.320**	.308**	.213	.291*	.205
Perceived Stress Scale	.567**	.587**	.356**	.513**	.301**
<u>HBI Total</u>	.707**	.688**	.357**	.648**	.528**
Control	.581**	.528**	.311**	.555**	.462**
Coping	.728**	.761**	.376**	.623**	.481**
Consequences	.579**	.536**	.248*	.572**	.497**
<u>NEO-PI-R</u>					
Anxiety	.275**	.305**	.128	.207*	.197*
Depression	.384**	.401**	.155	.321**	.316**
Impulsiveness	.439**	.401**	.226*	.394**	.385**
Vulnerability	.296**	.293**	.177	.227*	.225*
Positive Emotions	-.257**	-.363**	-.072	-.137	-.151
Fantasy	.355**	.253**	.269**	.371**	.289**
Self-Discipline	-.395**	-.372**	-.170	-.357**	-.362**

\*\* p < .01, \* p < .05 (2-tailed).

also reported significantly higher levels of diminished self-discipline and a paucity of positive emotions. The scores for our sample were also significantly higher than norms for the NEO-PI-R facet of Fantasy, suggesting the patients have vivid imaginations and active fantasy lives. They may daydream not only as an escape but also in order to create interesting internal experiences for themselves and likely to elaborate and enhance their fantasy lives.

### **Frequency of Significant Item Endorsements and Hypersexual Behavior**

In order to derive some meaningful understanding of item endorsements across the PCI subscales, we assessed the prevalence of patients who responded “4 = Often Like Me” or “5 = Very Often Like Me” across the respective items for each factor. In order to be considered relevant, most of items in a factor had to be endorsed as 4 or 5. Thus, the minimum number of elevated scores required for categorization were as follows: Emotional Avoidance, 4 of 5 items; Sexual Curiosity, 3 of 4 items; Excitement Seeking, 2 of 3 items; and Sexual Pleasure, 2 of 3

items. Using this criteria, the majority of significant endorsements were made for Sexual Pleasure ( $n = 81$ ; 76%), followed by Excitement Seeking ( $n = 62$ ; 58%), Emotional Avoidance ( $n = 52$ ; 49%), and finally Sexual Curiosity ( $n = 13$ ; 12%). Extending this analysis to multiple elevations across subscales, we found that 9 patients (8%) had significant endorsements across all four PCI subscales, 35 patients (33%) had significant endorsements on three PCI subscales, 21 patients (20%) had significant endorsements on two PCI subscales, and 25 patients (23%) had significant endorsements on only one PCI subscale (predominantly Sexual Pleasure). Interestingly, 17 patients (16%) reported no elevated endorsements on any PCI subscale. The number of elevations across PCI subscales was also positively correlated with greater HBI scores ( $r = .66, p < .0001$ ), which is reflected in correlations with overall PCI scores and HBI scores ( $r = .70, p < .0001$ ). These data suggest that the majority of hypersexual patients are motivated to consume pornography for multiple reasons. Furthermore, greater levels of hypersexuality among patients suggest a greater tendency to consume pornography for a variety of reasons.

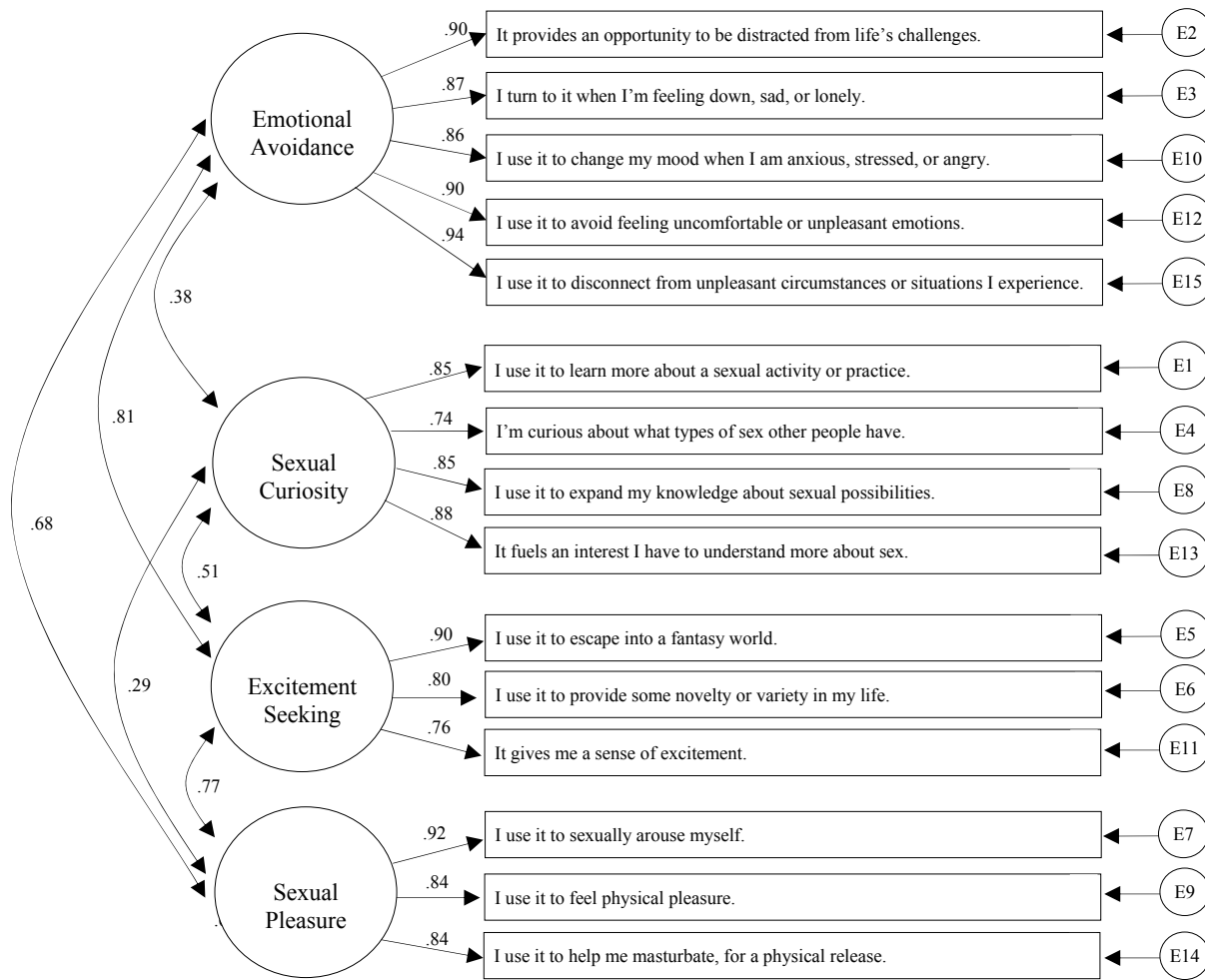
*Table 5. Comparisons of Hypersexual Patients with Normative Data*

Scales	Hypersexual Sample		Norming Sample		$z$	Cohen's $d$
	$M$	$SD$	$M$	$SD$		
UCLA Loneliness Scale	48.1	10.7	40.1	9.5	8.71**	.79
Perceived Stress Scale	21.2	7.2	12.1	5.9	15.95**	1.39
Hypersexual Behavior Inventory	66.8	17.6	37.9	14.9	20.06**	1.78
Control	31.1	7.5	16.2	8.1	19.03**	1.91
Coping	23.5	7.7	15.3	6.5	13.05**	1.15
Consequences	12.2	4.4	6.4	2.7	22.22**	1.63
NEO-PI-R						
Anxiety	59.3	11.7	50.0	10.0	9.62**	.86
Depression	67.2	11.5	50.0	10.0	17.79**	1.60
Impulsiveness	64.4	10.7	50.0	10.0	14.90**	1.39
Vulnerability	61.1	12.8	50.0	10.0	11.48**	.97
Positive Emotions	48.3	13.6	50.0	10.0	1.76*	.14
Fantasy	55.8	10.1	50.0	10.0	6.00**	.58
Self-Discipline	35.3	13.1	50.0	10.0	15.21**	1.27

\*  $p < .05$  (2-tailed), \*\*  $p < .001$  (2-tailed)

## Discussion

The construct validity of the PCI structure in a sample of hypersexual men was supported through replication and results of the confirmatory factor analysis. The four factors demonstrated high internal consistency and showed stability over time. Consistent with our hypotheses, the findings in this study also supported several perspectives on pornography consumption among hypersexual men. Specifically, hypersexual men appear to use pornography in one or more of the following four ways: (1) Emotional Avoidance, (2) Excitement Seeking, (3) Sexual Pleasure, and (4) Sexual Curiosity. We will comment briefly on each of these.



Model shows standardized parameter estimates. Residual error coefficients are omitted for simplicity.

Figure 1. Confirmatory Factor Analysis of the PCI and the 4-Factor Structure.

### *Emotional Avoidance*

Using pornography to cope with or distract the self from unpleasant affective states or to provide relief from stress is consistent with proposed criteria for HD (Kafka, 2010a; Reid, 2010). Not surprisingly, this factor showed a strong relationship with the Coping subscale of the HBI and with overall hypersexual behavior. Further evidence of this relationship was demonstrated by the positive correlations between the subscale of Emotional Avoidance and other study measures related to anxiety, depression, impulsivity, and loneliness. A pattern among hypersexual men of using pornography to cope with stress was also evidenced by the significant positive correlations between Emotional Avoidance and both of our stress scales, with perceived stress showing the strongest relationship. This is the first study to our knowledge that has demonstrated a relationship between hypersexual behavior and HD stress criteria using empirically supported measures for both stress vulnerability and perceived stress. The effect size of the difference between our sample's stress scores and the norming data was large (see Table

5). Together, these findings suggest that hypersexual individuals who use pornography to regulate their emotions and cope with stress actually self-report experiencing greater levels of anxiety, depression, loneliness, and stress; are more impulsive; and report greater levels of hypersexuality. This builds upon previous work in which tendencies of alexithymia, emotional instability, and stress proneness were reported among hypersexual patients (Reid, 2010; Reid et al., 2008). Additionally, our data support theories advanced by others who suggest that impulse control and delayed gratification are frequently sacrificed in the wake of emotional distress, when individuals give special status to affect modulation by whatever means available (Tice et al., 2001). Thus, when individuals experience unpleasant emotions, they seek some type of symptom relief, and this need is perceived as urgent. Therefore, the inability to modulate unpleasant emotional experiences undermines sexual impulse control because emotional distress creates short-term tunnel vision on the present moment, whereas impulse control requires future-directed thinking (e.g., recognizing the benefits of delayed gratification to obtain a more distant goal). This pattern is not unique to hypersexual men and has been observed in other populations with impaired impulse control, such as pathological gamblers (Ledgerwood, & Petry, 2006; Wood & Griffiths, 2007), individuals with substance-related disorders (Ashton & Stepney, 1982; Hull, Young, & Jouriles, 1986; Pickens, Hatsukami, Spicer, & Svikis, 1985), and women with eating disorders (Evers, Stok, & de Ridder, 2010; Harrison, Sullivan, Tchanturia, & Treasure, 2010; Heatherton, Herman, & Polivy, 1991; Heatherton, Striepe, & Wittenberg, 1998).

### *Excitement Seeking*

Second, our data support the idea that hypersexual men may use pornography to create novelty and excitement or to escape into a fantasy world. More importantly, given the strong positive correlations among the subscales of Excitement Seeking and Emotional Avoidance, the HBI subscale of Coping, and scores on the PSS, we might suppose that the tendency to seek out stimulating experiences is simply another way of distracting the self from unpleasant feelings and stress. Yet, the separate clustering of items on these two PCI subscales in both of our studies supports the tendency of excitement seeking as a distinct and separate motive for consuming pornography.

### *Sexual Pleasure*

Third, findings from this study confirm what might almost seem obvious: hypersexual men use pornography to facilitate sexual arousal and masturbation. Empirical support for this assertion was also indicated by the significant correlations between the Sexual Pleasure subscale and HBI scores. Those who scored high on Sexual Pleasure also reported greater impulsivity and diminished self-discipline. It is interesting to note, however, that the relationship between pornography consumption and avoiding unpleasant emotions was stronger than the associations of using pornography for sexual purposes. These findings suggest that perhaps pornography consumption among hypersexual patients is driven more by the need to cope with their emotions and stress than it is by the need for sexual satiation. Alternatively, it could also be argued that pornography is sometimes used for emotional regulation and sometimes for sexual pleasure or

both, as noted in the analysis showing multiple motivating factors for the majority of hypersexual patients. It is also plausible that the relationship between sexual gratification and hypersexual behavior is mediated in part by attempts to regulate emotions.

### *Sexual Curiosity*

Fourth, our findings suggest that a small portion of hypersexual men seek out pornography as a way to satisfy curiosity about sexual practices, learn about sexual possibilities, and expand their understanding about sex. This particular aspect of pornography use was generally unrelated to measures of emotional distress including loneliness, anxiety, and depression. Thus, it may be that some hypersexual men who, at times, turn to pornography for the sake of curiosity are less driven in those instances by the need to regulate their emotions. Nevertheless, they do appear to experience stress, as observed from the positive correlations between scores on the PSS and on the PCI subscale of Sexual Curiosity. Perhaps there is a small subset of hypersexual individuals who experience a type of stress related to sexual naivety that is less influenced by emotional dysregulation.

### *Potential Clinical Utility of the PCI for Hypersexual Patients*

The findings in this study provide clinicians with a number of insights about motivations for pornography consumption among hypersexual patients. The pragmatic implications for these findings, in our opinion, suggest some possible considerations that might be useful in clinical practice. For example, if a patient engages in maladaptive pornography consumption to cope with unpleasant feelings or stress, clinicians might first consider treatment that promotes effective ways to regulate emotions. Some research suggests developing emotional intelligence or strategies focusing on mindfulness may prove beneficial with this population (Reibel, Greeson, Brainard, & Rosenzweig, 2001; Twohig & Crosby, 2010).

Clinicians may also consider exploring, with some degree of specificity, ways in which sexual curiosity is actually satisfied by excessive pornography consumption among hypersexual patients. Although it is plausible that the wide range of sexual practices portrayed in pornography may satisfy sexual curiosity, there are also potential dangers inherent in consuming pornographic material that depicts fraudulent messages about human sexuality or behaviors that put sexual health at risk (e.g., pornography portraying anal to vaginal sex doesn't warn viewers about risks of cross-contamination that can lead to bacterial vaginosis). Thus, directing hypersexual patients to legitimate sources of information about human sexuality may satisfy needs for sexual curiosity while helping curtail problematic pornography use.

### *Pornography as a Specifier for HD*

Given that these patients were selected for participation consecutively based on a chief complaint of hypersexual behavior, our findings suggest that pornography consumption is a common manifestation of hypersexuality in treatment-seeking men. Thus, the proposal of “pornography” as a specifier of HD appears to be supported. Furthermore, our data suggest

hypersexual patients who consume pornography appear to be motivated by several of the characteristics associated with HD as proposed by Kafka (2010a). Finally, our data provide evidence that motivations to consume pornography are not homogeneous. Elevations across multiple factors for a substantial portion of our sample suggest that hypersexual patients may use pornography for a variety of reasons. This finding is consistent with others who report a variety of motivations for why people participate in sexual behavior (Meston & Buss, 2007).

### **Limitations and Future Research**

Despite a number of interesting findings, inferences about our results beyond those listed in this study should be made with caution, in part because our samples consisted exclusively of male hypersexual participants who were predominantly Caucasian and heterosexual. Future studies might consider exploring if the PCI structure can be replicated in a sample of hypersexual women or gay men as well as larger representative samples of healthy controls who report consuming pornography in non-problematic ways. Causal conclusions cannot be drawn from these data, and future studies should consider using path analysis to explore relationships between the PCI and hypersexual behavior as well as other psychological and neuropsychological correlates. Although this study found four factors associated with the function of pornography among hypersexual men, it is unlikely that these domains represent all of the possibilities or potential motivational factors.

Another limitation of this study includes the lack of data within Study 2 related to time spent engaging in pornography consumption. We acknowledge that this limited some of our analysis. This study also possesses the limitations commonly associated with and found in studies in which self-report measures are used. Another limitation of this study is the omission of PCI items tapping into pornography consumption for relational reasons. For example, we did not assess whether participants used pornography because “I have a stronger sex drive than my partner” or because “It’s easier than having sex with my partner.” These items were considered; however, such items would have complicated administration, scoring, and interpretation of the PCI given that some individuals may exclusively engage in solo-sex behavior or may lack a romantic partner. We suggest that future researchers consider a separate, brief scale to explore relational aspects of pornography consumption. Future investigations might also explore the PCI among hypersexual patients based on specific themes of pornography (e.g., bondage).

### **Conclusion**

This paper reports the findings from the psychometric development of a new measure of pornography consumption among hypersexual men. Through two studies, the PCI demonstrated high internal consistency and reliability over time. Concurrent, discriminant, and construct validity for the PCI provide empirical evidence that this scale uniquely contributes to our understanding of pornography consumption among hypersexual men. The factor structure was replicated and supported using confirmatory factor analysis, which established the viability of the four factors that help provide insight about the function of pornography among treatment-seeking hypersexual patients. Our sample was characterized by many of the associated features

of HD as proposed for DSM-V (Kafka, 2010a). Given the prevalence of pornography consumption among this population, this study provides some evidence to support pornography as a specifier in the proposed criteria for HD.

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## Appendix A

### Description of the Pornography Consumption Inventory<sup>2</sup>

The Pornography Consumption Inventory (PCI) is a four-factor, 15-item Likert scale that uses a 5-point response format with categories fully labeled (1 = Never Like Me, 2 = Rarely Like Me, 3 = Somewhat Like Me, 4 = Often Like Me, and 5 = Very Often Like Me). Items are summed to generate scores for the respective factors, with higher scores reflecting respondents' greater tendencies to use pornography in the manner prescribed by the factor. The PCI purports to assess the function of pornography across four domains labeled (1) Emotional Avoidance, (2) Sexual Curiosity, (3) Excitement Seeking, and (4) Sexual Pleasure. Sample items include "I use it to avoid feeling uncomfortable or unpleasant emotions" and "I use it to help me masturbate, for a physical release." The scale was developed using two treatment-seeking samples of hypersexual men ( $N = 105$  and  $N = 107$ ) and demonstrated concurrent and discriminant validity with measures of hypersexual behavior, anxiety, depression, impulsivity, fantasy, stress, and loneliness. Reliability analysis of the scale showed high internal reliability for the overall scale ( $\alpha = .93$ ) and for all four subscales (Emotional Avoidance [ $\alpha = .95$ ], Sexual Curiosity [ $\alpha = .89$ ], Excitement Seeking [ $\alpha = .85$ ], and Sexual Pleasure [ $\alpha = .90$ ]) and high test-retest reliability over a 4-week interval ( $r = .87$ ). The construct validity of the scale was evidenced in a second sample of hypersexual patients using confirmatory factor analysis, yielding an acceptable goodness of fit ( $ML\chi^2[84] = 150.87$ ; CFI = .95; S-B  $\chi^2[84] = 125.47$ ; RCFI = .97). Means and standard deviations for the total PCI scores and subscales based on the hypersexual patient sample are as follows: Total PCI,  $M = 48.6$ ,  $SD = 13.8$ ; Emotional Avoidance,  $M = 16.6$ ,  $SD = 6.3$ ; Sexual Curiosity,  $M = 9.6$ ,  $SD = 4.2$ ; Excitement Seeking,  $M = 10.4$ ,  $SD = 3.3$ ; and Sexual Pleasure,  $M = 11.9$ ,  $SD = 3.4$ .

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<sup>2</sup> A formatted version of the PCI can be obtained online at [www.clientchange.com](http://www.clientchange.com)