### Dear Psychology Today,

Thank you for considering our petition from social workers, psychologists, psychiatrists, family counselors, research experts and clinical educators who have been past readers of your magazine and blogs. Many of the petitioners are currently paying members of *Psychology Today*, with listings on your site. All of us are increasingly concerned that your editorial and blogging policies are out of step with your members, your readers' reality and the relevant research. This letter further details these concerns. It is divided into the following sections, and also includes extensive appendices:

- 1. Misplaced reliance on the DSM-5, ignoring the ICD and other, highly respected authorities
- 2. Use of *Psychology Today* by AASECT sympathizers to attack other professionals, bloggers and professional organizations
- 3. Denial that the trend in mainstream science on compulsive sexual behavior/sexual behavior addictions is away from *Psychology Today's* policy of dismissing "sex addiction"

### 1. Misplaced reliance on the DSM-5, ignoring the ICD and other, highly respected authorities

It appears from the blogs that *Psychology Today* allows that its editors have been persuaded to rely on the absence of compulsive sexual behaviors/sexual behavior addictions in the DSM-5 manual to exclude bloggers who observe and treat these disorders. There are some problems, however, with relying on the DSM-5 as if it were inscribed on stone tablets.

First, the highly controversial and politicized DSM is the same organization that once classified homosexuality as a mental disorder. Its Sexual Health Workgroup doesn't determine reality; it responds to political pressure.

Second, the DSM-5 is not based in physiology. It uses descriptive language such as "alcohol use disorder" for alcohol addiction, and "gambling disorder" for gambling addiction. Yet your bloggers often insist that the DSM formally evaluates and accepts or rejects "addictions" of different types. It does not.

Because the DSM is atheoretical and not based on scientific consensus, it is no longer in favor with the National Institute of Mental Health (NIMH). In fact, former head of the NIMH Thomas Insel stated in 2013 that the newly published DSM-5 "lacked validity." (See Insel's article - http://www.nimh.nih.gov/about/director/2013/transforming-diagnosis.shtml.) Insel stated that "patients deserve better" and that the NIMH would no longer fund research based on the DSM diagnostic categories.

#### Insel was very clear:

- "While DSM has been described as a "Bible" for the field, it is, at best, a dictionary, creating a set of labels and defining each. The strength of each of the editions of DSM has been "reliability" each edition has ensured that clinicians use the same terms in the same ways. The weakness is its lack of validity."
- "It is critical to realize that we cannot succeed if we use DSM categories as the "gold standard."
- "That is why NIMH will be re-orienting its research away from DSM categories."

In short, the DSM approach is so flawed that it is unusable by researchers. This is because it is not based on biological science.

Third, former DSM Sexual Health Workgroup member, psychiatrist Richard B. Krueger, has explained publicly that compulsive sexual behavior can currently be diagnosed using the World Health Organization's diagnostic manual, the ICD-10, as well as the DSM-5 itself: "Diagnosis of hypersexual or compulsive sexual behavior can be made using ICD-10 and DSM-5 despite rejection of this diagnosis by the American Psychiatric Association - Krueger - 2016". For example, ICD-10 section F52.8 recognizes the diagnostic validity of excessive sex drive as a valid, reimbursable disorder.

Moreover, "Compulsive Sexual Behavior Disorder" and "sex addiction" are specifically proposed for the ICD-11. (Note that "sex addiction" is mentioned at the end as a 'narrower term.')

### Compulsive sexual behaviour disorder (ICD-10: F52.7)

Parent - Impulse control disorders

#### Definition

Compulsive sexual behaviour disorder is characterized by a persistent pattern of failure to control intense, repetitive sexual impulses or urges. For example, engaging in repetitive sexual activities has become a central focus of the person's life to the point of neglecting health and personal care or other interests, activities and responsibilities, the person has made unsuccessful efforts to control or significantly reduce sexual behaviours, the person continues to engage in repetitive sexual behaviour despite adverse consequences, or the person continues to engage in repetitive sexual behaviour even when the individual derives little or no satisfaction from it. The pattern of repetitive sexual is evident over a period of at least 12 months and causes marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning.

### **Narrower Terms**

#### sex addiction

### **Exclusions**

Paraphilic disorders

#### Link:

http://apps.who.int/classifications/icd11/browse/f/en#/http%3a%2f%2fid.who.int%2ficd%2fent ity%2f1630268048

According to Dr. Krueger, "the ICD is by far the most widely used classification of mental disorders world-wide, and its diagnostic codes are mandated for use in the United States and other countries by international treaty as opposed to DSM-5 diagnoses, which have no such mandate." In other words, experts already recognize the pathology *Psychology Today* denies, and it can already be formally diagnosed, regardless of the DSM's stance. In other words, the content of the DSM-5 is not an adequate reason for banning discussions of "sex addiction" in *Psychology Today* blogs.

Finally, the American Society of Addiction Medicine (3,000+ medical specialists and researchers) has recognized sexual behavior addictions since its public statements to this effect in 2011. They state that addiction is one condition, that "sexual behavior addictions" exist, and that they involve the same basic mechanisms and brain changes as occur with drug addictions. ASAM's thousands of medical doctors and experts are many of the actual addiction researchers that provide the hard data, such head of NIDA, Nora Volkow, MD. PhD, and Eric Nestler PhD, MD.

See ASAM's definition here: http://www.asam.org/advocacy/find-a-policy-statement/view-policy-statement/public-policy-statements/2011/12/15/the-definition-of-addiction

#### From the FAQs:

5. QUESTION: "This new definition of addiction refers to addiction involving gambling, food, and sexual behaviors. Does ASAM really believe that food and sex are addicting?"

ANSWER: "Addiction to gambling has been well described in the scientific literature for several decades. In fact, the latest edition of the DSM (DSM-V) will list gambling disorder in the same section with substance use disorders.

The new ASAM definition makes a departure from equating addiction with just substance dependence, by describing how addiction is also related to behaviors that are rewarding. This the first time that ASAM has taken an official position that addiction is not solely "substance dependence." This definition says that addiction is about functioning and brain circuitry and how the structure and function of the brains of persons with addiction differ from the structure and function of the brains of persons who do not have addiction. It talks about reward circuitry in the brain and related circuitry, but the emphasis is not on the external rewards that act on the reward system. Food and sexual behaviors and gambling behaviors can be associated with the "pathological pursuit of rewards" described in this new definition of addiction. [emph. added]

Both the head of NIDA (Volkow) and the head of the NIAA (Koob) are members of ASAM. Both published a review in *The New England Journal of Medicine*: "Neurobiologic Advances from the Brain Disease Model of Addiction (2016)" - http://www.nejm.org/doi/full/10.1056/NEJMra1511480. This landmark review not only outlines the brain changes involved in addiction, it also states in its opening paragraph that sex addiction exists:

"We conclude that neuroscience continues to support the brain disease model of addiction. Neuroscience research in this area not only offers new opportunities for the prevention and treatment of substance addictions and **related behavioral addictions** (e.g., to food, **sex**, and gambling)...." [emph. added]

*Psychology Today's* faith in the position of the DSM-5 seems misplaced. Is it reasonable to continue censoring psychologists and other bloggers for relying on the non-DSM authorities mentioned above, given that the DSM appears to be out of step with trends among scientists in the field?

2. Use of Psychology Today by AASECT members to attack other professionals and professional organizations

*Psychology Today* bloggers Klein, Swan, Ley, Aaron and Kort are sexologists/psychologists, not neuroscientists. They all hail from, or speak regularly at, the conferences of one organization: AASECT. This organization is well known for it its vigorous anti-sex addiction agenda.

They use their *Psychology Today* platforms to mischaracterize and attack other members of the psychology profession and their organizations. Two of their targets include the monolithic IITAP and the very diverse SASH, both of which they throw together, mischaracterize and condemn.

Sadly, bloggers from those groups who are out of favor with the AASECT crew are forbidden to share their knowledge and supporting research with *Psychology Today* readers. How can it be good for the profession as a whole to suppress the viewpoints of a substantial swath of the psychology profession whose views are in line with the latest research on sex addiction (see following section)?

It also appears that links to websites that list research that contradicts the presumptions of these bloggers are now prohibited in comments under *Psychology Today* blogs, further distorting the information your readers receive via these bloggers.

3. Denial that the trend in mainstream science on compulsive sexual behavior/sexual behavior addictions is away from Psychology Today's policy of dismissing "sex addiction"

*Psychology Today* seems unaware that research by addiction neuroscientists and various psychology researchers is not lining up with the position taken by the magazine recently, and by some of its most vocal anti-sex addiction bloggers.

While problematic porn addiction research is in its infancy, there are already 2 dozen neuroscience studies that have found evidence in porn-using subjects that is consistent with the addiction model. Moreover, 10 reviews of the literature by top scientists from the United States and Europe affirm that porn-related research is consistent with the addiction model. See Appendix 1 for lists of studies and reviews. Moreover, much of the slender opposing evidence on which the above-named bloggers rely has been repeatedly discredited in multiple peer-review analyses.

Also, there are multiple studies implicating internet porn use in sexual dysfunctions and relationship dissatisfaction, problems *Psychology Today's* AASECT bloggers sometimes deny. See Appendix 2 for a list of such studies and reviews.

### **Conclusion**

While skepticism and diverse opinions are entirely appropriate in the blogosphere, it is unfortunate that *Psychology Today* has chosen to narrow its editorial policy and blogging parameters to a slice of the psychology profession, however vocal, which is out of alignment with the findings and analyses of highly esteemed scholars.

We respectfully request that *Psychology Today's* editors reconsider its policy of censoring bloggers who write about these disorders, so that they may share with *Psychology Today* readers the current state of the research and treatment in this increasingly visible and important field.

Thank you for considering the petition and this letter.

### **Appendix 1**

Studies and reviews demonstrating parallels between compulsive sexual behavior and the addiction model

#### **STUDIES**

### Neuroscience studies (fMRI, MRI, EEG, Neuro-endocrine)

- Brain Structure and Functional Connectivity Associated With Pornography Consumption: The Brain on Porn (2014) – Kuhn & Gallinat 2014, a German study, found 3 significant addiction-related brain changes correlating with the amount of porn consumed. It also found that more porn use correlated with less reward circuit activation while viewing sexual photos. Researchers stated their findings indicated desensitization, and possibly tolerance, which is the increasing need for stimulation.
- Neural Correlates of Sexual Cue Reactivity in Individuals with and without Compulsive Sexual Behaviours (2014) Voon et al., 2014 is the first in a series of Cambridge University studies. It found the same brain activity seen in drug addicts and alcoholics. It also found that porn addicts fit the accepted addiction model of wanting "it" more, but *not* liking "it" more. The researchers reported that 60% of subjects (average age: 25) had difficulty achieving erections/arousal with real partners, yet could achieve erections with porn.
- Enhanced Attentional Bias towards Sexually Explicit Cues in Individuals with and without Compulsive Sexual Behaviours (2014) The second Cambridge University study. An excerpt: "Our findings of enhanced attentional bias... suggest possible overlaps with enhanced attentional bias observed in studies of drug cues in disorders of addictions. These findings converge with recent findings of neural reactivity to sexually explicit cues in [porn addicts] in a network similar to that implicated in drug-cue-reactivity studies and provide support for incentive motivation theories of addiction underlying the aberrant response to sexual cues in [porn addicts]."
- Novelty, Conditioning and Attentional Bias to Sexual Rewards (2015) The third Cambridge study.
  Compared to controls, porn addicts preferred sexual novelty and conditioned cues associated porn.
  However, the brains of porn addicts habituated faster to sexual images. Since (sensation-seeking) novelty preference wasn't pre-existing, porn addiction appears to drive novelty-seeking, as users attempt to overcome habituation and desensitization.
- Neural Substrates of Sexual Desire in Individuals with Problematic Hypersexual Behavior (2015) This
  Korean fMRI study replicates other brain studies on porn users. Like the Cambridge University studies it
  found cue-induced brain activation patterns in sex addicts which mirrored the patterns of drug addicts. In
  line with several German studies it found alterations in the prefrontal cortex which match the changes
  observed in drug addicts.
- Sexual Desire, not Hypersexuality, is Related to Neurophysiological Responses Elicited by Sexual Images (2013) This EEG study was touted in the media as evidence against the existence of porn addiction. However, this SPAN Lab study, like the next one, actually lends support to the existence of porn addiction. The study reported higher EEG readings (P300) when subjects were briefly exposed to pornographic photos. Studies consistently show that an elevated P300 occurs when addicts are exposed to cues (such as images) related to their addiction. However, due to methodological flaws the findings are uninterpretable: 1) subjects were heterogeneous (males, females, non-heterosexuals); 2) subjects were not screened for mental disorders or addictions; 3) study had no control group for comparison; 4) questionnaires were not validated for porn addiction. In line with the Cambridge University brain scan studies, this EEG study reported greater cue-reactivity to porn correlated with less desire for partnered sex. That is, individuals with more brain activation and cravings for porn would rather masturbate to porn than have sex with a real person. Study spokesman and former UCLA researcher Nicole Prause claimed that porn users merely had high libido, yet the results of the study say something quite different. Multiple peer-reviewed papers challenge Prause's conclusions given her data.

- Modulation of Late Positive Potentials by Sexual Images in Problem Users and Controls Inconsistent with "Porn Addiction" (2015) Another SPAN Lab EEG study comparing the 2013 subjects from the above study to an actual control group. Compared to controls, porn addicts had less response to photos of vanilla porn. Lead author Prause claims these results debunk porn addiction. However, these findings align perfectly with Kühn & Gallinat (2014), the first study above, which found that more porn use correlated with less brain activation in response to pictures of vanilla porn. Another EEG study ("Sex in the Brain: The Relationship between Event Related Potentials and Subjective Sexual Arousal") found that greater porn use in women correlated with less brain activation to porn. Put simply, frequent porn users were desensitized and needed greater stimulation to achieve aroused. Five peer-reviewed papers agree with this analysis of the study.
- HPA axis dysregulation in men with hypersexual disorder (2015) The Hypothalamus-Pituitary-Adrenal
  (HPA) axis is the central player in the stress response. Addictions <u>alter the brain's stress circuits</u> leading to
  a dysfunctional HPA axis. This study on sex addicts (hypersexuals) found altered stress responses that
  mirror drug addiction.
- Can pornography be addictive? An fMRI study of men seeking treatment for problematic pornography use (2016) (in the press) Excerpts: Men with and without problematic porn sue (PPU) differed in brain reactions to cues predicting erotic pictures, but not in reactions to erotic pictures themselves, consistent with the incentive salience theory of addictions. This brain activation was accompanied by increased behavioral motivation to view erotic images (higher 'wanting'). Ventral striatal reactivity for cues predicting erotic pictures was significantly related to the severity of PPU, amount of pornography use per week and number of weekly masturbations. Our findings suggest that like in substance-use and gambling disorders the neural and behavioral mechanisms linked to anticipatory processing of cues relate importantly to clinically relevant features of PPU. These findings suggest that PPU may represent a behavioral addiction and that interventions helpful in targeting behavioral and substance addictions warrant consideration for adaptation and use in helping men with PPU.
- Ventral striatum activity when watching preferred pornographic pictures is correlated with symptoms of Internet pornography addiction (2016) Another German study by a different group. Finding #1: Reward center activity (ventral striatum) was higher for preferred pornographic pictures. Finding #2: Ventral striatum reactivity correlated with the internet sex addiction score. Both findings indicate sensitization and align with the addiction model. The authors state that the "Neural basis of Internet pornography addiction is comparable to other addictions."
- Altered Appetitive Conditioning and Neural Connectivity in Subjects With Compulsive Sexual Behavior (2016) A third German fMRI study replicating two major findings from Voon et al., 2014 and Kuhn & Gallinat 2014. Compared to controls compulsive porn users had 1) greater conditioned cue-induced activity in the amygdala, while having 2) decreased coupling between the ventral striatum and the prefrontal cortex. Number 1 indicates sensitization, while number 2 indicates hypofronatlity. In addition, 3 of the 20 compulsive porn users suffered from "orgasmic-erection disorder".

#### **Neuro-Psychological Studies on Porn Users**

 Watching Pornographic Pictures on the Internet: Role of Sexual Arousal Ratings and Psychological-Psychiatric Symptoms for Using Internet Sex Sites Excessively (2011)

Results indicate that self-reported problems in daily life linked to online sexual activities were predicted by subjective sexual arousal ratings of the pornographic material, global severity of psychological symptoms, and the number of sex applications used when being on Internet sex sites in daily life, while the time spent on Internet sex sites (minutes per day) did not significantly contribute to explanation of variance in IATsex score. We see some parallels between cognitive and brain mechanisms potentially contributing to the maintenance of excessive cybersex and those described for individuals with substance dependence

Pornographic picture processing interferes with working memory performance (2013)

Some individuals report problems during and after Internet sex engagement, such as missing sleep and forgetting appointments, which are associated with negative life consequences. One mechanism potentially leading to these kinds of problems is that sexual arousal during Internet sex might interfere with working memory (WM) capacity, resulting in a neglect of relevant environmental information and therefore disadvantageous decision making. Results revealed worse WM performance in the pornographic picture condition of the 4-back task compared with the three remaining picture conditions. Findings are discussed with respect to Internet addiction because WM interference by addiction-related cues is well known from substance dependencies.

Sexual Picture Processing Interferes with Decision-Making Under Ambiguity (2013)

Decision-making performance was worse when sexual pictures were associated with disadvantageous card decks compared to performance when the sexual pictures were linked to the advantageous decks. Subjective sexual arousal moderated the relationship between task condition and decision-making performance. This study emphasized that sexual arousal interfered with decision-making, which may explain why some individuals experience negative consequences in the context of cybersex use.

 Cybersex addiction: Experienced sexual arousal when watching pornography and not real-life sexual contacts makes the difference (2013)

The results show that indicators of sexual arousal and craving to Internet pornographic cues predicted tendencies towards cybersex addiction in the first study. Moreover, it was shown that problematic cybersex users report greater sexual arousal and craving reactions resulting from pornographic cue presentation. In both studies, the number and the quality with real-life sexual contacts were not associated to cybersex addiction. The results support the gratification hypothesis, which assumes reinforcement, learning mechanisms, and craving to be relevant processes in the development and maintenance of cybersex addiction. Poor or unsatisfying sexual real life contacts cannot sufficiently explain cybersex addiction.

 Cybersex addiction in heterosexual female users of internet pornography can be explained by gratification hypothesis (2014)

Results indicated that Internet porn users rated pornographic pictures as more arousing and reported greater craving due to pornographic picture presentation compared with non-users. Moreover, craving, sexual arousal rating of pictures, sensitivity to sexual excitation, problematic sexual behavior, and severity of psychological symptoms predicted tendencies toward cybersex addiction in porn users. Being in a relationship, number of sexual contacts, satisfaction with sexual contacts, and use of interactive cybersex were not associated with cybersex addiction.

 Empirical Evidence and Theoretical Considerations on Factors Contributing to Cybersex Addiction From a Cognitive Behavioral View (2014)

Previous work suggests that some individuals might be vulnerable to CA, while positive reinforcement and cue-reactivity are considered to be core mechanisms of CA development. In this study, 155 heterosexual males rated 100 pornographic pictures and indicated their increase of sexual arousal. Moreover, tendencies towards CA, sensitivity to sexual excitation, and dysfunctional use of sex in general were assessed. The results of the study show that there are factors of vulnerability to CA and provide evidence for the role of sexual gratification and dysfunctional coping in the development of CA.

 Prefrontal control and internet addiction: a theoretical model and review of neuropsychological and neuroimaging findings (2015) Consistent with this, results from functional neuroimaging and other neuropsychological studies demonstrate that cue-reactivity, craving, and decision making are important concepts for understanding Internet addiction. The findings on reductions in executive control are consistent with other behavioral addictions, such as pathological gambling. They also emphasize the classification of the phenomenon as an addiction, because there are also several similarities with findings in substance dependency. Moreover, the results of the current study are comparable to findings from substance dependency research and emphasize analogies between cybersex addiction and substance dependencies or other behavioral addictions.

• Implicit associations in cybersex addiction: Adaption of an Implicit Association Test with pornographic pictures. (2015)

Recent studies show similarities between cybersex addiction and substance dependencies and argue to classify cybersex addiction as a behavioral addiction. In substance dependency, implicit associations are known to play a crucial role. Results show positive relationships between implicit associations of pornographic pictures with positive emotions and tendencies towards cybersex addiction, problematic sexual behavior, sensitivity towards sexual excitation as well as subjective craving.

 Symptoms of cybersex addiction can be linked to both approaching and avoiding pornographic stimuli: results from an analog sample of regular cybersex users (2015)

Results showed that individuals with tendencies toward cybersex addiction tended to either approach or avoid pornographic stimuli. Additionally, moderated regression analyses revealed that individuals with high sexual excitation and problematic sexual behavior who showed high approach/avoidance tendencies, reported higher symptoms of cybersex addiction. Analogous to substance dependencies, results suggest that both approach and avoidance tendencies might play a role in cybersex addiction.

 Getting stuck with pornography? Overuse or neglect of cybersex cues in a multitasking situation is related to symptoms of cybersex addiction (2015)

Individuals with tendencies towards cybersex addiction seem to have either an inclination to avoid or to approach the pornographic material, as discussed in motivational models of addiction. The results of the current study point towards a role of executive control functions, i.e. functions mediated by the prefrontal cortex, for the development and maintenance of problematic cybersex use (as suggested by Brand et al., 2014). Particularly a reduced ability to monitor consumption and to switch between pornographic material and other contents in a goal adequate manner may be one mechanism in the development and maintenance of cybersex addiction.

Trading Later Rewards for Current Pleasure: Pornography Consumption and Delay Discounting (2015)

Study 1: Participants completed a pornography use questionnaire and a delay discounting task at Time 1 and then again four weeks later. Participants reporting higher initial pornography use demonstrated a higher delay discounting rate at Time 2, controlling for initial delay discounting. Study 2: Participants who abstained from pornography use demonstrated lower delay discounting than participants who abstained from their favorite food. The finding suggests that Internet pornography is a sexual reward that contributes to delay discounting differently than other natural rewards. It is therefore important to treat pornography as a unique stimulus in reward, impulsivity, and addiction studies and to apply this accordingly in individual as well as relational treatment.

 Sexual Excitability and Dysfunctional Coping Determine Cybersex Addiction in Homosexual Males (2015) Recent findings have demonstrated an association between CyberSex Addiction (CA) severity and indicators of sexual excitability, and that coping by sexual behaviors mediated the relationship between sexual excitability and CA symptoms. The aim of this study was to test this mediation in a sample of homosexual males. Questionnaires assessed symptoms of CA, sensitivity to sexual excitation, pornography use motivation, problematic sexual behavior, psychological symptoms, and sexual behaviors in real life and online. Moreover, participants viewed pornographic videos and indicated their sexual arousal before and after the video presentation. Results showed strong correlations between CA symptoms and indicators of sexual arousal and sexual excitability, coping by sexual behaviors, and psychological symptoms. CA was not associated with offline sexual behaviors and weekly cybersex use time. Coping by sexual behaviors partially mediated the relationship between sexual excitability and CA. The results are comparable with those reported for heterosexual males and females in previous studies and are discussed against the background of theoretical assumptions of CA, which highlight the role of positive and negative reinforcement due to cybersex use.

 Subjective Craving for Pornography and Associative Learning Predict Tendencies Towards Cybersex Addiction in a Sample of Regular Cybersex Users (2016)

Some approaches [to cybersex addiction] postulate similarities to substance dependencies, for which associative learning is a crucial mechanism. In this study, 86 heterosexual males completed a Standard Pavlovian to Instrumental Transfer Task modified with pornographic pictures to investigate associative learning in cybersex addiction. Additionally, subjective craving due to watching pornographic pictures and tendencies towards cybersex addiction were assessed. Results showed an effect of subjective craving on tendencies towards cybersex addiction, moderated by associative learning. Overall, these findings point towards a crucial role of associative learning for the development of cybersex addiction, while providing further empirical evidence for similarities between substance dependencies and cybersex addiction.

#### **REVIEWS**

- Neuroscience of Internet Pornography Addiction: A Review and Update (2015). Thorough review of the
  neuroscience literature related to Internet addiction subtypes, with special focus on internet porn
  addiction. Excerpt: "The review leads to the conclusion that Internet pornography addiction fits into the
  addiction framework and shares similar basic mechanisms with substance addiction. Together with studies
  on Internet addiction and Internet Gaming Disorder we see strong evidence for considering addictive
  Internet behaviors as behavioral addiction."
- Sex Addiction as a Disease: Evidence for Assessment, Diagnosis, and Response to Critics (2015) Review provides a chart that takes on specific criticisms and offers citations that counter them.
- Neurobiology of Compulsive Sexual Behavior: Emerging Science (2016) Excerpt: "Given some similarities between CSB and drug addictions, interventions effective for addictions may hold promise for CSB, thus providing insight into future research directions to investigate this possibility directly."
- Should compulsive sexual behavior be considered an addiction? (2016) Excerpt: "Overlapping features exist between CSB and substance use disorders. Common neurotransmitter systems may contribute to CSB and substance use disorders, and recent neuroimaging studies highlight similarities relating to craving and attentional biases. Similar pharmacological and psychotherapeutic treatments may be applicable to CSB and substance addictions, although considerable gaps in knowledge currently exist."
- Compulsive Sexual Behaviour as a Behavioural Addiction: The Impact of the Internet and Other Issues (2016). Excerpts: "More emphasis is needed on the characteristics of the internet as these may facilitate problematic sexual behaviour." And, "Clinical evidence from those who help and treat such individuals should be given greater credence by the psychiatric community."
- **Neurobiological Basis of Hypersexuality (2016)**. Excerpt: "Taken together, the evidence seems to imply that alterations in the frontal lobe, amygdala, hippocampus, hypothalamus, septum, and brain regions

- that process reward play a prominent role in the emergence of hypersexuality. Genetic studies and neuropharmacological treatment approaches point at an involvement of the dopaminergic system."
- Cybersex Addiction (2015) Excerpts: In recent articles, cybersex addiction is considered a specific type of
  Internet addiction. Some current studies investigated parallels between cybersex addiction and other
  behavioral addictions, such as Internet Gaming Disorder. Cue-reactivity and craving are considered to play
  a major role in cybersex addiction. Neuroimaging studies support the assumption of meaningful
  commonalities between cybersex addiction and other behavioral addictions as well as substance
  dependency.
- Searching for clarity in muddy water: future considerations for classifying compulsive sexual behavior as an addiction (2016) Excerpts: We recently considered evidence for classifying compulsive sexual behavior (CSB) as a non-substance (behavioral) addiction. Our review found that CSB shared clinical, neurobiological and phenomenological parallels with substance-use disorders. Although the American Psychiatric Association rejected hypersexual disorder from DSM-5, a diagnosis of CSB (excessive sex drive) can be made using ICD-10. CSB is also being considered by ICD-11.
- Is Internet Pornography Causing Sexual Dysfunctions? A Review with Clinical Reports (2016) An extensive review of the literature related to porn-induced sexual problems. Involving US Navy doctors, the review provides the latest data revealing a tremendous rise in youthful sexual problems. It also reviews the neurological studies related to porn addiction and sexual conditioning via Internet porn. The doctors provide 3 clinical reports of men who developed porn-induced sexual dysfunctions.
- Integrating psychological and neurobiological considerations regarding the development and maintenance of specific Internet-use disorders: An Interaction of Person-Affect-Cognition-Execution model (2016) A review of the mechanisms underlying the development and maintenance of specific Internet-use disorders, including "Internet-pornography-viewing disorder". The authors suggest that pornography addiction (and cybersex addiction) be classified as internet use disorders and placed with other behavioral addictions under substance-use disorders as addictive behaviors.

### **Appendix 2**

This appendix is divided into two parts. The purpose of listing these studies it to demonstrate that *Psychology Today* readers can be expected to be among those observing or experiencing negative effects on sexual satisfaction and relationships. Might readers be wondering why *Psychology Today* isn't allowing its editors and some of its bloggers to write about these painful, puzzling phenomena?

# Part 1 - A sampling of studies and reviews linking sex/porn addition to sexual dysfunctions, reduced sexual responsiveness

- 1) Is Internet Pornography Causing Sexual Dysfunctions? A Review with Clinical Reports (2016) An extensive review of the literature related to porn-induced sexual problems. Involving US Navy doctors, the review provides the latest data revealing a tremendous rise in youthful sexual problems. It also reviews the neurological studies related to porn addiction and sexual conditioning via Internet porn. The doctors provide 3 clinical reports of men who developed porn-induced sexual dysfunctions.
- 2) Men's Sexual Life and Repeated Exposure to Pornography. A New Issue? (2015) Excerpts:

Mental health specialists should take in consideration the possible effects of pornography consumption on men sexual behaviors, men sexual difficulties and other attitudes related to sexuality. In the long term pornography seems to create sexual dysfunctions, especially the individual's inability to reach an orgasm with his partner. Someone who spends most of his sexual life masturbating while watching porn engages his brain in rewiring its natural sexual sets (Doidge, 2007) so that it will soon need visual stimulation to achieve an orgasm.

Many different symptoms of porn consumption, such as the need to involve a partner in watching porn, the difficulty in reaching orgasm, the need for porn images in order to ejaculate turn into sexual problems. These sexual behaviors may go on for months or years and it may be mentally and bodily associated with the erectile dysfunction, although it is not an organic dysfunction. Because of this confusion, which generates embarrassment, shame and denial, lots of men refuse to encounter a specialist

Pornography offers a very simple alternative to obtain pleasure without implying other factors that were involved in human's sexuality along the history of mankind. The brain develops an alternative path for sexuality which excludes "the other real person" from the equation. Furthermore, pornography consumption in a long term makes men more prone to difficulties in obtaining an erection in a presence of their partners.

**3)** The Dual Control Model - The Role Of Sexual Inhibition & Excitation In Sexual Arousal And Behavior (2007) - Newly rediscovered and very convincing. In an experiment employing video porn, 50% of the young men couldn't become aroused or achieve erections *with* porn (average age was 29). The shocked researchers discovered that the men's erectile dysfunction was,

"related to high levels of exposure to and experience with sexually explicit materials."

The men experiencing erectile dysfunction had spent a considerable amount of time in bars and bathhouses where porn was "omnipresent," and "continuously playing". The researchers stated:

"Conversations with the subjects reinforced our idea that in some of them a high exposure to erotica seemed to have resulted in a lower responsivity to "vanilla sex" erotica and an increased need for novelty

and variation, in some cases combined with a need for very specific types of stimuli in order to get aroused."

**4)** Neural Correlates of Sexual Cue Reactivity in Individuals with and without Compulsive Sexual Behaviours (2014) - This fMRI study by Cambridge University found sensitization in porn addicts which mirrored sensitization in drug addicts. It also found that porn addicts fit the accepted addiction model of wanting "it" more, but *not* liking "it" more. The researchers also reported that 60% of subjects (average age: 25) had difficulty achieving erections/arousal with real partners as a result of using porn, yet could achieve erections with porn. From the study (CSB is compulsive sexual behaviours):

"CSB subjects reported that as a result of excessive use of sexually explicit materials.....[they] experienced diminished libido or erectile function specifically in physical relationships with women (although not in relationship to the sexually explicit material)"

"Compared to healthy volunteers, CSB subjects had greater subjective sexual desire or wanting to explicit cues and had greater liking scores to erotic cues, thus demonstrating a dissociation between wanting and liking. CSB subjects also had greater impairments of sexual arousal and erectile difficulties in intimate relationships but not with sexually explicit materials highlighting that the enhanced desire scores were specific to the explicit cues and not generalized heightened sexual desire."

**5)** Online sexual activities: An exploratory study of problematic and non-problematic usage patterns in a sample of men (2016) - This Belgian study from a leading research university found problematic Internet porn use was associated with reduced erectile function and reduced overall sexual satisfaction. Yet problematic porn users experienced greater cravings. The study appears to report escalation, as 49% of the men viewed porn that "was not previously interesting to them or that they considered disgusting." Excerpts:

"This study is the first to directly investigate the relationships between sexual dysfunctions and problematic involvement in OSAs. Results indicated that higher sexual desire, lower overall sexual satisfaction, and lower erectile function were associated with problematic OSAs (online sexual activities). These results can be linked to those of previous studies reporting a high level of arousability in association with sexual addiction symptoms (Bancroft & Vukadinovic, 2004; Laier et al., 2013; Muise et al., 2013)."

In addition, these researchers asked porn users about possible escalation to new or disturbing porn genres.

"Forty-nine percent mentioned at least sometimes searching for sexual content or being involved in OSAs that were not previously interesting to them or that they considered disgusting, and 61.7% reported that at least sometimes OSAs were associated with shame or guilty feelings."

Note - This is the first study to directly investigate the relationships between sexual dysfunctions and internet porn use. Two other studies claiming to have investigated correlations between porn use and erectile functioning cobbled together data from earlier studies in an unsuccessful attempt to debunk porn-induced ED. Both were criticized in the peer-reviewed literature. Paper 1 was not an authentic study, and has been thoroughly discredited. Paper 2 actually found correlations that support porn-induced ED. Moreover, paper 2 was only a "brief communication" that did not report important data.

**6)** Male masturbation habits and sexual dysfunctions (2016) — Written by a French psychiatrist who is the current president of the European Federation of Sexology. The paper revolves around his clinical experience with 35 men who developed erectile dysfunction and/or anorgasmia, and his therapeutic approaches to help them. A quarter of his patients were addicted to porn. The abstract points to internet porn as the primary cause of the problems (keep in mind that masturbation does not cause chronic ED, and it is never given as a cause of ED). Excerpts:

**Intro:** Harmless and even helpful in [its] usual form widely practiced, masturbation in its excessive and pre-eminent form, generally associated today to pornographic addiction, is too often overlooked in the clinical assessment of sexual dysfunction it can induce.

**Results:** Initial results for these patients, after treatment to "unlearn" their masturbatory habits and their often associated addiction to pornography, are encouraging and promising. A reduction in symptoms was obtained in 19 patients out of 35. The dysfunctions regressed and these patients were able to enjoy satisfactory sexual activity.

**Conclusion:** Addictive masturbation, often accompanied by a dependency on cyber-pornography, has been seen to play a role in the etiology of certain types of erectile dysfunction or coital anejaculation. It is important to systematically identify the presence of these habits rather than conduct a diagnosis by elimination, in order to include habit-breaking deconditioning techniques in managing these dysfunctions

**7) Adolescents and web porn:** a **new era of sexuality (2015)** - This Italian study analyzed the effects of Internet porn on high school seniors, co-authored by urology professor Carlo Foresta, president of the Italian Society of Reproductive Pathophysiology. The most interesting finding is that 16% of those who consume porn more than once a week report abnormally low sexual desire compared with 0% in non-consumers (and 6% for those who consume less than once a week). From the study:

"21.9% define it as habitual, 10% report that it reduces sexual interest towards potential real-life partners, and the remaining, 9.1% report a kind of addiction. In addition, 19% of overall pornography consumers report an abnormal sexual response, while the percentage rose to 25.1% among regular consumers."

- 8) Patient Characteristics by Type of Hypersexuality Referral: A Quantitative Chart Review of 115 Consecutive Male Cases (2015) Study on men (average age 41.5) with hypersexuality disorders, such as paraphilias and chronic masturbation or adultery. 27 were classified as "avoidant masturbators," meaning they masturbated (typically with porn use) one or more hours per day or more than 7 hours per week. 71% reported sexual functioning problems, with 33% reporting delayed ejaculation (a precursor to porn-induced ED).
- 9) Altered Appetitive Conditioning and Neural Connectivity in Subjects With Compulsive Sexual Behavior (2016) "Compulsive Sexual Behaviors" (CSB) means the men were porn addicts, because CSB subjects averaged nearly 20 hours of porn use per week. The controls averaged 29 minutes per week. Interestingly, 3 of the 20 CSB subjects mentioned to interviewers that they suffered from "orgasmic-erection disorder," while none of the control subjects reported sexual problems.
- **10)** Brain Structure and Functional Connectivity Associated With Pornography Consumption: The Brain on Porn **(2014)** A Max Planck study which found 3 significant addiction-related brain changes correlating with the amount of porn consumed. It also found that the more porn consumed the less reward circuit activity in response to brief exposure (.530 second) to vanilla porn. In a 2014 article lead author Simone Kühn said:

"We assume that subjects with a high porn consumption need increasing stimulation to receive the same amount of reward. That could mean that regular consumption of pornography more or less wears out your reward system. That would fit perfectly the hypothesis that their reward systems need growing stimulation."

A more technical description of this study from a review of the literature by Kuhn & Gallinat – "Neurobiological Basis of Hypersexuality" (2016).

"The more hours participants reported consuming pornography, the smaller the BOLD response in left putamen in response to sexual images. Moreover, we found that more hours spent watching pornography

was associated with smaller gray matter volume in the striatum, more precisely in the right caudate reaching into the ventral putamen. We speculate that the brain structural volume deficit may reflect the results of tolerance after desensitization to sexual stimuli."

- 11) Sexual Desire, not Hypersexuality, is Related to Neurophysiological Responses Elicited by Sexual Images (2013) In line with the Cambridge University brain scan studies, this EEG study reported greater cue-reactivity to porn correlated with less desire for partnered sex. To put another way individuals with more brain activation and cravings for porn would rather masturbate to porn than have sex with a real person.
- **12)** Modulation of Late Positive Potentials by Sexual Images in Problem Users and Controls Inconsistent with "Porn Addiction" (2015) The results: compared to controls, "porn addicts" had less response to one-second exposure to photos of vanilla porn. Put simply, frequent porn users were desensitized and needed greater stimulation to achieve the same buzz. Four peer-reviewed papers say that Prause findings indicate desensitization, and addiction-related phenomenon.
- **13)** Unusual masturbatory practice as an etiological factor in the diagnosis and treatment of sexual dysfunction in young men (2014) One of the 4 case studies in this paper reports on a man with porn-induced sexual problems (low libido, fetishes, anorgasmia). The sexual intervention called for a 6-week abstinence from porn and masturbation. After 8 months the man reported increased sexual desire, successful sex and orgasm, and enjoying "good sexual practices. This is the first peer-reviewed chronicling of a recovery from porn-induced sexual dysfunctions. Excerpts from the paper:

"When asked about masturbatory practices, he reported that in the past he had been masturbating vigorously and rapidly while watching pornography since adolescence. The pornography originally consisted mainly of zoophilia, and bondage, domination, sadism, and masochism, but he eventually got habituated to these materials and needed more hardcore pornography scenes, including transgender sex, orgies, and violent sex. He used to buy illegal pornographic movies on violent sex acts and rape and visualized those scenes in his imagination to function sexually with women. He gradually lost his desire and his ability to fantasize and decreased his masturbation frequency."

In conjunction with weekly sessions with a sex therapist, the patient was instructed to avoid any exposure to sexually explicit material, including videos, newspapers, books, and internet pornography. After 8 months, the patient reported experiencing successful orgasm and ejaculation. He renewed his relationship with that woman, and they gradually succeeded in enjoying good sexual practices.

**14)** Erectile Dysfunction, Boredom, and Hypersexuality among Coupled Men from Two European Countries **(2015)** - Survey reported a strong correlation between erectile dysfunction and measures of hypersexuality. The study omitted correlation data between erectile functioning and pornography use, but noted a significant correlation. An excerpt:

Among Croatian and German men, hypersexuality was significantly correlated with proneness to sexual boredom and more problems with erectile function.

**15)** Masturbation and Pornography Use Among Coupled Heterosexual Men With Decreased Sexual Desire: How Many Roles of Masturbation? (2015) - Masturbating to porn was related with decreased sexual desire and low relationship intimacy. Excerpts:

"Among men who masturbated frequently, 70% used pornography at least once a week. A multivariate assessment showed that sexual boredom, frequent pornography use, and low relationship intimacy significantly increased the odds of reporting frequent masturbation among coupled men with decreased sexual desire."

"Among men [with decreased sexual desire] who used pornography at least once a week [in 2011], 26.1% reported that they were unable to control their pornography use. In addition, 26.7% of men reported that their use of pornography negatively affected their partnered sex and 21.1% claimed to have attempted to stop using pornography."

**16)** Use of pornography in a random sample of Norwegian heterosexual couples (2009) - Porn use was correlated with more sexual dysfunctions in the man and negative self perception in the female. The couples who did not use porn had no sexual dysfunctions. A few excerpts from the study:

In couples where only one partner used pornography, we found more problems related to arousal (male) and negative (female) self-perception.

In those couples where one partner used pornography there was a permissive erotic climate. At the same time, these couples seemed to have more dysfunctions.

The couples who did not use pornography... may be considered more traditional in relation to the theory of sexual scripts. At the same time, they did not seem to have any dysfunctions.

Couples who both reported pornography use grouped to the positive pole on the "Erotic climate" function and somewhat to the negative pole on the "Dysfunctions" function.

17) (not peer-reviewed) Here's an article ("Erectile Dysfunction Forums Offer Raw Insight Into How Millions Of Men Cope With The Condition") about an extensive analysis of comments and questions posted on MedHelp concerning erectile dysfunction. What's shocking is that 58% of the men asking for help were 24 or younger. Many suspected that internet porn could be involved as <u>described in the survey results</u>. The most common phrase is "erectile dysfunction" – which is mentioned more than three times as often as any other phrase – followed by "internet porn," "performance anxiety," and "watching porn."

Clearly, porn is a frequently discussed subject: "I have been viewing internet pornography frequently (4 to 5 times a week) for the past 6 years," one man writes. "I am in my mid-20s and have had a problem getting and maintaining an erection with sexual partners since my late teens when I first started looking at internet porn."

### Part 2 - Studies reporting correlations between porn use and less sexual or relationship satisfaction

1) Does Viewing Pornography Reduce Marital Quality Over Time? Evidence from Longitudinal Data (2016) - The first longitudinal study on a representative cross-section of married couples. It found significant negative effects of porn use on sexual satisfaction and marriage quality over time. Excerpt:

This study is the first to draw on nationally representative, longitudinal data (2006-2012 Portraits of American Life Study) to test whether more frequent pornography use influences marital quality later on and whether this effect is moderated by gender. In general, married persons who more frequently viewed pornography in 2006 reported significantly lower levels of marital quality in 2012, net of controls for earlier marital quality and relevant correlates. Pornography's effect was not simply a proxy for dissatisfaction with sex life or marital decision-making in 2006. In terms of substantive influence, frequency of pornography use in 2006 was the second strongest predictor of marital quality in 2012

2) **Till Porn Do Us Part? Longitudinal Effects of Pornography Use on Divorce, (2016)** - The study used nationally representative General Social Survey panel data collected from thousands of American adults. Respondents were interviewed three times about their pornography use and marital status -- every two years from 2006-2010, 2008-2012, or 2010-2014. Excerpts:

Beginning pornography use between survey waves nearly doubled one's likelihood of being divorced by the next survey period, from 6 percent to 11 percent, and nearly tripled it for women, from 6 percent to 16 percent. Our results suggest that viewing pornography, under certain social conditions, may have negative effects on marital stability.

Additionally, the researchers found that respondents' initially reported level of marital happiness played an important role in determining the magnitude of pornography's association with the probability of divorce. Among people who reported they were "very happy" in their marriage in the first survey wave, beginning pornography viewership before the next survey was associated with a noteworthy increase -- from 3 percent to 12 percent -- in the likelihood of getting divorced by the time of that next survey.

# 3) Associations between young adults' use of sexually explicit materials and their sexual preferences, behaviors, and satisfaction (2011) - Excerpts:

Higher frequencies of sexual explicit material (SEM) use were associated with less sexual and relationship satisfaction. The frequency of SEM use and number of SEM types viewed were both associated with higher sexual preferences for the types of sexual practices typically presented in SEM. These findings suggest that SEM use can play a significant role in a variety of aspects of young adults' sexual development processes.

Specifically, higher viewing frequency was associated with less sexual and relationship satisfaction when controlling for gender, religiosity, dating status and the number of SEM types viewed.

Because a substantial proportion of the young adults in this study reported using SEM, the potential implications are especially noteworthy, particularly for young men.

### 4) Pornography's Impact on Sexual Satisfaction (1988) - Excerpt:

Male and female students and nonstudents were exposed to videotapes featuring common, nonviolent pornography or innocuous content. Exposure was in hourly sessions in six consecutive weeks. In the seventh week, subjects participated in an ostensibly unrelated study on societal institutions and personal gratifications. [Porn use] strongly impacted self-assessment of sexual experience. After consumption of pornography, subjects reported less satisfaction with their intimate partners—specifically, with these partners' affection, physical appearance, sexual curiosity, and sexual performance proper. In addition, subjects assigned increased importance to sex without emotional involvement. These effects were uniform across gender and populations.

## 5) Adolescents' Exposure to Sexually Explicit Internet Material and Sexual Satisfaction: A Longitudinal Study (2009) - Excerpt:

Between May 2006 and May 2007, we conducted a three-wave panel survey among 1,052 Dutch adolescents aged 13–20. Structural equation modeling revealed that exposure to SEIM consistently reduced adolescents' sexual satisfaction. Lower sexual satisfaction (in Wave 2) also increased the use of SEIM (in Wave 3). The effect of exposure to SEIM on sexual satisfaction did not differ among male and female adolescents.

6) Individuals who never viewed SEM reported higher relationship quality on all indices than those who viewed SEM alone (2011) - Excerpt:

As expected, individuals who did not view SEM (sexually explicit material) at all reported lower negative communication and higher dedication than individuals who viewed SEM alone or both alone and with their partner.

#### 7) Sexual media use and relational satisfaction in heterosexual couples (2010) - Excerpt:

Results revealed that a higher frequency of men's sexual media use related to negative satisfaction in men, while a higher frequency of women's sexual media use related to positive satisfaction in male partners. Reasons for sexual media use differed by gender: Men reported primarily using sexual media for masturbation, while women reported primarily using sexual media as part of lovemaking with their partners.

# 8) Young Adult Women's Reports of Their Male Romantic Partner's Pornography Use as a Correlate of Their Self-Esteem, Relationship Quality, and Sexual Satisfaction (2012) - Excerpt:

The purpose of this study was to examine the relationships between men's pornography use, both frequency and problematic use, on their heterosexual female partner's psychological and relational well-being among 308 young adult college women. Results revealed women's reports of their male partner's frequency of pornography use were negatively associated with their relationship quality. More perceptions of problematic use of pornography was negatively correlated with self-esteem, relationship quality, and sexual satisfaction.

## 9) Korean Men's Pornography use, Their Interest in Extreme Pornography, and Dyadic Sexual Relationships (2014) - Excerpt:

Six-hundred eighty-five heterosexual South Korean male college students participated in an online survey. The majority (84.5%) of respondents had viewed pornography, and for those who were sexually active (470 respondents), we found that higher interest in degrading or extreme pornography was associated with the experience of role-playing sexual scenes from pornography with a partner, and a preference for using pornography to achieve and maintain sexual excitement over having sex with a partner.

We found that higher interest in viewing degrading or extreme pornography ... has a significant positive ... association with sexual concerns.

#### 10) Pornography and the Male Sexual Script: An Analysis of Consumption and Sexual Relations (2014) - Excerpt:

We argue pornography creates a sexual script that then guides sexual experiences. To test this, we surveyed 487 college men (ages 18-29 years) in the United States to compare their rate of pornography use with sexual preferences and concerns. Results showed the more pornography a man watches, the more likely he was to use it during sex, request particular pornographic sex acts of his partner, deliberately conjure images of pornography during sex to maintain arousal, and have concerns over his own sexual performance and body image. Further, higher pornography use was negatively associated with enjoying sexually intimate behaviors with a partner.

### 11) Adult Social Bonds and Use of Internet Pornography (2004) - Excerpt:

Complete data on 531 Internet users are taken from the General Social Surveys for 2000. Social bonds measures include religious, marital, and political ties. Measures of participation in sexual and drug-related deviant lifestyles, and demographic controls are included. The results of a logistic regression analysis found that among the strongest predictors of use of cyberporn were weak ties to religion and lack of a happy marriage.

# 12) A Common-Fate Analysis of Pornography Acceptance, Use, and Sexual Satisfaction Among Heterosexual Married Couples (2016) - Excerpt:

Results indicated that the shared variance of pornography acceptance was positively associated with both spouses' pornography use and that spouses' pornography use was negatively associated with their own sexual satisfaction. Wives' pornography use was found to be positively associated with the couple's shared variance of sexual satisfaction, but pornography use did not significantly mediate the relationship between pornography acceptance and sexual satisfaction.

## 13) Differences in Pornography Use Among Couples: Associations with Satisfaction, Stability, and Relationship Processes (2016) - Excerpt:

The present study utilized a sample of 1755 adult couples in heterosexual romantic relationships to examine how different patterns of pornography use between romantic partners may be associated with relationship outcomes. While pornography use has been generally associated with some negative and some positive couple outcomes, no study has yet explored how differences between partners may uniquely be associated with relationship well-being. Results suggested that greater discrepancies between partners in pornography use were related to less relationship satisfaction, less stability, less positive communication, and more relational aggression. Mediation analyses suggested that greater pornography use discrepancies were primarily associated with elevated levels of male relational aggression, lower female sexual desire, and less positive communication for both partners which then predicted lower relational satisfaction and stability for both partners.

## 14) Factors Predicting Cybersex Use and Difficulties in Forming Intimate Relationships among Male and Female Users of Cybersex (2015) - Excerpt:

This study used the Cybersex addiction test, Craving for pornography questionnaire, and a Questionnaire on intimacy among 267 participants (192 males and 75 females) mean age for males 28 and for females 25, who were recruited from special sites that are dedicated to pornography and cybersex on the Internet. **Results** of regression analysis indicated that pornography, gender, and cybersex significantly predicted difficulties in intimacy and it accounted for 66.1% of the variance of rating on the intimacy questionnaire. Second, regression analysis also indicated that craving for pornography, gender, and difficulties in forming intimate relationships significantly predicted frequency of cybersex use and it accounted for 83.7% of the variance in ratings of cybersex use.

### 15) Pornography use: who uses it and how it is associated with couple outcomes (2013) - Excerpt:

This study examined associations among pornography use, the meaning people attach to its use, sexual quality, and relationship satisfaction. Participants were couples (N = 617 couples) who were either married or cohabiting at the time the data were gathered. Overall results from this study indicated substantial gender differences in terms of use profiles, as well as pornography's association with relationship factors. Specifically, male pornography use was negatively associated with both male and female sexual quality, whereas female pornography use was positively associated with female sexual quality.

**16)** A Love That Doesn't Last: Pornography Consumption and Weakened Commitment to One's Romantic Partner (2012) – The study had subjects try to abstain from porn use for 3 weeks. Upon comparing the two groups, those who continued using pornography reported lower levels of commitment than those who tried to abstain. Excerpts:

Study 1 found that higher pornography consumption was related to lower commitment.

Study 3 participants were randomly assigned to either refrain from viewing pornography or to a self-control task. Those who continued using pornography reported lower levels of commitment than control participants.

Study 5 found that pornography consumption was positively related to infidelity and this association was mediated by commitment. Overall, a consistent pattern of results was found using a variety of approaches including cross-sectional (Study 1), observational (Study 2), experimental (Study 3), and behavioral (Studies 4 and 5) data.

# 17) Male Partners' Perceived Pornography Use and Women's Relational and Psychological Health: The Roles of Trust, Attitudes, and Investment (2015) - Excerpt:

Results revealed that women's reports of their male partners' pornography use were related to less relationship satisfaction and more psychological distress. Results from the moderation analyses indicated that the direct effect of male partners' perceived pornography use and relationship trust and the conditional indirect effects of male partners' perceived pornography use on both relationship satisfaction and psychological distress were contingent on relationship investment. These findings indicated that when male partners' perceived pornography use is high, women who have low or mean levels of relationship investment have less relationship trust. Finally, our results revealed that the relationship between male partners' perceived pornography use and relational and psychological outcomes exist regardless of women's own attitudes toward pornography.

## 18) Relationship of love and marital satisfaction with pornography among married university students in Birjand, Iran (2015) - Excerpts:

This descriptive-correlation study was conducted on 310 married students studying at private and public universities in Birjand, in 2012-2013 academic year using random quota sampling method. It appears that pornography has a negative impact on love and marital satisfaction.

#### 19) Sexual media use and relational satisfaction in heterosexual couples (2011) - Excerpt:

This study assessed how sexual media use by one or both members of a romantic dyad relates to relationship and sexual satisfaction. A total of 217 heterosexual couples completed an Internet survey that assessed sexual media use, relationship and sexual satisfaction, and demographic variables. Results revealed that a higher frequency of men's sexual media use related to negative satisfaction in men, while a higher frequency of women's sexual media use related to positive satisfaction in male partners. Reasons for sexual media use differed by gender

## 20) Wives' Experience of Husbands' Pornography Use and Concomitant Deception as an Attachment Threat in the Adult Pair-Bond Relationship (2009)

Evidence is growing that pornography use can negatively impact attachment trust in the adult pair-bond relationship. Analyses uncovered three attachment-related impacts from husbands' pornography use and deception: (1) the development of an attachment fault line in the relationship, stemming from perceived attachment infidelity; (2) followed by a widening attachment rift arising from wives' sense of distance and disconnection from their husbands; (3) culminating in attachment estrangement from a sense of being emotionally and psychologically unsafe in the relationship. Overall, wives reported global mistrust indicative of attachment breakdown.

### 21) Men's leisure and women's lives: The impact of pornography on women (1999) - Excerpt:

The section of the interview where the women discussed their own current or past relationships with men revealed additional insight into the effect of pornography on such relationships. Fifteen of the women

were in, or had been in, relationships with men who rented or bought pornography at least on an occasional basis. Of these 15 women, four expressed strong dislike of their husband's or partner's leisure time interest in pornography. It was clear that the husbands' use of pornography affected the wives' feeling about themselves, their sexual feelings, and their marital relationships in general.

### 22) From Bad to Worse? Pornography Consumption, Spousal Religiosity, Gender, and Marital Quality (2016) - Excerpts:

I test the above hypotheses using data from Wave 1 of the Portraits of American Life Study (PALS), which was fielded in 2006. PALS is a nationally representative panel survey with questions focusing on a variety of topics....Looking at bivariate correlations, for the full sample, viewing pornography is negatively associated with overall marital satisfaction, suggesting that those who view pornography more often tend to be less satisfied in their marriage than those who view pornography less often or never.

#### 23) Pornography and Marriage (2014) - The abstract:

We used data on 20,000 ever-married adults in the General Social Survey to examine the relationship between watching pornographic films and various measures of marital well-being. We found that adults who had watched an X-rated movie in the past year were more likely to be divorced, more likely to have had an extramarital affair, and less likely to report being happy with their marriage or happy overall. We also found that, for men, pornography use reduced the positive relationship between frequency of sex and happiness. Finally, we found that the negative relationship between pornography use and marital well-being has, if anything, grown stronger over time, during a period in which pornography has become both more explicit and more easily available.

#### 24) Exploring actor and partner correlates of sexual satisfaction among married couples (2010) - Excerpt:

Using the Interpersonal Exchange Model of Sexual Satisfaction, we consider how infidelity, pornography consumption, marital satisfaction, sexual frequency, premarital sex, and cohabitation are associated with married couples' sexual satisfaction. Data from 433 couples are analyzed with structural equation models to determine the contributions. Finally, some evidence suggests that pornography consumption is costly for own and spouse's sexual satisfaction, especially when pornography is used by only one spouse.

**25)** Sexually explicit media use and relationship satisfaction a moderating role of emotional intimacy? (2016) - The authors attempt to obfuscate their findings in the abstract by stating that once sexual and relationship variables were "controlled for" they found no link between between porn use and relationship satisfaction. Reality: The study found significant correlations between porn use and poorer relationship and sexual satisfaction in both males and females. Excerpt from discussion section:

For both men and women, significant, yet modest **negative zero-order** correlations between SEM use and relationship satisfaction were found, indicating that increased SEM use was associated with lower relationship satisfaction across gender.

# 26) Sex in America Online: An Exploration of Sex, Marital Status, and Sexual Identity in Internet Sex Seeking and Its Impacts (2008) - Excerpt:

This was an exploratory study of sex and relationship seeking on the Internet, based on a survey of 15,246 respondents in the United States Seventy-five percent of men and 41% of women had intentionally viewed or downloaded porn. Men and gays/lesbians were more likely to access porn or engage in other sex-seeking behaviors online compared with straights or women. A symmetrical relationship was revealed between men and women as a result of viewing pornography, with women reporting more negative

consequences, including lowered body image, partner critical of their body, increased pressure to perform acts seen in pornographic films, and less actual sex, while men reported being more critical of their partners' body and less interested in actual sex.

## 27) Internet Pornography Consumption and Relationship Commitment of Filipino Married Individuals (2016) - Excerpt:

Internet pornography has many adverse effects, especially to the relationship commitment. The use of pornography directly correlates to a decrease in sexual intimacy. Hence, this might lead to weakening of the relationship of their partner. To find out the relevance of the claim, the researchers aimed to explore the relationship of Internet pornography consumption to the relationship commitment of married individuals in the Philippines. It is revealed that Internet pornography consumption has an adverse effect on the relationship commitment of married Filipino couples. Furthermore, watching porn online weakened the relationship commitment that leads to an unstable relationship. This investigation found out that internet pornography consumption has a nominal negative effect on the relationship commitment of Filipino married individuals.

### 28) Effect of soft core pornography on female sexuality (2016) - Excerpt:

An overall 51.6% of participants who were aware that their husbands were positive watchers reported experiencing negative emotions (depression, jealous), whereas 77% reported changes in their husbands' attitude. Non-watchers watchers were more satisfied with their sexual life compared with their counterparts. Although watching soft-core pornography had a statistically significant effect on sexual desire, vaginal lubrication, ability to reach orgasm, and masturbation, it had no statistically significant effect on coital frequency. Watching soft-core pornography affects female sexual life by increasing sexual boredom in both men and women, causing relational difficulties.