



Pornography & Public Health: Research Summary

Introduction

Pornography is a social toxin that destroys relationships, steals innocence, erodes compassion, breeds violence, and kills love. The issue of pornography is ground zero for all those concerned for the sexual health and wellbeing of our loved ones, communities, and society as a whole. As the following points illustrate, the breadth and depth of pornography's influence on popular culture has created an intolerable situation that impinges on the freedoms and wellbeing of countless individuals.

- **Young Age of First Exposure:** A study of university students found that 93% of boys and 61% of girls had seen Internet pornography during adolescence. The researchers reported that the degree of exposure to paraphilic and deviant sexual activity before age 18 was of “particular concern.”¹ Another sample has shown that among college males, nearly 49% first encountered pornography before age 13.²
- **Pervasive Use:** A nationally representative survey found that 64% of young people, ages 13–24, actively seek out pornography weekly or more often.³ A popular tube site reports that in 2015 people watched 4,392,486,580 hours of pornography on its site alone;⁴ 54% of visits to its site occurring via smartphone.⁵ Eleven pornography sites are among the world's top 300 most popular Internet sites. The most popular such site, at number 18, outranks the likes of eBay, MSN, and Netflix.⁶
- **Infringement on Individual Rights:** The pornification of culture (i.e. softcore, hypersexualized imagery) is widespread and evident everywhere, from the grocery store checkout lane to advertising, popular entertainment, unsolicited email, and beyond. It's becoming increasingly difficult—if not impossible—to live a porn-free life.
- **Both Genders:** While hardcore pornography users are typically male, use among younger females use is increasing. Teenage girls and young women are significantly more likely to actively seek out porn than women 25 years old and above.⁷

- **Unmanageable at the Individual Level:** The pervasive depictions of softcore and hardcore pornography in popular culture, and their easy accessibility via streaming and mobile devices, produce problems and significant risks outside the ability of individuals and families to manage on their own.
- **Private Behavior with Public Consequences/Porn Users Shape Culture:** The large-scale private use of hardcore pornography by millions of people has public ramifications. The attitudes, beliefs, and behaviors shaped by pornography use have a profound impact on not only users' private relationships, but also their professional and social relationships. Pornography use, to varying degrees, shapes the lens by which users view, interact, and construct the world.

Drawing from recent, peer-reviewed, research literature, as well as the latest reports and surveys, the research summary below presents evidence supporting the view that pornography constitutes a public health crisis. While independently these studies do not prove that pornography *causes* harm, taken in totality, the converging evidence overwhelming suggests that pornography is correlated with a broad array of harms that adversely impact the public health of the nation. These include higher incidence of STIs, increased verbal and physical sexual aggression, acceptance of rape myths, risky sexual behaviors among adolescents, reduced impulse control and reckless decision making, increased sexual dysfunction, and more.

Like the tobacco industry, the pornography industry has created a public health crisis. However, despite tobacco's former widespread use and acceptance in American culture, once its harms became apparent, society took action and adopted dramatic new policies to limit the harmful effects of smoking. Similarly we believe that people need to be protected from pornography exposure and made aware of the risks associated with its use.

In light of the mounting evidence of harm documented below, we call on the general public, educators, health professionals, corporate executives, and elected officials to recognize pornography as a public health crisis.

RESEARCH SUMMARY

Impact on Sexual Violence and Exploitation

- **Hardcore Pornography Portrays Paraphilic Disorders and Extreme Sex:** Since the 1950s, the distribution and availability of pornography has become increasingly normalized.⁸ Pornography exposure among college males is now almost universal.⁹ Boys and men are consuming hardcore pornography, which may include depictions of sex with persons who look like children, teens, scenarios portraying incest, and other paraphilic interests such as sex with animals (i.e. zoophilia), excretory activities (i.e. coprophilia/urophilia), and violence against women, including rape (i.e. biastophilia) and torture (i.e. algolania).¹⁰ Today “. . . mainstream commercial pornography has coalesced around a relatively homogenous script involving violence and female degradation.”¹¹
- **Teaches Users that Women Enjoy Sexual Violence:** Analysis of the 50 most popular pornographic videos (those bought and rented most often) found that 88% of scenes contained physical violence, and 49% contained verbal aggression.¹² Eighty-seven percent of aggressive acts were perpetrated against women, and 95% of their responses were either neutral or expressions of pleasure.¹³
- **Committing Sexual Offenses and Accepting Rape Myths:** A meta-analysis of 46 studies reported that the effects of exposure to pornographic material are “clear and consistent,” and that pornography use puts people at increased risk for committing sexual offenses and accepting rape myths.¹⁴
- **Increased Verbal and Physical Aggression:** A 2015 meta-analysis of 22 studies from seven countries found that internationally the consumption of pornography was significantly associated with increases in verbal and physical aggression, among males and females alike.¹⁵
- **Increased Female Sexual Victimization:** A study of 14- to 19-year-olds found that females who watched pornographic videos were at significantly greater likelihood of being victims of sexual harassment or sexual assault.¹⁶
- **Increased Likelihood of Selling and Buying Sex:** A Swedish study of 18-year-old males found that frequent users of pornography were significantly more likely to have sold and bought sex than other boys of the same age.¹⁷
- **Porn Fuels Demand for Sexual Exploitation:** Some pornography consumers use pornography to build sexual excitement in advance of purchasing sex from prostituted persons; others seek to reenact

pornographic scenes on prostituted persons.¹⁸ An analysis of 101 sex buyers, compared to 100 men who did not buy sex, found that sex buyers masturbate to pornography more often than non-sex buyers, masturbate to more types of pornography, and reported that their sexual preferences changed so that they sought more sadomasochistic and anal sex.¹⁹ Other research also demonstrates an association between purchase of commercial sex acts and pornography use.²⁰

- **Interconnectivity of Mainstream, Deviant, and Child Sexual Abuse Images:** A survey from a general population of Internet pornography users found that users of pornography depicting sexual abuse of children also consume both hardcore pornography (featuring ostensibly adult performers), as well animal pornography. There were *no* consumers of child sexual abuse images who *only* collected child sexual abuse images.²¹
 - A study examining 231 Swiss men charged in a 2002 case for possession of child sexual abuse images (i.e. child pornography), found that 60% percent also used pornography that depicted sexual acts with animals, excrement, or brutality; 33% consumed at least three or more types of deviant pornography. Researchers also found that those convicted for possessing child sexual abuse images were more likely to subscribe to commercial websites containing legal (according to Swiss law) pornographic material (19% vs. 4%).²²
- **Pornography is Prostitution for Mass Consumption:** The medium by which the prostitution is conveyed—photographs, magazines, books, videos, and the Internet—allows for masses of individuals to derive sexual stimulation and gratification from the acts of prostitution that they portray.
- **Pornography as a Form of Sexual Exploitation:** “Pornography may meet the legal definition of trafficking to the extent that the pornographer recruits, entices, or obtains the people depicted in pornography for the purpose of photographing commercial sex acts.”²³

Impact on Adolescents

- **Harm to Young Brains:** A survey of 813 U.S. teens and young adults (13–25), found that 26% of adolescents aged 13–17 actively seek out pornography weekly or more often.²⁴ Research has demonstrated that children are more susceptible than adults to addictions and to developmental effects on the brain.²⁵
- **Emotional Bond with Caregivers:** A nationally representative survey of youth ages 9–17 reported that online pornography users were significantly

more likely to report a poor emotional bond with their caregiver, than adolescents who viewed pornography offline or not at all.²⁶

- **Women as Sex Objects:** Internet pornography is shown to normalize the notion that women are sex objects among both adolescent boys and girls.²⁷
- **Sexual Uncertainty and Casual Sexual Exploration:** More frequent use of sexually explicit Internet material is shown to foster greater sexual uncertainty in the formation of sexual beliefs and values, as well as a shift away from sexual permissiveness with affection to attitudes supportive of uncommitted sexual exploration.²⁸
- **Sending Sexually Explicit Images:** A survey of 4,564 adolescents aged 14–17 in five European countries, found that viewing Internet pornography is significantly associated with an increased probability of having sent sexual images and messages (sexting) among boys.²⁹ A survey of 617 college freshman found that 30% of participants sent nude pictures at some time during high school; 45% had received nude pictures on their cell phones. The most important motivation for sexting was coercion such as blackmail or threats. About half of all sexting may be coercive.³⁰
- **Risky Sexual Behaviors:** Internet pornography use is linked to increases in problematic sexual activity at younger ages, and a greater likelihood of engaging risky sexual behavior, such as hookups, multiple sex partners, anal sex, group sex, and using substances during sex as young adolescents.³¹ A recent UK survey found that 44% of males aged 11–16 who viewed pornography reported that online pornography gave them ideas about the type of sex they wanted to try out.³²
- **Physical and Sexual Victimization:** A nationally representative survey of pornography use among youth aged 9–17, found that those with increased exposure to Internet pornography were significantly more likely to report physical and sexual victimization.³³
- **Associated with Adolescent Delinquency and Criminal Behavior:** In a meta-analysis of eight studies, male adolescent sex offenders reported more exposure to sex or pornography than non-sex offenders.³⁴ A study of sexually reactive children and adolescents (SRCAs) found that those who used pornography compared to those who did not use pornography were more likely to engage in a prominent pattern of lying, a persistent pattern of theft/stealing, to be truant, to frequently con/manipulate others, to engage in arson/fire setting behaviors, to engage in coerced vaginal penetration and forced sexual acts such as oral or digital penetration, to express sexually aggressive remarks (obscenities), and to engage in sex with animals.³⁵ Other research also demonstrates an association between pornography consumption and adolescent delinquent behavior.³⁶

- **Higher Usage Rates:** Research has found that among males the younger their age of first exposure to pornography, the higher their current consumption of pornography, as well as their greater integration of pornography into sexual activity, and less enjoyment of partnered sex.³⁷
- **Future Use of Deviant Pornography:** A 2013 survey of a general population of Internet pornography users revealed that those who intentionally sought pornography at a younger age were significantly more likely to be users of pornography exhibiting the sexual abuse of animals and children.³⁸

Impact on Females

- **Negative Body Image and Pressure to Perform Pornographic Acts:** As a result of viewing pornography, women reported lowered body image, criticism from their partners regarding their bodies, increased pressure to perform acts seen in pornographic films, and less actual sex. Men reported being more critical of their partner's body and less interested in actual sex.³⁹
- **Acceptance of Rape Myths:** Women who were exposed to pornography as children were more likely to accept rape myths and to have sexual fantasies that involved rape.⁴⁰
- **Domestic Violence & Sexual Abuse:** The use of pornography by batterers significantly increased a battered woman's odds of being sexually abused. Pornography use alone increased the odds by a factor of almost 2, and the combination of pornography and alcohol increased the odds of sexual abuse by a factor of 3.⁴¹ Other research has found that pornography use by batterers is associated with learning about sex through pornography, imitation of behaviors seen in pornography, comparison of women to pornography performers, introduction of other sexual partners, filming sexual acts without consent, and the broader culture of pornography (e.g. fetishes).⁴²
- **Increased Marital Rape:** Males who use pornography and go to strip clubs were found to engage in more sexual abuse, stalking, and marital rape than abusers who do not use pornography and go to strip clubs.⁴³

Impact on Males

- **Lower Sexual Satisfaction and Sexual Dysfunction:** A 2015 study of online sexual activities among males found 20.3% reported that "one motive for their porn use was to maintain arousal with their partner." It also found that pornography use was linked to higher sexual desire, but lower overall sexual satisfaction, and lower erectile function.⁴⁴ Other research has correlated

pornography use with “negative effects on partnered sex, decreased enjoyment of sexual intimacy, less sexual and relationship satisfaction.”⁴⁵

- **Negative Body Image:** A 2015 study found that men’s frequency of pornography use is positively linked to body image insecurity regarding muscularity and body fat, and to increased anxiety in romantic relationships.⁴⁶

- **Pornography Induced Erectile Dysfunction:** Historically, ED has been viewed as an age-dependent problem, with rates in men ages 18–59 as low as 2–5%.⁴⁷ In the early 2000s, the Global Study of Sexual Attitudes and Behavior (GSSAB) reported that the ED rate among men aged 40–80 was approximately 13%.⁴⁸ In 2011, among males aged 18–40 the GSSAB found ED rates of 14–28%.⁴⁹ This dramatic increase in ED rates among young men coincides with the sharp increase in the availability and accessibility of Internet pornography tube sites.⁵⁰
 - A 2-year longitudinal study of sexually active young males aged 16–21 published in 2016, found that over several checkpoints during the 2 years, they reported:
 - low sexual satisfaction (47.9%)
 - low desire (46.2%)
 - problems in erectile function (45.3%)⁵¹
 - Another study reported that one in four patients seeking medical help for new onset ED were under 40, with severe ED rates being 10% higher than those in men over 40.⁵²
 - A study on men (mean age 36) seeking help for excessive sexual behavior—frequent use of pornography and masturbation—found that ED combined with low desire for partnered sex is a common observation in clinical practice.⁵³
 - A study examining subgroups of men struggling with sexual compulsivity, found that among those who reported seven or more hours of pornography viewing (or seven episodes of masturbation) per week, 71% reported sexual dysfunctions, and 33% reported delayed ejaculation.⁵⁴
 - A Cambridge University study that was evenly divided between men with compulsive sexual behavior and those without, found that 84% of those with CSB experienced diminished libido or erectile function in physical relationships with women.⁵⁵

- **Correlated to Male Sexual Objectification of Women and Attitudes Supporting Violence Against Women:** Among collegiate men, frequency of exposure to men’s lifestyle magazines, reality TV programs that objectify women, and pornography, predicted more objectified cognitions about women and stronger attitudes supportive of violence against women.⁵⁶

- **Risky Behaviors and Other Harms:** For males, increased pornography use is correlated with more sex partners, more alcohol use, more binge drinking, greater acceptance of sex outside of marriage for married individuals, greater acceptance of sex before marriage, and less child centeredness during marriage.⁵⁷
- **Pornography as Sex Ed:** A study of male high school seniors in Sweden found that nearly 70% of those who frequently used pornography reported that pornography made them want to try out what they had seen compared to 42% of boys in a reference group.⁵⁸ Frequent users of pornography viewed all forms of pornography more often, especially advanced or more deviant forms of pornography including violence and sexual abuse of children and animals.⁵⁹
- **Sexual Harassment and Coercion:** A study of 804 Italian males and females aged 14 to 19, found that males who viewed pornography were significantly more likely to report having sexually harassed a peer or forcing someone to have sex.⁶⁰

Impact on the Brain

- **The Research Is In:** Since 2011, there have been 26 major studies which reveal pornography use has negative and detrimental impacts on the brain.⁶¹
- **Shrinks Brain:** A 2014 study of the brain scans of 64 pornography users found that increased pornography use (i.e. pornography dosage) is linked to decreased brain matter in the areas of the brain associated with motivation and decision-making, and contributed to impaired impulse control and desensitization to sexual reward.⁶² Thus the study demonstrated that pornography use can produce physical, anatomic change in the brain—a hallmark of addiction.⁶³
- **Hijacks the Brain's Reward System:** Motivation and reward are regulated by the mesolimbic system. There is ample evidence that the mesolimbic system is activated in response to both substance abuse and natural rewards such as sex.⁶⁴ Addiction occurs when the pleasure/rewards pathways of the brain are hijacked by drugs such as cocaine or by natural process vital to survival such as eating and sex.⁶⁵ The constant novelty of Internet pornography, as well as properties such as violation of expectations, anticipation of reward, and the act of seeking (i.e. surfing) stimulate mesolimbic dopamine activity.⁶⁶ Growing evidence suggests that pornography use hijacks the brain's reward system in the same way that drug use does.⁶⁷

- **The Addiction Gets Worse:** Using functional MRI, a 2015 study from Cambridge found that compulsive sexual behavior is characterized by novelty-seeking, conditioning, and habituation to sexual stimuli in males—meaning users need more extreme content over time in order achieve the same level of arousal. The study also identified a dissociation between desiring or wanting but not liking sexually explicit materials—a finding consistent with theories of incentive motivation underlying drug addiction.⁶⁸
- **Internet Addiction:** Longitudinal research has found that among Internet activities, searching for pornography has the most addictive potential and should be regarded as the most important risk factor for the development of Compulsive Internet Use (also referred to as Internet addiction).⁶⁹

Impact on Sexually Transmitted Diseases

- **Pornography and STI's:** Pornography use among adult males in America is associated with increased engagement in sexual behaviors that increase the risk of STIs. Internet pornography consumption has been positively associated with having sex with multiple partners, engaging in paid sex, and having had extramarital sex.⁷⁰
- **Increased STI's Among Adolescent Minority Females:** Exposure to X-rated movies among Black females 14 to 18 years old was associated with being more likely to have negative attitudes toward using condoms, to have multiple sex partners, to have sex more frequently, to have not used contraception during the last intercourse, to have not used contraception in the past 6 months, to have a strong desire to conceive, and to test positive for chlamydia.⁷¹

Impact on Relationships and Sexual Behaviors

- **Earlier Sexual Debut, Multiple Partners, and Risky Sexual Practices:** Pornography consumption is linked to initiating sex at an earlier age, multiple sexual partners, more frequent practice of anal sex, use of psychoactive substances, and lack of protection against STIs.⁷² Bulot, Leurent, and Collier (2015) report that, “All the work done in this area is in fact unanimous in concluding that pornography is a pervasive influence on young people.”⁷³
- **Casual Sexual Behavior:** Longitudinal research has found that pornography exposure was associated with a nearly twofold increase in the odds of casual sexual behavior. This association was found even after controlling for age, ethnicity, religiosity, education, and gender. Casual sex increases the risk of

undesirable outcomes such as physical and sexual aggression, STIs, and unwanted pregnancies.⁷⁴

- **Dissatisfaction with Partners:** Research has demonstrated that the more pornography a man watches, the more likely he is to deliberately conjure images of pornography during sex to maintain arousal, and to experience decreased enjoyment of intimate behaviors with a partner.⁷⁵
- **Negative Impact on Marriage Formation:** Researchers report that declining rates of marriage formation bring demographic and socio-economic changes that negatively impact society, while marriage formation creates substantial socio-economic improvements. Pornography has been shown to significantly negatively impact marriage formation, and in light of robust controls, the effect is likely causal.⁷⁶
- **Negative Impact on Marital Quality:** A longitudinal study of married couples found that those who used pornography more often reported lower satisfaction with their sex-life and decision-making as a couple. Pornography use was strongly and negatively related to marital quality over time. “The findings provide qualified support for the notion that more frequent pornography viewing—rather than simply being a proxy for the participants’ dissatisfaction with sex-life or marital decision-making—may negatively influence marital quality over time.”⁷⁷
- **Extramarital Affairs:** A study found that persons who have had an extramarital affair were more than 3 times more apt to have used Internet pornography than ones who had lacked affairs.⁷⁸ Other research affirms that pornography consumption is associated with more positive attitudes towards extramarital affairs.⁷⁹

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- ¹ Chiara Sabina, Janis Wolak, and David Finkelhor, "The Nature and Dynamics of Internet Pornography Exposure for Youth," *CyberPsychology & Behavior* 11, no. 6 (2008):691–693.
- ² Chyng Sun, Ana Bridges, Jennifer Johnson, and Matt Ezzell, "Pornography and the Male Sexual Script: An Analysis of Consumption and Sexual Relations," *Archives of Sexual Behavior* 45, no. 4 (May, 2016): 983–94.
- ³ Barna Group, *The Porn Phenomenon: The Impact of Pornography in the Digital Age*, (Ventura, CA: Josh McDowell Ministry, 2016).
- ⁴ Pornhub, "Pornhub's 2015 Year in Review," (2015).
- ⁵ Jonathan Marciano, "Top 300 Biggest Websites: Based on Both Mobile and Desktop Data for the First Time!" Similar Web (July 19, 2016), <https://www.similarweb.com/blog/new-website-ranking> (accessed July 24, 2016).
- ⁶ Ibid.
- ⁷ Barna Group, "News Conference on Barna's New Study: 'The Porn Phenomenon,'" (January 15, 2016), <https://www.barna.org/blog/culture-media/barna-group/porn-press-conference#.VrS9OrSjndl> (accessed June 27, 2016).
- ⁸ Gail Dines, *Pornland: How Porn Has Hijacked Our Sexuality*, (Boston, MA: Beacon Press, 2010), 1–23.
- ⁹ John D. Foubert, Matthew W. Brosi, and R. Sean Bannon, "Effects of Fraternity Men's Pornography Use on Bystander Intervention, Rape Myth Acceptance and Behavioral Intent to Commit Sexual Assault," *Sexual Addiction & Compulsivity: The Journal of Treatment & Prevention* 18, no. 4 (2011): 212–231.
- ¹⁰ Robert Peters, "How Adult Pornography Contributes to Sexual Exploitation of Children" (September 2009); Foubert, *ibid*; Ana Bridges, Robert Wosnitzer, Erica Scharrer, Chyng Sun, and Rachael Liberman, "Aggression and Sexual Behavior in Best-Selling Pornography Videos: A Content Analysis Update," *Violence Against Women* 16, no. 10 (2010): 1065-1085; Gail Dines, *ibid*.
- ¹¹ Sun, *ibid*.
- ¹² Ana J. Bridges, Robert Wosnitzer, Erica Scharrer, Chyng Sun, and Rachael Liberman, "Aggression and Sexual Behavior in Best-Selling Pornography Videos: A Content Analysis Update," *Violence against Women* 16, no. 10 (2010): 1065–1085.
- ¹³ Ibid.
- ¹⁴ Elizabeth Paolucci-Oddone, Mark Genuis, and Claudio Violato, "A Meta-Analysis of the Published Research on the Effects of Pornography," *The Changing Family and Child Development*, ed. Claudio Violato, Elizabeth Paolucci, and Mark Genuis (Aldershot, England: Ashgate Publishing, 2000), 48–59.
- ¹⁵ Paul J. Wright, Robert S. Tokunaga, and Ashley Kraus, "A Meta-Analysis of Pornography Consumption and Actual Acts of Sexual Aggression in General Population Studies," *Journal of Communication* 66, no. 1 (February 2016): 183–205.
- ¹⁶ Silvia Bonino, Silvia Ciairano, Emanuela Rabagliette, and Elena Cattelino, "Use of Pornography and Self-Reported Engagement in Sexual Violence among Adolescents," *European Journal of Developmental Psychology* 3, no. 3 (2006):265-288.
- ¹⁷ Carl Göran Svedin, Ingrid Åkerman, and Gisela Priebe, "Frequent Users of Pornography. A Population Based Epidemiological Study of Swedish Male Adolescents," *Journal of Adolescence* 34, no. 4 (2011): 779–788.
- ¹⁸ Mimi H. Silbert and Ayala M. Pines, "Pornography and Sexual Abuse of Women," *Sex Roles* 10, no. 11/12 (1984): 857–868; Rachel Durchslag and Samir Goswami, *Deconstructing the Demand for Prostitution: Preliminary Insights from Interviews with Chicago Men Who Purchase Sex*, (Chicago, IL: Chicago Alliance Against Sexual Exploitation, 2008); Victor Malarek, *The Johns: Sex for Sale and the Men Who Buy It* (New York: NY Arcade Publishing, Inc. 2009).
- ¹⁹ Melissa Farley, Emily Schuckman, Jacqueline M. Golding, Kristen Houser, Laura Jarrett, Peter Qualliotine, Michele Decker, "Comparing Sex Buyers with Men Who Don't Buy Sex: 'You can have a good time with the servitude' vs. 'You're supporting a system of degradation.'" Paper

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- presented at Psychologists for Social Responsibility Annual Meeting July 15, 2011, Boston, MA. San Francisco: Prostitution Research & Education (2011).
- ²⁰ Steven Stack, Ira Wasserman, and Roger Kern, "Adult Social Bonds and Use of Internet Pornography," *Social Science Quarterly* 85 (2004): 75–88; Martin A. Monto and Nick McRee, "A Comparison of the Male Customers of Female Street Prostitutes With National Samples of Men," *International Journal of Offender Therapy and Comparative Criminology* 49, no. 5 (2005): 505–529; Martin A. Monto, "Summary Report for National Institute of Justice Grant #97-IJ-CX-0033 'Focusing on the Clients of Street Prostitutes: A Creative Approach to Reducing Violence Against Women'" (October 30, 1999); Durchslag, *ibid.*
- ²¹ Kathryn C. Seigfried-Spellar and Marcus K. Rogers, "Does Deviant Pornography Use Follow a Guttman-like Progression," *Computers in Human Behavior* 29 (2013): 1997–2003.
- ²² Jérôme Endrass, Frank Urbaniok, Lea C. Hammermeister, Christian Benz, Thomas Elbert, Arja Laubacher, and Astrid Rossegger, "The Consumption of Internet Child Pornography and Violent and Sex Offending," *BMC Psychiatry* 9, no. 43 (2009).
- ²³ Melissa Farley, Jacqueline M. Golding, Emily Schuckman Matthews, Neil Malamuth, and Laura Jarrett, "Comparing Sex Buyers with Men Who Do Not Buy Sex: New Data on Prostitution and Trafficking," *Journal of Interpersonal Violence*, (2015).
- ²⁴ Barna Group, *The Porn Phenomenon: The Impact of Pornography in the Digital Age*, (Ventura, CA: Josh McDowell Ministry, 2016).
- ²⁵ Frances E. Jensen with Amy Ellis Nutt, *The Teenage Brain: A Neuroscientist's Survival Guild to Raising Adolescents and Young Adults*, (New York: Harper Collins, 2015); Tamara L. Doremus-Fitzwater, Elena I. Varlinskaya, and Linda P. Spear, "Motivational Systems in Adolescence: Possible Implications for Age Differences in Substance Abuse and Other Risk-Taking Behaviors," *Brain and Cognition* 71, no. 1 (2010):114–123.
- ²⁶ Michele L. Ybarra and Kimberly Mitchell, "Exposure to Internet Pornography among Children and Adolescents: A National Survey," *CyberPsychology & Behavior* 8, no. 5 (2005): 473–486.
- ²⁷ Jochen Peter and Patti Valkenburg, "Adolescent's Exposure to a Sexualized Media Environment and Their Notions of Women as Sex Objects," *Sex Roles* 56 (2007): 381-395; Jane D. Brown and Kelly L. L'Engle, "X-Rated: Sexual Attitudes and Behaviors Associated with U.S. Early Adolescents' Exposure to Sexually Explicit Media," *Communication Research* 36, no. 1 (February 2009): 129-151.
- ²⁸ Jochen Peter and Patti M. Valkenburg, "Adolescents' Exposure to Sexually Explicit Internet Material, Sexual Uncertainty, and Attitudes toward Uncommitted Sexual Exploration, Is There a Link?" *Communications Research* 35, no. 5 (2008): 579–601.
- ²⁹ Nicky Stanley, Christine Barter, Marsha Wood, Nadia Aghtaie, Cath Larkins, Alba Lanau, and Carolina Överlien, "Pornography, Sexual Coercion and Abuse and Sexting in Young People's Intimate Relationships: A European Study," *Journal of Interpersonal Violence* (2016): 1–26.
- ³⁰ Elizabeth Englander, *Low Risk Associated with Most Teenage Sexting: A Study of 617 18-Year-Olds*, (Massachusetts Aggression Reduction Center, 2012).
- ³¹ Debra K. Braun-Courville and Mary Rojas, "Exposure to Sexually Explicit Web Sites and Adolescent Sexual Attitudes and Behaviors," *Journal of Adolescent Health* 45 (2009): 156–162; Peter and Valkenburg (2007); C. Marston and R. Lewis, "Anal Heterosex Among Young People and Implications for Health Promotion: A Qualitative Study in the UK," *BJM Open* 4 (February 4, 2016): 1–6; Emily R. Rothman, Michele R. Decker, Elizabeth Miller, Elizabeth Reed, Anita Raj, and Jay G. Silverman, "Multi-Person Sex among a Sample of Adolescent Female Urban Health Clinic Patients," *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 89, no. 1 (2011): 129–137; E. Häggström-Nordin, U. Hanson, and T. Tydén, "Association between Pornography Consumption and Sexual Practices among Adolescents in Sweden," *International Journal of STD & AIDS* 16 (2005): 102–107; Svedin, *ibid.*
- ³² Elena Martellozzo, Andy Monaghan, Joanna R. Adler, Julia Davidson, Rodolfo Leyva, and Miranda A.H. Horvath, "I Wasn't Sure It Was Normal To Watch It . . .' A Quantitative and Qualitative Examination of the Impact of Online Pornography on the Values, Attitudes, Beliefs and Behaviours of Children and Young People," London: Middlesex University (2016),

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- https://www.mdx.ac.uk/_data/assets/pdf_file/0021/223266/MDX-NSPCC-OCC-pornography-report.pdf (accessed August 7, 2016).
- ³³ Ybarra, *ibid.*
- ³⁴ Michael C. Seto and Martin L. Lalumière, "What Is So Special About Male Adolescent Sexual Offending? A Review and Test of Explanations through Meta-Analysis," *Psychological Bulletin* 136, no. 4 (2010): 526–575.
- ³⁵ Eileen M. Alexy, Ann W. Burgess, and Robert A. Prentky, "Pornography Use as a Risk Marker for an Aggressive Pattern of Behavior among Sexually Reactive Children and Adolescents," *Journal of the American Psychiatric Nurses Association* 14, no. 4 (2009): 442–453.
- ³⁶ Ybarra, *ibid.*
- ³⁷ Sun, *ibid.*
- ³⁸ Seigfried-Spellar, *ibid.*
- ³⁹ Julie M. Albright, "Sex in America Online: An Exploration of Sex, Marital Status, and Sexual Identity in Internet Sex Seeking and Its Impacts," *Journal of Sex Research* 45 (2008): 175–186.
- ⁴⁰ Shawn Corne, John Briere, and Lillian M. Esses, "Women's Attitudes and Fantasies about Rape as a Function of Early Exposure to Pornography," *Journal of Interpersonal Violence* 7, no. 4 (1992): 454–461.
- ⁴¹ Janet Hinson Shope, "When Words Are Not Enough: The Search for the Effect of Pornography on Abused Women," *Violence Against Women* 10, no. 1 (2004): 56–72.
- ⁴² Walter S. DeKeseredy and Amanda Hall-Sanchez, "Adult Pornography and Violence against Women in the Heartland: Results from a Rural Southeast Ohio Study," *Violence against Women* (May 2016), 1–20.
- ⁴³ C. Simmons, P. Lehmann, and S. Collier-Tenison, "Linking Male Use of the Sex Industry to Controlling Behaviors in Violent Relationships: An Exploratory Analysis," *Violence Against Women* 14, no. 4 (2008): 406–417.
- ⁴⁴ Aline Wéry and Joel Billieux, "Online Sexual Activities: An Exploratory Study of Problematic and Non-Problematic Usage Patterns in a Sample of Men," *Computers in Human Behavior* 56 (2016): 257–266.
- ⁴⁵ Brian Y. Park, Gary Wilson, Jonathan Berger, Matthew Christman, Bryn Reina, Frank Bishop, Warren P. Klam, and Andrew P. Doan, "Is Internet Pornography Causing Sexual Dysfunctions? A Review with Clinical Reports," *Behavioral Sciences* 6, no. 17 (2016): 1–25.
- ⁴⁶ Wéry, *ibid.*
- ⁴⁷ Park, *ibid.*
- ⁴⁸ Alfredo Nicolosi, Edward O. Laumann, Dale B. Glasser, Edson D. Moreira, Jr., Anthony Paik, and Clive Gingell, "Sexual Behavior and Sexual Dysfunctions after Age 40: The Global Study of Sexual Attitudes and Behaviors," *Urology* 64 (2004): 991–997.
- ⁴⁹ Ivan Landripet and Aleksandar Štulhofer, "Is Pornography Use Associated with Sexual Difficulties and Dysfunctions among Younger Heterosexual Men?" *The Journal of Sexual Medicine* 12 (2015): 1136–1139.
- ⁵⁰ Park, *ibid.*
- ⁵¹ Lucia F. Sullivan, Lori A. Brotto, E. Sandra Byers, Jo Ann Majerovich, and Judith A. Wuest, "Prevalence and Characteristics of Sexual Functioning among Sexually Experienced Middle to Late Adolescents," *The Journal of Sexual Medicine* 11 (2014): 630–641.
- ⁵² Paolo Capogrosso, et al., "One Patient Out of Four with Newly Diagnosed Erectile Dysfunction Is a Young Man—Worrisome Picture from the Everyday Clinical Practice," *The Journal of Sexual Medicine* 10 (2013): 1833–1841.
- ⁵³ Verena Klein, Tanja Jurin, Peer Briken, and Aleksandar Štulhofer, "Erectile Dysfunction, Boredom, and Hypersexuality among Couple Men from Two European Countries," *The Journal of Sexual Medicine* 12, no. 11 (2015): 2160–2167.
- ⁵⁴ Katherine S. Sutton, Natalie Stratton, Jennifer Pytyck, Nathan J. Kolla, and James M. Cantor, "Patient Characteristics by Type of Hypersexuality Referral: A Quantitative Chart Review of 115 Consecutive Male Cases," *Journal of Sex & Marital Therapy* 41, no. 6 (2015): 563–580.

-
- ⁵⁵ Valerie Voon, Thomas B. Mole, Paula Banca, Laura Porter, Laurel Morris, Simon Mitchell, Tatyana R. Lapa, et al., "Neural Correlates of Sexual Cue Reactivity in Individuals with and without Compulsive Sexual Behaviors," *PLOS ONE* 9, no. 7 (2014):1-10.
- ⁵⁶ Paul J. Wright and Robert S. Tokunaga, "Men's Objectifying Media Consumption, Objectification of Women, and Attitudes Supportive of Violence against Women," *Archives of Sexual Behavior* 45, no. 4 (2016): 955-64.
- ⁵⁷ Jason S. Carroll, Laura L. Padilla-Walker, Larry J. Olson, Chad D. Olson, Carolyn McNamara Barry, Stephanie D. Madsen, "Generation XXX: Pornography Acceptance and Use Among Emerging Adults," *Journal of Adolescent Research* 23, no. 1 (2008): 6-30; Svedin, *ibid.*
- ⁵⁸ Svedin, *ibid.*
- ⁵⁹ *Ibid.*
- ⁶⁰ Bonino, *ibid.*
- ⁶¹ Your Brain on Porn, "Brain Studies on Porn Users," (2014) <http://yourbrainonporn.com/brain-scan-studies-porn-users> (accessed July 13, 2016).
- ⁶² Simone Kühn and Jürgen Gallinat, "Brain Structure and Functional Connectivity Associated with Pornography Consumption," *JAMA Psychiatry* 71, no. 7 (2014): 827-834.
- ⁶³ Donald L. Hilton, Jr., and Clark Watts, "Pornography Addiction: A Neuroscience Perspective," *Surgical Neurology International* 2, no. 19 (2011).
- ⁶⁴ K.S. Frohmader, J. Wiskerke, R.A. Wise, M.N. Lehman, and L.M. Coolen, "Methamphetamine Acts on Subpopulations of Neurons Regulating Sexual Behavior in Male Rats," *Neuroscience* 166, (2010): 771-784.
- ⁶⁵ Hilton, *ibid.*
- ⁶⁶ Park, *ibid.*
- ⁶⁷ Kühn, *ibid.*; Shane W. Kraus, Valerie Voon, and Marc N. Potenza, "Neurobiology of Compulsive Sexual Behavior: Emerging Science," *Neuropsychopharmacology* 41 (2016): 385-386; D.L. Wallace, V. Vialou, T.L. Carle-Florence, S. Chakravarty, A. Kumar, D.L. Graham, T.A. Green, et al., "The Influence of DeltaFosB in the Nucleus Accumbens on Natural Reward-Related Behavior," *Journal of Neuroscience* 8, no. 28 (2008):10272-10277.
- ⁶⁸ Voon, *ibid.*
- ⁶⁹ G.J. Meerkerk, R. J. J. M. V. D. Eijnden, and H.F.L. Garresten, "Predicting Compulsive Internet Use: It's All about Sex!" *CyberPsychology & Behavior* 91, no. 9 (2006): 95-103.
- ⁷⁰ Paul J. Wright and Ashley K. Randall, "Internet Pornography Exposure and Risky Sexual Behavior among Adult Males in the United States," *Computers in Human Behavior* 28 (2012): 1410-1416.
- ⁷¹ Gina M. Wingood, Ralph J. DiClemente, Kathy Harrington, Suzy Davies, Edward W. Hook, and M. Kim Oh, "Exposure to X-Rated Movies and Adolescent's Sexual and Contraceptive-Related Attitudes and Behaviors," *Pediatrics* 107, no. 5 (2001): 1116-1119.
- ⁷² C. Bulot, B. Leurent, and F. Collier, "Pornography Sexual Behavior and Risk Behaviour at University," *Sexologies* 24, (2015): 78-83; Debra K. Braun-Courville and Mary Rojas, *ibid.*; Jane D. Brown and Kelly L. L'Engle, *ibid.*; Elizabeth M. Morgan, "Associations between Young Adults' Use of Sexually Explicit Materials and Their Sexual Preference, Behaviors, and Satisfaction," *The Journal of Sex Research* 48, no. 6 (2011): 520-530; Shane W. Kraus and Brenda Russell, "Early Sexual Experiences: The Role of Internet Access and Sexually Explicit Material," *Cyberpsychology & Behavior* 11, no. 2 (2008): 162-168.
- ⁷³ Bulot, Leurent, and Collier, *ibid.*
- ⁷⁴ Paul J. Wright, "A Longitudinal Analysis of US Adults' Pornography Exposure. Sexual Socialization, Selective Exposure, and the Moderating Role of Unhappiness," *Journal of Media Psychology* 24, no. 2 (2012): 67-76.
- ⁷⁵ Chyng Sun, Ana Bridges, Jennifer Johnason, and Matt Ezzell, "Pornography and the Male Sexual Script: An Analysis of Consumption and Sexual Relations," *Archives of Sexual Behavior* 45, no. 4 (2014): 983-994.
- ⁷⁶ Michael Malcolm and George Naufal, "Are Pornography and Marriage Substitutes for Young men?" *Eastern Economic Journal* 42 (2016): 317-334.

-
- ⁷⁷ Samuel L. Perry, "Does Viewing Pornography Reduce Marital Quality Over Time? Evidence from Longitudinal Data," *Archives of Sexual Behavior*, (2016).
- ⁷⁸ Steven Stack, Ira Wasserman, and Roger Kern, "Adult Social Bonds and Use of Internet Pornography," *Social Science Quarterly* 85 (2004): 75–88.
- ⁷⁹ Paul J. Wright, Robert S. Tokunaga, and Soyoung Bae, "More Than a Dalliance? Pornography Consumption and Extramarital Sex Attitudes among Married U.S. Adults," *Psychology of Popular Media Culture* 3, no. 2 (2014): 97–109.