



PORNOGRAPHY & PUBLIC HEALTH

Research Summary



Prepared by the

NATIONAL CENTER ON SEXUAL EXPLOITATION

EndSexualExploitation.org

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 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 62% 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 2016, people watched 4.6 billion hours of pornography on its site alone;⁴ 61% of visits occurred 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

¹Chiara Sabina, Janis Wolak, and David Finkelhor, "The Nature and Dynamics of Internet Pornography Exposure for Youth," *CyberPsychology & Behavior* 11, no. 6 (2008): 691–693.

²Chyng 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.

³Barna Group, *The Porn Phenomenon: The Impact of Pornography in the Digital Age*, (Ventura, CA: Josh McDowell Ministry, 2016).

⁴Pornhub, "Pornhub's 2016 Year in Review," (2016).

⁵Ibid.

⁶Jonathan 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,



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- **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.
- **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.

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,

2016).

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#.VrS9OrSJndI> (accessed June 27, 2016).



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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.



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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 or 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 and Degradation:** 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 In a separate content analysis of free, Internet pornography, researchers found that nearly half of all videos in which two or more persons were present ended with the act of ejaculation on the face or mouth of a female by one or more males.¹⁴

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 Stacy Gorman, Elizabeth Monk-Turner, and Jennifer N. Fish, “Free Adult Internet Web Sites: How Prevalent



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- **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.¹⁵
- **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.¹⁶
- **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.¹⁷
- **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.¹⁸
- **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.¹⁹ 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,

Are Degrading Acts?” *Gender Issues* 27, no. 3–4 (2010): 131–45, doi:10.1007/s12147-010-9095-7.

¹⁵ 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.

¹⁶ 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.

¹⁷ 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.

¹⁸ 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.

¹⁹ 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).



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masturbate to more types of pornography, and reported that their sexual preferences changed so that they sought more sadomasochistic and anal sex.²⁰ Other research also demonstrates an association between purchase of commercial sex acts and pornography use.²¹

- **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 as animal pornography. There were *no* consumers of child sexual abuse images who *only* collected child sexual abuse images.²²

A separate 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%).²³

- **Intent to Rape:** Fraternity men who consumed *mainstream* pornography expressed a greater intent to commit rape if they knew they would not be caught than those who did not consume pornography. Those who consumed *sadomasochistic* pornography expressed significantly less willingness to intervene in situations of sexual violence, greater belief in rape myths, and greater intent to commit rape.

²⁰ Farley et al., "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 presented at Psychologists for Social Responsibility Annual Meeting July 15, 2011, Boston, MA. San Francisco: Prostitution Research & Education (2011).

²¹ 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*.

²² 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.

²³ Endrass et al., "The Consumption of Internet Child Pornography and Violent and Sex Offending," *BMC Psychiatry* 9, no. 43 (2009).



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Among those who consumed *rape-themed* pornography, the researchers described “serious effects” including less bystander willingness to intervene, greater belief in rape myth, and greater intent to commit rape. In other words, there was *no* type of pornography that did not result in a greater intent to commit rape by a user if they knew they would not be caught.²⁴

- **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.”²⁵

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.²⁶ Research has demonstrated that children are more susceptible than adults to addictions and to developmental effects on the brain.²⁷
- **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.²⁸

²⁴ Foubert, *ibid*.

²⁵ Farley et al., “Comparing Sex Buyers with Men Who Do Not Buy Sex: New Data on Prostitution and Trafficking,” *Journal of Interpersonal Violence*, (2015).

²⁶ Barna Group, *The Porn Phenomenon: The Impact of Pornography in the Digital Age*, (Ventura, CA: Josh McDowell Ministry, 2016).

²⁷ 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.

²⁸ 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.



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- **Women as Sex Objects:** Internet pornography is shown to normalize the notion that women are sex objects among both adolescent boys and girls.²⁹
- **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.³⁰
- **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.³¹ A separate 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.³²

In a systematic review and meta-analysis of 14 cross-sectional studies about young people aged 10-24 years, sexting was strongly correlated with having had sexual intercourse, recent sexual activity, alcohol and other drug use before sexual intercourse, as well as having multiple recent sexual partners.³³

- **Risky Sexual Behaviors:** Internet pornography use is linked to increases in problematic sexual activity at younger ages, and a greater likelihood of engaging in

²⁹ 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.

³⁰ 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.

³¹ Nicky Stanley et al., "Pornography, Sexual Coercion and Abuse and Sexting in Young People's Intimate Relationships: A European Study," *Journal of Interpersonal Violence* (2016): 1–26.

³² Elizabeth Englander, *Low Risk Associated with Most Teenage Sexting: A Study of 617 18-Year-Olds*, (Massachusetts Aggression Reduction Center, 2012).

³³ Lucy Watchirs Smith, Bette Liu, Louisa Degenhardt, Juliet Richters, George Patton, Handan Wand, Donna Cross, et al., "Is Sexual Content in New Media Linked to Sexual Risk Behaviour in Young People? A Systematic Review and Meta-Analysis," *Sexual Health*, August 11, 2016, doi:10.1071/sh16037.



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risky sexual behavior, such as hookups, multiple sex partners, anal sex, group sex, and using substances during sex as young adolescents.³⁴ 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.³⁵

- **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.³⁶
- **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.³⁷ 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.³⁸ Other research also demonstrates an association between pornography consumption and adolescent delinquent behavior.³⁹

³⁴ 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, et al., “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.*

³⁵ Elena Martellozzo et al., “‘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), https://www.mdx.ac.uk/_data/assets/pdf_file/0021/223266/MDX-NSPCC-OCC-pornography-report.pdf (accessed August 7, 2016).

³⁶ Ybarra, *ibid.*

³⁷ 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.

³⁸ 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.

³⁹ Ybarra, *ibid.*



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- **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.⁴⁰
- **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.⁴¹
- **Sex with Younger Adolescents:** In a cross-sectional study of 710 Norwegian 18- to 19-year-olds, 19.1% of males who indicated some likelihood of having sex with a 13- to 14-year old also reported more high-frequency use of pornography and having more friends with an interest in child pornography and violent pornography.⁴²
- **Sexual Satisfaction:** In a longitudinal study of 1,052 Dutch adolescents aged 13-20, research revealed that exposure to sexually explicit Internet material consistently reduced adolescents' satisfaction with their sexual lives. The negative influence of sexually explicit Internet material was equally strong among both males and females.⁴³

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 interest in actual sex.⁴⁴

⁴⁰ Sun, *ibid.*

⁴¹ Seigfried-Spellar, *ibid.*

⁴² Kristinn Henga, Svein Mossige, and Lars Wichstrom, "Older Adolescents' Positive Attitudes toward Younger Adolescents as Sexual Partners," *Adolescence* 39, no. 156, (2004): 627–651.

⁴³ Peter, *ibid.*

⁴⁴ 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, doi: 10.1080/00224490801987481.



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- **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.⁴⁵
- **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 3.⁴⁶ 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).⁴⁷
- **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 did not use pornography and go to strip clubs.⁴⁸
- **Soft-core Pornography:** In a cross-sectional study of 200 sexually active married women, women who did not watch soft-core pornography were more satisfied with their sexual life when compared to their counterparts. Researchers also found that soft-core pornography affects the sex lives of females by increasing sexual boredom in both men and women, causing relational difficulties.⁴⁹

⁴⁵ 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.

⁴⁶ 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.

⁴⁷ 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.

⁴⁸ 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.

⁴⁹ Abd El-Rahman, Eman M. Sanad, and Hanaa H. Bayomy, "Effect of Soft-Core Pornography on Female Sexuality," *Human Andrology* 6, no. 2 (June 2016): 60–64, doi:10.1097/01.xha.0000481895.52939.a3.



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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.⁵⁰ Other research has correlated pornography use with “negative effects on partnered sex, decreased enjoyment of sexual intimacy, less sexual and relationship satisfaction.”⁵¹
- **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.⁵²
- **Pornography Induced Erectile Dysfunction:** Historically, erectile dysfunction (ED) has been viewed as an age-dependent problem, with rates in men ages 18–59 as low as 2–5%.⁵³ 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%.⁵⁴ In 2011, among males aged 18–40 the GSSAB found ED rates of 14–28%.⁵⁵ This dramatic increase in ED rates among young men coincides with the sharp increase in the availability and accessibility of Internet pornography tube sites.

A 2-year longitudinal study of sexually active young males aged 16–21 published in 2016, found:

⁵⁰ 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.

⁵¹ Brian Y. Park et al., “Is Internet Pornography Causing Sexual Dysfunctions? A Review with Clinical Reports,” *Behavioral Sciences* 6, no. 17 (2016): 1–25.

⁵² Wéry, *ibid.*

⁵³ Park, *ibid.*

⁵⁴ Alfredo Nicolosi et al., “Sexual Behavior and Sexual Dysfunctions after Age 40: The Global Study of Sexual Attitudes and Behaviors,” *Urology* 64 (2004): 991–997.

⁵⁵ 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.



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- low sexual satisfaction (47.9%)
- low desire (46.2%)
- problems in erectile function (45.3%)⁵⁶

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 40.⁵⁷

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.⁵⁸

An investigation 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.⁵⁹

A Cambridge University study that was evenly divided between men with compulsive sexual behavior (CSB) and those without, found that 60% of those with CSB experienced diminished libido or erectile function in physical relationships with women.⁶⁰

In a study of gay men recruited from bathhouses, bars, and STI clinics, 50% of the men (average age 29) reported erectile dysfunction with video pornography. The men spent considerable amounts of time in environments where pornography was omnipresent and continuously playing. The men explained that high exposure to

⁵⁶ Lucia F. Sullivan et al., “Prevalence and Characteristics of Sexual Functioning among Sexually Experienced Middle to Late Adolescents,” *The Journal of Sexual Medicine* 11 (2014): 630–641.

⁵⁷ 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.

⁵⁸ 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.

⁵⁹ Katherine S. Sutton et al., “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.

⁶⁰ Valerie Voon et al., “Neural Correlates of Sexual Cue Reactivity in Individuals with and without Compulsive Sexual Behaviors,” *PLOS ONE* 9, no. 7 (2014): 1–10.



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sexually explicit media resulted in a lower responsivity to “vanilla sex” media and an increased need for novelty and variation. This is evidence of tolerance, a key indicator of addiction. Researchers revised the experiment allowing the men to choose many more varieties of pornography. In the new experiment, 25% of men still could not become aroused to the pornography of their choice.⁶¹

In a clinical study of 35 men with erectile dysfunction or anorgasmia, a French psychiatrist found that addictive masturbation is often associated with cyber-pornography. Most of the men viewed pornography, and some were addicted to it, with the study pointing to it as a key player in these problems. With treatment, which included the removal of pornography, participants saw a reduction of symptoms and were able to enjoy satisfactory sexual activity.⁶²

- **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.⁶³
- **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.⁶⁴
- **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.⁶⁵ Frequent users of pornography viewed all forms of pornography

⁶¹ Erick Janssen. *The Psychophysiology of Sex*. Bloomington: Indiana University Press, 2007.

⁶² R. Porto, “Habitudes Masturbatoires et Dysfonctions Sexuelles Masculines,” *Sexologies* 25, no. 4 (August 17, 2016): 160-65, doi:10.1016/j.sexol.2016.03.004.

⁶³ 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.

⁶⁴ Jason S. Carroll et al., “Generation XXX: Pornography Acceptance and Use Among Emerging Adults,” *Journal of Adolescent Research* 23, no. 1 (2008): 6–30; Svedin, *ibid*.

⁶⁵ Svedin, *ibid*.



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more often, especially advanced or more deviant forms of pornography including violence and sexual abuse of children and animals.⁶⁶

- **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.⁶⁷
- **Psychological Symptoms:** An online survey of 71 homosexual males showed strong correlations between cybersex addiction symptoms and indicators of coping by sexual behaviors and psychological symptoms. These psychological symptoms included emotional avoidance, loss of control/time management, and social problems.⁶⁸
- **Addiction:** In a study of 360 undergraduate students in the United States, researchers discovered a significant correlation between being male and being clinically addicted to cybersex, with 19% of men in the sample scoring in the clinical range.⁶⁹

A study analyzing the brainwaves of 52 men aged 18-30 found that pornography use may downregulate sexual arousal—i.e., cause habituation or desensitization. These symptoms are signs of addiction.⁷⁰

- **Interpersonal Satisfaction:** In a meta-analysis of fifty studies encompassing cross-sectional and longitudinal surveys, as well as experimental research methods, pornography consumption was associated with lower interpersonal outcomes. The meta-analysis, which collectively included more than 50,000 participants from 10 countries, revealed a significant negative association between pornography consumption and interpersonal satisfaction. Specifically, male viewers of pornography reported significantly lower sexual and relational satisfaction.⁷¹

⁶⁶ Ibid.

⁶⁷ Bonino, *ibid.*

⁶⁸ Christian Laier, Jaro Pekal, and Matthias Brand, "Sexual Excitability and Dysfunctional Coping Determine Cybersex Addiction in Homosexual Males," *Cyberpsychology, Behavior, and Social Networking* 18, no. 10 (2015): 575–80. doi:10.1089/cyber.2015.0152.

⁶⁹ Amanda L. Giordano and Craig S. Cashwell, "Cybersex Addiction among College Students: A Prevalence Study," *Sexual Addiction & Compulsivity*, 2017, 1-11, doi:10.1080/10720162.2017.1287612.

⁷⁰ Sajeev Kunaharan et al., "Conscious and Non-Conscious Measures of Emotion: Do They Vary with Frequency of Pornography Use?" *Applied Sciences* 7, no. 5 (2017): 493, doi:10.3390/app7050493.

⁷¹ Paul J. Wright, Robert S. Tokunaga, Ashley Kraus, and Elyssa Klannm, "Pornography Consumption and Satisfaction: A Meta-Analysis," *Human Communication Research*, 2017, doi:10.1111/hcre.12108.



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- **Impulsivity/Discounting Long-term Consequences:** In a study of 122 undergraduate students, male participants exposed to pictures of “sexy” women were more likely to discount the future (i.e., a tendency to prefer smaller, immediate gains to larger, future ones) and were more inclined to make cyber-delinquent choices (e.g., cyberbullying, cyber fraud, cyber theft, and illegal downloading), compared with those exposed to less sexy opposite-sex pictures. In a second experiment within the same study of 72 males, participants exposed to sexual primes showed a greater willingness to purchase a wide range of counterfeit rather than authentic products online and experienced a higher likelihood of logging into the other person’s Facebook webpage (i.e., invading online privacy). These sexual primes may engender a “short-sighted” self-state in men, which leads to them yielding to short-term gains while failing to consider the long-term costs of delinquent behavior.⁷²

Impact on Mental Health

- **Loneliness:** The results of a study revealed that the association between loneliness and viewing pornography was positive and significant. Survey data of 1,247 participants seeking help for pornography use, revealed that those who viewed pornography were more likely to experience loneliness, and that those who were experiencing loneliness were more likely to view pornography.

The researchers explained:

Conceptualizing the potential for pornography viewing and the sexual response to be employed as a maladaptive coping strategy fits the behavioral and psychological contours of addiction. The sexual response cycle, with its twin aspects of intense, preoccupying physical pleasure during the arousal phase, followed by comforting, soothing experience during the resolution phase, mediated by the brain’s dopaminergic reward structure in part by oxytocin, allows for the possibility of a two-stage drug-like experience providing both euphoric and narcotic brain effects, permitting temporary escape into “fantasy” and/or “obliviousness” to real-world concerns and stressors. A person may experience

⁷² Wen Cheng, and Wen-Bin Chiou, “Exposure to Sexual Stimuli Induces Greater Discounting Leading to Increased Involvement in Cyber Delinquency among Men,” *Cyberpsychology, Behavior, and Social Networking*, 2017, doi:10.1089/cyber.2016.0582.



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palliative relief from distressing experience through the preoccupying, distracting euphoria or fantasy accompanying pornography and sexual arousal. Pornography use readily becomes a tightly integrated component of that recurring compulsive, addictive pattern. In this manner, pornography may provide a self-soothing, autoerotic narcosis from real life circumstances, an experience that mirrors a drug-like intoxication. . . .

Emotional attachment, and other demands of relational pair-bond sexuality help ground sexual expression and can help circumvent (though not entirely) it being formed and fitted to maladaptive purpose and addictive use. . . .

Pornography use that is only temporarily palliative while failing to address root causes of loneliness, and which in turn intensifies triggering conditions qualifies as a maladaptive coping strategy.⁷³

- **Depressive Symptoms/Lower Self-Worth:** In a cross-sectional study of 792 emerging adults from college campuses, researchers observed that higher pornography use was significantly associated with less self-worth and more depressive symptoms. This was consistent after controlling for age, religiosity, impulsivity, race, and parent's marital status.⁷⁴

Impact on the Brain/Evidence of Addiction

- **Detrimental Impacts on the Brain:** Since 2011, there have been 30 peer-reviewed studies which reveal pornography use has negative and detrimental impacts on the brain.⁷⁵
- **Similarity to Substance or Behavioral Addictions:** A functional MRI (fMRI) study of men seeking clinical treatment for problematic pornography use (PPU) found that those with pornography addictions share similar brain reactions to other behavioral

⁷³ Mark H. Butler et al., "Pornography Use and Loneliness: A Bi-Directional Recursive Model and Pilot Investigation," *Journal of Sex & Marital Therapy*, March 7, 2017, doi:10.1080/0092623x.2017.1321601.

⁷⁴ Brian J. Willoughby et al., "Associations between Relational Sexual Behaviour, Pornography Use, and Pornography Acceptance among US College Students," *Culture, Health & Sexuality* 16, no. 9 (2014): 1052–69, doi:10.1080/13691058.2014.927075

⁷⁵ Your Brain on Porn, "Brain Studies on Porn Users," (2014) <http://yourbrainonporn.com/brain-scan-studies-porn-users> (accessed July 13, 2016).



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addictions such as gambling or substance abuse. PPU is often accompanied by excessive masturbation and is a form of compulsive sexual behavior. Researchers also extrapolated that, when compared to those addicted to gambling or drugs, problematic pornography users experience more powerful and faster conditioning to anything associated with their use (computer, being alone, pop-ups, etc.).⁷⁶

In a fMRI study of 23 men with problematic hypersexual behavior (PHB) and 22 men without PHB, researchers found alterations and activation patterns in the prefrontal cortex which matched those observed in drug addicts. They had greater cue-reactivity (i.e. physiological and subjective reactions to presentations of addiction-related stimuli) to sexual images, yet inhibited response to other normal stimuli.⁷⁷

In a study of 20 men with compulsive sexual behavior (CSB) and 20 men without CSB, the neural correlates of appetitive conditioning and neural connectivity were altered in the CSB group. According to the researchers, the first alteration—heightened amygdala activation—might reflect facilitated conditioning (greater “wiring” to previously neutral cues predicting porn images). The second alteration—decreased connectivity between the ventral striatum and the prefrontal cortex—could be a marker for impaired ability to control impulses. The findings of greater amygdalar activation to cues (sensitization) and decreased connectivity between the reward center and the prefrontal cortex (hypofrontality) are two of the major brain changes seen in substance addiction.⁷⁸

- **Decreased Brain Matter in the Right Caudate of the Caudate Nucleus:** 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.⁷⁹ Thus the study

⁷⁶ Mateusz Gola et al., “Can Pornography be Addictive? An fMRI Study of Men Seeking Treatment for Problematic Pornography Use,” *Neuropsychopharmacology*, 2017, doi:10.1038/npp.2017.78.

⁷⁷ Ji-Woo Seok, and Jin-Hun Sohn, “Neural Substrates of Sexual Desire in Individuals with Problematic Hypersexual Behavior,” *Frontiers in Behavioral Neuroscience* 9 (November 30, 2015), doi:10.3389/fnbeh.2015.00321.

⁷⁸ Tim Klucken et al., “Altered Appetitive Conditioning and Neural Connectivity in Subjects with Compulsive Sexual Behavior,” *The Journal of Sexual Medicine* 13, no. 4 (2016): 627-36, doi:10.1016/j.jsxm.2016.01.013.

⁷⁹ Simone Kühn and Jürgen Gallinat, “Brain Structure and Functional Connectivity Associated with Pornography Consumption,” *JAMA Psychiatry* 71, no. 7 (2014): 827-834.



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demonstrated that pornography use can produce physical, anatomic change in the brain—a hallmark of addiction.⁸⁰

- **Enlargement of the Amygdala:** Structural MRI data comparing healthy adult males to those with compulsive sexual behaviors (CSB) concluded that there was increased volume of amygdala gray matter in the brains of those with CSB. The amygdala is the reward center and plays a key role in processing emotions. Because of constant stimulation, the amygdala is put under stress and enlarges. This impairs the connectivity of the frontal lobe to the amygdala and distorts decision making. This is characteristic of addictions to controlled substances.⁸¹
- **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.⁸² 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.⁸³ 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.⁸⁴

Growing evidence suggests that pornography use hijacks the brain's reward system in the same way that drug use does. For instance, a study of 19 men with compulsive sexual behavior (CSB) and 19 men without CSB, the same brain activity pattern in pornography addicts (CSB subjects) was seen as in drug addicts and alcoholics. 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.⁸⁵

⁸⁰ Donald L. Hilton, Jr., and Clark Watts, "Pornography Addiction: A Neuroscience Perspective," *Surgical Neurology International* 2, no. 19 (2011).

⁸¹ Casper Schmidt et al., "Compulsive Sexual Behavior: Prefrontal and Limbic Volume and Interactions," *Human Brain Mapping* 38, no. 3 (October 27, 2016): 1182–190, doi:10.1002/hbm.23447.

⁸² K.S. Frohmader et al., "Methamphetamine Acts on Subpopulations of Neurons Regulating Sexual Behavior in Male Rats," *Neuroscience* 166, (2010): 771–784.

⁸³ Hilton, *ibid.*

⁸⁴ Park, *ibid.*

⁸⁵ Voon, *ibid.*



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- **Interference and Desensitization:** A study of sexually active individuals found that higher sexual compulsivity scores correlated with greater interference (increased distraction) during a task. Additionally, more years of “compulsive sexual activity” lead to greater habituation or a general numbing of the pleasure response (desensitization).⁸⁶
- **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.⁸⁷
- **Addictive Potential:** 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).⁸⁸
- **Working Memory Performance:** In a study of 28 healthy, heterosexual men, researchers found that viewing pornographic pictures significantly negatively affected working memory (WM) performance. WM performance was not significantly impacted by neutral pictures (e.g. unmoved faces, people at work, walking in a street), negative pictures (e.g. a mugging, a person with a weapon, harassment), nor positive pictures (e.g. laughing people, a bride, sport awards). WM is responsible for the short-term holding, processing, and manipulation of information. It is essential for understanding, reasoning, problem solving, learning and development of speech, and decision making.⁸⁹

⁸⁶ Ian P. Albery, et al., “Exploring the Relationship between Sexual Compulsivity and Attentional Bias to Sex-Related Words in a Cohort of Sexually Active Individuals,” *European Addiction Research* 23, no. 1 (November 14, 2016): 1–6, doi:10.1159/000448732.

⁸⁷ Voon, *ibid.*

⁸⁸ G.J. Meerkkerk, 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.

⁸⁹ Christian Laier, Frank P. Schulte, and Matthias Brand, “Pornographic Picture Processing Interferes with Working Memory Performance,” *Journal of Sex Research* 50, no. 7 (2013): 642–52, doi:10.1080/00224499.2012.716873.



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Impact on Sexually Transmitted Infections

- **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.⁹⁰
- **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.⁹¹
- **Condom Use:** In a systematic review and meta-analysis of cross-sectional studies about young people aged 10-24 years, exposure to sexually explicit websites was correlated with condomless sexual intercourse.⁹²

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.⁹³ 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."⁹⁴

⁹⁰ 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.

⁹¹ Gina M. Wingood et al., "Exposure to X-Rated Movies and Adolescent's Sexual and Contraceptive-Related Attitudes and Behaviors," *Pediatrics* 107, no. 5 (2001): 1116–1119.

⁹² Smith, *ibid.*

⁹³ 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.

⁹⁴ Bulot, Leurent, and Collier, *ibid.*



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- **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.⁹⁵
- **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.⁹⁶

A separate cross-sectional study of 405 sexually active men and women who had viewed pornography, frequency of pornography consumption was directly related to a relative preference for pornographic rather than partnered sexual excitement. This preference, as well as devaluing sexual communication, was associated with less sexual satisfaction for both men and women.⁹⁷

- **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 robust controls, the effect is likely causal.⁹⁸
- **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

⁹⁵ 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.

⁹⁶ 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.

⁹⁷ Paul J. Wright et al., “Associative Pathways between Pornography Consumption and Reduced Sexual Satisfaction,” *Sexual and Relationship Therapy*, May 09, 2017, 1–18, doi:10.1080/14681994.2017.1323076.

⁹⁸ Michael Malcolm and George Naufal, “Are Pornography and Marriage Substitutes for Young men?” *Eastern Economic Journal* 42 (2016): 317–334.



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simply being a proxy for the participants' dissatisfaction with sex-life or marital decision-making—may negatively influence marital quality over time.”⁹⁹

- **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.¹⁰⁰ Other research affirms that pornography consumption is associated with more positive attitudes towards extramarital affairs.¹⁰¹
- **Romantic Breakups:** A longitudinal study of Americans found those who viewed pornography at all in 2006 were nearly twice as likely as those who never viewed pornography to report experiencing a romantic breakup by 2012. Additionally, a statistically significant relationship was found between frequently viewing pornography and experiencing a breakup. Researchers also extrapolated that earlier pornography use significantly predicts relational instability, particularly for men.¹⁰²
- **Divorce Rates:** In a nationally representative longitudinal study, researchers found the probability of divorce roughly doubles for men and women who begin viewing pornography. Conversely, women who quit using pornography were significantly less likely to get divorced.¹⁰³
- **Sexual Dissatisfaction:** In a study of 832 French men and women, researchers discovered that, even when controlling for perceived addiction to cyberpornography and overall sexual functioning, cyberpornography use was directly associated with sexual dissatisfaction. Additionally, cyberpornography use had a significant negative indirect effect on sexual satisfaction through increased

⁹⁹ Samuel L. Perry, “Does Viewing Pornography Reduce Marital Quality Over Time? Evidence from Longitudinal Data,” *Archives of Sexual Behavior*, (2016).

¹⁰⁰ Steven Stack, Ira Wasserman, and Roger Kern, “Adult Social Bonds and Use of Internet Pornography,” *Social Science Quarterly* 85 (2004): 75–88.

¹⁰¹ 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.

¹⁰² Samuel L. Perry and Joshua T. Davis, “Are Pornography Users More Likely to Experience A Romantic Breakup? Evidence from Longitudinal Data,” *Sexuality and Culture*, https://www.academia.edu/32868948/Are_Pornography_Users_More_Likely_to_Experience_A_Romantic_Breakup_Evidence_from_Longitudinal_Data.

¹⁰³ Samuel L. Perry and Cyrus Schleifer, “Till Porn Do Us Part? A Longitudinal Examination of Pornography Use and Divorce,” *The Journal of Sex Research*, 2017, 1-13, doi:10.1080/00224499.2017.1317709.



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sexual dysfunction and sexual avoidance. Sexual dysfunction encompassed the quality of sex drive, arousal, vaginal lubrication/penile erection, ability to reach orgasm, satisfaction from orgasm, and pain during sex.¹⁰⁴

In a study of 15,246 Americans, a symmetrical relationship was revealed between men and women as a result of viewing pornography. Women reported more negative consequences, including: lowered body image; that their partner was more critical of their body; increased pressure to perform acts seen in pornography; and less actual sex. Meanwhile, men reported being more critical of their partners' bodies and less interest in actual sex. The findings also suggest that males are more likely to use Internet pornography as a solitary, autoerotic activity.¹⁰⁵

¹⁰⁴ Sarah Blais-Lecours et al., "Cyberpornography: Time Use, Perceived Addiction, Sexual Functioning, and Sexual Satisfaction," *Cyberpsychology, Behavior, and Social Networking* 19, no. 11 (2016): 649–55, doi:10.1089/cyber.2016.0364.

¹⁰⁵ Albright, *ibid.*



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

Works Cited:

- Albery, Ian P., Dan Frings, Cassandra Hogan, Henry Lee Johnson, Jessica Lowry, and Antony C. Moss. "Exploring the Relationship between Sexual Compulsivity and Attentional Bias to Sex-Related Words in a Cohort of Sexually Active Individuals." *European Addiction Research* 23, no. 1 (2016): 1–6. doi:10.1159/000448732.
- Albright, Julie M. "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, no. 2 (2008): 175–86. doi:10.1080/00224490801987481.
- Alexy, Eileen M., 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. doi:10.1177/1078390308327137.
- 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>.
- . *The Porn Phenomenon: The Impact of Pornography in the Digital Age*. (Ventura, CA: Josh McDowell Ministry, 2016).
- Blais-Lecours, Sarah, Natacha Godbout, Stéphane Sabourin, and Marie-Pier Vaillancourt-Morel. "Cyberpornography: Time Use, Perceived Addiction, Sexual Functioning, and Sexual Satisfaction." *Cyberpsychology, Behavior, and Social Networking* 19, no. 11 (2016): 649–55. doi:10.1089/cyber.2016.0364.
- Bonino, Silvia, Elena Cattelino, Silvia Ciairano, and Emanuela Rabagliette. "Use of Pornography and Self-Reported Engagement in Sexual Violence among Adolescents." *European Journal of Developmental Psychology* 3, no. 3 (2006): 265–288. doi:10.1080/17405620600562359.
- Braun-Courville, Debra K., and Mary Rojas. "Exposure to Sexually Explicit Web Sites and Adolescent Sexual Attitudes and Behaviors." *Journal of Adolescent Health* 45 (2009): 156–162. doi:10.1016/j.jadohealth.2008.12.004.
- Bridges, Ana, Rachael Liberman, Erica Scharrer, Chyng Sun, and Robert Wosnitzer. "Aggression and Sexual Behavior in Best-Selling Pornography Videos: A Content Analysis Update." *Violence Against Women* 16, no. 10 (2010): 1065–1085. doi:10.1177/1077801210382866.
- Brown, Jane D., 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. doi: 10.1177/0093650208326465.



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

- Bulot, C., F. Collier, and B. Leurent. "Pornography Sexual Behavior and Risk Behaviour at University." *Sexologies* 24, (2015): 78–83. doi:10.1016/j.sexol.2015.09.006
- Butler, Mark H., Thomas W. Draper, Nathan D. Leonhardt, Samuel A. Pereyra, and Kevin B. Skinner. "Pornography Use and Loneliness: A Bidirectional Recursive Model and Pilot Investigation." *Journal of Sex & Marital Therapy*, April 27, 2017, 1–11. doi:10.1080/0092623x.2017.1321601.
- Capogrosso, Paolo, Giulia Castagna, Fabio Castiglione, Maria Chiara Clementi, Michele Colicchia, Eugenio Ventimiglia, Nazareno Suardi, 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. doi:10.1111/jsm.12179.
- Carroll, Jason S., Stephanie D. Madsen, Carolyn McNamara Barry, Chad D. Olson, Larry J. Olson, and Laura L. Padilla-Walker. "Generation XXX: Pornography Acceptance and Use Among Emerging Adults." *Journal of Adolescent Research* 23, no. 1 (2008): 6–30. doi:10.1177/0743558407306348
- Cheng, Wen and Wen-Bin Chiou. "Exposure to Sexual Stimuli Induces Greater Discounting Leading to Increased Involvement in Cyber Delinquency Among Men." *Cyberpsychology, Behavior, and Social Networking*, 2017. doi:10.1089/cyber.2016.0582.
- Corne, Shawn, 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. doi:10.1177/088626092007004002.
- DeKeseredy, Walter S., 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. doi:10.1177/1077801216648795.
- Dines, Gail. *Pornland: How Porn Has Hijacked Our Sexuality*. (Boston, MA: Beacon Press, 2010), 1–23.
- Doremus-Fitzwater, Tamara L., Linda P. Spear, and Elena I. Varlinskaya. "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. doi:10.1016/j.bandc.2009.08.008.
- Durchslag, Rachel, 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).
- El-Rahman, Abd, Hanaa H. Bayomy, and Eman M. Sanad. "Effect of Soft-Core Pornography on Female Sexuality." *Human Andrology* 6, no. 2 (June 2016): 60–64. doi:10.1097/01.xha.0000481895.52939.a3.



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

- Endrass, Jérôme, Christian Benz, Thomas Elbert, Lea C. Hammermeister, Arja Laubacher, Astrid Rossegger, and Frank Urbaniok. "The Consumption of Internet Child Pornography and Violent and Sex Offending." *BMC Psychiatry* 9, no. 43 (2009). doi:10.1186/1471-244x-9-43.
- Englander, Elizabeth. *Low Risk Associated with Most Teenage Sexting: A Study of 617 18-Year-Olds*. (Massachusetts Aggression Reduction Center, 2012).
- Farley, Melissa, Jacqueline M. Golding, Laura Jarrett, Emily Schuckman Matthews, and Neil Malamuth. "Comparing Sex Buyers with Men Who Do Not Buy Sex: New Data on Prostitution and Trafficking." *Journal of Interpersonal Violence*, (2015). doi:10.1177/0886260515600874.
- Farley, Melissa, Michele Decker, Jacqueline M. Golding, Kristen Houser, Laura Jarrett, Emily Schuckman, and Peter Qualliotine. "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 presented at Psychologists for Social Responsibility Annual Meeting July 15, 2011, Boston, MA. San Francisco: Prostitution Research & Education (2011).
- Foubert, John D., R. Sean Bannon, and Matthew W. Brosi. "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. doi:10.1080/10720162.2011.625552.
- Frohman, K.S., L.M. Coolen, M.N. Lehman, R.A. Wise, and J. Wiskerke. "Methamphetamine Acts on Subpopulations of Neurons Regulating Sexual Behavior in Male Rats." *Neuroscience* 166, (2010): 771–784. doi:10.1016/j.neuroscience.2009.12.070.
- Giordano, Amanda L., and Craig S. Cashwell. "Cybersex Addiction Among College Students: A Prevalence Study." *Sexual Addiction & Compulsivity*, 2017, 1–11. doi:10.1080/10720162.2017.1287612.
- Gola, Mateusz, Bartosz Kossowski, Scott Makeig, Artur Marchewka, Marc N. Potenza, Guillaume Sescousse, Michał Lew-Starowicz, Małgorzata Wordecha, and Marek Wypych. "Can Pornography be Addictive? An fMRI Study of Men Seeking Treatment for Problematic Pornography Use." *Neuropsychopharmacology*, 2017. doi:10.1038/npp.2017.78.
- Gorman, Stacy, Elizabeth Monk-Turner, and Jennifer N. Fish. "Free Adult Internet Web Sites: How Prevalent Are Degrading Acts?" *Gender Issues* 27, no. 3–4 (2010): 131–45. doi:10.1007/s12147-010-9095-7.



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

- Häggström-Nordin, E., 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. doi:10.1258/0956462053057512.
- Henga, Kritinn, Svein Mossige, and Lars Wichstrom. "Older Adolescents' Positive Attitudes toward Younger Adolescents as Sexual Partners." *Adolescence* 39, no. 156. (2004): 627–651.
- Hilton, Donald L., Jr., and Clark Watts. "Pornography Addiction: A Neuroscience Perspective." *Surgical Neurology International* 2, no. 19 (2011). doi:10.4103/2152-7806.76977.
- Janssen, Erick, and John Bancroft. "The Dual Control Model of Sexual Response: Relevance of Sexual Excitation and Sexual Inhibition for Sexual Function." *The Psychophysiology of Sex*, January 2007, 197–222.
- Jensen, Frances E., and Amy Ellis Nutt. *The Teenage Brain: A Neuroscientist's Survival Guild to Raising Adolescents and Young Adults*. (New York: Harper Collins, 2015).
- Klein, Verena, Peer Briken, Tanja Jurin, 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. doi:10.1111/jsm.13019
- Klucken, Tim, Onno Kruse, Sina Wehrum-Osinsky, Jan Schweckendiek, and Rudolf Stark. "Altered Appetitive Conditioning and Neural Connectivity in Subjects with Compulsive Sexual Behavior." *The Journal of Sexual Medicine* 13, no. 4 (2016): 627–36. doi:10.1016/j.jsxm.2016.01.013.
- Kraus, Shane W., and Brenda Russell. "Early Sexual Experiences: The Role of Internet Access and Sexually Explicit Material." *Cyberpsychology & Behavior* 11, no. 2 (2008): 162–168. doi:10.1089/cpb.2007.0054.
- Kühn, Simone, and Jürgen Gallinat. "Brain Structure and Functional Connectivity Associated with Pornography Consumption." *JAMA Psychiatry* 71, no. 7 (2014): 827–834. doi:10.1001/jamapsychiatry.2014.93
- Kunaharan, Sajeew, Shannon Bosshard, Sean Halpin, Thiagarajan Sitharthan, and Peter Walla. "Conscious and Non-Conscious Measures of Emotion: Do They Vary with Frequency of Pornography Use?" *Applied Sciences* 7, no. 5 (2017): 493. doi:10.3390/app7050493.
- Laier, Christian, Matthias Brand, and Jaro Pekal. "Sexual Excitability and Dysfunctional Coping Determine Cybersex Addiction in Homosexual Males." *Cyberpsychology, Behavior, and Social Networking* 18, no. 10 (2015): 575–80. doi:10.1089/cyber.2015.0152.



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

- Laier Christian, Matthias Brand, and Frank P. Schulte. "Pornographic Picture Processing Interferes with Working Memory Performance." *Journal of Sex Research* 50, no. 7 (2013): 642–52. doi:10.1080/00224499.2012.716873.
- Landripet, Ivan, 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. doi:10.1111/jsm.12853.
- Malarek, Victor. *The Johns: Sex for Sale and the Men Who Buy It*. (New York: NY Arcade Publishing, Inc. 2009).
- Malcolm, Michael, and George Naufal. "Are Pornography and Marriage Substitutes for Young Men?" *Eastern Economic Journal* 42 (2016): 317–334. doi:10.1057/eej.2015.7
- Marciano, Jonathan. "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>.
- Marston, C., 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. doi:10.1136/bmjopen-2014-004996.
- Martellozzo, Elena, Joanna R. Adler, Julia Davidson, Miranda A.H. Horvath, Rodolfo Leyva, and Andy Monaghan. "'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). https://www.mdx.ac.uk/_data/assets/pdf_file/0021/223266/MDX-NSPCC-OCC-pornography-report.pdf.
- Meerkerk, G.J., 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. doi:10.1089/cpb.2006.9.95.
- Monto, Martin A. "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).
- Monto, Martin A., 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): 505–52. doi:10.1177/0306624x04272975
- Morgan, Elizabeth M. "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. doi:10.1080/00224499.2010.543960.
- Nicolosi, Alfredo, Clive Gingell, Dale B. Glasser, Edward O. Laumann,, Edson D. Moreira, Jr., and Anthony Paik. "Sexual Behavior and Sexual Dysfunctions after Age 40: The



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

- Global Study of Sexual Attitudes and Behaviors." *Urology* 64 (2004): 991–997. doi:10.1016/j.urology.2004.06.055
- O'Sullivan, Lucia F., 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. doi:10.1111/jsm.12419.
- Paolucci-Oddone, Elizabeth, 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.
- Park, Brian Y., Jonathan Berger, Frank Bishop, Matthew Christman, Andrew P. Doan, Warren P. Klam, Bryn Reina, and Gary Wilson. "Is Internet Pornography Causing Sexual Dysfunctions? A Review with Clinical Reports." *Behavioral Sciences* 6, no. 17 (2016): 1–25. doi:10.3390/bs6030017.
- Perry, Samuel L. "Does Viewing Pornography Reduce Marital Quality Over Time? Evidence from Longitudinal Data." *Archives of Sexual Behavior*, (2016). doi:10.1007/s10508-016-0770-y
- Perry, Samuel L., and Joshua T. Davis. "Are Pornography Users More Likely to Experience A Romantic Breakup? Evidence from Longitudinal Data." *Sexuality and Culture*. https://www.academia.edu/32868948/Are_Pornography_Users_More_Likely_to_Experience_A_Romantic_Breakup_Evidence_from_Longitudinal_Data.
- Perry, Samuel L., and Cyrus Schleifer. "Till Porn Do Us Part? A Longitudinal Examination of Pornography Use and Divorce." *The Journal of Sex Research*, 2017, 1-13. doi:10.1080/00224499.2017.1317709.
- Peter, Jochen, and Patti 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. doi:10.1177/0093650208321754.
- . "Adolescent's Exposure to a Sexualized Media Environment and Their Notions of Women as Sex Objects." *Sex Roles* 56 (2007): 381–395. doi:10.1007/s11199-006-9176-y.
- Peters, Robert. "How Adult Pornography Contributes to Sexual Exploitation of Children." (September 2009).
- Pornhub. "Pornhub's 2016 Year in Review." (2016).
- Porto, R. "Habitudes Masturbatoires et Dysfonctions Sexuelles Masculines." *Sexologies* 25, no. 4 (August 17, 2016): 160–65. doi:10.1016/j.sexol.2016.03.004.



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

- Rothman, Emily R., Michele R. Decker, Elizabeth Miller, Anita Raj, Elizabeth Reed, 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. doi:10.1007/s11524-011-9630-1.
- Sabina, Chiara, David Finkelhor, and Janis Wolak. "The Nature and Dynamics of Internet Pornography Exposure for Youth." *CyberPsychology & Behavior* 11, no. 6 (2008): 691–693. doi:10.1089/cpb.2007.0179.
- Schmidt, Casper, Thaddeus Birchard, Paula Hall, Timo L. Kvamme, Laurel S. Morris, and Valerie Voon. "Compulsive Sexual Behavior: Prefrontal and Limbic Volume and Interactions." *Human Brain Mapping* 38, no. 3 (2016): 1182–190. doi:10.1002/hbm.23447.
- Seigfried-Spellar, Kathryn C., and Marcus K. Rogers. "Does Deviant Pornography Use Follow a Guttman-like Progression." *Computers in Human Behavior* 29 (2013): 1997–2003. doi:10.1016/j.chb.2013.04.018.
- Seto, Michael C., 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. doi:10.1037/a0019700.
- Shope, Janet Hinson. "When Words Are Not Enough: The Search for the Effect of Pornography on Abused Women." *Violence Against Women* 10, no. 1 (2004): 56–72. doi:10.1177/1077801203256003.
- Silbert, Mimi H., and Ayala M. Pines. "Pornography and Sexual Abuse of Women." *Sex Roles* 10, no. 11/12 (1984): 857–868. doi:10.1177/1077801203256003.
- Simmons, C., 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. doi:10.1177/1077801208315066.
- Smith, Lucy Watchirs, Bette Liu, Louisa Degenhardt, Juliet Richters, George Patton, Handan Wand, Donna Cross, et al. "Is Sexual Content in New Media Linked to Sexual Risk Behaviour in Young People? A Systematic Review and Meta-Analysis." *Sexual Health*, August 11, 2016. doi:10.1071/sh16037.
- Stack, Steven, Roger Kern, and Ira Wasserman. "Adult Social Bonds and Use of Internet Pornography." *Social Science Quarterly* 85 (2004): 75–88. doi:10.1111/j.0038-4941.2004.08501006.x.
- Stanley, Nicky, Nadia Aghtaie, Christine Barter, Alba Lanau, Cath Larkins, Carolina Överlien, and Marsha Wood. "Pornography, Sexual Coercion and Abuse and Sexting in Young People's Intimate Relationships: A European Study." *Journal of Interpersonal Violence* (2016): 1–26. doi:10.1177/0886260516633204.



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

- Sun, Chyng, Ana Bridges, Matt Ezzell, and Jennifer Johnson. "Pornography and the Male Sexual Script: An Analysis of Consumption and Sexual Relations." *Archives of Sexual Behavior* 45, no. 4 (May, 2016): 983–94. doi:10.1007/s10508-016-0744-0.
- Sutton, Katherine S., James M. Cantor, Nathan J. Kolla, Jennifer Pytyck, and Natalie Stratton. "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. doi:10.1080/0092623x.2014.935539.
- Svedin, Carl Göran, 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. doi:10.1016/j.adolescence.2010.04.010.
- Voon, Valerie, Paula Banca, Tatyana R. Lapa, Simon Mitchell, Thomas B. Mole, Laurel Morris, and Laura Porter. "Neural Correlates of Sexual Cue Reactivity in Individuals with and without Compulsive Sexual Behaviors." *PLOS ONE* 9, no. 7 (2014): 1–10. doi:10.3410/f.718488487.793497490.
- Wéry, Aline, 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. doi:10.1016/j.chb.2015.11.046.
- Willoughby, Brian J., Jason S. Carroll, Larry J. Nelson, and Laura M. Padilla-Walker. "Associations between Relational Sexual Behaviour, Pornography Use, and Pornography Acceptance among US College Students." *Culture, Health & Sexuality* 16, no. 9 (2014): 1052–069. doi:10.1080/13691058.2014.927075.
- Wingood, Gina M., Suzy Davies, Ralph J. DiClemente, Kathy Harrington, 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. doi:10.1037/e322352004-206.
- Wright, Paul J. "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. doi:10.1027/1864-1105/a000063.
- Wright, Paul J., 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. doi:10.1016/j.chb.2012.03.003.
- Wright, Paul J., 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. doi:10.1007/s10508-015-0644-8.
- Wright, Paul J., Soyoung Bae, and Robert S. Tokunaga. "More Than a Dalliance? Pornography Consumption and Extramarital Sex Attitudes among Married U.S.



PORNOGRAPHY & PUBLIC HEALTH

Research Summary

- Adults." *Psychology of Popular Media Culture* 3, no. 2 (2014): 97–109. doi:10.1037/ppm0000024.
- Wright, Paul J., Ashley Kraus, and Robert S. Tokunaga. "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. doi:10.1111/jcom.12201.
- Wright, Paul J., Chyng Sun, Nicola J. Steffen, and Robert S. Tokunaga. "Associative Pathways between Pornography Consumption and Reduced Sexual Satisfaction." *Sexual and Relationship Therapy* (May 09, 2017): 1–18. doi:10.1080/14681994.2017.1323076.
- Wright, Paul J., Elyssa Klanm, Ashley Kraus, and Robert S. Tokunaga. "Pornography Consumption and Satisfaction: A Meta-Analysis." *Human Communication Research*, 2017. doi:10.1111/hcre.12108.
- Ybarra, Michele L., and Kimberly Mitchell. "Exposure to Internet Pornography among Children and Adolescents: A National Survey." *CyberPsychology & Behavior* 8, no. 5 (2005): 473–486. doi:10.1089/cpb.2005.8.473.
- Your Brain on Porn. "Brain Studies on Porn Users." (2014). <http://yourbrainonporn.com/brain-scan-studies-porn-users>.