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### **The Public Health Harms of Pornography: The Brain, Erectile Dysfunction, and Sexual Violence**

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I have studied how to end sexual violence for 25 years. It wasn't until 10 years ago when I came to the realization that the secret ingredient in the recipe for rape was not secret at all, though at the time it was rarely identified. That ingredient, responsible for giving young men the permission giving beliefs<sup>1</sup> that make rape so much more likely and telling young women they should like it, is today's high speed Internet pornography.<sup>2</sup> Pornography itself is a recipe for rape that has rewritten the sexual script for the sexual behavior of the millennial generation and is currently rewiring the brains of the generation to follow.<sup>3</sup>

#### **The Problem**

Today's Internet porn is nothing like your father's *Playboy* magazine. The endless supply of novel images that can be clicked through in seconds have fused the concepts of sex and violence into the developing brains of today's pre-adolescents, adolescents, and young adults. Research of popular pornography films found that in 88% of the scenes—not just the movies, but the scenes in these movies—there was verbal or physical aggression, usually toward a woman. The more interesting finding is that 95% of the time when someone is violent with another person in porn, usually a man toward a woman, the recipient is shown as either liking that violence or having no objection.<sup>4</sup> Think about how an 11-year-old boy, or girl, would interpret what they see. Pornography teaches boys to hit girls, and shows girls that they should like it.

The kind of violence in porn that is now mainstream is enough to shock the conscience of anyone who isn't currently aroused and thus detached from their prefrontal cortex. Almost half of the pornographic video clips available today online conclude with men, often multiple men, ejaculating on a woman's

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<sup>1</sup> Ana J. Bridges, "Pornography's Effects on Interpersonal Relationships," in *The Social Costs of Pornography*, eds. James R. Stoner and Donna M. Hughes (Princeton, NJ: Witherspoon Institute, 2010), doi: 10.1177/1077801210382866.

<sup>2</sup> Ana J. Bridges, Robert Wosnitzer, Erica Scharrer, Chyng Sun, and Rachel Liberman, "Aggression and Sexual Behavior in Best-selling Pornography Videos: A Content Analysis Update," *Violence Against Women* 16, (2010): 1065-1085.

<sup>3</sup> Jeffrey A. Hall, "Interpreting Social-Sexual Communication: Relational Framing Theory and Social-Sexual Communication, Attraction, and Intent," *Human Communication Research* 42, no. 1 (2016): 138-164, doi: 10.1111/hcre.12071; Paul J. Wright, "A Three-Wave Longitudinal Analysis of Preexisting Beliefs, Exposure to Pornography, and Attitude Change," *Communication Reports* 26, no. 1 (2013):13-25, doi:10.1080/08934215.2013.773053; Chyng Sun, Ana J. Bridges, Jennifer A. Johnson, and Matthew B. Ezzell, "Pornography and the Male Sexual Script: An Analysis of Consumption and Sexual Relations," *Archives of Sexual Behavior* (2014) 1-12, doi: 10.1007/s10508-014-0391-2; Gary Wilson, *Your Brain on Porn: Internet Pornography and the Emerging Science of Addiction*. (London: Commonwealth Publishers, 2014); William M. Struthers, *Wired for Intimacy: How Pornography Hijacks the Male Brain*, (Wheaton, IL: InterVarsity Press, 2009).

<sup>4</sup> Bridges, et al., *ibid.*



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face.<sup>5</sup> About half of today's pornography includes a man inserting his penis in a woman's rectum and then into her mouth without washing or condoms.<sup>6</sup> Now, acts of oral sex so violent that they lead women to vomit are mainstream.<sup>7</sup>

Despite the fact most of what they are looking at would likely be considered illegal, half of boys have seen hardcore pornography before they become teenagers.<sup>8</sup> Does this viewing impact behavior? The weight of the scientific evidence offers a convincing response: "Yes."

### **The Impact: Rewiring the Brain**

Some of the most powerful studies of the brain and pornography come from investigating brain scans. In one experiment, the brains of men were scanned while they viewed porn. When neurologists looked at their brain scans, men's brains reacted to women as if they were objects, not people.<sup>9</sup> This is important because it is the process of dehumanizing a person that makes violence against them much more acceptable.<sup>10</sup>

In fact, the very maps that nerve cells travel through the brain become re-routed as people use more and more pornography.<sup>11</sup> Digging deeper into this brain phenomenon, a group of neurologists studied more brain scans of people who use pornography. They used an experimental design in order to demonstrate cause and effect. They found that people who use more pornography become less able to wait for gratification than people who use less pornography.<sup>12</sup> Brain studies also now show that increased porn use leads to a slowing down of short-term memory.<sup>13</sup>

### **The Impact: Sexual Dysfunction**

Today's pornography is having a devastating impact on the sexual health of the Internet generation. For example, rates of erectile dysfunction among young men are skyrocketing, and are directly related to the more frequent use of increasingly interactive Internet pornography. In the 1940's, less than 1%

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<sup>5</sup> Stacy Gorman, Elizabeth Monk-Turner, and Jennifer Fish, "Free Adult Internet Web Sites: How Prevalent are Degrading Acts?" *Gender Issues* 27, no. 3/4 (2010): 131–145.

<sup>6</sup> Bridges, et al., *ibid.*

<sup>7</sup> Meagan Tyler, "Now That's Pornography!" in *Everyday Pornography*, ed. Karen Boyle (New York: Routledge, 2010), 50–62.

<sup>8</sup> Gail Dines, *Pornland: How Porn Has Hijacked our Sexuality*. (Boston, MA: Beacon Press, 2010); Walter S. DeKeseredy and Marilyn Corsianos, *Violence against Women in Pornography* (New York: Routledge, 2016).

<sup>9</sup> Mary Eberstadt and Mary Anne Layden, *The Social Costs of Pornography: A Statement of Findings and Recommendations* (Princeton, NJ: The Witherspoon Institute, 2010).

<sup>10</sup> Nick Haslam and Steve Loughnan, "Dehumanization and Infrahumanization," *Annual Review of Psychology* 65 (2014): 399–423, doi: 10.1146/annurev-psych-010213-115045.

<sup>11</sup> Wilson, *ibid.*

<sup>12</sup> Sesen Negash, Nicole Van Ness Sheppard, Nathaniel M. Lambert, and Frank D. Fincham, "Trading Later Rewards for Current Pleasure: Pornography Consumption and Delay Discounting," *Journal of Sex Research* 53, no. 6 (2015): 689–700.

<sup>13</sup> Christian Laier, Frank P. Schulte, and Matthias Brand, "Pornographic Picture Processing Interferes with Working Memory Performance," *Journal of Sex Research* 50, no. 7 (2013): 642–652, doi:10.1080/00224499.2012.716873.



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of men under 30 experienced erectile dysfunction (ED).<sup>14</sup> In 1992, 7% of men under 30 experienced ED.<sup>15</sup> Several recent studies now show that 30% of young men experience ED.<sup>16</sup> In fact, in just the last 10 years, the rate of erectile dysfunction doubled in the U.S. military.<sup>17</sup> If a man's use reaches the level of addiction, he is 60% more likely to have ED. And all of these men have erectile dysfunction when they are with a person—but not when they are alone with their porn.<sup>18</sup>

### The Impact: Sexual Violence

The research connecting pornography and sexual violence is conclusive.

There are over 100 studies showing that pornography use is both correlated with and is the cause (shown through experimental studies) of a wide range of violent behaviors. Over 50 studies show a strong connection between pornography and sexual violence.<sup>19</sup> The results are the same in correlational, cross-sectional, experimental, and longitudinal studies: pornography use and acts of sexual aggression are directly connected.<sup>20</sup>

The more men view pornography, the more they think that women are lesser creatures who they can dominate.<sup>21</sup> Pornography use increases the likelihood that a man will commit sexual violence against a woman, particularly if the man has other risk factors for committing sexual violence like being impulsive, and if his use of pornography is frequent.<sup>22</sup>

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<sup>14</sup> Alfred C. Kinsey, Wardell B. Pomeroy, and Clyde E. Martin, *Sexual Behavior in the Human Male* (Philadelphia: W.B. Saunders Company, 1948); Wilson, *ibid*.

<sup>15</sup> Edward O. Laumann, Anthony Paik, and Raymond C. Rosen, "Sexual Dysfunction in the United States: Prevalence and Predictors," *Journal of the American Medical Association* 281, no. 6 (1999): 537-544, doi:10.1001/jama.281.6.537.

<sup>16</sup> Lucia F. O'Sullivan, Lori A. Brotto, E. Sandra Byers, Jo Anne Majerovich, and Judith A. Wuest, "Prevalence and Characteristics of Sexual Functioning among Sexually Experienced Mid to Late Adolescents," *The Journal of Sexual Medicine* 11 (2014): 630-641, doi: 10.1111/jsm.12419; Anaïs Mialon, A. Berchtold, Pierre-André Michaud, Gerhard Gmel, and Joan-Carles Suris, "Sexual Dysfunctions among Young Men: Prevalence and Associated Factors," *Journal of Adolescent Health* 51, no. 1 (2012): 25-31, doi: 10.1016/j.jadohealth.2012.01.008.

<sup>17</sup> Armed Forces Health Surveillance Center, "Erectile Dysfunction among Male Active Component Service Members, U.S. Armed Forces," *Monthly Surveillance Monthly Report* 21, no. 9 (2014): 13-16.

<sup>18</sup> Valerie Voon, Thomas B. Mole, Paula Banca, Laura Porter, Laurel Morris, Simon Mitchell, Tatyana R. Lapa, Judy Karr, Neil A. Harrison, Marc N. Potenza, et al. "Neural Correlates of Sexual Cue Reactivity in Individuals with and without Compulsive Sexual Behaviors." *PLoS ONE* 9, no. 7 (2014), doi: 10.1371/journal.pone.0102419

<sup>19</sup> Neil M. Malamuth, Tamara Addison, and Mary Koss, "Pornography and Sexual Aggression: Are there Reliable Effects and Can We Understand Them?" *Annual Review of Sex Research* 11 (2000): 26-91; Jochen Peter and Patti M. Valkenburg, "Adolescents and Pornography: A Review of 20 Years of Research," *The Journal of Sex Research* (2016): 1-23, doi: 10.1080/00224499.2016.1143441.

<sup>20</sup> 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 (2015), doi:10.1111/jcom.12201; Max Waltman, *The Politics of Legal Challenges to Pornography*. Doctoral Dissertation. (2014).

<sup>21</sup> Gert Martin Hald, Neil M. Malamuth and Theis Lange, "Pornography and Sexist Attitudes among Heterosexuals," *Journal of Communication* 63, no. 4 (2013): 638-660, doi:10.1111/jcom.12037.

<sup>22</sup> Drew A. Kingston, Neil M. Malamuth, Paul Fedoroff and William L. Marshall, "The Importance of Individual Differences in Pornography Use: Theoretical Perspectives and Implications for Treating Sexual Offenders," *Journal of Sex Research* 46, no. 2/3 (2009): 216-232, doi: 10.1080/00224490902747701.



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Men who believe more strongly in impersonal, promiscuous sex and are more hostile toward women are more likely to sexually assault a woman *if* they frequently use pornography.<sup>23</sup> In short, frequent pornography use by itself is not a singular, direct cause for sexual assault. However, if a man has other risk factors for committing sexual violence, for example hostile masculinity or a preference for impersonal sex, adding frequent pornography use makes it much more likely that he will commit sexual violence.<sup>24</sup> If anyone has an agenda to end sexual violence—and I hope you do—you must tackle the issue of pornography if you want to have an impact.

### **The Odds: 1 in 88 Dec trillion**

I've told you about many studies. Can the pro-porn folks find a study that supports their assertions? Of course they can. In social science, we function on probabilities. Every once in a while, a study can partly contradict other studies. The point is to go with the weight of the evidence. And when it comes to showing that pornography is connected to sexual violence (i.e., 50 plus studies), what does the weight of the evidence show the odds are that this result could have occurred due to chance?

Those odds are 1 in 88 dec trillion, 817 nonillion, 841 octillion, 970 septillion, 12 sextillion, 523 pentrillion, 233 quadrillion, 890 trillion, 533 billion, 447 million, 265 thousand, six hundred and twenty-five.

How big is that number? Enough to fill one billion Empire State buildings floor to ceiling with pennies. So you can go with the odds equal to finding that one penny in a billion Empire State buildings and pretend that pornography and sexual violence are unrelated, or you can go with the weight of the evidence.

Pornography use has become nearly ubiquitous for men in the United States, for a growing number of women, for a majority of teens, and a growing number of younger people.<sup>25</sup> The lessons they learn from porn shape our culture—the culture we all inhabit. Porn is a devastating harm to the public health of our society. It is time we started treating it as such.

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<sup>23</sup> J. L. Baer, T. Kohut, and W. A. Fisher, "Is Pornography Use Associated with Anti-Woman Sexual Aggression? Re-examining the Confluence Model with Third Variable Considerations," *Canadian Journal of Human Sexuality* 24, no. 2 (2015): 160-173. doi:10.3138/cjhs.242-A6.

<sup>24</sup> Neil M. Malamuth, et al., *ibid.*

<sup>25</sup> Dines, *ibid.*; DeKeseredy and Corsianos, *ibid.*



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