

## **Brief Relating to Motion 47 – Gary B. Wilson**

Thank you for inviting me to present evidence related to Motion 47. My concern is not with pornography use as such, but strictly with the digital porn widely consumed today. No doubt other witnesses will supply evidence linking internet porn (IP) to wider public health issues such as increased aggression<sup>1 2</sup>, performer risks<sup>3</sup>, and sex trafficking<sup>4</sup>. I will focus on the aspects I know best: IP's adverse effects on users, and the need for IP research to investigate *causation*.

Evidence suggests that today's streamed IP videos are *sui generis*, with unique properties such as inexhaustible sexual novelty at a click or tap, effortless escalation to more extreme material, and ready accessibility for viewers of all ages, and that these unique properties are giving rise to severe symptoms in some consumers. Although a full review of research correlating IP use with social and personal problems is beyond the scope of this brief, existing studies associate IP use with greater anxiety<sup>5</sup>, shyness<sup>6</sup>, depression<sup>7</sup>, poorer academic performance<sup>8</sup>, ADHD<sup>9</sup>, body dysmorphia<sup>10 11</sup>, and relationship dissatisfaction<sup>12</sup>. Researchers have also linked IP use with arousal, attraction, and sexual performance problems with partners, including difficulty orgasming and erectile dysfunction (ED)<sup>5 14 15 16 17</sup>, negative effects on partnered sex<sup>18 19</sup>, a need for stronger pornographic material<sup>16</sup>, and a preference for using IP to achieve and maintain arousal rather than having sex with a partner<sup>20</sup>.

### **Scope of IP Phenomenon and Problematic Use**

It is almost impossible to avoid some porn exposure today, but how many adults use IP regularly? A 2015 study of men age ≤ 40 in 3 European countries in found that 59% of Croats, 57% of Norwegians and 40% of Portuguese use porn “from several times a week to daily”<sup>21</sup>. American rates in the same age group ranged as high as 46% (men) and 16% (women)<sup>22</sup>.

As any addiction expert will affirm, not all users of any substance or activity are adversely affected. Also, harm is not *linear* in proportion to use. Just as only some smokers develop cancer, some brains are more vulnerable to developing porn-related problems than others.

Accurate assessment of the scope of problematic IP use is impossible because so many users are youngsters<sup>23</sup>, who are particularly difficult to investigate with respect to IP's effects. (Indeed, subjects of all ages have difficulty isolating IP's effects until after they quit.) Moreover, formal IP research on all subjects is painstakingly slow, narrow and unduly difficult to get through peer-review<sup>24</sup>, while the phenomenon of today's IP evolves at lightning speed and may be contributing to a broad range of effects. In the last decade, the technology of IP delivery has changed so rapidly in ways that increase its risk to users (such as streaming "tube" pornography, smartphone access for youngsters and now virtual reality pornography) that by the time a study is released some of its findings are rapidly becoming obsolete.

As porn technology grows more potent and accessible, a larger swath of the population is potentially adversely affected. One consequence is that the percentage of those suffering adverse effects from porn use is a moving, expanding target, not fixed. Statistics, already incomplete because they often overlook youngsters, fall out of date rapidly. This can lead to underestimates and faulty policy.

No users are "destined" to develop such problems; *they must first use IP*. Thus, IP's ready availability is relevant to rates of future problems. For example, compulsive IP subjects first viewed IP much earlier (mean age 13.9) than healthy volunteers (mean age 17.2)<sup>5</sup>. Younger subjects' brains show greater responsiveness to IP<sup>5</sup>. Ominously, the age of IP exposure is dropping sharply. A 2014 study found that nearly half of college-age men reported they were exposed to IP prior to age 13, as compared with only 14% in 2008<sup>19</sup>.

Masturbation is standard adolescent behavior, but early incorporation of IP into such activity increases the risk of later addiction<sup>5 25</sup> and escalation to bestiality and minor porn<sup>26 27</sup>. (Additional risks will be discussed below.) Wide recognition of the hazards of adolescent IP use has been slowed by the limited, difficult-to-obtain formal data on young viewers. Sexologists and sex educators have been hesitant to sound the alarm.

What about problematic use rates in adults? Cross-population studies obviously produce lower rates (as women and non-digital natives consume less than younger

men). A 2016 Canadian study using a representative sample found that 9.5% of those sampled (average age 44) thought they had a “sex addiction” (a term that included problematic porn use).<sup>28</sup>

Rates of problematic use among IP consumers are even more striking. Two 2016 studies on adult, male IP users reported that 28% of them either scored above the cut off for porn use disorder<sup>29</sup> or were concerned about their porn use.<sup>16</sup> Addicts are notoriously reluctant to admit to themselves that they have problems, and yet more than a quarter of adult male IP users and close to one in ten Canadian adults (of all genders) may be suffering from problematic IP use.

### **The Importance of Establishing Causation**

The methodologies typically employed by IP researchers can inadvertently mislead policymakers into misattributing cause and effect. For example, research in 2016 found a strong correlation between internet addiction and social anxiety. The authors suggested that, “individuals who have difficulties engaging and bonding with their peers in real life may instead use the internet”<sup>30</sup>. This logical inference implies that pre-existing social difficulties cause excessive internet use. Yet in online IP recovery forums, former IP users often report vastly reduced social anxiety<sup>31</sup>. Thus, in these users, social phobia was a *result* of excessive internet use, not the cause.

Correlation studies cannot prove which related factor *causes* another (or whether an effect is bi-directional); yet establishing causation is critically important. An IP user whose symptoms are the result of his use cannot heal except by giving it up. Only when causation is correctly understood can parents and policymakers make sound decisions about who accesses IP and at what age. Healthcare providers who presume symptoms are pre-existing risk incorrectly diagnosing patients as having underlying mental disorders (such as social anxiety, depression, apathy, severe concentration problems or performance anxiety) and prescribing medications for them that, at best, temporarily mask their symptoms. Given the similarity of symptoms in those with underlying disorders and those who have similar, but reversible, symptoms from IP overuse,

research that distinguishes which way causation runs in these two groups is vitally needed. As medications often have side effects, much misery could thus be avoided.

The most practical way researchers can reveal the true effects of IP on users is to design research in which study subjects *give up* IP use for an extended period and researchers measure any changes<sup>32</sup>. It can take months, or even a couple of years, for young men to experience the full benefits of giving up IP use, but most see some benefits long before then. Those who do not may indeed have underlying disorders. To date, only a handful of research teams have asked study participants to cut out IP use to investigate its effects. All five papers reported significant changes<sup>32</sup>.

### **The Online Porn Experiment**

Meanwhile, a vast informal experiment is underway in cyberspace. Hundreds of thousands around the world are quitting IP in the hope of resolving their symptoms. These “researchers” are members (or lurkers) in online recovery forums, typically founded by non-religious young men<sup>33</sup>. They describe similar symptoms (and benefits from quitting IP), which typically fall into three categories:

*1. Mood and concentration symptoms.* Common mood and concentration symptoms reported include severe, often uncharacteristic, social anxiety, difficulty concentrating, lack of motivation, depression, emotional numbness, depersonalization, lack of confidence, unexplained low energy or fatigue, disturbing pornography flashbacks during everyday encounters, doubts about one’s sexual identity, increased anxiety, and exacerbation of obsessive–compulsive tendencies.

*2. Sexual performance difficulties.* These include abnormally low sexual desire for real partners (sometimes self-perceived as “asexuality,” even when the consumer is climaxing very frequently to IP), loss of morning erections, difficulty climaxing with a partner (delayed ejaculation, anorgasmia), difficulty achieving or maintaining erections during partnered sex (and therefore difficulty using condoms safely), and “flatlines” shortly after quitting IP (temporary loss of libido, lifeless genitals).

One of the most significant IP phenomena may turn out to be escalation to pornographic material that is more extreme or does not match original tastes or sexual orientation, often because the user is experiencing difficulty sustaining arousal or erections with familiar material. In 2016, half of IP subjects reported escalating to material that they once found uninteresting or repelling.<sup>16</sup> Researchers suggest this dysfunctional need for novel sexual imagery is evidence of addiction-related habituation<sup>34</sup>, which may, in turn, help explain the abrupt rise in sexual dysfunctions in younger men. Between 1948 and 2002, historical rates of ED for men under 40 were consistently 2%–3% and did not begin to rise steeply until after age 40<sup>35</sup>. However, since the advent of porn “tube” sites at the end of 2006, six studies have found ED rates of 27%–33% in young men. That is a 1000% increase in the last 15 years<sup>14</sup>.

Generally, men on recovery forums aged 35 and older report healing from sexual dysfunctions during partnered sex in only 8–12 weeks, and their healing is stable as long as they avoid IP. In contrast, younger men who used streamed pornography from the time they began to masturbate (or before) often require 6–12 months, or longer, and their sexual function tends to be less reliable.

The fact that older men often recover more quickly from sexual dysfunctions suggests that those who begin using IP during early adolescence when the brain is more malleable<sup>36</sup> may, in effect, be training for the wrong sport. They are teaching themselves to respond to screens and not to real people, to watch others having sex rather than to court and connect with partners, to rely upon a constant stream of sexual novelty to sustain arousal rather than the pleasure of sensual connection, and perhaps to extreme fetishes viewed online. Their expectations may no longer match real-life intimate experiences.

Rewiring an attraction to real people can be difficult, not unlike mastering a new language. In 2016 a French psychiatrist reported his clinical experience with 35 men who developed erectile dysfunction and/or anorgasmia related to their habitual pornography use<sup>17</sup>. His therapeutic approach involved the men “unlearning” masturbatory habits associated with their pornography use. Sexual dysfunctions

improved in nineteen patients of the 35 patients and they were able to enjoy satisfactory sexual activity. Three patients were continuing to progress, while 13 had given up.

*3. Indications of addiction.* Recovery forum members frequently report escalation to more extreme (or forbidden) genres of IP, inability to quit despite negative consequences, loss of interest in activities they once enjoyed, and repeatedly returning to IP even after recovering from severe symptoms after quitting. They also often report withdrawal symptoms during the weeks (and even months) after quitting IP use, such as irritability, insomnia, mood swings, headaches, panic attacks, depression, sweating, lack of focus, lethargy, suicidal ideation, or uncontrollable cravings to use IP. Incidentally, some 30 functional magnetic resonance imaging and neuropsychology studies published in the last few years lend strong support to the hypothesis that IP addiction exists and involves brain changes similar to those found in substance addicts<sup>37</sup>.

Obviously, it is possible that in any individual, symptoms such as those listed in the previous paragraphs may be arising from underlying disorders rather than overuse of IP. However, I have compiled the above symptom lists from *recovery* self-reports, suggesting that overuse of IP was causing or exacerbating symptoms. This anecdotal evidence, gathered from thousands of self-reports on various online recovery forums, taken together with the recent research I have cited, suggests that IP use may be fueling a range of relationship and sexual problems,<sup>38</sup> addiction<sup>37</sup>, and emotional and mental symptoms<sup>39</sup>.

## **Recommendations**

- Organize IP research that can establish which way causation runs.
- Educate about adolescent brain vulnerability (addiction, sexual conditioning).
- Reduce non-adults' access to IP by requiring credit cards.
- Inform IP users of possible adverse effects.

## Author

I am a former physiology and pathology teacher and an author of two 2016 journal articles: (1) [Eliminate Chronic Internet Pornography Use to Reveal Its Effects](#), and (2) [Is Internet Pornography Causing Sexual Dysfunctions? A Review with Clinical Reports](#), a review written with 7 US Navy doctors. I also wrote [Your Brain On Porn: Internet Pornography and the Emerging Science of Addiction](#), a book for lay readers endorsed by various experts, and in 2012, I presented a TEDx talk entitled '[The Great Porn Experiment](#),' which has been translated into 18 languages and viewed more than 7.5 million times. I host an informational website for those recovering from problematic internet porn use: [www.yourbrainonporn.com](http://www.yourbrainonporn.com).

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