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**Child Pornography and Child Sexual Abuse in the 21st Century: A Critical
Overview of the Technological Shifts in Distribution, the Academic
Literature, and the Current Re-Entry Policies for Convicts of these Crimes**

by

Arion A. Rivera

A Capstone Project Submitted in Partial Fulfillment of the
Requirements for the Degree of Master of Science in Criminal Justice

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Abstract

This capstone project focuses on four distinct but interrelated papers. The first details the role of technology in creating a resurgence of child pornography and how both the authorities and corporations have responded to this phenomenon. The second paper provides a literature review on research assessing the amount of child pornography consumers who victimize children. The third work is my own original research on the topic explored in the second paper. The fourth and final paper explains the post-incarceration consequences child pornography possessors often encounter and how they reintegrate into society, in addition to assessing the flaws and successes of these approaches. The overarching theme of this capstone project is to detail why this topic is a major concern and not a single criminal justice problem. By describing how child pornography rose to prominence in the 21st century as a major criminal justice concern, why there is more to the issue than the production, distribution, and consumption of child pornography, and the current approaches to preventing these individuals from reoffending after their release from prison, I aim to provide the reader with an understanding of how the consumption of child pornography is a major issue and how the United States can implement more robust approaches to assessing and confronting it.

**The Impact of Modern Technology on Child Pornography and the U.S. Criminal Justice
Response**

Arion A. Rivera

Rochester Institute of Technology

Capstone Project: Paper 1

Introduction

The Internet is one of the most revolutionary inventions in human history. Since the Internet was opened for public access a few decades ago, there has been a paradigm shift in how society functions. A wealth of knowledge is at users' fingertips, people across the world from one another can communicate instantaneously, and as a result of the proliferation of smartphones, the Internet is accessible from any location within range of a cellular service tower. The amount of content hosted on websites throughout the Internet is staggering: thousands of hours of videos footage is uploaded every minute and millions of images are hosted. This technology is not limited to first world nations as cellphones have become widespread in third world nations as well.

Society and the law have struggled to keep up with the lightspeed progress of the Internet and related technologies such as computers and smartphones. While these technologies are the source of a great deal of modern conveniences, they are just as much a disruptive development to the ways society has conducted itself for centuries. Disinformation, a lack of security for private information, and echo chambers that reinforce biases rather than enlightening users are just a few of the many social issues that have become prevalent as a result of widespread internet use. While the Internet is open and accessible to all, the breadth of its content leaves many dark corners that are essentially invisible to the average user as they have no reason to ever search for such places. It is in these secluded areas that content most find objectionable is discussed, distributed, and consumed. Child exploitative material, commonly referred to as child pornography, is among this content.

Transformation of the Child Porn Industry and the U.S. Criminal Justice Response

While the production, distribution, and possession of child pornography has been criminalized since the 1970s, regulations regarding such illicit content on the Internet are a more recent development, with most cases and legislation beginning in the late-1990s. The pre-Internet statutes targeting child pornography were immensely successful, with federal laws such as the Protection of Children Against Sexual Exploitation Act of 1977 and various state laws reducing the extent of child exploitative material to what could be smuggled from foreign countries with less restrictive obscenity laws such as Scandinavian nations (Wortley & Smallbone, 2012). Child pornography produced stateside was of poor quality, locally produced, and difficult to find prior to the widespread adoption of the Internet (Wortley & Smallbone, 2012).

Since the proliferation of Internet access, the issue of child pornography has grown exponentially. Digital and web cameras greatly reduced the quality and equipment issues that had characterized older child pornographic material and internet access transformed the market from local to international, facilitating distribution to thousands of interested individuals worldwide (NCMEC, 2005). In a 2005 press release, the National Center for Missing and Exploited Children cited estimates that child pornography increased by 1500% since 1997 and that approximately 100,000 websites dedicated to providing access users with access to child pornography existed in 2001 (NCMEC, 2005). Today, obtaining estimates as to the true extent of child exploitative material on the Internet is an impossible task, but efforts to uncover some modern approximations are discussed in a later section.

As a result of a staggering increase in the production, distribution, and consumption of child pornography via the Internet, the U.S. federal government began passing legislation to counter this resurgence. In response to both this specific issue and other concerns about material

being distributed on the Internet, Congress passed the 1996 Communications Decency Act, a bill that included widescale restrictions on various Internet activity (Casanova et al, 2000). As a result of the massive extent to which the law censored the Internet, the American Civil Liberties Union challenged it, and in June 1997 the case reached the Supreme Court (Casanova et al, 2000). As a result of the decision in the case, *Reno v. ACLU*, the CDA was decided to be unconstitutional as a violation of the First Amendment (Casanova et al, 2000). Congress responded to this decision by passing the Child Online Protection Act the following year, a more focused piece of legislation that sought to censor child exploitative material on commercial websites (Casanova et al, 2000). While this law was once again challenged by the ACLU, it was upheld, resulting in the first federal bill specifically criminalizing child exploitative material on the Internet (Casanova et al, 2000).

A similar series of events surrounded the Child Pornography Protection Act. Aimed at criminalizing “virtual child” pornography, the act was passed in 1996 to target two types of pornography commonly found on the Internet (Wortley & Smallbone, 2012). The first of these was pornographic material featuring participants above the legal age of consent but of a physical appearance resembling a minor and pornographic material (Wortley & Smallbone, 2012). The second involved child porn featuring computer-manipulated imagery; both computer-generated images and composite images fell under this second category (Wortley & Smallbone, 2012). While computer-generated images involve the wholesale production of child exploitative material using digital animation, composite images utilize digital video manipulation software to render the head of a child onto an adult engaged in sexual activity (Wortley & Smallbone, 2012). As with the 1996 Communications Decency Act, the law was challenged in a Supreme Court case, *Ashcroft v. Free Speech Coalition* (Wortley & Smallbone, 2012). Once again, the Supreme

Court decision resulted in these provisions being declared unconstitutional as a violation of the First Amendment in 2002 (Wortley & Smallbone, 2012).

Other notable legislation includes the 1988 Child Protection and Obscenity Enforcement Act, which criminalized the use of a computer to depict or advertise child pornography (Wortley & Smallbone, 2012). Another significant law was the Child Protection and Sexual Predator Punishment Act; it mandated internet service providers to report to law enforcement officials any instances of pornographic content featuring children, though it did not mandate the monitoring of website or users for this reason (Wortley & Smallbone, 2012). The Prosecutorial Remedies and Other Tools to end the Exploitation of Children Today Act, known as the PROTECT Act, was passed in 2003 and dealt with a host of sexual offending concerns, including computer-generated child pornography (US DOJ, 2003). While a similar provision of the aforementioned Child Pornography Protection Act was struck down in the Supreme Court's decision for *Ashcroft v. Free Speech Coalition*, the PROTECT Act did not have such a challenge as it relies on earlier laws regarding obscenity rather than creating a new provision.

Overview of the Relevant Technological Advances

While the Internet is the primary catalyst for the resurgence of production, distribution, and possession of child exploitative material as a significant criminal justice concern, many smaller technological advances have changed the methods used by those interested in child pornography to engage in this activity. While the Internet was not common in American households until the 1990s it was publicly accessible. The first online discussion board was Usenet, a website developed and established in 1979 (Rogers, 2013). The board hosting a variety of different communities created by users on which themselves and others could post and share content relevant to the topic of interest (Rogers, 2013). Until the mid-1990s, Usenet and

discussion boards like it were the primary means through which child pornography was shared (Rogers, 2013).

During the mid-1990s, technologies such as the World Wide Web (which is distinguished from the Internet as the collection of web pages one can access through the Internet) and electronic mail fell into common usage. Websites hosting child exploitative material and direct distribution of such content via e-mail became common methods for disseminating child pornography (Rogers, 2013). The criminal justice system was unprepared for criminal enterprises to be developed using these novel means. Another innovation were services such as Napster, an application which indexed users' music files and enabled them to share these files directly between one another after the service authorized the transfer (Rogers, 2013). Though it was not involved in child pornography, Napster encountered legal troubles for facilitating the distribution of music files without the permission of recording labels (Rogers, 2013).

Just after these technologies became popular, peer-to-peer networks rose to prominence in the late 1990s (Rogers, 2013). Unlike Napster-like services and websites that ran afoul of the law by hosting content, these networks were decentralized; the networks themselves did not host nor authorize the transfer of any content, but instead simply enabled users to host files on their computer and allow other users to connect to the host then download their files (Rogers, 2013). Kazaa was the most popular of these networks until 2004, when it was superseded by more modern contemporaries such as Limewire and BitTorrent after encountering its own legal battles (Rogers, 2013). The most significant aspect distinguishing modern peer-to-peer networks from their older counterparts is ease of use, decentralization, and popularity (Rogers, 2013).

The most novel of these relevant technological advances is cloud computing. Unlike peer-to-peer networks, cloud computing involves users uploading files into "a shared pool of

computer resources on the Internet, accessible from any computer” (Rogers, 2013). Unlike peer-to-peer networking services, no application or file-hosting on the user’s end is necessary (Rogers, 2013). The files uploaded to the cloud network are accessible from any computer so long as they are being accessed by an authorized user (Rogers, 2013). The uploader may provide other users with the authorization necessary to access the uploaded files, enabling decentralized distribution of files without any processing or storage on the uploader’s end (Rogers, 2013). However, cloud storage is a relatively recent development, and a great deal of Internet child pornography distribution continues to occur on peer-to-peer networks and websites.

Estimates for the Extent of Child Pornography on the Internet

Attempts to estimate the extent of child pornography that exists on the Internet are Herculean undertakings. To begin with, estimating the full amount of any type of content hosted on the Internet is a difficult effort as web content is ever-expanding, in dozens of languages, and not always easily accessible to any user. Compound all of these problems with the fact that individuals interested in child exploitative material engage in the sharing of it as surreptitiously and as far out of plain sight as possible. Despite these complicating factors, many academics have attempted to devise methodologies to develop estimates for the amount of child pornography present in some areas of the Internet.

One study conducted in 2009 analyzed the presence of child pornography on a specific peer-to-peer network, Gnutella (Steel, 2009). This analysis was performed by conducting an extensive search of the files available on Gnutella using a list of keywords and phrases commonly associated with child pornography then monitoring the results over the course of several weeks (Steel, 2009). The exact terminology used is not made available to readers by the author, who expresses his decision was based on a desire to avoid “providing a ‘cheat sheet’ of

keywords to child pornographers” (Steel, 2009). The author makes a point to evaluate not only the supply of child exploitative material available on the peer-to-peer network but also the demand, operationalized as the number of downloads (Steel, 2009).

One of the methodological concerns with estimating the amount of child exploitative content on the Internet quickly becomes apparent in this study: the researcher cannot legally download any search results to validate it is truly child pornography (Steel, 2009). While it goes without saying that viewing such content is disturbing and an experience the overwhelming majority of people would like to avoid, it is the only way to truly verify it. This statement is not to advocate for this level of validation, it is simply noting that true verification of any estimates is not possible given it would be a crime, an obstacle few other areas of criminal justice research regularly encounter.

Out of a total of 429,957 usable queries gathered during the analysis, 2770 uniquely named files were child pornography related, meaning they corresponded with keywords in the author’s list (Steel, 2009). Searches for child exploitative material consisted of approximately 1% of all queries (Steel, 2009). Extreme redundancy in comparison to non-child pornography files was noted, with each unique file being listed an average of over 11 times (Steel, 2009). 463 users were hosting the child porn files on their computer, representing roughly 7% of all of Gnutella’s users (Steel, 2009). 564 of all users searching the peer-to-peer network were using keywords associated with child pornography, representing 3% of all users searching for files (Steel, 2009).

In regard to the geographical location of the users searching for child exploitative material, 29.01% had IP addresses (connection information tying activity to a specific computer) originating from the United States (Steel, 2009). This percentage was nearly double that of the

next highest country, Malaysia (15.53%), indicating a great deal of the internet child porn consumption that occurs on Gnutella is among U.S.-based users (Steel, 2009). While almost 30% of the queries of child pornography originated from the U.S., only 6% of files marked by the search were hosted by U.S.-based computers (Steel, 2009). This finding seems to indicate that the demand for child porn in America is much greater than the supply, likely as a result of severe penalties for the production of child pornography in the U.S. (Steel, 2009). This demand may actually support the production of child porn in nations with less robust legislation restricting child exploitative material and less rigorous enforcement.

A more recent analysis of Gnutella concluded in 2014 provides further insight into the extent of child pornography on peer-to-peer networks. Unlike the previous study, which analyzed search queries using a database of child porn related keywords and terms, this study utilized *RoundUp*, a law enforcement software tool utilized for proactive counter-child pornography operations (Wolak et al., 2013;2014). The software detects child exploitative material in shared folders hosted on peer-to-peer networks using hash values, “unique numeric identifiers generated by computer algorithms based on the content of digital files” (Wolak et al., 2013;2014). Hash values connected to pornographic images and video involving minors are discovered during child porn investigations and subsequently are added to *RoundUp*’s database (Wolak et al., 2013;2014). While this methodology may provide more accurate results than Steel’s analysis, it is limited to only material known by law enforcement officials.

RoundUp was deployed to monitor child porn content on Gnutella from October 1, 2010 to September 18, 2011. The number of unique files recognized during this period by the software to be child exploitative material was 139,604 (Wolak et al., 2013;2014). Of this total, 120,418 (86%) files were being shared by computers located within the United States (Wolak et al.,

2013;2014). Most the computers hosting child porn (79%) only hosted such content for a short period of 1 – 9 days, though it is common for unique files to be reuploaded by another individual resulting in relatively consistent availability (Wolak et al., 2013;2014). A large number of computers (115,397; 47% of the sample) involved only hosted child porn for a single day during the period of interest and a significant number of computers (99,821, 41% of the sample) only uploaded a single file during the same time frame (Wolak et al., 2013;2014). It is possible these computers were sharing child exploitative material not known to *RoundUp*'s database, making the number appear lower than the reality.

It seems the vast majority of the hosting of child porn files is conducted by a small minority of computers; 1 computer shared 45%, or 56,640 files, of the child porn on Gnutella recognized by the software (Wolak et al., 2013;2014). Another 43% (52,429 files) were hosted by a group of 2-9 computers (Wolak et al., 2013;2014). The total number of U.S.-based computers involved in the distribution of child pornography was 244,920, a large number but much less than the total number of computers in the U.S. as the Census Bureau recorded 85,000,000 American households had at least one computer in 2010 (Wolak et al., 2013;2014).

A variety of other estimates as to the extent of the internet child pornography market have been developed over the last couple of decades, though they are likely outdated and not entirely reliable. According to the National Center for Missing and Exploited Children, millions consumers of child exploitative material access such content via the Internet (Wortley & Smallbone, 2012). One study found about 100,000 child porn websites on the Internet while another found 480,000 (Wortley & Smallbone, 2012). Hundreds of thousands of sexually explicit images and videos of children have been uploaded to the Internet and downloaded from it, with “offenders [having] been arrested with as many as a million downloaded child pornography

images” (Wortley & Smallbone, 2012). An analysis from 2003 discovered approximately 12% of the Internet consisted of pornography and 20% of that proportion (0.6% of the Internet) specifically involved sexual depictions of minors (Wortley & Smallbone, 2012). Even by conservative estimates, the Internet revolutionized the child pornography market by increasing quantity and quality, simplifying distribution, enabling pedophiles to easily congregate and share material, and creating a globalized market.

Cross-Contamination on the Internet

The Internet is staggeringly massive, with millions of websites dedicated to a range of topics to social media platforms that millions congregate to and communicate on daily. Given the utility and usefulness on the Internet, it is no surprise that pedophiles do not visit non-pornographic websites and use the Internet for a variety of reasons besides sexual gratification. It is a surprise to companies like YouTube, who recently encountered controversy after it was found pedophiles were viewing videos of children for sexual gratification (Lerman & Anderson, 2019). A user discovered pedophiles were making comments on such videos, including timestamps of moments “where kids innocently bared body parts” (Lerman & Anderson, 2019). After the user made a video documenting the behavior and it subsequently garnered millions of views, companies including as AT&T, Nestle, and others began removing their advertisements from the website (Lerman & Anderson, 2019). This was not the first time the video hosting website encountered controversy as a result of pedophilia. A similar situation occurred in 2017, when advertisements of companies such as Adidas, Amazon, Mars, and others appeared on YouTube videos that pedophiles were viewing in large numbers and controversy ensued (Mostrous et al., 2017).

Corporate Response to Pedophilia on their Platforms and Services

The previously discussed controversies on YouTube threatened both the reputation and livelihood of the company. Users complained about the website's failure to properly regulate content and behavior while corporations pulled their advertisements amid fears their brands would be associated with pedophilia (Lerman & Anderson, 2019). In response to both the presence of pedophilia on their platform and the reactions from users and advertisers, YouTube disabled comments on videos flagged for pedophilic comments and began deleting offenders' accounts and channels (Lerman & Anderson, 2019). YouTube is not the only corporation that has had to combat pedophilic activity on their service; corporate giants such as Google and Microsoft have also run into issues with child pornographers using their search engines, cloud storage services, and other products to distribute and possess child pornography (Steel, 2015).

Much like the methodology behind the *RoundUp* software discussed earlier, Google and Microsoft both utilize unique hash signatures associated with child pornography to detect such content in their email services, Gmail and Outlook respectively, and their cloud storage services, Google Drive and Microsoft OneDrive (Steel, 2015). If any child exploitative material is detected, the companies notify law enforcement officials and provide them with any information relevant to the apprehension of suspects (Steel, 2015). Another common Internet technology exploited by pedophiles is the search engine.

Search engines, given the simplicity to both access and use them, are the most common method of finding child pornography or tools to access it (such as peer-to-peer network applications) on the Internet (Steel, 2015). Google and Microsoft both have extremely popular search engines: Google's eponymous search engine, the most popular in the world, and Microsoft's Bing. As a result of both concerns with their brands' reputation and calls from

various government officials, including the Prime Minister of Great Britain, to prevent the consumption of child pornography, Google and Microsoft began efforts to reduce pedophilic activity on their search engines (Steel, 2015).

The efforts included removing explicit content involving children from their indices, filtering search results related to child pornography, and providing warning should users search for any keywords associated with child pornography (Steel, 2015). Following the deployment of these strategies, search queries for child exploitative material dropped dramatically (Steel, 2015). Figure 1 shows a comparison between trends in searches on Google for adult pornography and child pornography, before and after the enactment of these policies. The dashed orange line represents when Google and Microsoft acknowledged the Prime Minister of Great Britain's call to censor child porn while the solid black line represent when the companies announced the deployment of the policies. It is unlikely that the tactics employed by Google and Microsoft did not simply drive users to other search engines; Figure 2 shows the same trends as Figure 1 but for another search engine, Yandex. Yandex is the largest search engine in Russia, where child pornography is not criminalized (Steel, 2015). It does not filter content, remove search results involving child pornography, or warn users about such content (Steel, 2015). As a result, pedophiles around the world utilize it as a less restrictive and intrusive means of browsing the Internet for child pornography (Steel, 2015).

Figure 1 – User Search Queries for Sexually Explicit Material on Google

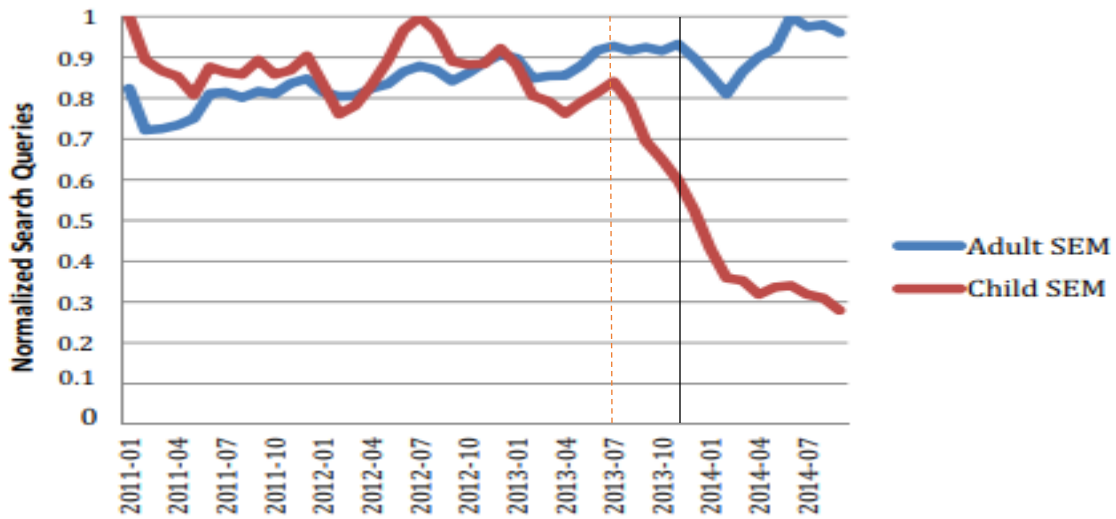
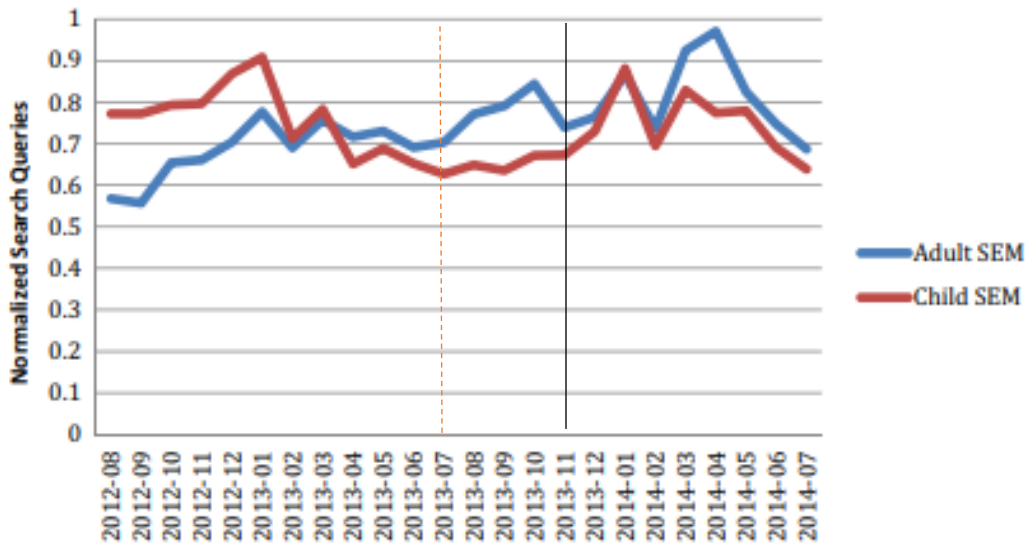


Figure 2 - User Search Queries for Sexually Explicit Material on Yandex



Based on the charts above, it would appear Google and Microsoft’s strategies for preventing search for child pornography were effective measures. Private companies’ responses to the challenge of child pornography on the Internet is just part of the effort to stop the sexual exploitation of children.

Law Enforcement Response to Internet Child Pornography

While the child pornography market had been almost completely extinguished prior to the proliferation of the Internet, modern technology has revitalized the production, distribution, and possession of child porn. As the Internet is a global means of discussion and content sharing, it is frequently the case that multiple law enforcement agencies cooperate to apprehend suspects (Wortley & Smallbone, 2012). This, in tandem with the development of the Internet, has resulted in the creation of a number of specialized task forces in various jurisdictions, organized specifically to counter Internet child pornography (Wortley & Smallbone, 2012). Examples include the Child Exploitation and Obscenity Section of the U.S. Department of Justice, the Cyber Crime Center – Child Exploitation Section of the U.S. Immigration and Customs Enforcement Service, and the Innocent Images task force of the Federal Bureau of Investigation (Wortley & Smallbone, 2012).

In an effort to manage the large volume of child pornography, law enforcement agencies in the United States have employed software such as the *RoundUp* tool discussed in a prior section. Other software utilized may record IP addresses, server and account passwords, e-mail, image and video downloads, and a host of other information on suspects (Wortley & Smallbone, 2012). Private corporations monitor their services, platforms, and software, referring instances of child pornography to the authorities. In some cases, law enforcement authorities may issue a notice and takedown order to the internet service provider, legally mandating them to shut down a website hosting illicit content (Wortley & Smallbone, 2012).

However, technologically-savvy pedophiles may have a greater success in avoiding detection and apprehension. Of a sample consisting of convicted possessors of child pornography, 3% were not at all knowledgeable about the Internet, 40% were somewhat

knowledgeable, 44% were very knowledgeable, and 10% were extremely knowledgeable according to investigators (Wortley & Smallbone, 2012). More tech savvy pedophiles may utilize encryption, obfuscate their IP address, use methods and websites not monitored, and perform other strategies to avoid detection. Investigations of a more clandestine nature are conducted to apprehend such suspects.

Undercover investigations are a routine tactic employed to apprehend suspects involved in child pornography. Law enforcement agencies enter websites, forums, and chat rooms known to be active in the distribution of child pornography and pose as a pedophile interested in obtaining child pornography; the establishment of credibility is a common occurrence in such exclusive groups, necessitating agents provide child porn images in order to maintain their cover (Wortley & Smallbone, 2012). Alternatively, undercover agents may pose as a child or teenager and react to the behavior of pedophiles in the group (Wortley & Smallbone, 2012). Should an agent receive child pornography while acting as a pedophile or be engaged by a pedophile when posing as a minor, probable cause for the investigation of the individuals involved commences (Wortley & Smallbone, 2012).

A tactic utilized to great effect by the Federal Bureau of Investigation in particular involves the seizure of accounts and websites hosting child pornography that are administrated by a pedophile. The suspect is apprehended and offered a plea agreement should he cooperate in the investigation. From the outside looking in, the child pornography website appears to function as usual; in reality, agents collect information on suspects and plan a simultaneous takedown of all individuals active on the website. The most famous and controversial investigation of this kind involved the deployment of a hacking tools to identify the IP addresses of over a thousand computers visiting a child pornography website hidden via Tor, software utilized to obscure an

individual's IP address and create networks inaccessible via traditional means such as a search engine query (Cox, 2016).

The pedophilic website, named Playpen, opened in August 2014 and had almost 60,000 members within a month (Cox, 2016). The next year that number grew to 215,000, with over 117,000 posts featuring explicit material involving minors and discussions about pedophilic activity (Cox, 2016). In February 2015, the server hosting the website was seized by law enforcement (Cox, 2016). Rather than simply shutting down the site, the FBI continued to operate the website for a few more weeks, during which it gathered hundreds of users' IP addresses (Cox, 2016). The ability of these tools to gather users' information along with the legal process authorizing the software's use remains a point of controversy for many, especially those advocating for internet privacy and freedom (Cox, 2016). Additionally, by allowing the continued distribution of child pornography, some argue the FBI was itself enabling criminal activity (Cox, 2016). While there is no doubt the practice is questionable, its efficacy was clear in this case, with about 1300 suspects being identified by their IP addresses as a result (Cox, 2016).

Conclusion

The Internet has revitalized and revolutionized the child pornography market. Transforming from a local market characterized by low-quality and difficult to obtain contraband into an international industry involving thousands of images and videos downloaded and shared by thousands of users, child pornography has become a serious concern in the 21st century. Technological advances, while generally beneficial for humanity, exasperate the detection and apprehension of those involved in child pornography. Legislative efforts are limited by the Bill of Rights, with internet privacy and freedom being a prime concern of technology advocates.

Corporations involved in software, online services, and social media platforms are plagued by pedophilic activity and the damage caused by it to their reputation. Amid these difficulties, law enforcement agencies utilize a variety of strategies, some of questionable ethicality, to identify and arrest suspects involved in child pornography. However, much of the production of pornographic content involving minors occurs overseas and often websites featuring such material are out of the reach of American law enforcement agencies. Given the quickly changing nature of technology and the cautious pace of legislation, it is difficult to say with any certainty how the criminal justice system will come to cope with these challenges.

Preface to Paper Two

The previous paper in this work discusses child pornography consumption and how technology, specifically the Internet, has revitalized a once declining illicit market. While child pornography is considered by the overwhelming majority of individuals to be a heinous act, the harm caused by child pornography possessors may go beyond the downloading, sharing and consumption of sexually explicit materials produced through the exploitation of children. This potential threat is that possessors of child porn do not limit themselves to child exploitative material but sexually exploit children themselves. Many questions may emerge as a result of this claim; how many consumers of child pornography are sexually abusing children? How are we assessing the number of child porn possessors engaging in such behavior? The next paper addresses these questions and others by exploring a growing field of study into this issue.

**Literature Review: Assessing the Full Extent of Child Sexual Abuse Among Possessors of
Child Pornography**

Arion Rivera

Rochester Institute of Technology

Capstone Project: Paper 2

INTRODUCTION

This is a literature review of studies with information on the amount of child porn possessors who have also sexually abused children. The studies are divided into four categories: conviction record studies, charge record studies, arrest record studies, and self-report studies. The first three categories rely on official records provided by the criminal justice system as a result of investigations. The final category involves subjects admitting to sexual offending not detected by the criminal justice system; this information provides insight into the dark figure of crime, specifically that of sexual offending. Self-report studies provide insight into the sexual offending of child porn possessors in a way that studies reliant on official records cannot.

CONVICTION RECORD STUDIES

Elliott, I. A., Beech, A. R., Mandeville-Norden, R., & Hayes, E. “Psychological Profiles of Internet Sexual Offenders: Comparisons with Contact Sexual Offenders” (2009)

Methods

This study analyzes two distinct groups -- one group of 505 adult male Internet offenders (possessors, distributors, and producers of child pornography) and another group of 526 adult male contact sex offenders (Elliot et al., 2009). Child porn possessors are not specifically enumerated by the authors. Both groups' crimes involved juvenile victims at least younger than 18 years old (Elliot et al., 2009). Offenders with both online and contact offenses or with online offenses involving grooming or planning to have sexual intercourse with children were excluded from the analysis (Elliot et al., 2009). As part of national probation programs in the U.K., offenders are placed into treatment programs, with psychological assessments being one of the components (Elliot et al., 2009). Questionnaires were used to measure subjects' offense-related

beliefs and attitudes, their social adequacy and interpersonal functioning, their ability to effectively manage emotions and behaviors, and to correct for social desirability response bias (any response made by subjects based not on fact but rather on what they perceive to be the more socially normative answers to queries) (Elliot et al., 2009). The responses of the two groups were then compared to one another.

Results

Contact offenders have more difficulty empathizing with their victims ($r = .30$) and issues with general cognitive function than their Internet counterparts ($r = .16$) (Elliot et al., 2009). Higher levels of emotional congruence with children ($r = .12$), more externalized locus of control ($r = .16$), overassertive emotional reactivity ($r = .14$), and more impulsive decision-making ($r = .13$) were also associated with contact offenders in comparison to Internet offenders (Elliot et al., 2009). Of specific importance to this literature review is the percentage of Internet offenders with contact offenses. Of 494 Internet offenders in the sample, only 54 had one or more previous known convictions involving contact offending (Elliot et al., 2009).

Endrass, J., Urbaniok, F., Hammermeister, L. C., Benz, C., Elbert, T., Laubacher, A., & Rossegger, A. “The consumption of Internet child pornography and violent and sex offending” (2009)

Methods

Illegal pornography, including child exploitative material, was distributed via a website owned by Landslide Productions, a U.S.-based company (Endrass et al., 2009). In 1999, the U.S. Postal Service shut the site down and handed over relevant user data on roughly 75000 individuals to the law enforcement authorities of the countries in which they resided (Endrass et

al., 2009). The sample for this study is comprised of 231 individuals from the Swiss police operation that apprehended over 400 of these users; these individuals specifically were suspected of consuming child pornography (Endrass et al., 2009). Official records for subjects' arrests prior to 2002, the convictions resulting from the Swiss police operation, and subsequent arrest records up to and including those of 2008 were used to analyze subjects' online recidivism and other criminal offending (Endrass et al., 2009). Recidivism was defined in two distinct categories for this study: a strict definition, counting recidivism only in those cases where a conviction occurred for the same offense, and a broader definition, which also counted ongoing investigations and charges (Endrass et al., 2009). Descriptive statistics were used to analyze the data gathered (Endrass et al., 2009).

Results

Four-point eight percent ($n = 11$) of the offenders had prior convictions for sex or violence, with one percent ($n = 2$) of subjects having prior convictions for sexually abusing children and 3.55% of subjects ($n = 8$) having been previously convicted for hands-off sex offenses such as the possession and consumption of child pornography (Endrass et al., 2009). In terms of the strict definition of recidivism, 2.6% ($n = 6$) of the sample had a conviction for a hands-off offense, 0.4 ($n = 1$) had a violent offense conviction, and none of the sample had a conviction for contact offending (Endrass et al., 2009). Shifting to the broader definition of recidivism, 3.9% of the subjects ($n = 9$) were investigated, charged, or convicted for hands-off sexual offending, 1.3% ($n = 3$) of the individuals broadly recidivated in violent offending, and 0.8% of the subjects ($n = 2$) were being investigated, charged, or convicted for a contact offense, "namely child sexual abuse" (Endrass et al., 2009). One of these contact offense-recidivating subjects had previously been convicted for such an offense (Endrass et al., 2009). These results

stand in stark contrast with those of other studies discussed in this literature review as non-record contact offending was revealed through polygraph testing in those, whereas this study is limited to official records only.

Laulik, S., Allam, J., & Sheridan, L. “An investigation into maladaptive personality functioning in Internet sex offenders” (2007)

Methods

Primarily focusing on psychological disorders present in Internet sex offenders, the sample in this study is made up of 30 convicted Internet child sex offenders (all were convicted of child porn possession, but three also had “convictions for indecently photographing a child” while another three also had “convictions for ... videoing a child; making pseudo photographs of a child; or indecent assault of a child”) enrolled in a 3-year community-based treatment program located in England (Laulik et al., 2007). A self-report questionnaire was given to explore various elements of the subjects’ history, including relationships, occupation, details of child exploitative materials consumed, and more (Laulik et al., 2007). Probation officers completed questionnaires about the sample’s criminal histories and a 344 item self-report inventory, the Personality Assessment Inventory, was utilized to assess personality disorders and psychopathy (Laulik et al., 2007). Participation was voluntary and data analysis was performed in SPSS.

Results

The authors discuss a variety of the sample’s demographic characteristics, including employment, parental status, and intimate relationships. Psychological characteristics of the subjects such as alcoholism, drug addiction, schizophrenia, depression, and other issues are detailed. However, the relevance of that data to this literature review is minimal; of concern to

this literature review are the subjects' Internet usage, specifically what child pornography they consume, and their offending. Unlike numerous other studies discussed in this review, no analysis is made of offenders' criminal behavior post-conviction either by polygraph examination or official records, limiting any crossover data to official records gathered prior to the execution of this study.

Operating with the small amount of relevant information provided by this study, here are the results concerning crossover. Twenty-three percent ($n = 7$) of the subjects had previous convictions, 6.7% ($n = 2$) for contact offences and another 6.7% ($n = 2$) for online crimes such as the possession and consumption of child pornography (Laulik et al., 2007). 9.9% of the sample had convictions for at least one non-sexual, non-violent offense (Laulik et al., 2007). All of these are in addition to the child pornography charge that resulted in these subjects' inclusion in the study. Ninety-three-point three percent of the subjects ($n = 28$) admitted to viewing sexual images of pre-pubescent children (Laulik et al., 2007). 50 percent ($n = 15$) of the sample reported viewing images graded Level 5, the most severe rating of abusive images by the Sentencing Advisory Panel (Laulik et al., 2007). Only one subject acknowledged communicating directly with a child over the Internet (Laulik et al., 2007).

CHARGE RECORD STUDIES

Seto, M. C., Cantor, J. M., & Blanchard, R. "Child Pornography Offenses are a Valid Diagnostic Indicator of Pedophilia" (2006)

Methods

This article analyzes a sample of 685 male patients of a treatment program who have been convicted of various sex crimes, with some being convicted of charges related to child

pornography (Seto et al., 2006). As part of their treatment, the subjects were “referred between 1995 and 2004 for a sexological assessment of their sexual interests and behavior” (Seto et al., 2006). The assessment revealed the offenders’ sexual interests and behavior, providing data that can be used to compare the sexual arousal to children that convicts of child porn-related charges have compared to offenders such as sex abusers of children and sex abusers of adults. As part of these assessments, the charges on record for each of the 685 patients were made available, providing the data necessary to analyze the amount of child pornography convicts who also had been apprehended for committing sexual abuse against children.

Results

Phallometric responses, measured as penile volume change in cubic centimeters, was the primary method through which subjects’ sexual attraction to children was assessed (Seto et al., 2006). Using this measurement, comparisons of convicted child porn possessors were made to other sex offenders. In terms of maximum phallometric response, child porn convicts with victims on record had the greatest response to images of children, followed by child porn convicts with no known victims (Seto et al., 2006). Both of these groups had greater response to every other category of sex offender with crimes involving children, including offenders with one child victim, two child victims, and three or more child victims (Seto et al., 2006). Based on their phallometric responses, roughly 60% of victimless child porn convicts were identified as pedophilic and about 65% of child porn convicts with victims were identified as pedophilic (Seto et al., 2006). In comparison, only approximately 45% of sex offenders with three or more victims were identified as pedophilic with sex offenders with fewer victims having even lower rates of pedophilia (Seto et al., 2006).

In terms of convicts with child porn related charged, 100 of the subjects had charges for child pornography offenses (Seto et al., 2006). Of this 100, 57 individuals had no record of contact offending with child victims while 43 individuals did have such charges on their record (Seto et al., 2006). Using this information, 43% of the subjects convicted of a child pornography-related charge had also victimized children (Seto et al., 2006). However, it is important to note that official statistics do not provide the full extent of subjects' sexual offending; this is made clear in the various self-report studies discussed throughout this literature review. In the face of this information, it is possible more than 43% of the relevant subjects have sexually abused children.

Seto, M. C., Reeves, L., & Jung, S. "Explanations Given by Child Pornography Offenders for their Crimes" (2010)

Methods

The authors of this study analyzed explanations provided by child pornography offenders for why they committed the illegal acts for which they were apprehended. Content analyses were performed on the explanations for the purposes of identifying common themes across the interviews. The accounts were divided into two samples: those gathered by law enforcement officers during criminal investigations (n = 50) and those gathered by clinicians following a child pornography conviction (n = 34) (Seto et al., 2010). The intent behind collecting explanations from two distinct stages in the criminal justice process was a belief that subjects would be more honest with their reasoning during the interviews with clinicians (Seto et al., 2010). The total sample consisted of 84 subjects, all of whom were arrested, charged, and convicted of child pornography offenses (Seto et al., 2010). The arrest record of the sample is provided by the

authors, making it possible to determine the proportion of these child porn offenders who also have contact offenses against children on record.

Results

In regard to the author's objective for this study, the majority of both samples denied accessing child pornography as the result of a sexual interest in the material or in children; only 23 (46%) individuals in the police sample and 13 (38%) individuals in the clinical sample acknowledged they harbored a sexual interest in child porn and/or children (Seto et al., 2010). The most common explanations in the police sample were claims that subjects downloaded child pornography either out of curiosity (40%) or by accident (40%) while the most common explanations in the clinical sample were accidental access (32%), an addiction to pornography (29%), and curiosity (27%) (Seto et al., 2010). In the police sample, a third of subjects (36%) cited three or more explanations for their crime while in the clinical sample a majority of subjects (68%) cited three or more explanations (Seto et al., 2010). 26 (52%) offenders changed explanations during the police interviews while 9 (35%) offenders changed explanations during their clinical accounts (Seto et al., 2010).

Regarding criminal history, previous contact offending was also divided into the two samples. Of the 50 subjects in the police sample, seven (14.0%) had a previous contact offence against a child (Seto et al., 2010). Of the 34 subjects in the clinical sample, 4 (11.8%) had a previous contact offense involving a juvenile (Seto et al., 2010). In total, 11 out of 84 (13.1%) individuals in the study had sexually abused a child. As mentioned previously in this literature review, estimates using subjects' charge records are limited only to those incidents detected by the criminal justice system and do not reveal the full extent of subjects' sexual abuse of children.

Webb, L., Craissati, J., & Keen, S. “Characteristics of internet child pornography offenders: A comparison with child molesters” (2007)

Methods

As with a couple of the studies detailed earlier, this article does not specifically focus on contact offending by consumers of child pornography but instead compares certain characteristics of child pornography offenders, including previous convictions and psychological traits, with those of child molesters. Over the course of eight months, a sample of 210 individuals from London were analyzed; 90 of them were convicted for crime involving Internet child porn and 120 of them were convicted of sexually abusing children (Webb et al., 2007). Information on their offending was gathered from viewing their official records and discussion with their probation officers (Webb et al., 2007). The subjects’ charge records were among the official files viewed by the authors (Webb et al., 2007).

Child sexual abuse was defined by the authors as sexual contact with a youth under 16 years of age that was either unwanted or perpetrated by an adult five years older than the juvenile (Webb et al., 2007). This is critical to note because it is a much more exclusive definition than much of the literature detailed in this review. Risk assessments such as the *Risk Matrix 2000* and psychological measurement tools such as the *Psychopathy Checklist: Screening Version* were used to gauge participants’ mental characteristics (Webb et al., 2007).

Results

The risk assessments found that the Internet child porn offenders had higher proportions of High-risk individuals (26%) compared to child molesters (18%) (Webb et al., 2007). However, the child molester group had a higher percentage of individuals rated very high risk

(9%) in comparison to the Internet offenders (1%) (Webb et al., 2007). In regard to psychological characteristics, the authors note that consumers of Internet child pornography had a greater frequency of mental health issues than the child sex abusers (Webb et al., 2007). Despite these psychological issues, the group of convicts for crimes related to child pornography on the Internet recidivated at much lower level than the child molesters; 96% of the former cohort had no formal failures such as probation violations while only 71% of the latter cohort did not (Webb et al., 2007).

Regarding the issue of concern for this review, the conviction records of the subjects were included. The Internet child porn participants are the group of interest as the other portion of the sample were convicted for sexually abusing children. Of the 90 subjects who were convicted of crimes involving child pornography, four (4.44%) had previous convictions for sexually abusing children. This is much lower than the majority of the literature discussed previously in this review. Given that the records being used to analyze the rate of contact offending, it is likely there are many more arrests, charges, or potential undetected behavior among this cohort that are simply not reflected in the limited data provided by this study.

ARREST RECORD STUDIES

Wolak J., Finkelhor, D., & Mitchell, K. J. “Child pornography possessors arrested in

Internet-related crimes: Findings from the National Online Victimization Study” (2005)

Methods

Grand in scope, the National Juvenile Online Victimization Study aims to uncover trends in the official data for Internet-related sex crimes with young victims by surveying law enforcement agencies across the United States. This study focuses on agency records for relevant criminal activity during the period of twelve months from July 1, 2000 to July 1, 2001 (Wolak et al., 2005). Only cases that resulted in an arrest were counted by the study, with the reasoning being that such incidents were more likely to involve actual criminal conduct; counting arrests only also prevented repeated inclusions of a single case (Wolak et al., 2005). For the data collection process, two steps were used: the first phase involved a mail survey of 2574 local, county, and state law enforcement agencies while the second phase involved detailed interviews via telephone with investigative personnel of child pornography cases (Wolak et al., 2005).

Results

Four hundred and twenty-nine suspects were arrested by the agencies surveyed in this study (Wolak et al., 2005). Demographic characteristics are provided in the results, including sex, race, age, and more. One of the most significant portions of this demographic data is the sex of the suspect; some female offenders are among the suspects described, though they comprise less than one percent of the entire sample (Wolak et al., 2005). Numerous other types of data, including the characteristics of images possessed by suspects, suspects' computer use, case outcomes, and more was included. While the study is very comprehensive compared to its counterparts, the data is nearly 20 years old at the present, rendering its current applicability questionable. In addition to the previous data, past contact offenses involving juvenile victims were recorded in this article, with about 47 (11%) suspects having a known prior arrest for a sexual offense committed against a minor (Wolak et al., 2005).

Wolak, J., Finkelhor, D., and Mitchell, K. "Trends in Arrests of Online Predators" (2009)

Methods

Following up on the work of the previous National Juvenile Online Victimization Study (N-JOV), the current study details the second wave of the research endeavor. The second N-JOV was conducted during the calendar year of 2006, roughly six years after the initial wave (Wolak et al, 2009). The methodology employed by the second wave of research was the same as the first: a variety of data on child pornography cases are gathered through surveys of law enforcement agencies from across the nation followed by telephone interviews with the investigators involved (Wolak et al, 2009).

Results

The authors note that the number of cases involving the use of the Internet and young victims increased between the first and second N-JOV, from 508 in 2000 to 615 in 2006 (Wolak et al, 2009). This increase is contrasted with declines in both the number of rapes and all sex crimes reported when comparing the 2000 results with those of the 2006 study; rapes with victims 0-17 years old decreased from 20,652 to 17,248 and all sex crime cases with the same group of victims decreased from 54,693 to 49,345 (Wolak et al, 2009). 615 arrests were made for cases involving online predation of juvenile victims, and of this 615 only about 10% of suspects had a previous recorded arrest involving sexual abuse of a youth (Wolak et al, 2009).

SELF-REPORT STUDIES

DeLisi, M., Caropreso, D. E., Drury, A. J., Elbert, M. J., Evans, J. L., Heinrichs, T., &

Tahja, K. M. “The Dark Figure of Sexual Offending” (2016)

Methods

For the current study, the authors gathered a sample of 119 federal offenders convicted from 2010 to 2015 of sexually abusing children (Delisi et al., 2016). Case management records, medical history, and psychological evaluations were used for the analysis (Delisi et al., 2016). The dependent variables were *self-reported sexual abuse*, the number of victims the subject reported victimizing while undergoing a polygraph examination, and *sexual abuse*, the number of charges for sexual abuse or rape listed on the subject's official criminal record (Delisi et al., 2016). The independent variables included *criminal history points*, a value assigned to the subject based on their prior convictions with lengthier and more severe sentences contributing more points to the value; *conviction offense*, a measure of the sexually-related crimes for which a subject is convicted; and *total paraphilias*, a count-variable of the number of symptoms the subject expresses of DSM-IV-TR sexual perversion disorders (Delisi et al., 2016).

An ANOVA model was developed to compare sexual offense conviction type and self-reported sexual offending (Delisi et al., 2016). Estimates of the number of sex crime events perpetrated by each subject who acknowledged non-record sexual offending were developed based on models from Mathesius and Lussier (2014) (cited by Delisi et al., 2016). Cross-tabulations were conducted for self-reported sexual offenses and official records of sexual offenses (Delisi et al., 2016). Correlations were calculated to compare self-reported sexual offenses and official sexual offending with conviction status for various sex crimes involving children (Delisi et al., 2016). ROC-AUC models were conducted to evaluate the classification accuracy of total paraphilias and official sexual offenses, the two most significant effects found by the partial correlation analysis for self-reported sexual offending (Delisi et al., 2016).

Results

Of the 119 subjects selected for the sample, 69 percent revealed they had sexually abused someone at least once, with the average number of victims being 3.7 and the total range being 0 – 24 victims (Delisi et al., 2016). Three hundred and ninety-seven victims comprised the sum total of the 119 subjects, though as mentioned before not every subject had physically abused victims (Delisi et al., 2016). Thirty percent of the sample had two or more victims and offenders with criminal histories in the top ten percent of severity relative to the sample revealed they had sexually abused 10 or more victims (Delisi et al., 2016). The authors then apply the estimate models used in Mathesius and Lussier (2014), which used data from sex offenders in Canada, to posit that the mean estimate of sex crime events per subject was 802.53; this value was determined by multiplying the current sample's mean number of victims per subject by its mean number of sex crime events (Delisi et al., 2016). If this same model is applied to the offenders within the top ten percent of severity of self-reported criminal sexual offending, the mean estimate of sex crime events is 3166.74 (Delisi et al., 2016).

Thirty-four of the subjects had zero official record of hands-on victims but admitted to such crimes while undergoing a polygraph examination, with the sum total of this group's victims being 148 (Delisi et al., 2016). Official record of sexual abuse was significantly correlated with subject's self-reported sexual offending (partial $r=.39$, semipartial $r=.33$, $p<.0001$); the official record accounted for 11 percent of the variance in self-reported sex crimes (Delisi et al., 2016). Total paraphilias explained 17 percent of the variance in self-reported sexual offending (Delisi et al., 2016).

The most relevant result of this study is the fact that 34 of the subjects revealed they had sexually abused victims but did not have a conviction for these incident(s) (Delisi et al., 2016). The majority of the offenders in this cohort had a conviction for possessing child pornography

(Delisi et al., 2016). Half of the 90th percentile of self-reported sexual offending had been charged with this crime (Delisi et al., 2016). As the authors note, “the current analyses indicate that child pornography offenders are significantly more severe than their instant conviction offense indicates. More often than not, they are contact sexual abusers” (Delisi et al., 2016).

Bourke & Hernandez “The ‘Butner Study’ Redux: A Report of the Incidence of Hands-on Child Victimization by Child Pornography Offenders” (2008)

Method

This study attempts to determine if those convicted of child pornography possession have undocumented sexual contact offenses. To achieve this end, two comparison groups were formed; one of these groups consisted of those facing both child porn related charges and contact offending and the other was comprised only of those charged with child porn offenses (Bourke & Hernandez, 2008). The total sample was 155 subjects from an “intensive, residential, sex offender-specific treatment program (SOTP) at a medium-security federal prison”; the program was voluntary, consisted of 15 hours of weekly cognitive-behavioral treatment over the course of 18 months, and program participants were housed at a separate unit (Bourke & Hernandez, 2008). Presentence investigation reports provided researchers with the official records for a subject while psychosexual history questionnaires and polygraph examination reports revealed unrecorded incidents of sexual contact with minors (Bourke & Hernandez, 2008).

Results

The psychosexual history questionnaires and polygraph examination reports revealed that a large percentage of Internet sex offenders had hands-on victims. Prior to treatment, 115 (74%) of the subjects had no recorded incidents of contact offending (Bourke & Hernandez, 2008).

After treatment, 24 (15%) individuals denied contact offending while 131 (85%) admitted that had at least one hands-on sexual offense, an increase of 59% from the initial known value (Bourke & Hernandez, 2008). The total number of victims from every offender was 1777 with subjects averaging 13.56 each; those with convictions for contact offending averaged 19.4 victims and those with no official record of such crimes averaged 8.7 victims (Bourke & Hernandez, 2008). Contact offenders generally crossed age bands and gender categories in regard to their victims (Bourke & Hernandez, 2008).

Buschman & Bogaerts “Polygraph Testing Internet Offenders” (2009)

Methods

The two authors of this study utilize sexual history disclosure polygraph examinations (SHDE) to verify the sexual offenses committed by internet offenders, including possessors of child pornography. In addition to seeking the disclosure of sexual offenses unknown to the criminal justice system, subjects’ acknowledgement of paraphilias that may inform risk assessment processes and treatment plans are also a core aim of the SHDE (Buschman & Bogaerts, 2009). This article focuses on two distinct but closely related studies: “Study One” with a sample of 25 adult men convicted as a result of an Internet child porn infiltration by Interpol and the FBI, all of whom had no previous charges; and “Study Two” which analyzed 38 adult men charged for possession of child porn, none of which had any previous convictions (Buschman & Bogaerts, 2009). The primary differences between the studies were the years of treatment (2004-2005 for Study One and 2005-2006 for Study Two) and the treatment centers (all of the subjects of Study One were treated at a single facility while those of Study Two underwent treatment at various facilities) (Buschman & Bogaerts, 2009).

Both studies employed the same procedure overall. The polygraph examiner reviewed treatment records to develop an understanding of subjects' paraphilias, deviant sexual behavior, and types of pornography consumed (Buschman & Bogaerts, 2009). The polygraph process consisted of a pre-exam interview, the polygraph examination, and a post exam interview, with the entire procedure spanning roughly two hours (Buschman & Bogaerts, 2009). The pre-exam interview allowed for more clarification and detail than available treatment records provided (Buschman & Bogaerts, 2009). Questions about contact offenses were left out of this initial questioning for both studies but addressed separately in the second study by a second polygraph examination so as to contend with salience issues regarding queries about lesser offenses (Buschman & Bogaerts, 2009).

The polygraph questions for both studies were also similar; ten questions total, six content questions (three relevant questions and three comparison probable lie questions) and four padding questions (symptomatic and irrelevant). The second study added an additional question for its aforementioned second polygraph exam: "Have you ever, in any way, touched children for sexual reasons?" (Buschman & Bogaerts, 2009). Those whose results indicated deception were asked follow-up questions to clarify these findings (Buschman & Bogaerts, 2009). If deception was indicated but subjects refuted this result, a second exam was offered to reconfirm (Buschman & Bogaerts, 2009).

Results

The authors organize the results of both studies into a single section as they are closely related. Self-report disclosures were compared to admissions made during the SHDE. Twenty-

one men denied masturbating to child exploitative material while the majority of the remaining 42 denied masturbating to content of adults engaging in sexual intercourse with children or of sexual activity between animals and children (Buschman & Bogaerts, 2009). The 21 subjects who initially denied consuming child porn relented, 47 subjects admitted to masturbating to images of children being penetrated by adults, 48 admitted to masturbating to content featuring explicit contact between children and adults, and a further 26 of the subjects acknowledged consuming material featuring “sex between animal and child / inflicting pain” (Buschman & Bogaerts, 2009). Pornographic preferences shifted towards younger individuals, with interest in pre-pubescent children ages six and younger more than tripling from 9 to 31 individuals (Buschman & Bogaerts, 2009).

The most significant findings of the studies may be admissions of high-risk behavior towards children. Prior to the polygraph exam, four subjects reported masturbating on fantasies about sex with children, three reported making plans to have sex with children, and one actively sought contact with children (Buschman & Bogaerts, 2009). After the polygraph, 51 subjects admitted to masturbation fantasies with children, 29 made plans for having sex with children, and 36 had at one point been seeking contact with children (Buschman & Bogaerts, 2009). None of the subjects had admitted to physically victimizing anyone prior to the SHDE; after the SHDE, 21 subjects acknowledged touching children for sexual reasons, 7 groomed children towards sex, 13 photographed children for sexual reasons, 16 watched children while masturbating, nine exhibited their genitals to children, 11 stole children’s clothing to masturbate, and 36 renewed possession of child abuse images (Buschman & Bogaerts, 2009). Thirty-seven victims were reported: four were relatives to the offender, 14 were acquaintances, and 21 were strangers (Buschman & Bogaerts, 2009).

Neutze, J., Seto, M. C., Schaefer, G. A., Mundt, I. A., & Beier, K. M. “Predictors of Child Pornography Offenses and Child Sexual Abuse in a Community Sample of Pedophiles and Hebephiles” (2011)

Methods

The objective of this study was to identify characteristics that separate pedophiles who consume child pornography from those that consume child porn but also sexually abuse children. The traits measured involved emotional deficits, general self-regulation problems, offense-supportive cognitions, and sexual self-regulation problems (Neutze et al., 2011). What distinguished this study from the others detailed in this review is that not all the subjects were involved in the criminal justice system; some of the participants were “help-seeking men” who had not been detected by law enforcement agencies at the time of assessment (Neutze et al., 2011). Data was gathered from a German treatment project for the prevention of child sexual abuse, which offered 1-year of cognitive behavioral therapy to interested pedophiles in exchange for disclosure on their sexual offending behavior (Neutze et al., 2011). This does raise a concern that the data would be skewed as help-seeking pedophiles may be intrinsically different from their non-assistance seeking counterparts.

Results

155 subjects comprised the initial sample of this study. Eighteen of these individuals did not provide a full report on their offending behavior, reducing the data set to 137 subjects (Neutze et al., 2011). While this study is primarily concerned with analyzing various mental and personality issues that distinguish the various groups the sample is comprised of, for the purposes of this study it is the crossover statistics that are of interest. The lifetime sexual

offending of subjects was collected during the program by participants self-reporting their involvement in such activity. Data on lifetime sexual offending was missing for 18 of the subjects, reducing the sample in this category to 137 (Neutze et al., 2011). Forty-five participants had only sexually abused children, 42 participants had only used child pornography, and 50 participants acknowledged a mix of child porn consumption and child sexual abuse (Neutze et al., 2011). In terms of crossover, out of a total 92 participants who used child pornography, 50 (54.35%) also had contact offenses against children in addition to their child porn consumption (Neutze et al., 2011).

Quayle, E., & Taylor, M. “Model of Problematic Internet Use in People with a Sexual Interest in Children” (2003)

Methods

A qualitative analysis on the impact of the Internet on pedophiles, this study focuses on outlining an escalating process through which pedophiles commit increasingly heinous acts as a result of access to child exploitative materials and communication with children online. Interviews were conducted with 23 men, all of whom had been convicted of possessing child pornography (Quayle & Taylor, 2003).

Results

While the article uses these interviews to provide insight in how access to the Internet may exasperate paraphilias that pedophiles have and enable them to more easily conduct criminal activity, this review is concerned with the number of consumers of child pornography who also had sexually abused children. During the interviews, subjects revealed the extent of their criminal offending, including their sexual victimization of children. The sample totaled 23

men; of these 23 individuals, eight produced child pornography, one solicited a minor on the Internet, and “11 had committed contact offenses against children during the period of downloading” (Quayle & Taylor, 2003).

Two problems are present in attempting to use these figures to derive a percentage of the sample who committed contact offenses against children: the sample is small, and it is impossible to ascertain if there is any overlap in the previous figures as the authors do not provide detailed data. It may be that these offenses are mutually exclusive and there are 20 contact offenders or, more likely, that there is a degree of overlap present in the figures. If we were to use the number of subjects who had committed contact offenses, 11 of the 23 (47.8%) of the participants were contact offenders. However, I am wary of citing this as a reliable statistic as it is possible the authors did not consider the subject who solicited a child for sex online to be a contact offender. A more detailed breakdown of these incidents is necessary in order to accurately assess the percentage of subjects who sexually abused children.

Conclusion

Over the past two decades, a body of academic literature has developed to discover the extent to which those who consume child pornography also act on their sexual proclivities outside of self-gratification. The question is an obvious one as a number of individuals who engage in adult sexual activity also consume adult pornography; it is natural to assume the same link between porn consumption and sexual activity related to it among pedophiles. There are two barriers to uncovering the true extent to which consumers of child pornography satisfy their sexual urges by preying on children: admitting to such behavior has harsh legal and social consequences, and relying on official records such as arrests and convictions neglects to account for all the incidents that have not been detected by the criminal justice system.

One type of study, those based on self-reported of their sexual history including activity with children, is a more reliable tool for assessing this dark figure of child sex abuse as it uses personal disclosures of sexual offending to develop a more accurate figure. The majority of these self-report studies utilize, in addition to self-reporting, polygraph examinations to test the honesty of subjects. The reliability and validity of the technique is questionable at best, but no alternatives have been developed to more rigorously and exactly reveal the true extent of child porn consumers' sexual abuse of children. Until more scientifically valid methods are introduced into this subject, we can only estimate this dark figure with the available literature and the available research literature is relatively consistent: a significant portion of those convicted of possessing child pornography are sexually victimizing children.

Preface to Paper Three

The second paper provided an overview of the current academic literature assessing the extent to which child pornography possessors sexually abuse children. The following paper is my own research into the topic using a sample of data unique from any published work. Using the self-report methodology described in the previous paper, I analyzed this new data source using a number of variables detailed within this third paper. The process and results are explained in greater detail than those works explored in the literature review, providing a greater understanding of such research and more information.

**Analysis of the Hidden Victimization of Minors by Federal Probationers Convicted of
Child Pornography Possession**

Arion Rivera

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Capstone Project: Paper 3

Introduction

Assessing the true extent of crime is a Herculean effort that everyone involved in the field of criminal justice, practitioner and academic, considers at one point or another. For decades, it has been well known that official records vastly underestimate the full figures of crimes perpetrated and people victimized; those crimes that go unreported and unknown to the authorities comprise the “dark figure of crime” (Biderman and Reiss, 1967). Various approaches have been taken to resolve this issue, including the National Crime Victimization Survey (NCVS) and other self-report queries. While the NCVS is a survey conducted on households across the country seeking information on subjects’ victimization, not all self-report studies confront the dark figure of crime in this manner. Some studies, including those seeking to reveal the true extent of sexual offending, ask perpetrators to acknowledge all their crimes with the promise that these disclosures will not be used to prosecute them. The research detailed in this paper is an example of such a study.

Data analysis was performed on a sample of 260 sex offenders on federal probation in the Western District of New York who underwent sex offender treatment as a condition of their supervision after incarceration. The clients were convicted of possessing child pornography. As part of their treatment, the clients filled out sexual history disclosures and underwent polygraph examinations to reveal both their compliance with probation restrictions and the full extent of their sexual offending, reported and unreported. Information for some of these 260 cases were missing; 37.3% (n = 98) of cases were missing information on their polygraph examinations and 48.5% (n = 126) of cases did not have sexual history disclosures available. Despite these missing records, a great deal of information was able to be derived from the information available.

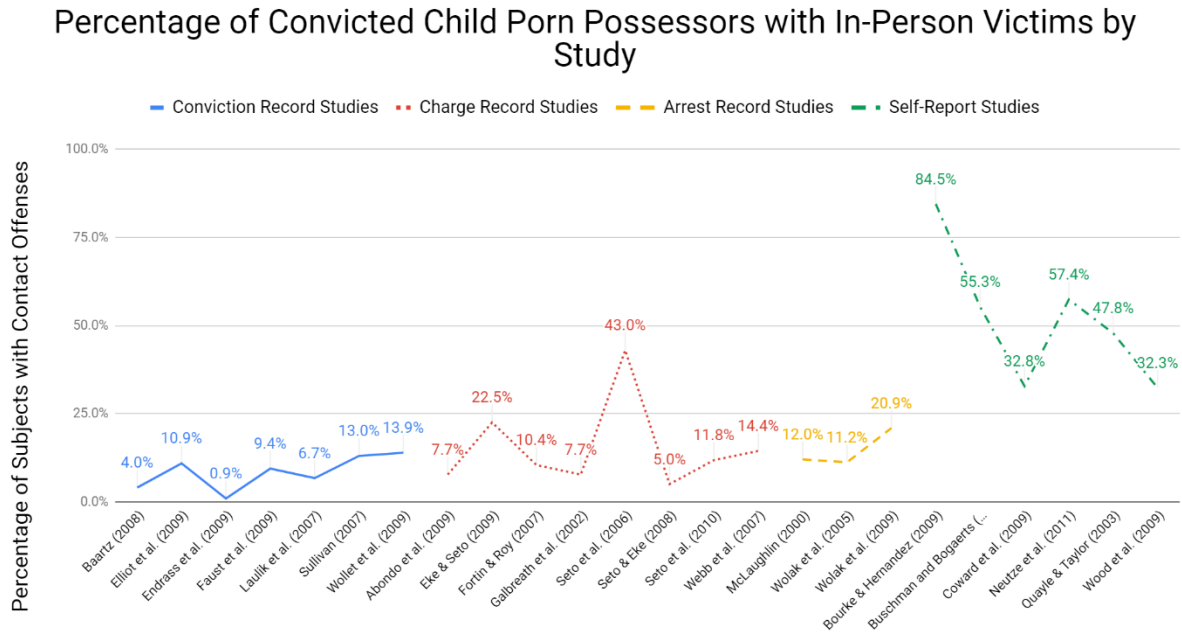
Literature Assessing the Extent of Sexual Offending Among Child Pornography Possessors

An emerging body of work exists that addresses a specific subset of the dark figure of sexual offending: the crossover between individuals convicted of consuming child pornography and those who have hands-on victims. Though some rely purely on official arrest records, the majority use self-reporting supplemented by polygraph examinations to estimate the number of sexual offenses that are undetected by the criminal justice system. Convicted possessors of child pornography often undergo polygraph examinations as a condition of parole, probation, or supervised release sentences (DeLisi et al., 2016). Often preceding the polygraph, subjects are interviewed as to their lifetime sexual offending, which is compared to sexual history disclosures (also often a condition of treatment) and official records to develop an understanding of the full extent of their contact offending (Buschman and Bogaerts, 2009). After the polygraph, a post-test interview is administered to confirm examination results (Buschman and Bogaerts, 2009).

The overall findings of this body of literature is that child pornography possessors physically victimize children and adults at a much higher rate than official statistics suggest (Seto et al., 2011). As seen in Figure 1, studies utilizing polygraph examinations to uncover the true extent of sexual offending generally find that this behavior occurs in anywhere from approximately 32% to 84.5% of cases (Seto et al., 2011). In comparison, official records such as convictions, charges, and arrest records have much lower rates. Studies using conviction statistics average a rate of 8.4%, studies analyzing legal charges have a mean rate of 15.3%, and studies deriving results from arrest records average 14.7% (Seto et al., 2011). It is likely that some of the discrepancies that exist from one source to another are simply due to the nature of the statistics; of the arrests that occur, only a certain percentage have charges pressed and of those charges a smaller proportion result in convictions. Unlike these other sources, self-report

data is purely the result of confessions, meaning that inaccuracy can only exist if offenders are dishonest

Figure 3



Research Literature - Source of Data

or uncertain as to the veracity of their revelations. This is where the polygraph examination becomes relevant.

Methodology

Federal probation records collected on the clients during their treatment formed the basis of the information analyzed. The details provided by these records were qualitative in nature, requiring me to sift through paragraphs, in in some cases pages, of text to uncover relevant facts. Many of these records were written prior to the development of a digital database; these paper records were subsequently scanned and uploaded to the federal database following its creation. The digital archival process may account for the number of missing records. A number of

variables were tracked during this process: the client's identification number, their name, the availability of their sexual history polygraph, the availability of their sexual history disclosure, the polygraphers involved in the administration of their exam, the total number of specific victims disclosed, the number of "hands-on" victims, the number of "hands-off" victims, the number of male and female victims for each of these sub-categories, the ages of each victim, whether or not the client failed their sexual history polygraph, and the number of victims revealed in cases where deception was indicated.

The process of deciding which variables to collect information on was initially based on what details would provide the most facts and convey trends from which evidence-based conclusions could be drawn. However, upon reading through several of the reports, it quickly became apparent that some variables would not be possible to measure as a result of missing or uncollected information. One variable, victims' race and ethnicity, was rarely a subject of inquiry during both the polygraph and clients' sexual history self-reports. Another variable, clients' reoffending during probation, did not reveal any useful knowledge as clients' failures to comply with the restrictions imposed were minor infractions such as using an unmonitored internet device or consuming adult pornography.

Operationalization of some of the aforementioned variables were straightforward while others required careful decision-making. One example of the latter involved classification of victims as "hands-on" or "hands-off". Ultimately, it was decided that hands-on sexual interactions would be any incident involving sexual intercourse of any type, including oral, anal, vaginal; fondling or rubbing, whether or not the client's or victim's clothes are on or off; masturbation; victim contact with the client's genitals; and kissing. Incidents were classified as hands-off sexual interactions if they involved exhibitionism, voyeurism, lap sitting, invitations

and demands for sexual intercourse. Victims who suffered hands-off sexual interactions in addition to hands-on sexual interactions were classified as hands-on victims only.

While seemingly straightforward, the classification of sexual incidents involving minors was occasionally difficult. In some cases, sexual contact was described as mutual and both the client and the individuals they had sexual interactions with were minors. A subset of such cases involved a pre-teen offender and an individual more than 2 years younger than them; for example, an 11-year-old digitally penetrating a 9-year-old. While they were a minority of the overall results, the cases that fell into this category are still significant and were considered incidents of sexual victimization. Other difficult to classify cases involved minors who were 17 years of age and mutual consent was described. In such cases, if the client was above the age of 19 then the incidents were classified as sexual abuse of a minor as they would likely be considered statutory rape.

Other problems included the classification of victims for whom specific pieces of information were missing or unrecorded. For a number of victims, their age, sex, relationship with the client, or the nature of their victimization was unknown. Only for the categories in which their details were recorded did these victims factor into the descriptive statistical analysis, though all information was factored into the charts and graphs in the Results section below. Another problem involved offenders who offered unspecific information on their sexual abuse of children. This raised issues when attempting to classify specific victims as hands-on contact or hands-off contact, and so such cases were dealt with by categorizing them in a distinct category.

The relationship between the client and their victim was operationalized into three categories: family, acquaintance, and stranger. The relationship was classified as “family” if the client was a relative of the victim or if the client was in a romantic relationship with relatives of

the victim. Situations falling under the purview of the second classification were considered a family relationship because the client may be considered a step-parent (in cases where they are involved with the victim's parent) or an uncle (in cases where they were dating the victim's aunt or uncle). A relationship fell under the umbrella of "acquaintance" if the client knew the victim through coworkers, neighbors, their occupation, or similar situations not involving familial ties but still involving a level of familiarity. Victims who, in relation to the client, were students, bus passengers, neighbors, the children of coworkers, and similar social circumstances would be classified as an acquaintance. The final category, "stranger", involved any victim unknown to the client, known to the client solely through the Internet, and prostitutes.

A final issue concerned clients' whose offending was both extreme and inexact; a few offenders revealed the victimization of dozens or hundreds of individuals without an exact figure or any of the details previously discussed. In one of these cases, both adult victims and juvenile victims were acknowledged without specific details, further exasperating this problem. Ultimately, it was decided that the best course of actions was to acknowledge and record those cases but not factor them in as no specific and reliable information was collected, rendering rigorous analysis of such revelations impossible.

Results

Given the nature of the data and that a significant portion was missing or unclear, simple univariate and bivariate analysis formed the majority of the results. Descriptive statistical analysis was performed on quantitative variables when relevant. The records of 260 clients convicted for the possession of child pornography were analyzed and 547 specific victims were identified. The charts, graphs, and tables below convey the findings.

Figure 4

Availability of Clients' Polygraph Examinations (n = 260)

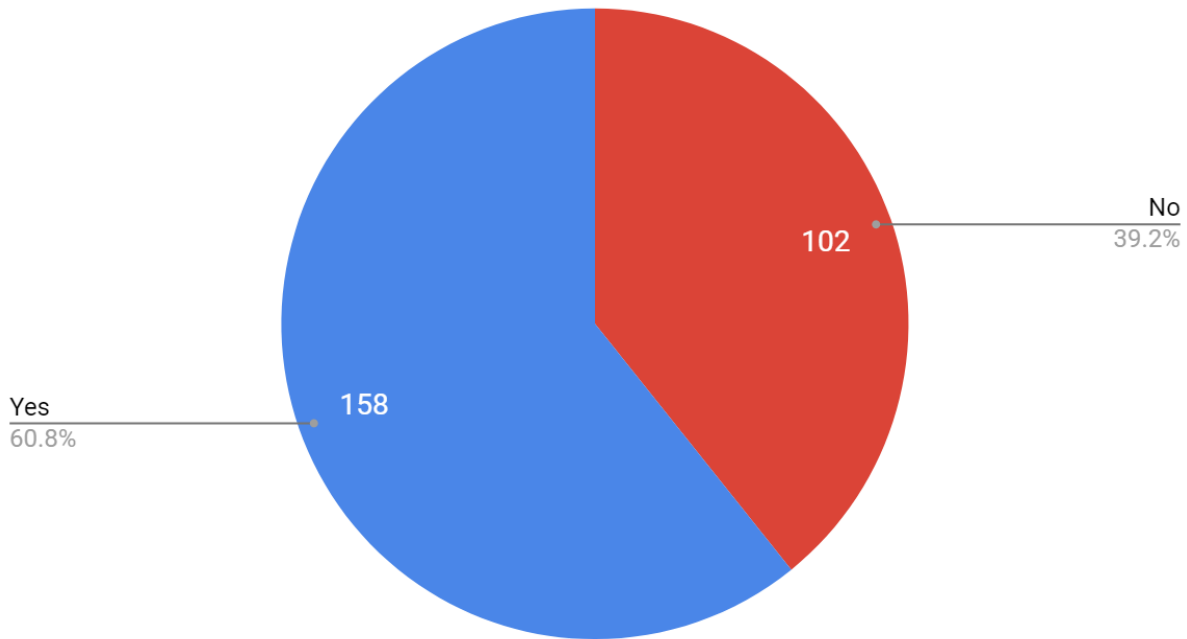


Figure 2 depicts the proportions of clients that had information on their polygraph examinations available in the reports. As discussed prior, the polygraph examinations are one of two sources for the data analyzed for this project. Just under two-thirds of the sample (60.8%) had these reports available to some extent while slightly over a third (39.2%) did not have any information available. As polygraphs are a means of assessing clients' sexual history disclosures and occasionally result in the client revealing more victims, it is likely that the availability of polygraph examinations is more critical to discerning the full extent of clients' sexual victimization of children compared to the availability of sexual history disclosure reports. That being said, polygraph examinations have their own issues and limitations, which are discussed in a later section of this paper.

Figure 5

Availability of Clients' Sexual History Disclosures (n = 260)

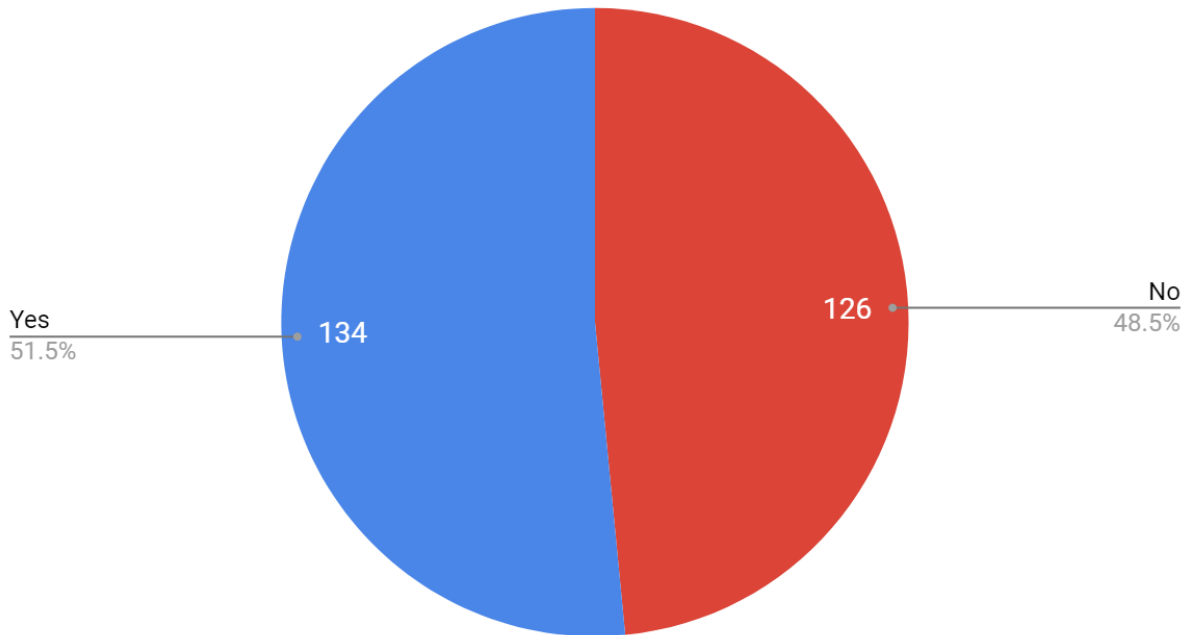


Figure 3, like the chart preceding it, shows two proportions of the sample. This figure details the presence of clients' sexual history disclosure forms in the records. The forms involved subjects' self-reported sexual offending, including previous arrests, charges, and convictions in addition to those that escaped detection. Sexual victimization of both adults and juveniles were acknowledged in these reports, though only incidents featuring minors were measured in this project's data analysis. Just over half (51.5%) of the clients had such disclosures available while just under half (48.5%) of the clients did not have any information regarding their disclosures. This is a much larger proportion of missing records than those of the polygraph examinations described above, and such a large gap in information does raise concerns.

Figure 6

Initial Sexual History Polygraph Examination Results of Clients (n = 158)

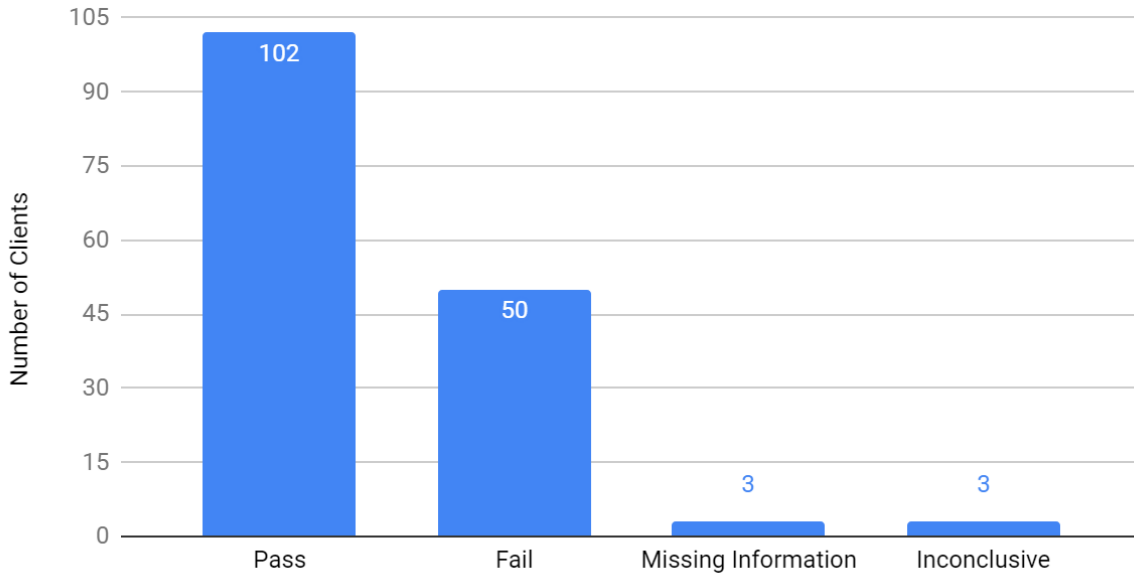
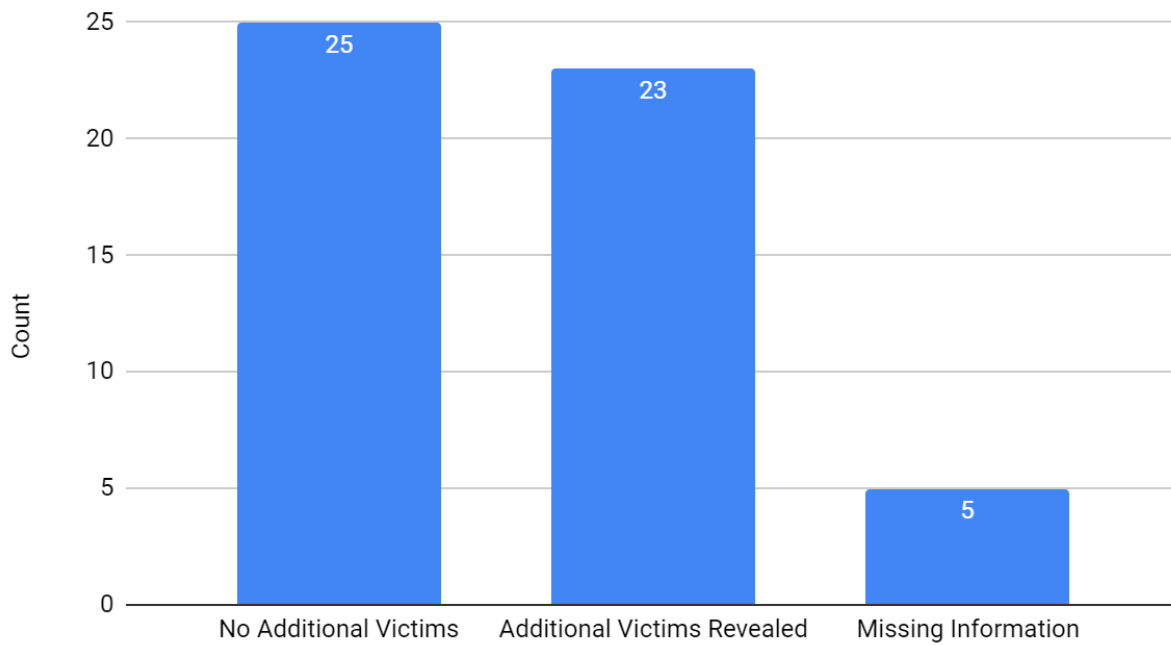


Figure 4 describes the results of clients' first polygraph examination involving the veracity of the sexual history disclosure. Passing the polygraph meant there was no deception indicated and that the client was assumed to be forthcoming as to the number of victims they provided. Failing the polygraph meant subsequent polygraphs were likely to be administered to reassess clients' honesty. In some cases of initial failure, clients maintained their initial number of victims and passed subsequent examinations. Three clients who were polygraphed did not have information as to the result and three clients' results were inconclusive as the polygrapher could not obtain reliable results. Usually the latter outcome was caused by clients' controlled breathing patterns. As shown in the graph, the majority of clients passed their initial polygraph as 102 (64.6%) first results did not indicate deception. 50 (31.9%) clients failed their initial polygraph, though not all revealed additional victims.

Figure 7

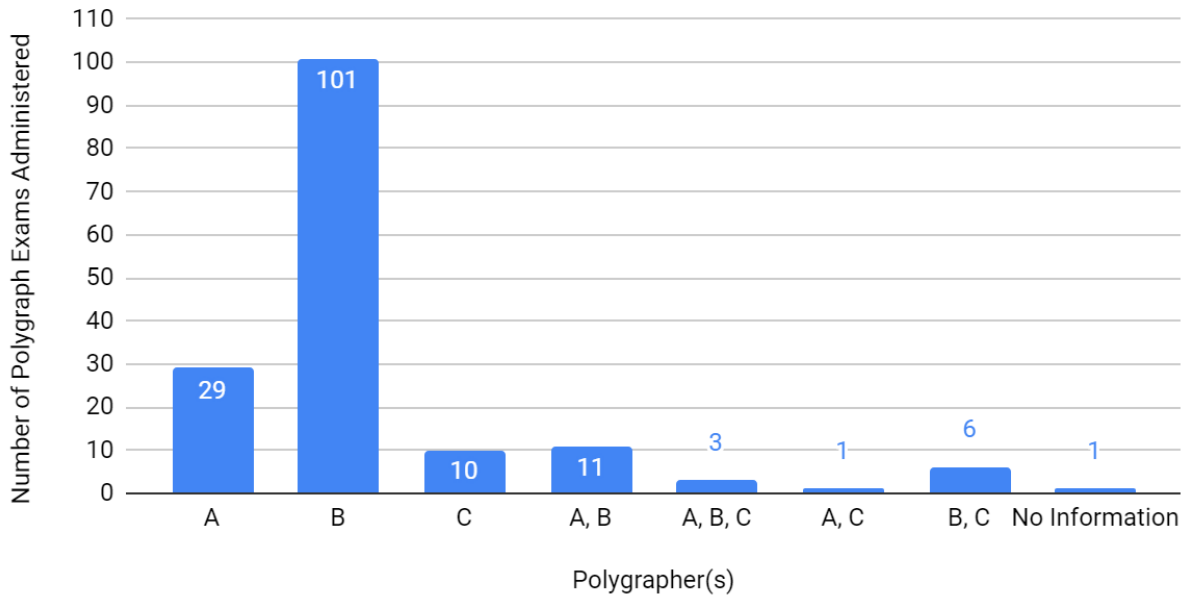
Outcomes of Clients with Initial Results Indicating Deception (n = 53)



This bar graph provides the outcomes for those clients who did fail their initial sexual history polygraph examination. 25 (47.2%) of clients did not reveal any additional victims and passed subsequent polygraph examinations. 23 (43.4%) of clients revealed additional victims after their initial failure and passed a polygraph examination after acknowledging more victims. 5 (9.4%) clients failed their polygraph but no information was available on the outcome of subsequent examinations. These figures do not indicate that clients who are initially found to be deceptive are predominantly lying or truthful as the results are an almost even split.

Figure 8

Polygraphers' Involvement in Clients' Polygraph Examinations (n = 162)



The above bar graph details the breakdown of the polygraphers who administered the polygraph examinations that clients underwent as part of their federal probation. A group of three polygraphers were involved in the testing of this cohort of clients. For the purposes of both confidentiality and analysis, their last names were replaced with three separate letter designations: A, B, and C. The majority of polygraph examinations involved a single administrator, with C testing the fewest client alone (6.2%), A testing approximately three times more subjects by themselves (17.9%), and B alone testing the vast majority of clients (62.4%), more than every other polygrapher combined. Often, multiple polygraph exams would be administered for a single client, particularly if they failed one. Occasionally in these cases, multiple polygraphers would be involved for separate examinations; such instances are also

detailed in this bar graph. One case accounted for a polygraph examination but did not provide information on the polygrapher.

Figure 9

Number of Exact Victims by Client

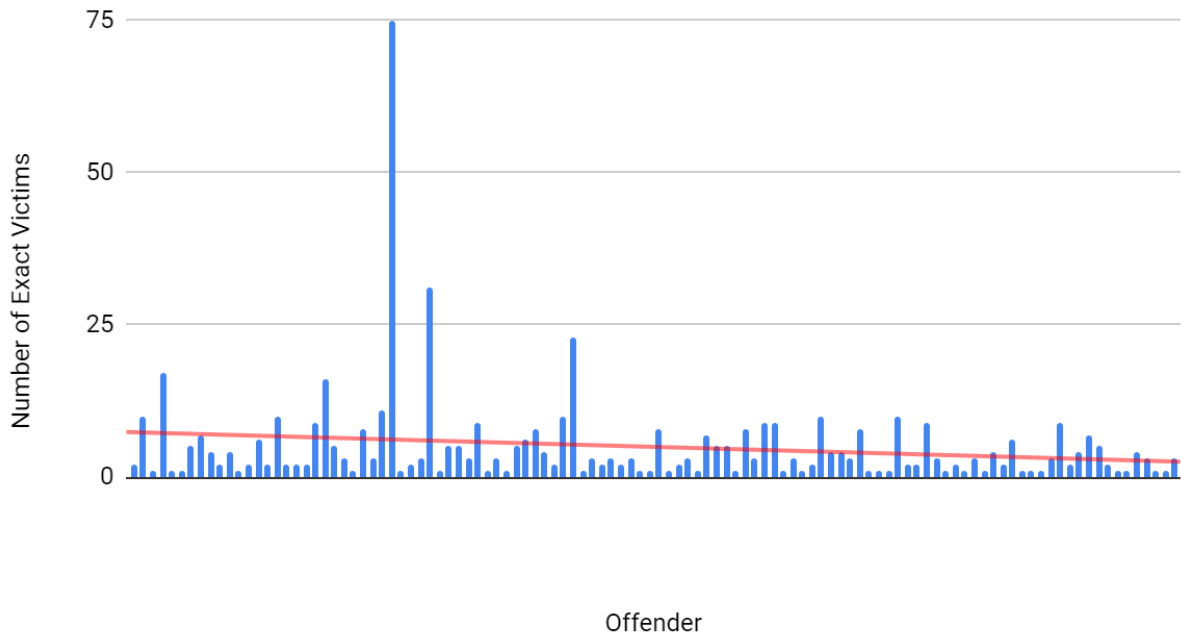
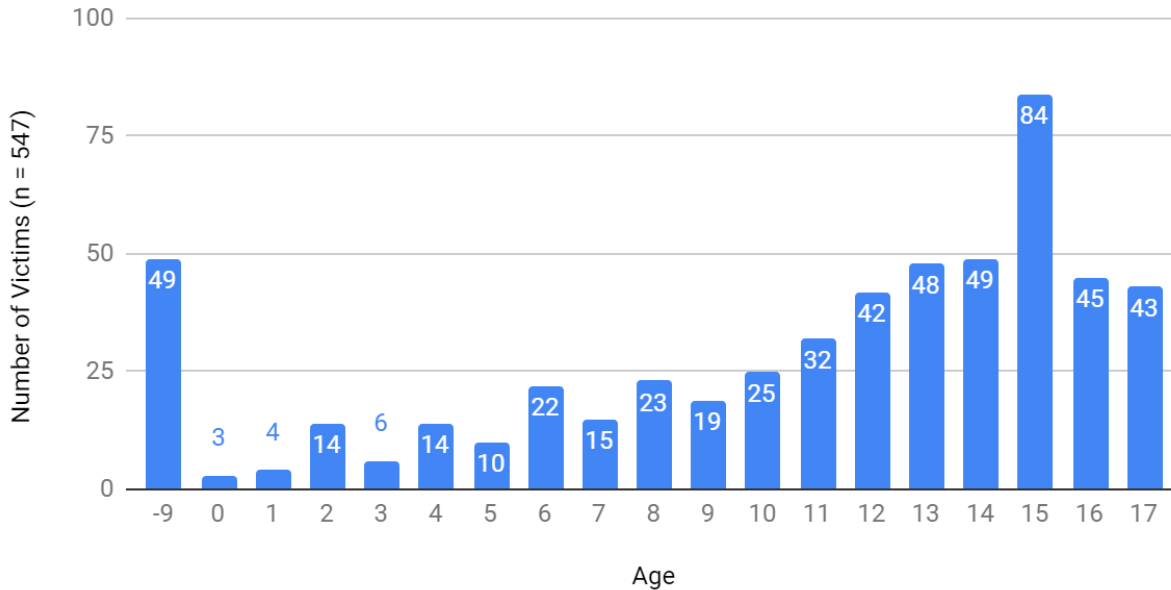


Figure 7 breaks down the number of exact victims by case identification number, unique numeric strings that are tied to each individual client. Client ID numbers have been obscured on the above chart as they were unable to all fit. Only specific cases are analyzed in this figure; revelations involving “dozens” or “hundreds” of victims are not specific enough to scientifically evaluate. The majority of clients with in-person victims have less than 10 each. A few outliers are clear in the above graph, with one client dwarfing every other as they have 75 detailed victimizations.

Figure 10

Age of Sample's Victims

(-9 = Missing Information)



This bar graph provides the ages of all victims, hands-on and hands-off, for whom any detailed information was available. Victims included in non-specific revelations by clients (“dozens of victim” or “hundreds of victims”) were not included in this analysis. The majority of victims that clients acknowledged (62.7%) are either 11 years of age or older, with a great deal of victims (15.4%) being 15 years old. For very young children, the “0” category represents juveniles below 12 months of age while the “1” category represents juveniles 12 months of age to just under 2 years old. The “-9” category represents detailed victims who did not have information on age available; while their ages were not given, other details about these victims (their relationship to the offender, their sex, and the nature of their abuse) was available. 49 victims (9.0%) fell into this category of lacking information.

Figure 11

Sex of Victims (n= 547)

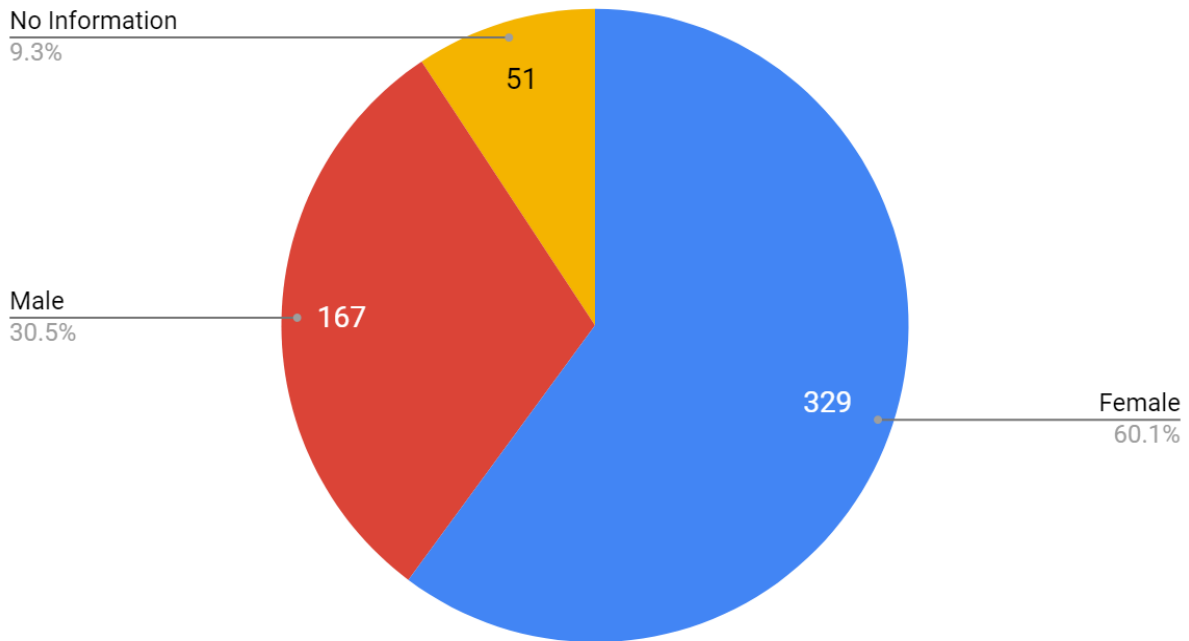


Figure 9 provides a breakdown of the sex of each detailed victim. 51 (9.3%) of these victims did not have specific information provided for their sex. 167 (30.5%) victims were male and 329 (60.1%) victims were female. Even if every one of the victims whose sex was unknown were victims, the majority of the victims would still be female; males would be 39.9% of the victims while females would still be 60.1%. As every single one of the clients were male, these findings suggest that the majority of pedophiles have heterosexual or bisexual preferences, depending on whether or not they exclusively abused female children.

Figure 12

Average Age of Victims by Sex

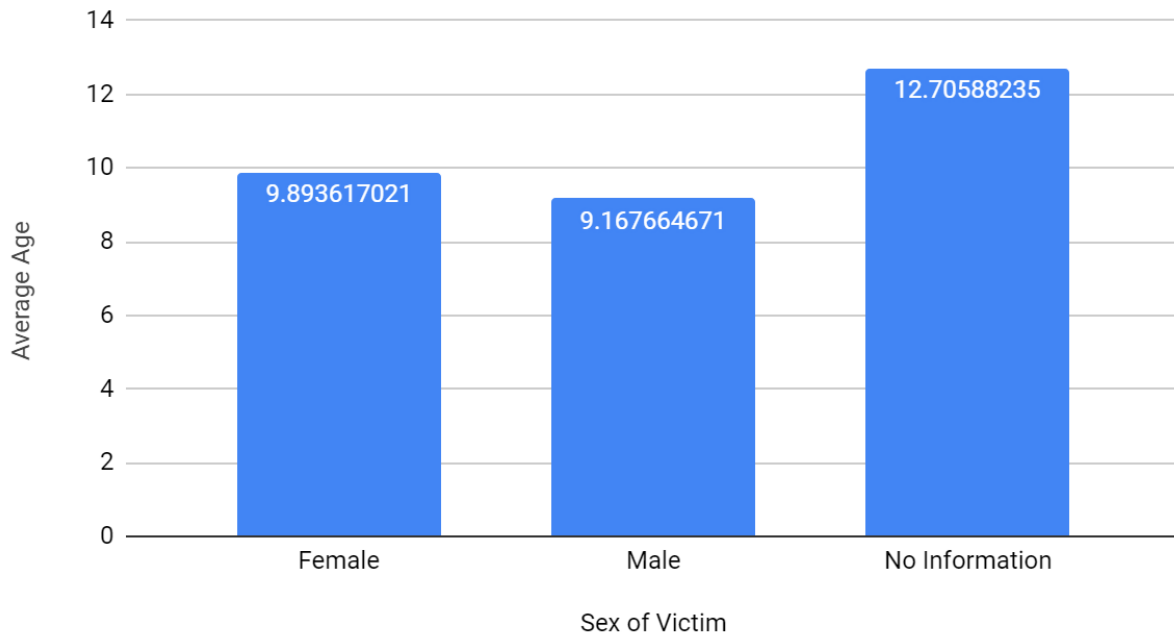


Figure 13

Median Age of Victims by Sex

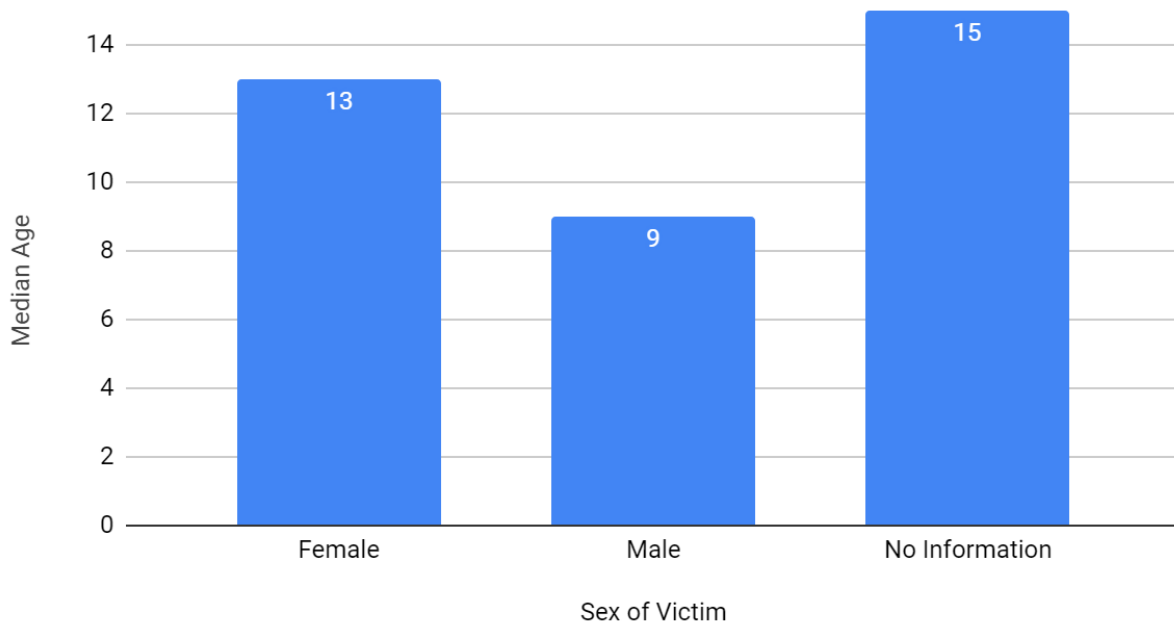
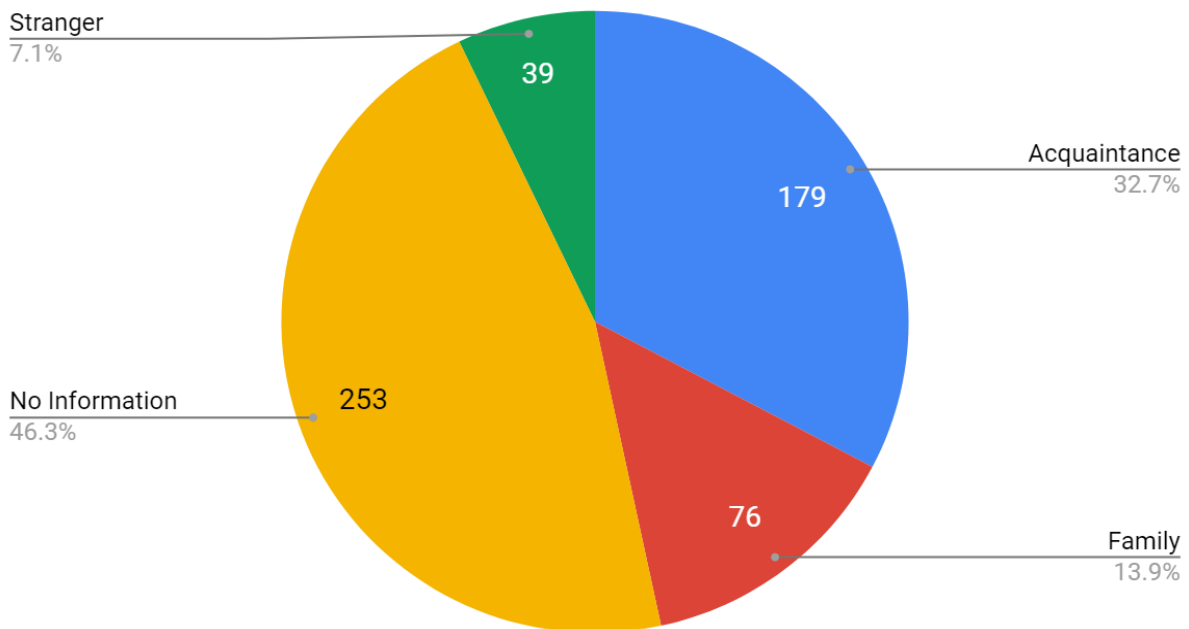


Figure 10 and Figure 11 on the previous page detail the average (mean) age by sex of the victim and the median age by sex of the victim, respectively. The mean of the ages for every female victim was approximately 9.9 years old in comparison to 9.2 years old for males and 12.7 years old for victims with no sex information. The differences between the averages of the two sexes are small as there is under a year distinguishing one from the other. The median age differences between the two sexes do provide some interesting differences; the median age was 13 years of age for female victims and 9 years of age for male victims, with those victims lacking sex information having a median age of 15. These results seem to indicate that the ages of male victims have an almost even distribution among the range of 0 years old to 17 years old, though it skews towards the older half of the range. In contrast, the findings indicate that there are outliers among the female victims that are especially young, driving the average down to 9.9 despite a large number of female victims being 13.

Figure 14

Client-Victim Relationship (n = 547)



The pie chart on the previous page details the relationship that existed between the clients and their victims. A great deal of cases were missing details as to the question of how the client was connected to their victim; two hundred and fifty-three (46.3%) victims did not have information on the nature of their relationship with the client available. Seventy-six (13.9%) of victims had a familial relationship with the client. As noted earlier, this does not necessarily mean the client was a genetic relative, but also includes clients who were in a romantic relationship with a relative of the victim. One hundred and seventy-nine (32.7%) of the victims were at least of some mild familiarity to the client, whether through residential proximity, occupational contact, friendship with relatives. Except for those involving two high-school age individuals, consensual relationships in which the client was older by more than three years were also classified into the acquaintance category; the detection of such a relationship would typically result in the client being charged with statutory rape. Strangers were those the client had no level of familiarity with, had contacted via the Internet, or had hired as a sex worker. 39 (7.1%) of the victims were classified as strangers.

It is difficult to derive any conclusions from the data given a significant portion of it is unavailable. Should any of the three classifications consist of a large portion of those victims lacking information, the trends indicated would shift dramatically and different conclusions would be reached. As a result, I contend it is irresponsible to make any claims based on the above incomplete data. Despite these limitations, it is safe to say just under a third of victims were acquainted with the client. This significant proportion may be the result of counting statutory rape incidents into the category of acquaintances, rather than neighbors sexually abusing local children; the latter example being what some may assume is the typical situation of child sexual abuse where the victim is an acquaintance of the perpetrator.

Figure 15

Type of Victimization (n = 547)

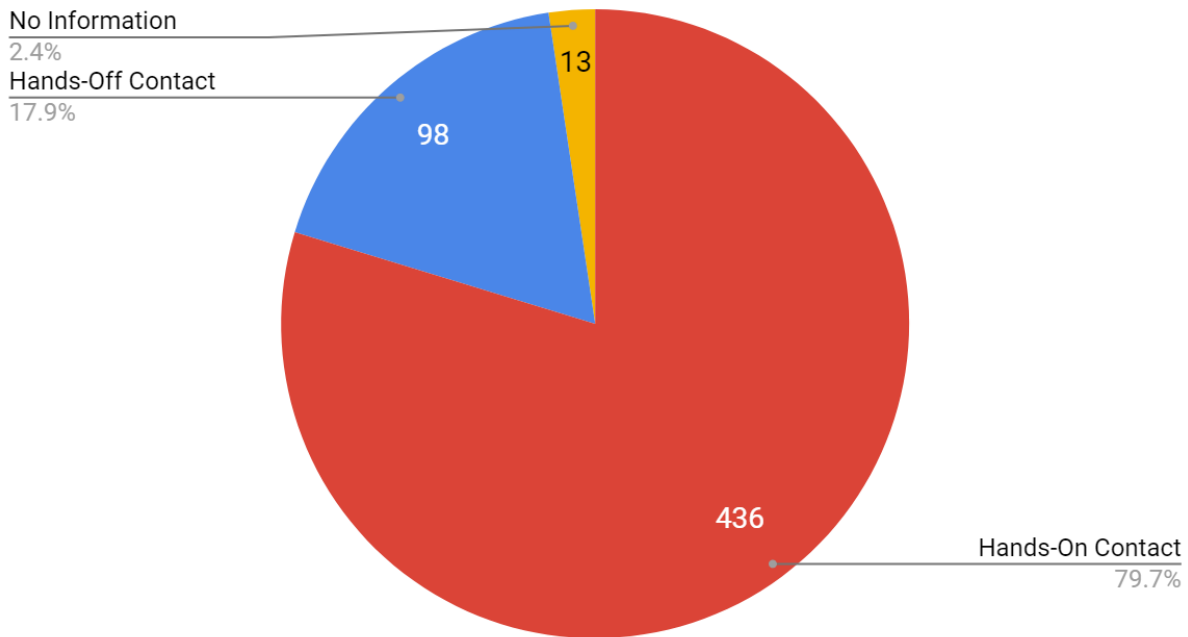


Figure 13 provides a breakdown of the nature of sexual abuse perpetrated by clients. Four hundred and thirty-six (79.7%) victims, the overwhelming majority, were sexually abused by clients. As discussed prior in this paper, hands-on contact involves all forms of sexual intercourse, oral-on-genitals contact, fondling with clothes on or off, masturbation of either party, and kissing. While the final act may be considered by some to be much less heinous than the other acts detailed, I believe it is more accurately described as hands-on contact rather than hands-off contact. Regardless, only 2 incidents involved the client only kissing the victim and not committing any other sexual abuse; in one case, a middle-aged client described a female, 15-year-old, mentally-handicapped neighbor running up to him and kissing him on the lips while in the other the client described kissing a 9-year-old male on the lips when the client was 21 years old.

Hands-off contact is classified as any incident in which the client exposed their genitals, viewed the victim’s genitals, had the victim sit on their lap for sexual gratification, or solicited a minor for sex without any subsequent sexual interaction taking place. Such contact was experienced by 98 (17.9%) of the victims acknowledged by clients. Unlike some of the other variables, the type of contact was rarely missing in clients’ records, with only 13 (2.4%) of victims having no information of the kind of abuse that occurred. These results seem to indicate one of two conclusions: either clients that do sexually abuse children report more victims of hands-on contact than victims of hands-off contact or clients that sexually abuse children are more likely to physically victimize them.

Table 1 – Descriptive Statistical Analysis of the Quantitative Variables

Variable	N	Mean	Std. Dev.	Skewness	S.E. Skew	Range
Number of Victims per Client	163	3.41	7.20	6.74	.19	75.00
Hands-On Victims per Client	169	2.65	6.47	8.69	.19	75.00
Hands-Off Victims per Client	160	.66	2.10	6.55	.19	21.00
Female Hands-On Victims per Client	162	1.64	3.03	3.47	.19	23.00
Male Hands-On Victims per Client	162	.88	5.98	12.00	.19	75.00
Female Hands-Off Victims per Client	152	.53	2.03	7.55	.20	21.00

Male Hands-Off Victims per Client	154	.03	.18	5.33	.20	1.00
Number of Victims Revealed by Clients Following Deception	49	2.27	4.72	4.16	.34	29.00
Age of Victims with Information Available	498	11.80	4.21	-.87	.11	17.00
Age of Contact Victims	407	11.93	4.11	-.88	.12	17.00
Age of Non-Contact Victims	84	11.02	4.48	-.67	.26	15.00

This table details the descriptive statistics of the various quantitative variables present in this project's data set. When assessing these results, it is critical to keep in mind that cases in which information such as the age of the victims, sex of the victim, and type of contact was missing could not be factored into this analysis. One notable result is the mean number of victims revealed following a client's failure of a sexual history polygraph; 2.27 additional victims were typically reported following retests. Typically, indications that the client was being deceptive when confirming the number of victims reported in their sexual history disclosure would result in additional polygraph examinations taking place. While clients usually attest to the veracity of these subsequent figures, it is possible this continued testing may convince clients

the only way to stop being polygraphed is to reveal additional victims. However, this is purely a hypothesis on my part as no records of clients refuting revelations of more victims is present.

Another notable finding is the standard deviation of the number of victims per client, especially when compared to the mean. Clients on average had 3.41 victims; however, the standard deviation of 7.20 reveals that the number of victims is spread over a large range of values, with clients highly active in the sexual abuse of children driving the mean up for the entire sample. Similar trends can be seen in clients' average number of hands-on victims and average number of male hands-on victims. The skewness statistics for each bivariate analysis aid in the conveyance of this phenomenon.

Limitations

Polygraph examinations, and their continued use in various government capacities, are a point of contention in legal and scientific circles. In terms of legal consequence, the polygraph is of little significance. As a result of the United States Supreme Court's judgment in *Frye v. United States*, all evidentiary techniques "must be sufficiently established to have gained general acceptance in the particular field in which it belongs" (*Frye v. United States*). Superseding this ruling is the *Daubert* Standard, which stipulates all testimony presented must be scientific and the knowledge presented must be the result of the scientific method (*Daubert v. Merrell Dow Pharmaceuticals, Inc.*). Under both of these standards, the polygraph examination does not qualify as it is not the result of the scientific method, which involves replicable and falsifiable experimentation.

Polygraphs are rarely admissible in court, and in those exceptional cases where they are admitted it is the result of a mutual agreement between the defense and prosecution.

The scientific consensus on the validity of polygraph examinations is generally unfavorable to the claim that the technique is a sound method of consistently detecting deception. Numerous national academic institutions, including the American Psychological Association and the National Research Council, assert there is little scientific evidence validating the efficacy of polygraph examinations. The APA notes that “a particular problem is that polygraph research has not separated placebo-like effects ... from the actual relationship between deception and their physiological responses” (American Psychological Association, 2004). For the purposes of this particular context, this phenomenon may occur when the subjects undergo a polygraph examination as a condition of treatment or release; offenders believe their deception will be indicated and offer information.

The National Research Council similarly observes a lack of critical scientific validation through research, stating “polygraph research has not developed and tested theories of the underlying factors that produce the observed responses” (National Research Council, 2003). The NRC also note that:

There is evidence suggesting that truthful members of socially stigmatized groups and truthful examinees who are believed to be guilty or believed to have a high likelihood of being guilty may show emotional and physiological responses in polygraph test situations that mimic the responses that are expected of deceptive individuals. (National Research Council, 2003)

This applies directly to the individuals of concern, as sex offenders are generally socially stigmatized and believed to have a high likelihood of being motivated to continue offending after their incarceration has ended.

Increasing Rigorousness in Evaluations of Polygraph Examinations

Despite the overwhelming scientific and legal consensus casting doubt on the validity of polygraph examinations, no superior alternatives for accurately assessing the dark figure of sexual offending by this group are readily available. Of note is that studies relying on self-reports through polygraph examination offer similar findings across geography and time, increasing the likelihood that these findings are not a miscalculation but a consistent and factual trend in offending among convicted possessors of child pornography. In addition, subjects readily confirm the findings in post-exam interviews (Buschman and Bogaerts, 2009). That being said, greater care must be taken to ensure these results are valid. One alternative may be to seek information on the individuals victimized by these offenders and follow-up with them to confirm offenders' admissions but the feasibility and ethicality of such an undertaking are questionable at best. This leaves us with a scientifically uncertain technique as the best option. With no other alternatives, the only solution is to make the scientific process behind polygraph examinations more rigorous, which would likely involve experiments.

While some research has been conducted to empirically test the polygraph methodology, it is not particularly useful for this body of work as the situational context motivating the administering of an exam is especially important for the technique. The National Research Council explains that “the lack of understanding of the processes that underlie polygraph responses makes it very difficult to generalize from the results obtained in specific research settings or with particular subject populations to other settings or populations” (National Research Council, 2003). No research has been conducted to test the polygraph examination's application in this specific context. In addition, the NRC asserts that while there are “inherent difficulties [in] doing high-quality research in [polygraph examinations] ... higher quality

research designs and methods of data analysis that might have been implemented are generally not used” (National Research Council, 2003). Further exasperating matters, much of the evaluation research for polygraph examinations has been conducted by individuals and organizations that have a vested interest in seeing the technique supported; a prime example is the U.S. Department of Defense Polygraph Institute (National Research Council, 2003).

If we are to use the estimates derived from self-report studies on the dark figure of contact offending among child porn consumers to inform further research and public policy, we must take every feasible and reasonable measure to ensure the results are as reliable and valid as possible. One critical component of empirical evaluations of this methodology is that it is conducted by organizations and individuals with no vested interest in an outcome that supports polygraph examinations. Another necessary element is that experiments are conducted in the context of administering polygraph exams specifically on individuals believed to be consumers of child pornography as the context of a polygraph exam affects the method of questioning and implementation of polygraph techniques. These aspects must be taken into consideration along with all of the usual construct validity concerns and scientific rigorousness that is part and parcel of experimental evaluation.

A variety of research designs should be implemented to evaluate the administration of polygraph examinations for the purposes of assessing contact offenses by child pornography possessors. One possible design to evaluate the differences, if any exist, from one polygrapher’s administration of the exam to another would be to have a series of subjects, each individually and independently polygraphed by each polygrapher. Each exam would have video and audio recording, and both the exam process and results would be evaluated for differences. If significant any differences exist between the polygraphers’ results for a single subject, this may

cast doubts on the objectivity and replicability of polygraph examination. If no significant differences exist, this would support the notion that the polygraph method is consistent and reliable.

Another potential experimental design would involve a blind experiment. Polygraphers would be told subjects were convicts of child pornography possession, but the sample would be entirely comprised of randomly-selected adult individuals, all with no arrest record. Questionnaire results detailing fabricated criminal history, sexual disclosure reports, and similar information typically provided in self-report studies using polygraph exams would be provided to the polygraphers. Each polygrapher would independently test each subject, with the process being recorded. Deception should be detected, and so a follow-up examination would be administered. During these follow-ups, subjects would admit to a greater degree and amount of sexual offending than detailed in the information provided to the polygrapher. Short of the small likelihood a subject is an undetected sex criminal or employing counter-measures, results should consistently detect deception. If deception is consistently detected for the majority of the non-control questions across the potential maximum two exams, the reliability of polygraph examinations would be supported.

Conclusion

These basic explanations of rudimentary experimental designs are just a few potential methods for assessing the validity and reliability of polygraph examinations in the context of determining the true extent of sexual offending among those convicted of possessing child pornography. With more time, resources, and planning, more robust experimental designs could be developed to better evaluate the methodology. The findings of the sexual offending of this cohort are consistent with previous literature. However, while some may assert the consistency

of the previous research literature on the dark figure of sexual offending among convicts of child pornography possession is evidence enough to indicate the findings are factual, good science does not rely on only assumptions, no matter how obvious they appear. Quality science, the kind of research that stands the test of time, requires unyielding and rigorous evaluation. Only after withstanding an onslaught of assessments focused on falsifiability and reproducibility should we turn to a given body of work to inform public policy in criminal justice.

Preface to Paper Four

The final paper of this capstone project provides an overview of the legal consequences those convicted of child pornography possession may face upon release from incarceration and how these individuals confront their reintegration back into society. It is critical to note that not every convict of child pornography possession faces these consequences as many of them are contingent on registration as a sex offender. However, the majority of these convicts do encounter these sanctions and there are flaws in this system that not only fail to achieve their goal of preventing these individuals from reoffending but also may encourage recidivism.

Reintegration of Convicted Child Pornography Possessors

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Capstone Project: Paper 4

Introduction

Of the crimes deemed by society to be the most despicable, sexual offenses are particularly reviled. Sexual abusers of children, including those convicted of the possession of child pornography, are objects of the most intense revulsion, drawing the ire of not only the general public but also other criminal offenders. The punishment these offenders face is not limited just to the time they spend incarcerated; since the 1990s, each of the fifty states and the federal government of the United States have created and maintained databases to track the residence, employment, personal details, and various other information of convicted sex offenders. Sex offender registries and the various other policies intimately associated with them are the primary means through which the criminal justice system attempts to prevent those convicted of sex crimes from further victimizing the public.

Not all states require registration for every sexual offense, though registration is required for any federal sex crime. In some states, this registration may be permanent, branding the ex-convict for life. Communities are quickly notified as to the presence of a registered sex offender in their neighborhood and may decide to take collective action against them. The databases are public, allowing anyone to find these individuals' homes, places of employment, or contact them personally via telephone. Restriction on housing and employment may further increase the burden of the recently released. Homelessness and isolation can be the result of a system that takes great steps to deter and monitor sexual offenders.

A Brief Overview of the Legislative History

Despite being closely interconnected, the legislation for sex offender registries and the criminalization of child pornography are distinct, so I will address the legislative history of each

separately. The first federal law concerning the distribution and receipt of child pornography was the Protection of Children Against Sexual Exploitation Act of 1977 (U.S. Sentencing Commission, 2009). It outlawed “the use of children to produce child pornography”, targeted primarily distributors of child exploitative material, and established sentencing guidelines for such offenses (U.S. Sentencing Commission, 2009). In 1984, Congress further criminalized this activity with the Child Protection Act of 1984, penalizing not only distributors seeking a profit but also producers and traffickers (U.S. Sentencing Commission, 2009).

Future legislation would increase the severity of penalties for these crimes, increase penalties if violence or a large amount of material is involved, mandate the registration of child porn possessors, and confront novel challenges resulting from technology such as “morphed images” (“adapted images ... [that] morph a non-sexual image of an identifiable child with sexually explicit images”) (U.S. Sentencing Commission, 2009). In total, significant revisions to the initial 1987 legislation were made on nine occasions over 22 years as of 2009 (U.S. Sentencing Commission, 2009). The result is a much more complex and lengthy law than what was originally created. Figure 1, presented below is the initial statute as it appeared while Figure 2, available on the next page, is its descendant as of 2009.

Figure 1 - Original Federal Statute Criminalizing Child Pornography

§2G2.2	<p><u>Transporting, Receiving, or Trafficking in Material Involving the Sexual Exploitation of a Minor</u></p> <p>(a) Base Offense Level: 13</p> <p>(b) Specific Offense Characteristics</p> <p style="padding-left: 20px;">(1) If the material involved a minor under the age of twelve years, increase by 2 levels.</p> <p style="padding-left: 20px;">(2) If the offense involved distribution, increase by the number of levels . . . corresponding to the retail value of the material, but in no event less than 5 levels.</p>
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Figure 2 - 2009 Federal Statute Criminalizing Child Pornography

§2G2.2	<p><u>Trafficking in Material Involving the Sexual Exploitation of a Minor; Receiving, Transporting, Shipping, Soliciting, or Advertising Material Involving the Sexual Exploitation of a Minor; Possessing Material Involving the Sexual Exploitation of a Minor with Intent to Traffic; Possessing Material Involving the Sexual Exploitation of a Minor</u></p> <p>(a) Base Offense Level:</p> <p>(1) 18, if the defendant is convicted of 18 U.S.C. § 1466A(b), § 2252(a)(4), § 2252A(a)(5), or § 2252A(a)(7).</p> <p>(2) 22, otherwise.</p> <p>(b) Specific Offense Characteristics</p> <p>(1) If (A) subsection (a)(2) applies; (B) the defendant's conduct was limited to the receipt or solicitation of material involving the sexual exploitation of a minor; and (C) the defendant did not intend to traffic in, or distribute, such material, decrease by 2 levels.</p> <p>(2) If the material involved a prepubescent minor or a minor who had not attained the age of 12 years, increase by 2 levels.</p> <p>(3) (Apply the Greatest) If the offense involved:</p> <p>(A) Distribution for pecuniary gain, increase by the number of levels from the table in §2B1.1 (Theft, Property Destruction, and Fraud) corresponding to the retail value of the material, but by not less than 5 levels.</p> <p>(B) Distribution for the receipt, or expectation of receipt, of a thing of value, but not for pecuniary gain, increase by 5 levels.</p> <p>(C) Distribution to a minor, increase by 5 levels.</p> <p>(D) Distribution to a minor that was intended to persuade, induce, entice, or coerce the minor to engage in any illegal activity, other than illegal activity covered under subdivision (E), increase by 6 levels.</p> <p>(E) Distribution to a minor that was intended to persuade, induce, entice, coerce, or facilitate the travel of, the minor to engage in prohibited sexual conduct, increase by 7 levels.</p> <p>(F) Distribution other than distribution described [above], increase by 2 levels.</p> <p>(4) If the offense involved material that portrays sadistic or masochistic conduct or other depictions of violence, increase by 4 levels.</p> <p>(5) If the defendant engaged in a pattern of activity involving the sexual abuse or exploitation of a minor, increase by 5 levels.</p> <p>(6) If the offense involved the use of a computer or an interactive computer service for the possession, transmission, receipt, or distribution of the material, or for accessing with intent to view the material, increase by 2 levels.</p> <p>(7) If the offense involved—</p> <p>(A) at least 10 images, but fewer than 150, increase by 2 levels;</p> <p>(B) at least 150 images, but fewer than 300, increase by 3 levels;</p> <p>(C) at least 300 images, but fewer than 600, increase by 4 levels; and</p> <p>(D) 600 or more images, increase by 5 levels.</p>
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As mentioned prior, an entirely different set of state and federal legislation created the system of sex offender registration, to which possessors of child pornography are subject, that exists today. Compared to laws criminalizing child pornography, sex offender registry legislation is relatively more recent, with the oldest law, the Community Protection Act of 1990, having been passed in the state of Washington under a few decades ago (Wright, 2014). Several high-profile cases of children being kidnapped, sexually abused, and murdered brought about a strong desire

from the general public to find new means to prevent convicts of sex crimes from victimizing again (Wright, 2014). Many of the acts concerning these databases were named after victims in these cases.

In 1994, the federal government soon followed Washington in passing legislation enacting the creation and maintenance of sex offender registries. The Jacob Wetterling Crimes Against Children and Sexually Violent Predator Program developed the two primary elements of the registries: it mandated every state to create databases detailing the identifying information of those convicted of sexual crimes and other specific offenses with child victims and it provided for community notification at the discretion of local law enforcement agencies (U.S. Department of Justice). Two years later, Megan's Law was enacted, mandating that local law enforcement agencies inform communities as to the presence of a registered sex offender within the neighborhood and provide their personal information (U.S. Department of Justice). The Pam Lychner Sexual Offender Tracking and Identification Act of 1996, passed in the same year as Megan's Law, established a federal sex offender registry maintained by the Federal Bureau of Investigation to track the movement of registered sex offenders across state lines (Wright, 2014). Other significant legislation includes the Adam Walsh Child Protection and Safety Act (2006), which rewrote the federal guidelines for sex offender registration and notification, and the Keeping the Internet Devoid of Predators Act, which focused on online child safety via the collection of sex offenders' internet identifiers (U.S. Department of Justice).

While federal legislation mandates certain characteristics for state's sex offender registries, differences do exist between the various jurisdictions. For example, in Alaska the "1st degree murder during commission or attempted commission of a sexual offense or kidnapping of a child under the age of 16" is an offense for which the perpetrator is subject to sex offender registration

while there is no such statute mandated registration in Alabama (American University, 2009). Duration of registration also varies on a state-by-state basis; in Alabama, adult criminal sex offenders are subject to registration and notification for life while lifetime registration is only mandated in Arkansas for convicts of aggravated offenses, sexually violent predators, and “offenders adjudicated guilty of a second or subsequent offense under a separate case number, not multiple count of the same charge” (American University, 2009). Legal options for relief from the restrictions associated with sex offender registration also differ from one state to another, with juveniles being eligible for special provisions suspending restrictions in one state while juveniles are not even registered as a sex offender in another (Restoration of Rights Project, 2017).

Sex Offender Registries and Community Notification

Sex offender registries and the associated mandatory community notification have been one of the primary methods of preventing convicts of sex crimes from recidivating. It is likely that knowledge of the use of these databases also serves as a deterrent for potential offenders. One evaluation on the impact of sex offender registries found results that indicated the databases reduced recidivism among sex offenders; three cohorts of sex offenders convicted in Minnesota had their rates of recidivism compared (Duwe & Donnay, 2008). The first of these groups was a sample of 155 high-risk sex offenders released between 1997 and 2002, after the adoption of sex offender registries and mandatory community notification laws (Duwe & Donnay, 2008). The second was a comparison group of 125 high-risk sex offenders released prior to the legislation, between 1990 and 1996, while the final group consisted of 37 low risk offenders and 118 medium risk offenders released after the enactment of the laws (Duwe & Donnay, 2008).

The results found that, within three years of release, the high-risk pre-legislation group had a reconviction rate of 32.8% specifically for sex crimes while the post-notification high-risk and

lower risk groups had rates of 3.2% and 9.6% respectively (Duwe & Donnay, 2008). For non-sexual offenses, the recidivism rate for the pre-notification cohort was 28.8% compared to 12.8% for the non-notification group and 11.6% for the notification group (Duwe & Donnay, 2008). These findings seem to indicate that sex offender registries and mandatory community notification are effective at preventing registered sex offenders from committing additional crimes, both sexual and non-sexual, after their release.

Unfortunately, as with nearly all interventions and strategies employed in the field of criminal justice, the reality of these laws impact on sex crimes is not entirely conclusive. Another empirical evaluation of sex offender registries utilized state panel data from every state except Massachusetts and Arizona; included in the data was such information as the date registration began, the date public access was made available, the number of registrants, crime rates, and more (Agan, 2011). This study found no statistically significant differences between the recidivism rate of sex offenders who were registered on release compared to those who were not registered (Agan, 2011). The results revealed that 2.15% of non-registrants were later convicted for a sex offense while 2.39% of registrants had such a conviction, though the findings were not statistically significant (Agan, 2011). It does, however, suggest a low-level of offense-specific recidivism.

Other evaluations have been conducted with mixed results. The effect of sex offender registration and mandatory community notification on the total frequency of sex offenses, not just recidivism, has also been evaluated. One study found that “an average-size registry decreases crime by approximately 1.21 sex offenses per 10,000 people, which is a 13 percent reduction from the sample mean” (Prescott & Rockoff, 2011). It was also discovered that small registries reduce the number of sex crimes via notification laws but that these reductions decreased as more offenders were subjected to registration, seeming to support the hypothesis that non-registrants are

deterred from sexual offending by the existence of the registries (Prescott & Rockoff, 2011). However, once a registry reached “average size”, notification laws increased the number of sex offenses by over 1.57 percent (Prescott & Rockoff, 2011).

Other arguments questioning the efficacy of sex offender registries and mandatory community notification in regard to reducing recidivism focus on the ostracization and labeling that occurs when ex-convicts attempt to reintegrate into communities. Treating convicted possessors of child pornography with the same sanctions as rapists may actually undermine efforts to prevent them from reoffending (Prescott, 2011). Some claim that publicly-accessible sex offender registries provide individuals interested in possessing and consuming child pornography a readily available means of contacting those who have an intimate knowledge of the material (Prescott, 2011). The databases also essentially provide a client list for producers and distributors of child exploitative material, which they can market to directly (Prescott, 2011). Sex offender registries can also foster a community of ex-convicts, isolated from the general public through ostracization and united by their registration status (Prescott, 2011).

Further complicating concerns as to the efficacy of sex offender registries is the issue of accuracy and completeness in the databases. An analysis on these characteristics was performed for the state of Kentucky’s sex offender registry. The evaluation found that only 57% of registrants had a photo associated with their entry in the database (Tewksbury, 2002). Information regarding an address associated with the registered sex offender was unavailable for the majority of registrants from rural counties, 164 of the 537 individuals registered (Tewksbury, 2002). Of the 373 registrants from urban counties, only 69.7% had a residential address such as an apartment or house listed; 10.5% had a commercial address such as a business and 5.4% had a non-existent, incorrect address (Tewksbury, 2002). 10.5% had no known address listed at all (Tewksbury, 2002).

If the intention of sex offender registries is to provide local law enforcement agencies with the information to monitor convicts of sex crimes and warn their neighbors, poorly maintained databases such as that of Kentucky in the early 2000s are counter-productive to this end. Assuming sex offender registries are an effective method of reducing recidivism among registrants, a lack of accurate and updated information renders them toothless.

Perceptions of Sex Offender Registries and Related Legislation

Going beyond the efficacy and deterrent value of sex offender registries and mandatory community notification laws, the perceptions of both convicts of sex crimes and the general populace are important factors in the success of the strategy. A study conducted in 2003 sought to determine the opinion of sex offenders on this legislation, with a sample of 40 civilly committed and voluntary sex offenders from Nebraska acting as the participants (Elbogen, Patry, & Scalora, 2003). Of note is that 88% of the subjects were undergoing treatment for sexual offenses involving children, making these results particularly relevant for the subject of this paper (Elbogen et al., 2003). The participants completed a questionnaire to assess their knowledge of Nebraska's laws concerning sex offender registries and mandatory community notification (Elbogen et al., 2003). Field researchers provided a full explanation of the legislation and answered subjects' questions, including those about the extent of the information collected in the registration process (Elbogen et al., 2003).

Following the information session, the sample was asked about their attitudes regarding psychological treatment, Nebraska's sex offender registration and mandatory community notification laws, and the effect the laws may have on their treatment, efforts to reintegrate, and likelihood to commit additional sex crimes (Elbogen et al., 2003). Specific information items that were gathered for sex offender registration included fingerprints, photographs, home and work

addresses, telephone number, crime description, vehicular information, and HIV test status (Elbogen et al., 2003). The three items deemed by the majority to be most unfair in regard to being publicized were telephone number (82.5% deemed it unfair), home address (72.5% deemed it unfair), and work address (70% deemed it unfair) (Elbogen et al., 2003). Despite these concerns as to the fairness of the information made publicly available on the registry, 72.5% felt the registry and community notification laws gave a powerful incentive not to reoffend post-release (Elbogen et al., 2003). Just as noteworthy, 60% of the subjects planned to relocate as a result of the community notification laws associated with the sex offender registry (Elbogen et al., 2003).

Public perceptions regarding these policies are also important to understanding how they affect offenders' attempts to reintegrate into society after their sentence is complete. One study addressing citizens' experiences with sex offender registries asked a nationally representative sample of 1000 adults from across the U.S. about their usage of the databases (Harris & Cudmore, 2018). It was found that only 45% of subjects had ever searched through a sex offender registry, with only 18.2% using them 3 or more times and 7.4% using them more than 5 times (Harris & Cudmore, 2018). The groups most likely to have searched the registries were females (48.1%), Whites (47.5%), Married / Domestic Partnerships (47.1%), and parents with minor children (53.8%) (Harris & Cudmore, 2018). Only 10.3% of users stated information provided by the sex offender registries made them feel much safer while 48.1% felt no safer than before usage (Harris & Cudmore, 2018). 37.8% of those who frequently searched through the databases (more than five times) felt somewhat safer while 28.4% felt less safe (Harris & Cudmore, 2018). 92.8% of the sample indicated knowledge of the existence of sex offender registries, meaning the public is at least aware of their ability to search them (Harris & Cudmore, 2018).

Another study concerning public perceptions about sex offender legislation assessed both citizens' knowledge of the laws and how they felt about the efficacy of these laws. A sample of 115 participants from a nationwide online community message board were asked for their opinions (Schiavone & Jeglic, 2009). The subjects were from 15 different states, 85% were female, and 79% were between the ages of 25 and 64 (Schiavone & Jeglic, 2009). 32% of participants did not know what the purpose of Megan's Law was while 9% gave an incorrect explanation (Schiavone & Jeglic, 2009). 91% of respondents either agreed or strongly agreed that it is fair for communities to know about a sex offender's risk level and 65% either agreed or strongly agreed that communities are safer when they have knowledge of local sex offenders' residences (Schiavone & Jeglic, 2009). However, only 30% felt residence restrictions were effective in limiting sex offenders' access to children, only 37% felt residence restrictions prevented recidivism, and 88% felt "if sex offenders really wanted to reoffend they would be able to do so despite residence restrictions" (Schiavone & Jeglic, 2009). While most participants seem to feel the legislation is fair, the majority doubt the ability of sex offender registries and mandatory notification laws to prevent ex-convicts of sex crimes from reoffending.

Residential Restrictions

In addition to mandatory community notification, many other strategies have been implemented alongside sex offender registries. The most common are restrictions on various aspects of registered sex offenders' lives, including where they are permitted to live. Many states and local jurisdictions prohibit registered sex offenders from residing in any residential property located within a certain distance, often from 500 to 2500 feet, of locations typically frequent by children (Socia, 2011). Though such restrictions primarily involve schools and daycares, some

implementations of this policy include playgrounds, parks, churches, malls, public pools, bus stops, and other local features potentially visited by children (Socia, 2011).

An evaluation on the potential implementation of residential restrictions for registered sex offenders was conducted for 76% of all counties within the state of New York (Socia, 2011). Excluding the “extremely dense, urban environments that are atypical for much of the United States”, the author went about analyzing the characteristics of communities should such regulations be passed (Socia, 2011). Census block groups were the unit analysis, and neighborhoods were divided into three categories based on the proportion of housing that fell within the buffer zones of restricted locations; for example, the least restricted neighborhoods were those with less than 33% of the census blocks being unavailable to registrants while the most restricted were those with greater than 66% of census blocks being unavailable to registrants (Socia, 2011). The characteristics of these communities were measured, including their population density, the proportion of vacant rental housing units, the median contract rent in the neighborhood, and the social disorganization present (Socia, 2011). Five different scopes of restriction were utilized during the analysis, ranging (in intervals of 500 feet each) from registered sex offenders being banned from living within 500 feet of a restricted location to within 2500 feet of such a location (Socia, 2011).

Socia found that the least restricted neighborhoods were those that had the lowest population density (Socia, 2011). Housing availability and affordability varied based upon the scope of restriction, with the least restricted neighborhoods having fewer available residences and more expensive rents when the scope of the restriction was small (Socia, 2011). When the scope of restriction was increased, the differences mostly disappeared but the result was that few communities had housing that was unrestricted to registered sex offenders, increasing the

likelihood of them living in clusters (Socia, 2011). The one benefit of the potential implementation of such restrictions in Upstate New York was that the least restricted neighborhoods had lower levels of social disorganization, usually because high social disorganization was associated with more dense communities which were also often the most restricted communities (Socia, 2011).

The consequences of these findings are numerous. The least restricted neighborhoods have the less access to treatment facilities, less developed public transportation, and less employment opportunities (Socia, 2011). When the scope of restriction is small, the aforementioned trends in unavailability and unaffordability in terms of housing opportunities are likely to increase financial pressures and have the potential to make the risk of violating restrictions to alleviate these concerns worth consideration for some individuals (Socia, 2011). Increasing the scope reduces these inequalities but leaves very few communities accessible to registrants, causing stress and resulting in a concentration of sex offenders in unrestricted neighborhoods (Socia, 2011). While the communities accessible to sex offenders were low in social disorganization, offenders may have lived in socially disorganized neighborhoods prior to their incarceration and registration. Forbidding them from reintegrating them into these communities may cause harm because sex offenders are isolated from the social support of their family and friends (Socia, 2011). These factors are likely to undermine the likelihood of successful rehabilitation and reintegration for sex offenders.

Employment Restrictions

As with residence restrictions, employment restrictions have also been placed on registered sex offenders in many state and local jurisdictions. The aims of these restrictions are the same as those discussed in the previous section: prevent ex-convicts of sex crimes from having the opportunity and access to victimize vulnerable populations such as children, though in this case

prevention is focused on what employment opportunities are made available to them rather than the proximity of housing to locations frequented by vulnerable populations. In these jurisdictions, sex offenders are restricted from working in schools, day cares, recreation centers, parks, and other occupations that involve locations where children often congregate (Lester, 2007). The previously discussed residential restrictions also act as de facto employment restrictions; any job requiring a registered sex offender to work out of a location based in a restricted zone is rendered invalid (Lester, 2007). The inability to find work, especially returning to occupations in the field that the sex offender previously worked within, can result in significant negative impacts to their likelihood of successfully reintegrating.

Internet Restrictions

In addition to the residence and employment restrictions imposed on registered sex offenders, numerous tools are often utilized by the criminal justice system to monitor and manage the use of computers by ex-convicts of sex crimes. Computer forensic software allows a thorough search of an offender's computer but requires the physical seizure of their computer, making it a useful method only when a warrant is issued (Ramirez, 2014). Additionally, encryption of child exploitative material, deletion via specialized applications (wiping utilities), and steganography programs (applications which hide the illicit material) make searches with this software a more laborious and time-consuming process, raising questions as to the utility of computer forensic software as a means of monitoring sex offenders (Ramirez, 2014).

Filtering software is one of the most common methods of restricting registrants Internet usage and preventing them from accessing child pornography. Content is restricted through a blacklist of banned URLs, typically websites known for hosting or providing links and discussion of child exploitative material (Ramirez, 2014). However, this software has two problems: it is only

installed on the offender's personal computer, allowing it to be circumvented by use of a work computer or other non-monitored device, and the offender could access the content through URLs unknown to criminal justice agencies (Ramirez, 2014). Computer management software, another method used for this purpose, avoids the latter issue by collecting information regarding the registrant's usage and performs inspections to detect violations (Ramirez, 2014). The software is relatively non-intrusive as it does not require a periodic search of the computer, unlike forensic software (Ramirez, 2014).

One final means of restricting registered sex offenders' internet usage involves the use of remote computer management systems. This technology builds on the aforementioned computer management software but allows for officials such as probation officers to directly review offenders' internet activity by remote Internet access to their computer (Ramirez, 2014). The software is installed after a search of the personal computer is performed and constantly runs in the background (Ramirez, 2014). A database of key words and phrases typically used to search for, download, and consume child pornography is constructed and an alert is sent to officials should these terms appear during the computer's use (Ramirez, 2014). Officials can then review usage in real time and make a judgment as to whether or not the registrant is committing a violation (Ramirez, 2014).

Numerous tools are available to the criminal justice system for the purposes of restricting registered sex offenders' Internet usage and access. However, there are concerns about the impact restricting the Internet has on offenders' abilities to reintegrate into society, especially as computers and the Internet in particular become an increasingly critical component of our everyday lives. In some cases, total bans on computer use have been enacted, so there is no doubt that these methods are a dramatic improvement over such severe measures (Evans, 2012). One relatively

novel issue concerns smartphones, the Internet-capable handheld telephones that have become just as ubiquitous as personal computers, if not more so as a result of their portability and generalized utility. Some cases dealing out severe restrictions as a condition of supervised release have also restricted or even banned the use of cell phones by registered sex offenders (Evans, 2012). While an argument can be made for high limits on Internet usage (though such arguments are becoming increasingly less realistic given its proliferation), banning any individual from possessing a cell phone is indisputably a heavy burden, one that would likely have a severe negative impact on their ability to successfully reintegrate into society.

Treatment Programs

Incapacitation and monitoring are two ways the criminal justice deals with sex offenders such as consumers of child pornography, but treatment is another method used to prevent recidivism. Treating the sexual proclivities of an individual is not as straightforward as rehabilitation for drug addiction or even other mental disorders as paraphilias are deeply ingrained. Risk assessments are performed to determine the likelihood of both the offender recidivating and their receptivity to treatment (Wilcox, Garrett, & Harkins, p. 72 – 74, 2014). Barriers to treatment can greatly reduce the speed and efficacy of the rehabilitative process. In cases of those who consume child pornography, a lack of understanding of their offending is often present (Wilcox et al., p. 76, 2014). This lack of understanding involves minimalization of the harm that occurs when sexually explicit images of a victim are viewed, even if the viewer was not directly involved in the production of the image (Wilcox et al., p. 76, 2014). Denial of aspects of sexual arousal from children may also occur, during which the offender may avoid acknowledging they are interested in children at all (Wilcox et al, p. 79, 2014). Sexual arousal will be attributed to the thrill of accessing illicit material rather than the material itself (Wilcox et al., p. 172, 2014).

Psychological therapy and counseling form the basis for sex offender treatment. In one case study from the United Kingdom, a convicted possessor of child exploitative material, who had strong sexual fantasies of kidnapping children and sexually abusing them, was treated through two mental health programs: the Fantasy Modification Program and the Healthy Sexual Functioning Program (Wilcox et al., p. 78, 2014). Both regimens work to develop a healthy understanding of fantasies and how to carry them out in a socially acceptable manner (Wilcox et al., p. 78, 2014). Intimacy skills and behavioral modification techniques are another critical component of the two programs (Wilcox et al., p. 78, 2014). Another U.K.-based sex offender treatment program focused on positive and negative strategies for coping with sexual interest in children, victim awareness and empathy exercises, Internet safety planning, strategies for controlling risky sexual thoughts, and similar efforts (Wilcox et al., p.173, 2014).

A more controversial approach involves masturbatory reconditioning, the process of altering paraphilias through the replacement of deviant material with socially acceptable images. Therapists guide clients through “several sexual scenarios involving consenting sex with a peer-aged adult” (Wilcox et al., p.328, 2014). Deviant fantasies are only to be used for the purposes of instigating arousal but once this state is reached the client is to switch to more appropriate images (Wilcox et al., p.328, 2014). One pitfall immediately obvious is that this method requires the offender to voluntarily switch his thinking to socially acceptable imagery and it is difficult for the therapist to evaluate whether or not this is occurring; without client buy-in, the process is fruitless. A similar method, satiation therapy, involves exposing the offender to deviant thoughts after they reach orgasm and have them continue to masturbate for up to an hour (Wilcox et al, p. 329, 2014). This method was later modified to be less arduous and aversive by eliminating the need to masturbate after orgasm and reducing the rehearsal of deviant thoughts to a ten-minute period

(Wilcox et al., p.329, 2014). While some success has been found with these two related methods, very little of the treatment programs that exist involve these procedures.

Empirical evaluations of sex offender treatment programs have been conducted. A meta-analysis of treatment programs aimed at reducing recidivism among convicted sex offenders evaluated 27 studies, 6 experimental and 21 quasi-experimental (with “sound matching procedures” that either controlled for or eliminated bias), containing “29 eligible comparisons of a treated group and a control group”, with the total number of subjects being 4939 treated and 5448 untreated sex offenders (Schmucker & Lösel, 2017). Case reports and studies with a sample lower than 10 subjects were ineligible for consideration (Schmucker & Lösel, 2017). Every study utilized psychosocial treatment, primarily cognitive behavioral programs; studies evaluating pharmacological and hormonal treatment did not meet the meta-analysis’ inclusion criteria (Schmucker & Lösel, 2017).

A great deal of variation was present in the methodology of the studies selected for analysis; 15 were conducted in in-patient settings (5 in hospitals and 10 in prisons) while 12 were outpatient-based and 2 were mixed-methodology, duration of treatment ranged from less than 15 weeks to over 180 weeks, offense type and risk level of offenders were varied, and treatment participation was mixed as well (Schmucker & Lösel, 2017). The studies originated in seven different countries, though over half of them were conducted in North America (Schmucker & Lösel, 2017). Results were derived from comparisons of official recidivism rates of subjects treated contrasted with official recidivism rates of subjects untreated (Schmucker & Lösel, 2017).

From this substantial body of heterogenous studies on psychological treatment of registered sex offenders, trends in the findings were discovered. The odds ratio of the experimental treatment group was an average of 1.41 lower than the comparison control group (Schmucker & Lösel,

2017). The reduction in reoffending rate was 3.6% as treated subjects recidivated at a rate of 10.1% while their control counterparts recidivated at a rate of 13.7% (Schmucker & Lösel, 2017). Cognitive-behavioral methods, small samples, medium to high-risk level subjects, individualized treatment, and sound descriptive validity were the factors most critical in revealing stronger effects (Schmucker & Lösel, 2017). However, because of the significant variance in the features between every individual study, the authors recommend continued research on treatment programs before deriving conclusions and creating policy (Schmucker & Lösel, 2017). In anticipation of further and more homogenous analysis, the initial findings for psychosocial treatment programs are promising.

Support Groups

The Internet is not only used by child pornographers as a place to download and share child pornography, but also as a platform to discuss their attraction to children. While most pedophiles express support for one another in ways that facilitate the abuse of children, some seek ways to prevent themselves and each other from participating in the sexual exploitation of children. Support groups exist for users to express their dissatisfaction with the state of society and their exasperation at being marginalized for sexual tendencies they perceive to be unjustly criminalized. Society at large is labeled “anti-child sex Nazis” and pedophiles are termed “minor-attracted adult” in online discussion boards supporting pedophilia (Holt, Blevins, & Burkert, 2010). Rather than discuss their interest in children as purely sexual, the pedophiles that frequent these online communities use terminology such as “child love”, with more specific terminology based on the gender to which they are attracted (Holt et al., 2010). Many participants see themselves as freedom fighters, organizing to establish the right of minors to exert control of their sexuality (Eichenwald, 2006). Pedophilia and the fight to normalize it is characterized as a cause similar to that of

homosexuals prior to the cultural acceptance of homosexuality, with statements such as “BoyLove is a natural thing, like being born gay or even straight ... only thing you can control is your actions” (Holt et al., 2010).

Some of these pro-pedophilic online communities organize to do more than simply discuss their attraction to children. Discussions on the most expedient means to covertly gain access to children occur on pedophile forums, with one such post celebrating a commenter who had posted excitement at an offer to lead “a boys’ cabin at a sleep-away camp” (Eichenwald, 2006). In one extreme case, an organization named “BL Charity” was seeking donations from commenters to establish a camp for Eastern-European boys with whom pedophiles could safely engage in sexual activity (Eichenwald, 2006). Online podcasts and discussion reinforce some pedophiles’ notions that sexual interaction with children are justifiable; one commenter explained that he had doubts as to the morality of engaging in sexual activity with his 10-year-old daughter, but his doubts were assuaged by the discussion boards (Eichenwald, 2006).

Not all of these support groups seek to normalize sexual contact with children. One group who call themselves Virtuous Pedophiles acknowledge their sexual attraction to minors but band together to stop one another from acting on their proclivities (Cranney, 2017). One of the most prominent discussion boards for this subgroup of pedophiles is VirPed.Org, which is characterized by conversations on coping mechanisms to prevent members from consuming child pornography and seeking contact with children (Cranney, 2017). One study analyzed religious posts on the forum, particularly those seeking to establish religious coping mechanisms (Cranney, 2017). While most Virtuous Pedophiles did not use religion to come to terms with their sexual desires, a contingent found sanctuary in their beliefs, utilizing religious coping mechanisms commonly found in the general population to positive effect (Cranney, 2017). Pleading for direct intercession

from a higher power, seeking reconciliation through religion for failures to restrict their paraphilia, and seeking support from clergy and other members of their faith were common strategies used by religious Virtuous Pedophiles (Cranney, 2017). As with many subcultures found on the Internet, it seems there are pedophilic communities organizing for both negative and positive purposes.

Conclusions

The adversity presented in the case of a pedophile seeking to reintegrate into society is bi-directional: society struggles with deciding how best to mitigate the threat posed by convicted sex offenders with an interest in children without permanently incapacitating them and convicted sex offenders must contend with their labeling and registration along with the associated restrictions and ostracization. Registration of these perpetrators has been adopted nationwide, though the databases are of questionable accuracy and reliability. Some of the strategies employed by the criminal justice may actually harm the chances of sex offenders to find stable employment and housing, resulting in the potential to drive these individuals to recidivate. Treatment programs show promise, but further evaluations need to be conducted to come to a conclusive answer as to their efficacy and the initial findings show significant but mild reductions in reoffending. The Internet, the tool used most often by pedophiles to obtain child pornography, has the potential to either embolden pedophiles or foster abstinence based on the community they choose.

My conclusion is that the current understanding of pedophilia is too limited to develop sufficiently effective strategies for preventing criminal offending. Further research needs to be performed so as to understand the underlying psychological causes of pedophilia, particularly if it is innate or developed, and to discover what treatment programs are most effective at preventing sexual offenders from victimizing more children. Any repulsion and discomfort with the topic of pedophilia must be cast aside if the scientific community is to reach a robust understanding of it

and it is only when a robust understanding of pedophilia has been produced that we will have the basis to design criminal justice policy that practically addresses it.

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