THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

Self perceptions and cognitions of child sexual exploitation material offenders

Citation for published version:

Steel, CMS, Newman, E, O'Rourke, S & Quayle, E 2021, 'Self perceptions and cognitions of child sexual exploitation material offenders', *International Journal of Offender Therapy and Comparative Criminology*.
<https://doi.org/10.1177/0306624X211062161>

Digital Object Identifier (DOI):

[10.1177/0306624X211062161](https://doi.org/10.1177/0306624X211062161)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

Published In:

International Journal of Offender Therapy and Comparative Criminology

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.

Self Perceptions and Cognitions of Child Sexual Exploitation Material Offenders

International Journal of
Offender Therapy and
Comparative Criminology
1–20

© The Author(s) 2021

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/0306624X211062161

journals.sagepub.com/home/ijo

Chad M. S. Steel^{1,2} , **Emily Newman¹,**
Suzanne O'Rourke¹,
and Ethel Quayle¹

Abstract

Identifying the self-perceptions of child sexual exploitation material (CSEM) consumers compared to a reference population of non-consumers is critical in establishing distorted cognitions that may not be elucidated when comparison is made with groups who have committed other offenses. This exploratory work utilizes a quantitative approach toward identifying how individuals previously convicted of child pornography offenses view CSEM and CSEM offending, using a group of non-offenders as a baseline. The target group was selected based on their inclusion in two sex offender registries for child pornography offenses ($n = 78$). A reference group of non-offenders ($n = 254$) was gender-matched from a subset of a prior study evaluating the public perceptions of CSEM. Both groups were adults located within the United States and were asked questions using an online survey about their general perceptions of CSEM, their endorsement of CSEM beliefs, and their opinions related to the legality of various forms of CSEM and associated laws and sentencing guidelines. The study found that CSEM consumers more accurately assessed risks associated with CSEM offending, but that they exhibited potential minimization-based cognitive distortions related to severity and victimization and more strongly endorsed child erotica and virtual child pornography being legal. Additionally, they endorsed treatment over prison, and were strongly opposed to sex offender registration for child pornography offenses. The results provide potential treatment targets, including behavioral areas that may be pathways to CSEM offending.

¹University of Edinburgh, UK

²George Mason University, Fairfax, VA, USA

Corresponding Author:

Chad M. S. Steel, George Mason University, MS 2B5, Fairfax, VA 22030, USA.

Email: c.m.s.steel@sms.ed.ac.uk

Keywords

child pornography, self-perceptions, sex offender registration, child sexual exploitation material, cognitive distortions, child sexual abuse material

Introduction

The psychological treatment of individuals who have committed child sexual exploitation material (CSEM) offenses is an area of current research interest. Cognitive-behavioral approaches based on the cognitions of individuals who committed contact sexual offenses have been traditionally used (Ly et al., 2018) in the treatment of individuals who consume CSEM. As research has evolved, differences in cognitions began to emerge between those who committed contact and CSEM offenses (Bartels & Merdian, 2016; Howitt & Sheldon, 2007; Khanna, 2013; Merdian et al., 2014). CSEM-specific cognitions related to offense behavior were identified and have been put forth as distorted and offense-supportive (e.g., Howitt & Sheldon, 2007; Merdian et al., 2014; Paquette et al., 2020; Soldino et al., 2020). To effectively treat individuals who have committed CSEM-only offenses, understanding these differences is critical. For the purposes of this study, the term child pornography was used in multiple locations. While controversial in other contexts, its usage in this paper is consistent with the Luxembourg guidelines (Terminology and Semantics Interagency Working Group on Sexual Exploitation of Children, 2016) as several of the endorsement statements were asked of lay individuals and related to the specific legal definition and specific criminal offenses within the United States. Where a broader reference is made (e.g., when talking about “virtual” sexualized images of children) or the more general concept is discussed, the more inclusive term of child sexual exploitation material (CSEM) was employed.

Internet-only CSEM consumers were found to have low overall endorsement of traditional cognitive distortions exhibited by those who committed contact offenses (Steel et al., 2020) and fewer deficits in areas such as victim empathy (Elliott et al., 2009). Additionally, qualitative studies have identified Internet-specific distortions such as Virtual is Not Real, in which the online content is perceived as being divorced from reality, and the Internet is Uncontrollable, which identifies the Internet itself as criminogenic and facilitative of sexual offenses (Paquette et al., 2020). Newer assessment instruments such as the Cognitions of Internet Sexual Offending (C-ISO) scale (Paquette & Cortoni, 2020a) were designed to address these differences and focus on the specific cognitions most relevant to CSEM offending.

While there have been significant advances in the instruments available to measure CSEM consumer cognitions, most of the work still baselines “normal” cognitions against a population of individuals who committed child contact offenses (e.g., Babchishin et al., 2015; Merdian et al., 2014). These were in-turn baselined primarily against individuals who committed adult sexual offenses (e.g., Stermac & Segal, 1989), with very few studies offering comparison to non-offending reference groups (e.g., Mann et al., 2007). Each of these reference points have merit for comparison but

fail to address the question of whether and what cognitions make CSEM consumers different from the general (non-offending) population. Specific traits related to general psychopathology or rationalization and minimizations of their own behavior may be common to many areas of criminality, but to be considered as statistically deviating from the norm, a non-offending reference population may provide a better baseline. While comparing the cognitive distortions of individuals who committed contact and non-contact child sex offenses is very important for differentiation and risk assessment purposes, it may fail to identify significant deviance from the general public. Since a possible treatment target is to bring CSEM consumers toward non-offending cognitions (not other-offending cognitions), this is an important distinction (Harrison et al., 2020).

There are several important areas in which to evaluate cognitions related to CSEM and CSEM offenses. First, there is the general question of perceived severity of CSEM offenses in relation to other crimes. Offenses involving children are historically viewed with high levels of disgust, and this has been identified as being widely present and potentially influencing legislation and judicial outcomes (Lynch, 2002). There has been a lack of significant research to-date evaluating how individuals who previously committed child pornography offenses view their actions in the context of other crimes. Similarly, distancing their online actions from direct victimization has been shown in CSEM consumers. In particular, the Internet version of the Nature of Harm distortion (the belief that viewing CSEM on the Internet does not harm children) was found to be present in all individuals who committed child pornography offenses evaluated in a recent study (Paquette & Cortoni, 2020b). This may be compounded by recent trends showing large increases in the amount of CSEM available being self-generated (Internet Watch Foundation, 2020). In cases of self-generated depictions (excepting those where their production has been through extortion or coercion), the victimization may be principally secondary (Patchin & Hinduja, 2020), which may facilitate offense-supportive cognitions. Further enumeration of this distortion is of clinical interest to identify whether the distortions are based on the difference between direct or indirect harm and how that relates to perceived victimization in general.

The prevalence (and forms) of mental illness in CSEM consumers as well as developmental issues that may contribute to CSEM offending may be perceived differently as well. Rates of mental illness in CSEM consumers have been previously studied, with prevalence rates ranging from 5% for all mental illness (Wolak et al., 2011) to 60% for pedophilia only (Seto et al., 2006). Other mental illnesses with a likely high occurrence in CSEM consumers include depression and substance abuse, based on work looking at paraphilias in general as well as CSEM consumption specifically (Galbreath et al., 2002; Henshaw et al., 2018). The self-perceived prevalence of mental illness, in particular pedophilia, in CSEM consumers as well as the perceived potential for treatment over incarceration have not been studied. Understanding this dynamic is important, as the stigma associated with the label of pedophilia is high and may impair help-seeking (Jahnke et al., 2015), but the threat of going to prison may influence the self-acceptance of treatment for mental illness when offered as an alternative. Similarly, when evaluating the potential for CSEM viewing to be part of a

cycle for abuse, understanding the baseline rates of childhood sexual victimization in CSEM offenders is useful. Past estimates of prevalence have ranged from 11.7% (Faust et al., 2015) to 26% (Webb et al., 2007), but further quantification is needed.

Risk related to CSEM consumers has two major dimensions—recidivism and the propensity to commit a contact offense. Recidivism within the CSEM consumer community has largely been measured through post-conviction arrests over a specific period of time. In studies using approximately 5-years as a follow-up period, the rates of individuals committing another CSEM offense ranged from 1.6% (Faust et al., 2015) to 7% (Seto & Eke, 2015). The rate of contact offending varies dramatically based on the specific study, with a meta-analysis finding a rate of 55% (Seto et al., 2011). The overall rate of future contact offending once convicted of a child pornography offense ranged from 3% (Elliott et al., 2019; Faust et al., 2015) to 4% (Seto & Eke, 2005). Accurate estimations of the likelihood of reoffending (or committing a future contact offense) can show an understanding of the base rates which influence statistical treatment outcomes. How accurately individuals who have committed CSEM offenses evaluate risk has not previously been comprehensively studied but may provide insight through the presence or absence of cognitive distortions.

Current Study

This research evaluates the cognitions related to CSEM and CSEM offenses by a group of adults previously convicted of child pornography offenses ($n=78$) within the United States. A quantitative approach utilizing an anonymous online survey evaluated the general perceptions of availability and impact of child pornography and the severity of the offense. Additionally, the endorsement of common, inaccurate beliefs related to CSEM are assessed, as are the respondents' views on the legality of CSEM, as well as the legal response. These are compared to a reference population of non-offenders ($n=254$). The comparison to non-offenders, as opposed to individuals who committed contact offenses or other criminal offenses, provides a more accurate baseline to establish the presence of distorted cognitions specific to this group.

This is the first study to broadly assess self-perceptions against public perceptions, and to enumerate levels of distortion related to minimization or rationalizing behavior when compared to the general public. Additionally, this research utilizes a novel sample and approach, using an anonymous survey of previously convicted offenders to reduce social desirability bias. Finally, this study incorporates recommendations based on a prior systematic review (Steel et al., 2020) into a set of improved questions designed to elicit minimization-based distortions. The results provide potential treatment targets, including behavioral areas that may be pathways to CSEM offending.

Methods

This research was part of a larger project looking at the technological behaviors and cognitions of CSEM consumers. The research consisted of two surveys using

two different populations—one of the general public (used primarily as a baseline for reference purposes) and one of individuals previously convicted of child pornography offenses.

Participants and Setting

This research was conducted using data obtained through two anonymous online surveys hosted through Qualtrics—a public survey of non-offenders (“reference sample”) and a survey of individuals previously convicted of at least one child pornography consumption (possession or viewing) offense and no known associated contact offenses on one of two public sex offender registries (“offender sample”). The populations for both surveys were English-speaking adults within the United States, and informed consent was required before participating. Prior to participation, individuals were provided with information on the data collected in the surveys, how the data would be used, and both the benefits and risks associated with participation. Participants were required to affirmatively consent prior to starting the survey. Any individuals who chose not to continue with the survey were permitted to withdraw at any point prior to submission, and the results of those individuals were not retained. Due to the anonymous nature of the surveys and the need to protect the identities of participants, direct debriefings were not feasible, however individuals were provided counseling contacts in the event they experienced any psychological distress.

The reference sample consisted of 524 qualifying participants identified through the Qualtrics panel service (*Online Panels: Get Responses for Surveys & Research* | Qualtrics, n.d.). Participants were not directly compensated by the researchers, however Qualtrics offers compensation to panel members, the details of which are proprietary. Of these, 254 individuals were matched to the offender sample based on gender identity, given the large predominance (99%) of individuals in the offender sample that identified as primarily male (.95, $n = 74$) or gender variant/non-conforming (.04, $n = 3$).

The individuals solicited for the offender sample were identified through their presence in the publicly available government sex offender registries of two states, and the solicitation consistent with the terms of use of those registries. The registries contained the physical addresses of the registrants, demographic information, and details on the specific offenses they committed. Participation in the offender sample by individuals previously convicted of child pornography offenses was solicited via postal mail ($N = 2,508$), and the respondents requested to fill out an anonymous online survey. Participants were offered the chance to enter a drawing for one of two \$150 Amazon gift certificates as a result of their participation. A total of 141 individuals (a 5.6% response rate) responded to the survey. Of these, three individuals declined to consent and 40 individuals did not complete the survey. Two attention checks were built into the survey to ensure its integrity, and individuals failing either of the checks ($n = 20$) were not included in the analysis (Owens & Hawkins, 2019). A total of 78 individuals passed the attention checks and their responses were analyzed as described below.

Questionnaire

The survey questionnaire was broken up into three areas—general perceptions of CSEM and CSEM consumers, endorsement of inaccurate beliefs related to CSEM, and the legality of CSEM and sentencing of individuals who committed child pornography offenses. To facilitate lay understanding and to comport with the legal definition in the United States, the questions were primarily asked using the term “child pornography,” except where noted.

General perceptions. To evaluate the perceived severity of child pornography possession offenses, the respondents were asked to compare and rank them against the offense categories present in the FBI’s Uniform Crime Reporting (UCR) list. The UCR categories are ranked according to severity, and the respondents were requested to place child pornography possession within the context of those offenses (*Uniform Crime Reporting Statistics*, 2020). The crimes from the UCR as well as the child pornography viewing offense were presented to the respondents in a randomized list, and they were asked to rank all of the crimes in order of perceived severity. The median response rank for each of the crime categories was then calculated to identify the relative perceived severity.

The perceived percentage of individuals depicted in child pornography who were willing participants was measured by asking the respondents to estimate a percentage using a slider from 0 to 100. The respondents were additionally asked about the difficulty for offenders to stop viewing child pornography using a 7-point Likert scale ranging from “Extremely Easy” to “Extremely Difficult.” Finally, individuals were asked about the likelihood of encountering child pornography by asking which of four statements they most agreed with:

- Anyone can accidentally come across child pornography while browsing the web.
- Individuals visiting mainstream adult websites may accidentally come across child pornography.
- Individuals visiting less mainstream adult websites may accidentally come across child pornography.
- Only individuals that actively seek out child pornography will find child pornography.

The linkage between viewing child pornography and the victimization of children was assessed by asking which of four ranked statements the respondents viewed as the most accurate:

- Viewing child pornography is directly responsible for creating child victims.
- Viewing child pornography is indirectly responsible for creating child victims.
- Viewing child pornography does not contribute to child victimization.

Endorsement of child pornography beliefs. The respondents' perceptions about the characteristics of child pornography consumers and their recidivism were assessed by asking them to specify a percentage using a slider from 0 to 100. The following items were evaluated:

- What percentage of individuals who view child pornography do you believe were sexually abused as children?
- What percentage of individuals who view child pornography do you believe are pedophiles?
- What percentage of individuals convicted of child pornography offenses will go on to commit another child pornography offense after serving their sentence?
- What percentage of individuals that view child pornography will have sexual contact with a child at some point?

As a baseline reference, the offender sample was additionally asked about the youngest individual they had sexual contact with since turning 18. Any reported contact with individuals under 16 was considered to be a contact offense. They were asked about any child pornography they had viewed post-release, and about whether or not they had sexual contact with an adult prior to the age of 16 (to evaluate past sexual abuse). Finally, the offender sample was asked to respond to the question "If the opportunity presented itself, how likely would you be to have sexual contact with someone under the age of 18?" using a 7-point Likert scale ranging from Extremely Unlikely to Extremely Likely.

Legality. Respondents were asked about their views on several legal issues surrounding child pornography offending. The questions were based on current federal law in the United States as well as sentencing guidelines and practice (*United States Sentencing Commission Guidelines*, 2018). Sentencing and post-sentencing impacts were assessed using a 7-point Likert scale, ranging from Strongly Disagree to Strongly Agree with the following questions:

- The severity of the acts depicted in child pornography images should be taken into consideration in sentencing decisions
- Individuals that possess more images and videos should receive longer sentences than individuals with a few images and videos
- Sentencing of child pornographers should be based on the age of the individuals depicted
- Individuals who view child pornography should be registered as sex offenders
- Individuals who view child pornography are mentally ill and should be treated and not put into prison

Respondents were asked about the overall legality of child pornography, and the legality of various forms of child erotica, evaluated by their levels of agreement with the following statements:

- Viewing child pornography is no different than viewing adult pornography
- Viewing naked pictures of children for artistic (non-sexual) purposes is acceptable
- Viewing images of naked children where there is no display of the genitals should be illegal
- Viewing virtual images (lifelike animations and drawings) of children engaged in sexual activity should be illegal

Analysis

Likert scales were displayed using a diverging stacked bar chart, with a vertical line representing the median value (Heiberger & Robbins, 2014). Comparisons between populations were performed using a one-tailed *t*-test (for parametric data) or a Mann-Whitney-Wilcoxon test (for non-parametric data). All results were collected and analyzed using *R*, with a *p* value of .01 used for statistical significance tests (where appropriate).

Ethics

The study design and protocols, including an analysis of the potential risks and benefits, were fully reviewed through two separate ethics processes. Ethical approval was received from the Research Ethics Committee at the University of SANITIZED on May 20, 2020. Additionally, Institutional Review Board approval was received from SANITIZED University on May 13, 2020.

Results

The survey responses received on the public survey were diverse as to sex, sexual preference, age, relationship status, gender identity, race, employment, and education. The responses received on the offender survey were diverse given the previously identified demographics of CSEM offenders (Faust et al., 2015; Reijnen et al., 2009) The full demographics are provided in Appendix 1.

General Perceptions

The offender sample ranked child pornography possession at a significantly ($W=4,658$, $p<.01$) higher severity than the reference sample, having a median severity of 6 (compared to 3 for the reference sample) and placing it after all crimes against persons in addition to arson (Table 1). For victimization, the offender sample was significantly different than the reference sample ($W=13,424$, $p<.01$), with the reference sample endorsing direct victimization (67%, $n=170$) more strongly than the offender sample (35%, $n=27$), highlighting a potential distortion.

The offender sample believed that the minors depicted in child pornographic images were willing participants ($m=14.21$, $sd=23.48$) at a lower rate ($t=4.1$, $df=172$,

Table 1. Respondent Rankings of Crime Severity.

Category	Reference sample median ranking	Offender sample median ranking	FBI ranking
Criminal homicide	2	1	1
Rape	2	2	2
Child pornography possession	3	6	10
Aggravated assault	4	3	4
Arson	5	4	8
Robbery	6	6	3
Burglary (breaking and entering)	6	7	5
Larceny/theft (except auto)	7	8	6
Motor vehicle theft	7	7	7

$p < .01$) than the reference sample ($m = 27.9$, $sd = 31.9$), indicating the potential awareness by the offender sample that a subset of CSEM is self-generated, consistent with recent data showing increases in the prevalence of self-generated CSEM images (Internet Watch Foundation, 2020).

The majority of the offender sample (59%, $n = 46$) believed that it was at least slightly difficult for offenders to stop browsing child pornography, which was not significantly different to that of the reference sample (57%, $n = 145$). While consistent with a need for treatment, this is inconsistent with the low predicted and actual recidivism rates, as detailed below.

For coming across child pornography, most of the offender sample believed that it was difficult to come across, with the highest number of respondents believing an individual could come across it only on less mainstream adult websites (42%, $n = 33$) or when actively seeking it (14%, $n = 11$). This was significantly different ($W = 1,162,013,424$, $p < .01$) from the reference sample, however the individual category rates were largely inverse, with (41%, $n = 103$) believing that you could only find it when actively seeking it as opposed to on a non-mainstream adult website (16%, $n = 40$), reflecting a distortion related to intent. A substantial minority of the offender sample believed that you could come across child pornography accidentally, either through visiting mainstream adult websites (26%, $n = 20$) or general web browsing (18%, $n = 14$), as did the reference sample by visiting mainstream adult websites (19%, $n = 47$) and general web browsing (25%, $n = 64$). These are perceptions inconsistent with prior research indicating a lack of evidence that accidental viewing occurs in practice (Corriveau & Fortin, 2011), highlighting a potential cognitive distortion.

Endorsement of Child Pornography Beliefs

The respondents predicted a mean recidivism rate of .21 ($sd = .20$), which was significantly lower ($t = 18.5$, $df = 139$, $p < .01$) than that of the reference group ($m = .70$, $sd = .22$). The perceived proportion of the offender group that were pedophiles was

Figure 1. Perceptions of the child pornography consumers related to risk.

similarly significantly lower ($t=9.4$, $df=118$, $p<.01$) for the offender sample ($m=.42$, $sd=.28$) than the reference sample ($m=.75$, $sd=.25$). The estimated likelihood of child pornography consumers escalating to a contact offense by the offender sample ($m=.21$, $sd=.20$) was also significantly lower ($t=13.4$, $df=164$, $p<.01$) than the reference sample ($m=.58$, $sd=.26$), and higher than the self-reported contact offense rate (.15, $n=12$). The self-estimates of committing a future contact offense showed that 8% ($n=6$) said that they were more likely than not to commit an offense if the opportunity presented itself, providing a potential self-identified risk indicator.

For the numbers of child pornography consumers that were sexually abused as children, the offender sample respondents identified a mean proportion of .54 ($sd=.26$), although only 19% self-reported having sexual contact with an adult before they turned 16. This number was not significantly different from the reference group's estimates of the proportion of offenders abused as children ($m=.61$, $sd=.25$) (Figure 1).

Legality

The offender sample showed strong agreement that child pornography is different from adult pornography, with 94% ($n=73$) agreeing there was a difference, which was not significantly different from the 83% ($n=212$) of the reference sample, indicating a strong awareness of the legal and social differences. Additionally, 80% ($n=62$) of the offender sample agreed that downloading is not worse than just viewing, which was not significantly different from the reference group at 70% ($n=177$). Agreement with viewing for artistic purposes not being acceptable in the offender sample was mixed at 44% ($n=34$), which was significantly different than the level of agreement in the reference group ($W=6,940$, $p<.01$) at 67% ($n=171$) (Figure 2),¹ indicating a potential distortion related to intent.

There was mixed agreement with the illegality of child erotica, with 49% ($n=38$) of the offender sample agreeing it should be illegal, which was significantly different ($W=6,876$, $p<.01$) than the reference sample at 74% ($n=187$). For virtual CSEM, 54% ($n=42$) of the offender sample believed it should be illegal, which was

Figure 2. Acceptability of CSEM viewing behaviors.

Figure 3. Views on child erotica and virtual CSEM.

significantly different ($W=6,988, p < .01$) than the reference sample at 74% ($n=188$) (Figure 3), providing support for the Virtual is Not Real distortion.

There were two areas with a statistically significant difference related to views of sentencing. The view that individuals should be treated instead of sent to prison had greater agreement ($W=13,834, p < .01$) within the offender sample at 71% ($n=55$) than the reference sample at 33% ($n=83$). Individuals on a sex offender registry also showed substantially lower ($W=2,677, p < .01$) agreement with sex offender registration for child pornography viewing offenses at 21% ($n=16$) compared to the reference sample at 78% ($n=197$). Both of these may be self-serving but indicate at least perfunctory support for engaging in a treatment regimen.

For the components of sentencing, most of both the offender sample at 72% ($n=56$) and the reference sample at 71% ($n=180$), agreed that the severity of the act depicted should be a factor. For using the number of images as a factor, 51% ($n=40$) of the offender sample and 49% ($n=125$) of the reference sample indicated agreement. For the age of the individuals depicted being used as a factor, 44% ($n=34$) of the offender

Figure 4. Views on sentencing guidelines.

sample and 37% ($n=95$) of the reference sample indicated agreement (Figure 4). These are largely consistent with current sentencing guidelines in the United States, as detailed below.

Discussion

The ultimate goals in treating individuals who have previously been convicted of child pornography offenses are to reduce recidivism and to prevent future contact offenses. Understanding the cognitive distortions present in individuals who consume CSEM provides targets for that treatment. To identify potential distortions, in particular minimizations, the perceptions studied in this research need to be compared to the perceptions of the reference sample of non-offenders as well as to actual rates where available (e.g., recidivism).

Baseline recidivism rates are generally low within the population of individuals convicted of CSEM offenses and have ranged from 1.6% (Faust et al., 2015) to 7% (Seto & Eke, 2015), but the perceived risk of recidivism is significantly higher. The offender sample respondents had more realistic views of recidivism rates at 21% when compared with the reference sample at 70%, though their self-estimates still show that they believe a substantial subset of individuals who have viewed CSEM are at risk for recidivism. Likewise, the self-reported rate of contact offending was 15%, which was lower than the perceived overall rate of 21% and substantially lower than the reference sample estimate of 58%. Taking into account the conditional probability, this estimate was more accurate when compared to the future contact offending rate estimates of approximately 3% (Elliott et al., 2019; Faust et al., 2015) to 4% (Seto & Eke, 2005). More troubling, 8% of the registry group noted that they would be at least slightly likely to have sexual contact with an individual under the age of 18 if the opportunity presented itself. While the offender group showed more accurate self-perceptions compared to the public, the responses highlight the potential need for cognitive and behavioral modifications for a subset of CSEM consumers to reduce the likelihood of

situations that may lead to recidivism or future contact offending. Additionally, the response by a substantial subset of the offender group that they would consider committing a contact offense shows the value of asking that question as part of risk assessments. It additionally highlights the need for behavioral targeting for that subset to avoid situations where they may have unobserved contact with children.

In elucidating problematic cognitions as potential treatment targets, several minimization-based distortions were identified. First, the offender sample rated child pornography viewing offenses as less severe than all of the crimes against persons, but more severe than all of the property offenses with the exception of arson, providing a median ranking of 6. This contrasts with the reference sample's median ranking of 3. This could be interpreted as a minimization, consistent with the Nature of Harm distortion (Howitt & Sheldon, 2007; Paquette & Cortoni, 2020b; Ward & Keenan, 1999), but it could also represent an over-estimation of severity by the reference group.

The majority (83%) of the offender group acknowledged that viewing child pornography contributed to the victimization of children, and that the majority of individuals depicted (86%) were not willing participants. When compared to the reference sample, offenders believed that significantly *fewer* individuals depicted were willing participants. This may be due to a greater exposure to a broad range of CSEM content. While most of the offender sample (83%) agreed that child pornography was related to victimization, this was significantly *less* than the reference sample (96%). Particularly, there were different percentages of direct v. indirect harm by the offender sample (35% and 49%) than the reference sample (67% and 30%), supporting the presence of a substantial but nuanced distortion. The lower endorsement of victimization by the offender sample, and specifically direct victimization, is consistent with the Nature of Harm and Virtual is Not Real distortions and shows distancing of the offender sample's prior activities from direct harm. This supports Paquette and Cortoni's (2020b) conceptualization of these distortions and supports the targeting of treatment that does not focus on the acceptance of general victimization (which is acknowledged by the majority of the offenders) but at understanding the role the specific actions of the CSEM consumer play in furthering that victimization. Further supporting these distortions was the greater offender group support for the legality of both virtual child pornography and child erotica. Both of these map to the Nature of Harm distortion and are consistent with the offender group's victimization endorsements in that virtual child pornography has no direct victimization and child erotica may only have secondary victimization, depending on the specific depictions.

In targeting adverse childhood experiences (ACEs) within treatment, 19% of the reference sample reported being sexually abused as a child, which was lower than the perceived rate. The self-reported rate was similar to that of 21% found in a prior meta-analysis (Babchishin et al., 2011), potentially indicating a subset of those in treatment may have longer-term trauma concerns. Prior victimization and trauma, in particular ACEs such as sexual abuse, have been shown to impact the nature of adult behaviors as well as future treatment efficacy (Follette et al., 1996). Because of this, incorporating treatment for ACEs into the clinical approach may be necessary for the subset of individuals impacted to facilitate effective treatment for criminogenic behaviors.

A potential barrier to effective treatment is the selective acceptance of mental illness by the offender group. A higher percentage of the offender sample (71% vs. 33%) supported the statement that offenders were mentally ill and should receive treatment over prison. Similarly, the offender sample respondents estimated that fewer offenders were pedophiles (42% vs. 75%). These results support the presence of cognitive dissonance within individuals who view CSEM. The presence of mental illness is endorsed when it is directly tied to potential leniency in punishment (e.g., support of treatment over prison), but not when it is tied to the stigmatizing label pedophile (Jahnke et al., 2015).

Both the offender and the reference groups generally agreed with the legal considerations associated with current sentencing guidelines in the United States (*United States Sentencing Commission Guidelines*, 2018). Within the offender sample, there was a substantial aversion toward sex offender registration for child pornography offenses. Prior research has shown that, in addition to the shaming associated with registration, individuals convicted of sexual offenses experienced job loss, property loss, and physical threats as a result of registries (Levenson & Cotter, 2005), which provides a basis for the lack of support shown. While the broad public support for registration makes removing it politically difficult, limiting registration to a subset of those convicted of CSEM offenses or making registration data private are potential options to explore.

Limitations

Several of the results noted relied on self-reporting of behavior and are potentially subject to biased responses based on social desirability, though several subjects did report beliefs that would not generally be considered socially desirable. Additionally, some of the results asked the respondents to predict the behavior of others who committed offenses, which would potentially be influenced by their own behaviors. Finally, the majority of the previously convicted offenders reported having received counseling and/or other mental health interventions following their arrest, which may have influenced both the qualitative responses and the cognitions post-treatment.

The populations for the two surveys were both English-speaking individuals at least 18 years of age living in the United States and cannot be generalized beyond that population.

Conclusions

This research provided a comparison of the views on CSEM and CSEM offending between a reference group of non-offenders, and a group of individuals previously convicted of child pornography offenses. Overall, the group of individuals previously convicted of child pornography offenses had more accurate estimates of risk associated with CSEM offending. That group, however, supported the legality

of virtual CSEM and child erotica at higher rates, as well as “artistic” viewing of CSEM, and exhibited some distancing of their viewing when compared to the reference group related to victimization. These indicate potential minimization distortions, and warrant further research investigation for their viability as a treatment target. Conversely, the lack of endorsement for the victims being willing participants supports the notion that victim empathy may not be a productive treatment target (Mann & Barnett, 2013).

The offender group did not estimate a high prevalence of pedophilia amongst the population. Additionally, the perception that individuals could come across child pornography on “non-mainstream” adult websites by many in the offender group provides an indicator of how it is initially accessed. This provides a behavioral target (e.g., cessation of browsing non-mainstream adult websites) that can be addressed in the context of facilitating and/or triggering behaviors to potentially reduce future offending. Finally, the addition of a simple question asking the offender group to self-identify their likelihood of committing a contact offense if the opportunity arose (using a Likert scale to incorporate minimization) provides a potential basic assessment mechanism in identifying the need for future contact-based treatment planning.

Appendix I: Demographic Data

Table AI. Demographics of Offender and Reference Samples.

Demographic category	Offender (<i>n</i> = 78)	Reference—Gender matched (<i>n</i> = 254)
Sexual orientation		
Bisexual	0.14 (<i>n</i> = 11)	0.03 (<i>n</i> = 7)
Heterosexual (straight)	0.72 (<i>n</i> = 56)	0.91 (<i>n</i> = 231)
Homosexual (gay)	0.13 (<i>n</i> = 10)	0.05 (<i>n</i> = 13)
Other	0.01 (<i>n</i> = 1)	0.01 (<i>n</i> = 3)
Prefer not to say	0 (<i>n</i> = 0)	0 (<i>n</i> = 0)
Age distribution		
18–24	0.01 (<i>n</i> = 1)	0.17 (<i>n</i> = 44)
25–34	0.28 (<i>n</i> = 22)	0.11 (<i>n</i> = 27)
35–44	0.24 (<i>n</i> = 19)	0.17 (<i>n</i> = 42)
45–54	0.17 (<i>n</i> = 13)	0.24 (<i>n</i> = 61)
55–64	0.22 (<i>n</i> = 17)	0.19 (<i>n</i> = 47)
65 or older	0.08 (<i>n</i> = 6)	0.13 (<i>n</i> = 32)
Gender identity		
Female	0 (<i>n</i> = 0)	0 (<i>n</i> = 0)
Gender variant/non-conforming	0.04 (<i>n</i> = 3)	0 (<i>n</i> = 1)
Male	0.95 (<i>n</i> = 74)	1 (<i>n</i> = 253)

(continued)

Table A1. (continued)

Demographic category	Offender (<i>n</i> = 78)	Reference—Gender matched (<i>n</i> = 254)
Not listed	0.01 (<i>n</i> = 1)	0 (<i>n</i> = 0)
Prefer not to answer	0 (<i>n</i> = 0)	0 (<i>n</i> = 0)
Transgender male	0 (<i>n</i> = 0)	0 (<i>n</i> = 0)
Relationship status		
Divorced	0.23 (<i>n</i> = 18)	0.09 (<i>n</i> = 23)
In a domestic partnership or civil union	0.03 (<i>n</i> = 2)	0.03 (<i>n</i> = 7)
Married	0.23 (<i>n</i> = 18)	0.48 (<i>n</i> = 122)
Other	0 (<i>n</i> = 0)	0 (<i>n</i> = 1)
Separated	0.04 (<i>n</i> = 3)	0 (<i>n</i> = 1)
Single, but cohabiting with a significant other	0.04 (<i>n</i> = 3)	0.05 (<i>n</i> = 12)
Single, never married	0.41 (<i>n</i> = 32)	0.32 (<i>n</i> = 82)
Widowed	0.03 (<i>n</i> = 2)	0.02 (<i>n</i> = 6)
Race (multiple selections permitted)		
American Indian or Alaska native	0.01 (<i>n</i> = 1)	0.02 (<i>n</i> = 5)
Asian	0 (<i>n</i> = 0)	0.04 (<i>n</i> = 9)
Black or African American	0.01 (<i>n</i> = 1)	0.17 (<i>n</i> = 42)
Hispanic or Latino	0.12 (<i>n</i> = 9)	0.07 (<i>n</i> = 19)
Native Hawaiian or Pacific Islander	0.01 (<i>n</i> = 1)	0 (<i>n</i> = 1)
Other	0.01 (<i>n</i> = 1)	0.01 (<i>n</i> = 3)
White or Caucasian	0.88 (<i>n</i> = 69)	0.75 (<i>n</i> = 191)
Employment status		
Not working (disabled)	0.13 (<i>n</i> = 10)	0.05 (<i>n</i> = 12)
Not working (looking for work)	0.15 (<i>n</i> = 12)	0.09 (<i>n</i> = 24)
Not working (other)	0.04 (<i>n</i> = 3)	0.02 (<i>n</i> = 6)
Not working (retired)	0.09 (<i>n</i> = 7)	0.17 (<i>n</i> = 43)
Not working (temporary layoff from a job)	0.03 (<i>n</i> = 2)	0.05 (<i>n</i> = 13)
Working (paid employee)	0.49 (<i>n</i> = 38)	0.54 (<i>n</i> = 137)
Working (self-employed)	0.08 (<i>n</i> = 6)	0.07 (<i>n</i> = 19)
Education level		
Less than high school diploma	0 (<i>n</i> = 0)	0.01 (<i>n</i> = 3)
High school graduate (high school diploma or equivalent including GED)	0.13 (<i>n</i> = 10)	0.24 (<i>n</i> = 62)
Some college but no degree	0.29 (<i>n</i> = 23)	0.19 (<i>n</i> = 49)
Associate degree in college (2-year)	0.13 (<i>n</i> = 10)	0.1 (<i>n</i> = 25)
Bachelor's degree in college (4-year)	0.33 (<i>n</i> = 26)	0.26 (<i>n</i> = 67)
Master's degree	0.09 (<i>n</i> = 7)	0.13 (<i>n</i> = 32)
Professional degree (JD, MD)	0 (<i>n</i> = 0)	0.03 (<i>n</i> = 7)
Doctoral degree	0.01 (<i>n</i> = 1)	0.04 (<i>n</i> = 9)

(continued)

Table A1. (continued)

Demographic category	Offender (<i>n</i> = 78)	Reference—Gender matched (<i>n</i> = 254)
Income		
\$0–9,999	0.09 (<i>n</i> = 7)	0.09 (<i>n</i> = 22)
\$10,000–20,000	0.19 (<i>n</i> = 15)	0.07 (<i>n</i> = 19)
\$20,001–29,999	0.1 (<i>n</i> = 8)	0.1 (<i>n</i> = 25)
\$30,000–40,000	0.24 (<i>n</i> = 19)	0.1 (<i>n</i> = 26)
\$40,001–50,990	0.09 (<i>n</i> = 7)	0.14 (<i>n</i> = 35)
\$50,991–67,000	0.08 (<i>n</i> = 6)	0.07 (<i>n</i> = 19)
\$67,001–79,000	0.1 (<i>n</i> = 8)	0.12 (<i>n</i> = 31)
\$79,001–100,000	0.05 (<i>n</i> = 4)	0.12 (<i>n</i> = 31)
\$100,001–190,000	0.05 (<i>n</i> = 4)	0.12 (<i>n</i> = 31)
Greater than \$190,000	0 (<i>n</i> = 0)	0.06 (<i>n</i> = 15)

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Chad M.S. Steel <https://orcid.org/0000-0002-2371-7560>

Note

1. The three items noted were reverse coded for consistency in display

References

- Babchishin, K. M., Hanson, R. K., & Hermann, C. A. (2011). The characteristics of online sex offenders: A meta-analysis. *Sexual Abuse: A Journal of Research and Treatment*, 23(1), 92–123.
- Babchishin, K. M., Hanson, R. K., & VanZuylen, H. (2015). Online child pornography offenders are different: A meta-analysis of the characteristics of online and offline sex offenders against children. *Archives of Sexual Behavior*, 44(1), 45–66.
- Bartels, R. M., & Merdian, H. L. (2016). The implicit theories of child sexual exploitation material users: An initial conceptualization. *Aggression and Violent Behavior*, 26, 16–25.
- Corriveau, P., & Fortin, F. (2011). *Cyberpédophiles et autres agresseurs virtuels*. Vlb.
- Elliott, I. A., Beech, A. R., Mandeville-Norden, R., & Hayes, E. (2009). Psychological profiles of Internet sexual offenders: Comparisons with contact sexual offenders. *Sexual Abuse A Journal of Research and Treatment*, 21(1), 76–92.

- Elliott, I. A., Mandeville-Norden, R., Rakestrow-Dickens, J., & Beech, A. R. (2019). Reoffending rates in a UK community sample of individuals with convictions for indecent images of children. *Law and Human Behavior, 43*, 369–382. <https://psycnet.apa.org/record/2019-20831-001>
- Faust, E., Bickart, W., Renaud, C., & Camp, S. (2015). Child pornography possessors and child contact Sex offenders: A multilevel comparison of demographic characteristics and rates of recidivism. *Sexual Abuse A Journal of Research and Treatment, 27*(5), 460–478.
- Follette, V. M., Polusny, M. A., Bechtle, A. E., & Naugle, A. E. (1996). Cumulative trauma: The impact of child sexual abuse, adult sexual assault, and spouse abuse. *Journal of Traumatic Stress, 9*(1), 25–35.
- Galbreath, N. W., Berlin, F. S., & Sawyer, D. (2002). Paraphilias and the internet. In A. Cooper (Ed.), *Sex and the Internet: A guidebook for clinicians* (Vol. 290, pp. 187–205). Brunner-Routledge.
- Harrison, J. L., O'Toole, S. K., Ammen, S., Ahlmeyer, S., Harrell, S. N., & Hernandez, J. L. (2020). Sexual offender treatment effectiveness within cognitive-behavioral programs: A meta-analytic investigation of general, sexual, and violent recidivism. *Psychiatry Psychology and Law, 27*(1), 1–25.
- Heiberger, R. M., & Robbins, N. B. (2014). Design of diverging stacked bar charts for Likert scales and other applications. *Journal of Statistical Software, 57*(5), 1–32.
- Henshaw, M., Ogloff, J. R. P., & Clough, J. A. (2018). Demographic, mental health, and offending characteristics of online child exploitation material offenders: A comparison with contact-only and dual sexual offenders. *Behavioral Sciences & the Law, 36*(2), 198–215.
- Howitt, D., & Sheldon, K. (2007). The role of cognitive distortions in paedophilic offending: Internet and contact offenders compared. *Psychology Crime and Law, 13*(5), 469–486.
- Internet Watch Foundation. (2020). *The dark side of the selfie: IWF partners with the Marie Collins Foundation in new campaign to call on young men to report self-generated sexual images of under 18s*. <https://www.iwf.org.uk/news/dark-side-of-selfie-iwf-partners-marie-collins-foundation-new-campaign-to-call-on-young-men-to>
- Jahnke, S., Imhoff, R., & Hoyer, J. (2015). Stigmatization of people with pedophilia: Two comparative surveys. *Archives of Sexual Behavior, 44*(1), 21–34.
- Khanna, R. (2013). *The interaction of cognitive distortions and substance abuse on internet contact child sex offenders and internet non-contact child sex offender*. Long Island University. <https://search-proquest-com.ezproxy.is.ed.ac.uk/pqdtglobal/docview/1517857739/C262039552CD4CC3PQ/6?accountid=10673>
- Levenson, J. S., & Cotter, L. P. (2005). The effect of Megan's law on sex offender reintegration. *Journal of Contemporary Criminal Justice, 21*(1), 49–66.
- Lynch, M. (2002). Pedophiles and cyber-predators as contaminating forces: The language of disgust, pollution, and boundary invasions in federal debates on Sex offender legislation. *Law & Social Inquiry, 27*(3), 529–557.
- Ly, T., Dwyer, R. G., & Fedoroff, J. P. (2018). Characteristics and treatment of internet child pornography offenders. *Behavioral Sciences & the Law, 36*(2), 216–234.
- Mann, R., Webster, S., Wakeling, H., & Marshall, W. (2007). The measurement and influence of child sexual abuse supportive beliefs. *Psychology Crime and Law, 13*(5), 443–458.
- Mann, R. E., & Barnett, G. D. (2013). Victim empathy intervention with sexual offenders: Rehabilitation, punishment, or correctional quackery? *Sexual Abuse A Journal of Research and Treatment, 25*(3), 282–301.

- Merdian, H. L., Curtis, C., Thakker, J., Wilson, N., & Boer, D. P. (2014). The endorsement of cognitive distortions: Comparing child pornography offenders and contact sex offenders. *Psychology Crime and Law*, 20(10), 971–993.
- Online Panels: Get Responses for Surveys & Research | Qualtrics. (n.d.). Qualtrics. Retrieved February 8, 2020, from <https://www.qualtrics.com/research-services/online-sample/>
- Owens, J., & Hawkins, E. M. (2019). Using online labor market participants for nonprofessional investor research: A comparison of MTurk and qualtrics samples. *Journal of Information Systems*, 33(1), 113–128.
- Paquette, S., & Cortoni, F. (2020a). The development and validation of the Cognitions of Internet Sexual Offending (C-ISO) Scale. *Sexual Abuse A Journal of Research and Treatment*, 32, 907–930.
- Paquette, S., & Cortoni, F. (2020b). Offense-supportive cognitions expressed by men who use Internet to sexually exploit children: A thematic analysis. *International Journal of Offender Therapy and Comparative Criminology*. Advance online publication. <https://doi.org/10.1177/0306624X20905757>
- Paquette, S., Longpré, N., & Cortoni, F. (2020). A billion distorted thoughts: An exploratory study of criminogenic cognitions among men who sexually exploit children over the Internet. *International Journal of Offender Therapy and Comparative Criminology*, 64, 1114–1133.
- Patchin, J. W., & Hinduja, S. (2020). Sextortion among adolescents: Results from a National Survey of U.S. youth. *Sexual Abuse A Journal of Research and Treatment*, 32(1), 30–54.
- Reijnen, L., Bulten, E., & Nijman, H. (2009). Demographic and personality characteristics of internet child pornography downloaders in comparison to other offenders. *Journal of Child Sexual Abuse*, 18(6), 611–622.
- Seto, M. C., Cantor, J. M., & Blanchard, R. (2006). Child pornography offenses are a valid diagnostic indicator of pedophilia. *Journal of Abnormal Psychology*, 115(3), 610–615.
- Seto, M. C., & Eke, A. W. (2005). The criminal histories and later offending of child pornography offenders. *Sexual Abuse A Journal of Research and Treatment*, 17(2), 201–210.
- Seto, M. C., & Eke, A. W. (2015). Predicting recidivism among adult male child pornography offenders: Development of the child pornography offender risk tool (CPORT). *Law and Human Behavior*, 39(4), 416–429.
- Seto, M. C., Karl Hanson, R., & Babchishin, K. M. (2011). Contact sexual offending by men with online sexual offenses. *Sexual Abuse A Journal of Research and Treatment*, 23(1), 124–145.
- Soldino, V., Merdian, H. L., Bartels, R. M., & Bradshaw, H. K. (2020). Implicit theories of child sexual exploitation material offenders: cross-cultural validation of interview findings. *International Journal of Offender Therapy and Comparative Criminology*, 64, 315–334.
- Steel, C. M. S., Newman, E., O'Rourke, S., & Quayle, E. (2020). A systematic review of cognitive distortions in online child sexual exploitation material offenders. *Aggression and Violent Behavior*, 51, 101375.
- Stermac, L. E., & Segal, Z. V. (1989). Adult sexual contact with children: An examination of cognitive factors. *Behavior Therapy*, 20(4), 573–584.
- Terminology and Semantics Interagency Working Group on Sexual Exploitation of Children. (2016). *Terminology guidelines for the protection of children from sexual exploitation and sexual abuse*. ECPAT International.
- Uniform Crime Reporting Statistics. (2020). <https://www.ucrdatatool.gov/offenses.cfm>
- United States Sentencing Commission Guidelines. (2018). United States Sentencing Commission. <https://www.ussc.gov/sites/default/files/pdf/guidelines-manual/2018/GLMFull.pdf>

- Ward, T., & Keenan, T. (1999). Child molesters' implicit theories. *Journal of Interpersonal Violence, 14*(8), 821–838.
- Webb, L., Craissati, J., & Keen, S. (2007). Characteristics of internet child pornography offenders: A comparison with child molesters. *Sexual Abuse: A Journal of Research and Treatment, 19*(4), 449–465.
- Wolak, J., Finkelhor, D., & Mitchell, K. (2011). Child pornography possessors: Trends in offender and case characteristics. *Sexual Abuse A Journal of Research and Treatment, 23*(1), 22–42.