Scoring Guide for the Child Pornography Offender Risk Tool (CPORT)

Angela Wyatt Eke, Ph.D.
Ontario Provincial Police

Michael C. Seto, Ph.D.
The Royal Ottawa Health Care Group

Includes Scoring for CPORT and CASIC

The information in this document is based on the CPORT development sample and is subject to change over time, as more research is conducted in this area and greater knowledge acquired. Part of the purpose of this guide is to provide greater detail about the development of CPORT; we recommend you review and become familiar with this information prior to using the CPORT in research or practice. To distinguish this version from any future ones we develop, the current document date is:

15 December 2016.

This document and any future updates we are involved in will be available at the CPORT project page on ResearchGate:

https://www.researchgate.net/project/Child-Pornography-Offender-Risk-Tool-CPORT

We will also post FAQs on the CPORT project page. While we will endeavor to add new work to the CPORT project page, it is just one resource; remaining current in the related fields (sexual offending, child pornography, risk assessment) is an individual's responsibility.

This document is provided for information purposes only and does not constitute legal advice or a professional opinion on a specific case or set of facts. Individuals accessing this document are expected to be experienced and current in the field of risk assessment and sexual offending, including child pornography offending, in order to make informed decisions regarding how the information herein may be relevant to their professional practice.

Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the position or policies of the Ontario Provincial Police or The Royal Ottawa Health Care Group.

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INTRODUCTION

Child pornography offenders are increasingly being seen in clinical and criminal justice settings (see Seto, 2013). An important question facing decision makers is the risk that these individuals might pose to commit further sexual offences (i.e., sexual recidivism, typically defined as new arrests, new charges, or new convictions for sexual crimes, based on official records). A better understanding of risk assists with risk management strategies including sentencing, institutional placement, treatment and supervision decisions.

A meta-analysis of nine recidivism studies found that approximately 5% of 2,630 online (mostly child pornography) offenders were known to have committed a new sexual offence of some kind during a follow-up period ranging from 1.5 to 6 years; 2% committed a contact sexual offence and 3% committed a new child pornography offence (Seto, Hanson & Babchishin, 2011). Data on future offending is not the same as evidence of contact sexual offending history; in the same meta-analysis by Seto et al. (2011), approximately one in eight online offenders had a criminal record that included contact sexual offending in the 21 studies with relevant data on 4,464 online offenders. In the six studies with self-report information through polygraph interviewing or treatment disclosures, approximately half of the online offenders admitted having a contact sexual offending history. Bourke and colleagues (2014) similarly found that, of 127 child pornography suspects with no convictions for contact sex offences against children, 5% admitted to police immediately upon contact ("door knock") and another 53% admitted during polygraph interviews that they had committed at least one contact sexual offence against a child. Little is known about offenders who self-identify as having previously undetected sexual offences.

The current work involves those detected for offending. Contact sexual offending history appears to be relevant to the risk that a child pornography offender will commit a contact sexual offence in the future. However, it is not equivalent; not all contact sex offenders (who by definition, have a contact sexual offending history) go on to commit additional contact sexual offences (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005).

Being involved with child pornography content (accessing, possessing, distributing, producing) as well as committing other sexual offences with children may be evidence of the extent of an offender's sexual preference for children (pedophilia[1]; Seto, Cantor & Blanchard, 2006). Other factors could also help explain who will continue or persist in offending, particularly indicators of antisocial tendencies or criminality such as criminal history, attitudes and beliefs, and antisocial personality traits.

Previous research has shown that some well-established criminological factors such as offender age and having a prior criminal history are associated with sexual recidivism among child pornography offenders (Eke, Seto, & Williams, 2011) and that the modification of current risk assessments developed for contact sexual offenders could also work (e.g., see information regarding the RM2000 in Wakeling, Howard, & Barnett, 2011, and Eke & Seto, 2012). However, no child pornography offender specific risk assessment tool has yet been developed.

A further consideration in the development of relevant risk tools and guides comes from research with various professionals working in the area of child pornography and contact sexual offending against children; a number of barriers exist to the communication and sharing of information between stakeholders regarding

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[1] Pedophilia is clinically defined as a sexual attraction to prepubescent children (American Psychiatric Association, 2013; World Health Organization, 2015).

general educational information as well as material related to a specific case (e.g., see Glasgow, 2012; Martin, 2016; Martin & Slane, 2015). Some of these barriers are perhaps not uncommon in the risk assessment area; in response to a need for standardized and consistent collection and sharing of risk factor information by police as part of their initial investigation in cases of intimate partner violent, the province of Ontario (Canada) created the Domestic Violence Risk Management (DVRM) guide. A goal is risk-informed collaborative interventions that are not solely about predicting outcomes, but are also about identifying priorities for intervention and acting as a first step in individual risk management. Information collected using such tools is also valuable for providing information for further research, with larger samples and longer follow-ups – perhaps particularly important in the area of child pornography as we do not yet have well validated tools for use by practitioners in a range of assessment situations. As well, larger samples may better inform us regarding those offenders who present within the criminal justice system based on child pornography offending with no known contact sexual offending

The current document describes the development of the *Child Pornography Offender Risk Tool* (CPORT, pronounced "seaport"; Seto & Eke, 2015), a risk assessment tool designed to predict any sexual recidivism (which could include both contact and non-contact sexual offences, as well as child pornography recidivism alone) among adult male offenders with a conviction for a child pornography offence. At this time, CPORT may be useful for ranking offenders according to risk score (rather than using probabilistic estimates) and we discuss this further on page 10.

CPORT does not include all relevant risk factors relating to child pornography and sexual offending. It was developed using the available data from a sample of men convicted of child pornography offenses, and therefore other factors could not be examined. For example, phallometrically-assessed sexual arousal to children is a strong predictor of sexual recidivism among identified sex offenders, but we did not have this information in the development of the CPORT.

In this document, we also outline additional information that may be gathered from a child pornography investigation and helpful in other considerations, for example, contextual information can be useful in the application and implementation of management strategies when used in conjunction with structured risk assessment (e.g., see Kroner, Gray, & Goodrich, 2013; Mills, Kroner, & Morgan, 2011). Overall, the goals for the document are to:

1) **Serve as an investigative guide, to allow for information collection from a police investigation and provide an overview of the child pornography case.**
2) **Identify factors for consideration by police, supervisors, prosecutors, and other stakeholders involved in a child pornography case, for risk considerations, treatment planning and assessing offender needs, as well as case management.**
3) **Provide the ability to collect information and prioritize cases using the CPORT.**
4) **Provide the ability to consider factors that appear related to sexual interest in children (e.g., CASIC).**
5) **Collect information that could support further research in this area.**

Definitions

Child pornography: For the research, the legal definition for *child pornography* in Canada was applied. The development sample was comprised of offenders who had been convicted of accessing, possessing, distributing and/or producing child pornography, which involved either children engaged in, or depicted as engaged in, sexual acts or material in which the dominant characteristics included sexual organs or the anal region of a child. Visual representations (e.g., photos, drawings, paintings, video, cartoon, animation), audio material, and text stories describing sex with children or advocating sex with children are included in the Canadian legal definition of child pornography and therefore in our research definition.

Nudity: In our research, *nudity* was defined as imagery where the dominant characteristics were not the sexual organs or anal regions of a child, but the child was unclothed. Many individuals involved with child pornography also have nude images of children (e.g., see Seto & Eke, 2015) and such images may be important in the fantasies of offenders (e.g., Lanning, 2010). The cases included in our samples had a description of any nude images and may also have included a count of the images involving nudity, often provided from police categorization software. In some of our cases, the nudity and other child material was more extensive than the child pornography.

Other child material: Those with a sexual interest in children may also collect or access clothed or partially clothed images of children (e.g., images of children in bathing suits). Again, this may be part of their sexual fantasies or might reflect emotional fixation on children (Lanning, 2010; Seto, 2013). In our experience with police investigation case files, an offender may have images of children they have self-produced from parks or other places children gather and they may also collect content from publications (e.g., clothing catalogues, child celebrity images) or record television shows with children as the main focus. In some of our cases, the nudity and other child material was more extensive than the child pornography.

In summary, depictions of children who are clothed or partially clothed may meet the definition of child pornography if the dominant characteristic is the depiction, for a sexual purpose, of the sexual organs or anal region of a child; absent a sexual purpose or dominant characteristic, nudity or other child material is not illegal. As well, any visual representation is included, therefore computer generated images and videos of children (the latter more common in recent cases, as animation software continues to evolve) could fit the definition of child pornography depending on what is depicted. We discuss this again on page 9 in relation to the criteria for scoring CPORT.

Overview of the CPORT Development Sample

In our development study, Seto and Eke (2015), we examined a sample of 286 adult males with child pornography offences in Canada, all of whom were convicted of at least one count of possession (over 90%), accessing (21%), distribution (37%), or production[2] (23%) of child pornography. A fifth (21%) of the sample had a contact sex offence against a child that was either part of their criminal history or a charge at the time of their index child pornography charge. The CPORT was developed in a sub-sample of 266 offenders followed for a fixed five year period of opportunity.

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[2] Under Canadian case law, production can include recording child sexual abuse the offender commits, taking images over a webcam, or altering an image to make a new image by morphing, e.g., placing a known child's face on a stranger's body.

Information about potential risk factors was obtained through careful review of police case files, comprising: offender demographic characteristics, criminal history, substance use; child pornography content; other child related content; other pornography; and online behaviour. These potential risk factors were selected on the basis of prior research (e.g., prior work showing that offender age and criminal history were relevant) or speculations about aspects of digital content and online behaviour. For example, it has been speculated that offenders with larger collections of child pornography or higher ratios of child pornography relative to other pornography might be more likely to have pedophilic sexual interests, and thus might be at risk for further child pornography offences or contact sexual offences involving children. Recidivism information was obtained through a check of national criminal records and examination of police service reports regarding new criminal charges. Recidivism was counted from the index charge onwards, including new offences committed while awaiting trial or sentencing but excluding new charges for historical sexual offences[3]. The graph below provides recidivism information for the sample of 286 offenders, over an average follow-up of 8.3 years (SD = 2.5 years).

We also compared recidivism across groups: 1) the full sample, 2) individuals with child pornography and no other offending history, 3) those with other offending but no contact sexual offending and, 4) individuals with child pornography who had a contact sexual offence history. The rate of any new offending was 39% for the full sample, 24% for those with only child pornography offences, 49% of those with other offending but no contact sexual offending and 54% for those with a known contact sexual offence. Sexual recidivism (contact and non-contact) was 16% for the full sample, however it was significantly lower among individuals with no other offending history (12%) and those with other offending but no contact sex offending history (13%) compared with offenders who had a contact sexual history (28%). More details are available in Seto and Eke (2015) and in presentations given by either author.

RECIDIVISM: SUBSEQUENT OFFENDING
Sample size N=286 (Seto & Eke, 2015)

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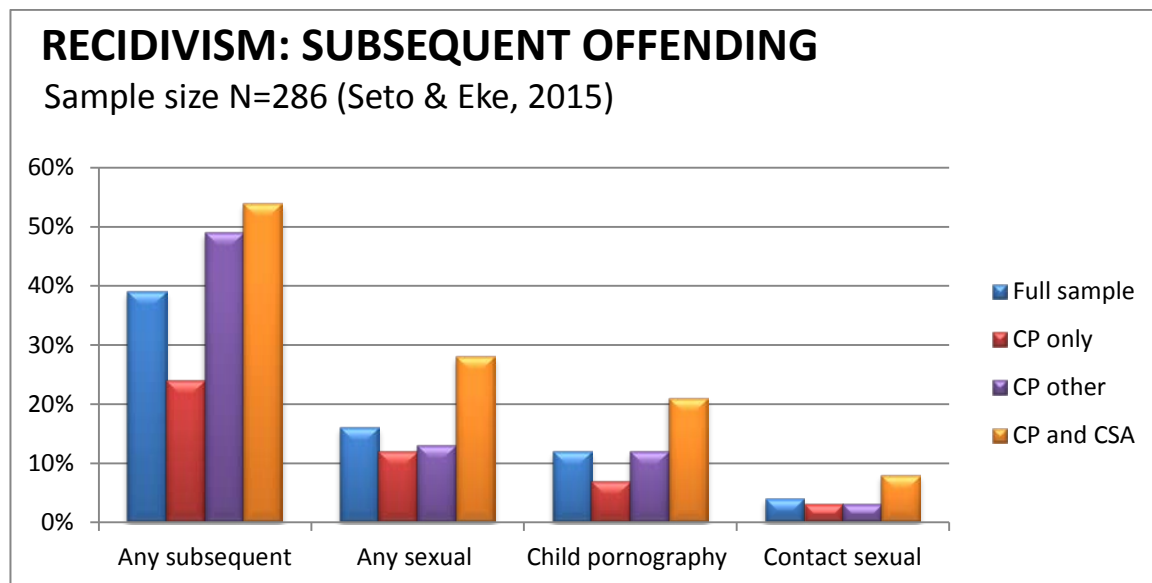
[3] New charges that arose from reports of past undetected offending (offences that occurred prior to the index offence) were excluded from recidivism counts. In Seto and Eke (2015, p. 423) we reported that nine offenders had a new charge for a historical contact sexual offence (all against children).

In our <u>five-year fixed follow-up period</u>, 29% of the sample committed a new offence of any kind (known to police). Eleven percent committed a new sexual offence, with 3% committing a new contact sexual offence against a child (17 years of age or younger) and 9% committing a new child pornography offence. **Our analyses identified seven variables that were associated with a greater likelihood of any sexual recidivism (descriptions of items begin on page 12).** In order to increase ease-of-use, items were simply scored as present/true or absent/false, for a total possible score ranging from 0 to 7. In our 5-year fixed follow-up sample of 266 child pornography offenders, the mean CPORT score was 1.94 (SD = 1.57, 95% CI = 1.74 - 2.12, range 0 – 70).

An original goal in the development of a risk tool for individuals with child pornography convictions was to assist in the prioritization of cases for police and other criminal justice professionals as well as gathering information relevant to offending that could be important for case management, supervision, and prioritizing treatment goals. Based on our research to date, <u>the CPORT can be helpful for ranking individuals</u>. We are sometimes asked about the use of the probability estimates of sexual recidivism based on CPORT scores (table originally reported in Seto & Eke, 2016, p.426; we have included it for reference in this document on page 26). The generalizability or stability of these estimates in other groups is not known; the CPORT is newly developed and does not have extensive validation and known stability found with more established tools (like the probabilities associated with different Static-99R scores: see www.static99.org). Given the unknown validity/stability of the recidivism estimates, we encourage evaluators to be cautious when deciding how to report CPORT scores. CPORT may be useful to rank order offenders in their risk for recidivism, allowing prioritization of resources, as well as the sharing of item information. It is preferable to communicate risk without referring to the recidivism probabilities reported in the original article (Seto & Eke, 2015). If, an evaluator deems it necessary to comment on absolute risk of sexual recidivism, they should be extremely cautious in reporting the estimates, noting that much larger sample sizes will be needed to produce more reliable and credible recidivism estimates. This will come with more research. See page 25 for additional comments.

In the CPORT, admission of sexual interest in children is a risk factor for predicting any sexual recidivism. The concern with this type of item is its vulnerability to faking or refusal to respond, especially in high-stakes situations such as being investigated for child pornography offences, sentencing and so forth. This led to our interest in potential correlates of sexual interest in children (Eke & Seto, 2013) and the development of a short 6-item scale we called the *Correlates of Sexual Interest in Children Scale* (CASIC; Eke & Seto, 2016; slides posted on the CPORT project page). Further, we also explored the impact of using alternate definitions for the CPORT item that assesses admitted or diagnosed pedophilic interests (e.g., online admissions to others, search criteria). In the current document, we describe both the CASIC as well as the collection of additional information that could provide context or a better understanding of an individual's sexual interest in children.

The CPORT is free and noncommercially (publicly) available. Its development is described in a peer-reviewed journal article (Seto & Eke, 2015) that first appeared online in April 2015. We provide details of CPORT in this current document as well as on the CPORT ResearchGate project page (https://www.researchgate.net/project/Child-Pornography-Offender-Risk-Tool-CPORT).

The CASIC is free and noncommercially (publicly) available. We originally presented related initial material and findings in 2013 (Eke & Seto, 2013) and described CASIC specifically at the recent ATSA conference (see Eke & Seto, 2016; slides posted on the CPORT project page). We provide details of the CASIC scale in this guideline.

We are developing training for both the CPORT and CASIC. This will include case studies and sample scoring. We will use the CPORT project page to make announcements regarding training and this page will also include a section for frequently asked questions (FAQ), where we will post questions that arise from users and readers of the scoring manual and related documents, and our responses to those questions.

CPORT Coding Instructions and Item Background Information

Item descriptions and examples are from the development sample. In our research, we focused on information that we believed could be coded from police investigation files, while keeping in mind what would likely be available to other professionals as well.

In this document, we describe the items and how they were coded, as well as provide examples of what would meet (and in some cases, not meet) the item. We briefly discuss some of the possible psychological or criminological meaningfulness of each item. We also provide some additional sample data related to each item (e.g., correlated variables) for those interested in conducting research with CPORT.

Items are scored dichotomously for ease of use and because exploration of more complicated weightings did not remarkably increase predictive accuracy. Consistent with the larger contact sex offender risk assessment literature, CPORT items appear to represent two risk dimensions (see Seto, 2013), the first group of items relating more to antisociality/criminality and the remaining items relating to sexual interest in children.

If you are going to use the scale in practice, it is important to adhere to how the item was defined in the research data, as described in this manual and as will be described in future training. The further the scoring deviates from these definitions, the further your score is from the empirical support for the scale.

Criteria for Scoring CPORT and Using it to Prioritize Cases

1) _Adult male offender_: The development sample was comprised entirely of men convicted of child pornography offences. The generalizability or validity of these results to women or juvenile offenders is unknown.

2) _Convicted of a child pornography offence_: The development study was comprised of cases where the individual was convicted (none successfully appealed) of one or more child pornography offences.

As stated earlier, we used the legal definition for _child pornography_ in Canada. Not all countries have the same definitions. CPORT can be used with individuals convicted of similar child pornography offences, specifically: accessing, possessing, distributing and/or producing material (any visual depiction, text etc) which involve either children engaged in, or depicted to engage in, sexual acts or material in which the dominant characteristics included the sexual organs or anal regions of a child. Our definition is broader than some other countries because the Canadian legal definition of child pornography includes depictions of fictional children (e.g., stories, anime). In Canada, images of nude or partially dressed children where there is no sexual activity and no focus on the sexual organs or anal region of a child is not illegal. A conviction only for possession of content depicting child nudity in another country (e.g., under obscenity legislation) would not fit the criteria for using CPORT.

One question that might arise is whether CPORT can be used with charged offenders who are still involved in criminal proceedings (e.g., for use at a bail hearing). While there is reason to believe that CPORT would work similarly prior to conviction as it does post-conviction (e.g., the data used to score CPORT relates to prior criminal history or information available during the investigation but not post-conviction information, recidivism was collected from charge onwards) we have not empirically assessed CPORT with a charged group so we have no details on how it performs for those who do not go on to be convicted (a less common occurrence in Canada, where the majority of charged individuals are convicted). If an evaluator decides to use CPORT prior to conviction for the purpose of sharing information about the risk factors, we highly recommend you add a caveat about your use so those reviewing your report understand the CPORT scoring criteria have not been met, for example stating: "While there is reason to believe CPORT will be applicable to charged individuals, there is currently no empirical support for this use. This information is intended to provide insight into individual risk factors and provide some context to an individual's offending, but it is not being used to score the individual in comparison to other offenders." If a conviction is registered you might then decide to use the CPORT as a score. Do not use CPORT in cases where the individual's child pornography charge has already been withdrawn or dismissed until there is further research evidence of the use of CPORT with this type of group.

As stated, we anticipate additional questions relating to the use of CPORT. For example, we are sometimes asked about use of CPORT with individuals who have no known other criminal offending. We include a response to this question, and others, in the FAQ section of the CPORT project page and encourage users to check this section regularly as well as seek other sources of information (e.g., subsequent research) that might relate to the CPORT.

Information relating to CPORT, CASIC (Appendix B) and the additional considerations (Appendix C) may have value in a police investigative environment; we are working on an additional document to assist with this as well as to support additional research. For further information, please contact Angela Eke (angela.eke@opp.ca).

Sources of Information

A number of sources of information were helpful during data collection, these are listed below. When collecting information for scoring CPORT, the sexual interest items, and any additional variables of interest we recommend that you indicate your source of information.

> ➢ Criminal history (e.g., police occurrence reports, national criminal records as recorded by the Canadian Police Information Centre, CPIC)
> ➢ Police occurrence reports
> ➢ Police notes
> ➢ Forensic reports based on seized devices
> ➢ Offender interviews
> ➢ Victim and family interviews
> ➢ Warrant information

Missing Information

As stated in Seto and Eke (2015), CPORT was relatively robust in terms of missing data (page 426):

There were missing data for 11 offenders regarding sexual interests and for one offender regarding contact sexual offending history. Its AUC was only slightly higher (.76, 95% CI [.66, .85] for the 254 cases with no missing items.

We also examined a version of the CPORT excluding the items about child content other than child pornography and admission/diagnosis of sexual interest in children, on the assumption that these would be more likely to be missing information in clinical or correctional files. This compact version of the CPORT had AUCs of .73 (95% CI [.63, .83]) for the full sample.

Overall, few items in the development sample were missing, however in practice (e.g., outside of policing) information on certain items might not be as easily available. Anecdotally, feedback from attendees of our presentations is that the two content related items would be the most difficult to score for clinicians and other later-stage users. Validation research or field tests might refine the number and type of items that can be missing and suggest ways to prorate scores.

We assessed substitutes for CPORT Item 5 (admission/diagnosis of sexual interest in children), the more commonly missing and more vulnerable item in our development sample, including a short scale consisting of behavioural and content variables (the CASIC scale). We provide some details on this research in Appendix B and the use of CASIC as a substitute for CPORT Item 5.

In our development sample we examined cases allowing for one missing item (not including Item 5 in cases where CASIC was used). The AUC was .74 (95% CI [.63, .84]) for predicting any sexual recidivism and .76 (95% CI [.64, .88]) for specifically predicting child pornography recidivism.

Until further research is available, **we do not recommend using CPORT if there is more than one item missing** (substituting Item 5 with the CASIC score as per Appendix B would not be counted as a missing item).

Item 1: *Offender age at time of the index investigation, coded as higher risk if age 35 or younger (49% of the development sample were higher risk on this item)*

Coding:

- This is calculated based on the date the police service began their investigation into the individual.
- Child pornography offences may not have been the initial focus of the investigation, for example:
    - an officer attends a traffic accident and child pornography is discovered in the vehicle (the index investigation date is the day that police attended the accident).
    - a sexual assault complaint is made to police and during the investigation, child pornography is located in the suspect's home (the investigation date is the day the police became aware of the sexual assault complaint).

- In our development sample, if the offender came to the attention of an agency outside Canada, the index investigation date is the day the Canadian police service became aware of the suspect and began their investigation, for example:
    - A foreign service such as the Federal Bureau of Investigation is online investigating an offender, they track him to Canada and contact Canadian authorities; the index investigation date is the day the police service in the relevant Canadian jurisdiction are made aware of the case.
- We used an online time and date calculator (www.timeanddate.com) to calculate age from the offender's date of birth to the start date for the index investigation.

Cases where age at investigation is unknown:
- Because there may be greater access to information regarding age at the index conviction, we examined the relationship between age variables:
    - The majority of child pornography charges were laid within a month of the start of the investigation (most offenders were arrested during the warrant search)
    - Also, age at the index investigation was closely associated with age at conviction as most court cases were completed within 15 months, for example when grouped based on 35 or younger, $\chi^2(1) = 331.70$, $p < .001$.
- Also, age at index investigation was similar to other age variables:
    - Within our development sample, the child pornography offence was the offenders' first criminal charge in over half the cases (57%).
- The majority of offenders received no time in custody (60%) or intermittent time in custody (e.g., on weekends, 9%), therefore their age at index investigation was often age at risk to the community (age at first release).
- Overall, this item could be scored with other age information however an evaluator would need to comment on the fact different age information was used and that it might impact on the score.

Younger offender age is well established as a risk factor for recidivism across different types of offenders, including sex offenders more generally (Hanson & Morton-Bourgon, 2005) and child pornography offenders specifically (Eke et al., 2011; Wakeling et al., 2011). In the general offender literature, age is one of the strongest and most universal correlates of crime (Hirschi & Gottfredson, 1983).

Item 2: *Any prior criminal history, coded as higher risk if yes*
(41% of the development sample were higher risk)

Coding:

- These are prior detected offences resulting in a criminal charge.
- Criminal charges were counted regardless of outcome (e.g., the charge was withdrawn).
- An offence did not have to be sexually related; all prior criminal charges were counted.
- Non-criminal charges, for example traffic offences or Customs Act charges, were excluded.
- This item also excludes offences committed in the past that result in charges at the index investigation:
  - For example, an individual is being charged at the index investigation for a sexual assault that occurred 5 years ago; the sexual assault would not be considered prior criminal history because it was unknown/undetected until the index set of charges (the formal response for this past offence is at the time of the index investigation for child pornography).
  - Charges for previously undetected contact sexual offending are included as part of the index offending in CPORT Item 4.
- Our sources for information included a national system for tracking offending, police occurrence reporting systems, and court documents outlining charges and convictions
- We did not have consistent information on self-reported offending, so do not score this item based on self-report without further research examining whether self-report information can be used instead of official records.

What to use when coding any prior criminal history	
Criminal charges (regardless of outcome)	✓
All prior criminal charges (sexual or otherwise)	✓
Non-criminal charges (e.g., traffic offences, Customs Act charges)	X
Offences committed in the past that result in charges at index (i.e., historical)	X
Self-report	X

Background:

It is well established that prior criminal history is a recidivism risk factor for many different types of offenders, including sex offenders more generally (Hanson & Morton-Bourgon, 2005) and specifically child pornography offenders (Seto & Eke, 2005; Wakeling et al., 2011). Among general offenders, criminal history is the strongest of the Central Eight risk factors (Andrews & Bonta, 2010).

Item 3: *Any prior or index failure on conditions such as probation, parole or conditional release, coded as higher risk if yes*

(15% of the development sample were higher risk)

Coding:

- This item is scored positively for any type of failure on conditional release, either prior to or at the time of the index investigation for child pornography.

What to use when coding any prior failure on conditions	
Prior or Index failure on conditional release	✓
Detected offence with formal response	✓
Criminal Charges (regardless of outcome)	✓
Self-report	✗

- These were detected breaches or technical violations for which there was a *formal* response, such as charge or recommitment.
- Criminal charges were counted regardless of outcome (e.g., the charge was withdrawn).
- Examples include failure to appear for court, a technical breach of probation or parole (e.g., not reporting as required), a failure to abide by conditions relating to the use of the internet or computers, or being around children without a responsible adult present.

Background:

Failure on conditional release is another well-established criminal risk factor, where those who have not been able to comply with bail, probation or parole conditions are more likely to further break rules by committing new crimes. This has been demonstrated among sex offenders more generally (Hanson & Morton-Bourgon, 2005).

Item 4: *Any prior or index contact sexual offence history, coded as higher risk if yes*
(18% of the development sample were higher risk)

Coding:

- These are detected sexual offences for which there was a formal response (criminal charge or conviction).
- Criminal charges were counted regardless of outcome (e.g., the charge was withdrawn).
- Contact sexual offences included any contact of a sexual nature; coding was based on the nature of the offence – in many cases, police report information allowed us to confirm that charges reflected offender actions during the offence (e.g., a charge of sexual assault related to touching a child).
- This item included offences committed in the past that resulted in charges at the index investigation:

What to use when coding prior or index contact sexual offence history	
Sexual offence with formal response	✔
Criminal Charges (regardless of outcome)	✔
Contact sex offence (included any touching of a sexual nature)	✔
Invitation to sexual touching	✗
Offences committed in the past that result in charges at index	✔
Self-report	✗

- For example, the individual was charged at the index investigation for a sexual assault that occurred two years ago but that had just came to light; this sexual assault would not be considered prior criminal history as it was undetected/unknown until the index investigation, but it would still count on this item because index offences are included.
  - The following types of situations would count: (a) After media reports of the child pornography charges, victims come forward with reports of past contact sexual offending by the offender; (b) the child pornography images depict evidence of contact sexual offending by the offender.
- Our sources for information included police occurrence reports, a national system for capturing offending, police occurrence reporting systems, and court documents outlining charges and convictions.
- We did not have consistent information on self-reported offending, so do not score this item based on self-report without further research examining whether self-report information can be used instead of official records.
- This item does not include offences where there was no sexual contact, for example invitation to sexual touching (such as during online chat).

Background:

Evidence of contact sexual offending is a risk factor for sexual recidivism (Hanson & Morton-Bourgon, 2005) including among child pornography offenders (Eke et al., 2011; Wakeling et al., 2011). Child pornography offenders who have no known history of contact sexual offending may have individual characteristics (e.g., high empathy, high self-control) or situational factors (e.g., stable family and social ties, limited access to children) that help prevent contact sexual offending.

Further, *dual* or *mixed* offenders who have committed both child pornography and contact sexual offences are more likely to be pedophilic than either child pornography only offenders or contact offenders with no history of child pornography offending (see Babchishin, Hanson, & VanZuylen, 2015). Being sexually interested in children is a well-established risk factor for sexual recidivism among non-internet offenders (Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005).

Undetected prior contact sexual offending among child pornography offenders has been examined, with Seto and colleagues (2011) and Bourke and colleagues (2014) reporting just over half of child pornography offenders with no known contact history admit (mostly as part of a polygraph process) to committing prior contact sexual offences against children. Methods for assessing the likelihood of undetected prior contact offending among child pornography offenders are being examined (e.g., the Kent Internet Risk Assessment Tool or KIRAT, which distinguishes offenders but has not been tested in follow-up research: see Long, Alison & McManus, 2012). How assessments of prior undetected offending might assist in considerations of risk for future sexual offending among child pornography offenders will be an important question for future research.

Additional Item Information:

- In this development sample, prior or index contact sex offences usually involved children

Item 5: *Indication of pedophilic interests, coded as higher risk if yes (40% of the development sample were higher risk)*

Coding:

- This item is composed of admissions and/or evidence of a diagnosis of pedophilia or hebephilia[4] (which can be identified as Paraphilia Not Otherwise Specified under the DSM-IV-TR nosology in place at the time this research was conducted).
- Pedophilia is clinically defined as a persistent, intense sexual interest in prepubescent children, whereas hebephilia is clinically defined as a persistent, intense sexual interest in pubescent children. Pubescent children are typically between the ages of 11 and 14 and are sometimes described as "tweens" or "young adolescents". Age is a proxy for developmental stage, however, because of variation in the age of onset of puberty. Hebephilia should not be confused with a sexual interest in postpubertal adolescents who are nonetheless below the legal age of consent (e.g., sexually mature looking 15 year olds, when the age of consent is 16).
- This item involves admissions to police regarding sexual interest in the child material (pornography, nudity and other), masturbating to the child material, or sexual interest in children in general.
- Admissions were coded across interactions with police investigators:
  - We coded this item from recorded/transcribed interviews and from officers' notes (e.g., those describing verbal interactions with the individual, for example that occurred during the execution of the search warrant or notes taken from verbal interactions during offender transport after charges were laid).
  - Recorded interviews and officer notes are "disclosable" for court and therefore information regarding offender self-report about sexual interests may be available or mentioned beyond the investigative file.
  - This item was not positively scored for non-specific comments, for example, "I have a problem" would not be positively scored on its own; the admission had to be in the context of a discussion about sexual interest in children and/or images relating to children (e.g., "I have a problem, I can't help it, the pictures turn me on" or admissions about use "I masturbate to this material when I'm stressed or lonely").
  - This item was not positively coded if the individual did not know they were talking to a police officer (i.e., online undercover officer in a chat room).

What to use when coding pedophilic interests	
Admission to police to sexual interest in child material, masturbating to child material or general sexual interest in children	✓
Admission to an undercover officer (individual not aware the person is a police officer)	✗
Admissions made to others online (e.g., in chats)	✗
Non-specific responses; responses not directly related to sexual interest in children	✗
Reporting to police previous diagnosis of sexual interest in children	✓
Collateral evidence of formal diagnosis pre-index	✓
Collateral evidence of formal diagnosis post-index	✗
CASIC score of 3 or more	✓

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[4] Hebephilia is a less well known or studied age attraction to pubescent children (Blanchard et al., 2009). Pedophilia and hebephilia (either *pedohebephilia* or pedophilia alone under the ICD-10 and in this document) can be assessed in different ways (Seto, 2008, 2013).

- This item includes the offender reporting to police that he had been previously diagnosed with pedophilia or hebephilia, or collateral evidence of a formal diagnosis (e.g., from a mental health report).
- We did not (reliably) have access to assessment information and admissions of sexual interest that occurred after the index investigation, for example those resulting from evaluations conducted for court purposes for the index child pornography offence, assessments conducted for treatment purposes, or admissions made to probation and parole. Therefore, these assessment results and admissions cannot be included in the coding of this item. Future research examining the influence of these later assessments and admissions in predicting future offending will be valuable.
- The original variable was strict and focused on admissions to police or information based on a formal clinical assessment, in the admission variable we did not include other suggestive evidence of sexual interest in children such as:
  - File sharing rules or search criteria (e.g., "girls only! aged 5-12 only! no adult!"), admissions made to others online (e.g., "have loved boys since I was a boy, sexually turned on by beautiful boys…"), postings in child sexual interest groups, or sexualized chat in cases involving luring.
  - The reason for this exclusion in the development sample was, in part, because the information was at times not fully documented in an investigation and it was difficult to operationalize. Further, from a practical perspective, this type of information may not be known outside an investigation.
  - We are furthering our work in this area and testing additional sources and ways of coding sexual interest in children.
  - We discuss additional sources a bit further in Appendix C, Other Considerations.
- Further, we coded a series of variables relating to an offender's collection content and their collecting behaviour. Six of these variables predicted Item 5 scores and could serve as a substitute (using a score of 3 or more). The Correlates of Sexual Interest in Children Scale (CASIC) is described in Appendix B of this document.

Background:

Research has repeatedly shown that pedophilic sex offenders are more likely to reoffend sexually than non-pedophilic offenders (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005). In some studies, pedophilia and hebephilia are combined, such that individuals who are sexually attracted to pubescent children are still considered pedophiles. Most child pornography cases involved images of children who are clearly pre-pubescent or just beginning to show secondary sex characteristics. Perhaps in part, practically, it is easier to identify a pre-pubescent child in an image than it is to discern a youth with secondary sex characteristics from an adult.

The finding that pedophilic sexual interests is associated with a greater likelihood of sexual recidivism among child pornography offenders is consistent with the motivation-facilitation model proposed by Seto (2008, 2013) to explain contact sexual offending against children and child pornography offending.

An important question for validation research is whether other evidence of pedophilic sexual interests can substitute for this item. For example, as stated earlier, should this item be endorsed if the individual is assessed after the index investigation and there is evidence from phallometric testing that the person shows greater sexual arousal to children than to adults? What if the individual admits his sexual interest in children to a

clinician or a probation or parole officer? As well, we tested the use of other communications (that would be known at the time of the index investigation), such as how an individual requests material online and the content of their chats; this broader coding might hold some promise. We suggest some ways to collect this information in Appendix C.

Additional Item Information:

- In our work, this item was one that was more commonly missing; this may not be the case in a clinical setting, where there is perhaps more opportunity to build rapport and work with an individual. As stated earlier, the coding of this variable using post-conviction information would need to be tested.
- It should be noted that evidence of a past diagnosis of pedophilia or hebephilia is associated with sexual offending history, which is already represented in Item 3. It is very likely that only individuals who have previously committed a sexual offence would be evaluated with a question regarding pedophilia or hebephilia (though in some cases the person might have self-referred because of distress or concerns about their sexual interest in children).
- In the development sample, almost all of those who were diagnosed with pedophilia or hebephilia also admitted their sexual interest in children to police investigators, so the primary variable considered here reflects admission of sexual interests in prepubescent or pubescent children.
  - There were 37 offenders with evidence of a formal diagnosis of pedophilia and/or hebephilia; the majority (33, 89%) also admitted their sexual interest to police.

Item 6: More boy than girl content (≥ 51%) in the child pornography content
(15% of the development sample were higher risk)

Coding:

What to use when coding more boy than girl content in child pornography	
Only child pornography is considered for this item.	✔
Child pornography = sexually explicit depiction of person under 18 years.	✔
More than half the child pornography material included boys.	✔
Adults in content	X
Child nudity or other content	X

- Child content seized by police and available to our research coders was divided into three categories – child pornography, child nudity, and child other – and the proportions of these categories in the total content was estimated by coders to the nearest 5%, distinguishing by age (infant/toddler, prepubescent child, pubescent child) and gender (boy or girl); further, gender and age group information were always recorded by police in the development sample.
- Child pornography refers to a sexually explicit depiction of a person under the age of 18 and in Canada this can include depictions of fictional children (e.g., cartoon) or text describing explicit sex between a child and an adult or another minor; only child pornography content is considered for the current item. Child pornography is further defined on page 5.
- The two latter categories include child nudity, children in stages of undress, or fully clothed children; this material is discussed in Item 7.
- If more than half (≥ 51%) an offender's *child pornography material* included boys, the current item was coded positively.
- Images with both boys and girls were counted as both boy and girl content; adults were not included in these gender counts.

Background:

- This variable likely represents atypical sexual interests; men who sexually offend against boys are more likely to be pedophilic than those who offend only against girls.
    - For example, a screening tool, the Screening Scale for Pedophilic Interests (SSPI; Seto & Lalumière, 2001), used to assess pedophilic interest based on victim characteristics, includes having a boy victim as one item, in fact this item is the most heavily weighted item in the scale. The SSPI is significantly related to other measures of pedophilia including phallometric testing (Seto & Lalumière, 2001) and has distinguished arousal to pubescent males from arousal to pubescent females (Canales, Olver, & Wong, 2009).
- Having a sexual interest in boys is associated with a greater likelihood of persistence in contact sexual offending (Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005).
    - Those with a sexual interest in boys may also be higher in emotional congruence with children; with emotional and intimacy needs fulfilled by children rather than adults (e.g., see Underhill, Wakeling, Mann, & Webster, 2008; McPhail, Hermann, & Fernandez, 2014; McPhail, Hermann, & Nunes, 2013).

<u>Additional Item Information:</u>

- We collapsed counts into a dichotomous variable of *≥ 51% or not* rather than using more complicated ratios that require exact counts for practical reasons:
    - Specific image counts are not carried out by all police in different jurisdictions; however, general themes regarding age and gender of content are usually reported or available.
    - Even when all images are catalogued, the information may not be made available to professionals outside of policing (see Glasgow, 2010, 2012) and therefore global descriptions regarding gender of the children in the child pornography counts is of more practical use.
- In the development sample, most offenders had child pornography as well as the other child content such as nudity – only 7% of the sample had only child pornography and no other child content.
- In most cases where the child pornography collection was coded as 51% or more boys, the collection could also be described as 75% or more boys, suggesting when a preference exists for boys, it is quite evident and this information would be reliably shared beyond the investigative file; we did not use the 75% criterion for scoring the current item because it did not improve prediction of sexual recidivism.
- Gender of the children in the collection was always recorded by police in the development sample; we expect that in general information shared about the child content, beyond the full investigative file (e.g., in a general report, for court etc), could include a comment about the predominant gender of the children in the child pornography material, though not always.

Item 7: *More boy than girl content (≥ 51%) in child nudity and other child content, excluding child pornography content*

(16% of the development sample)

Coding:

What to use when coding more boy than girl other child content	
Only child nudity and child other content considered for item.	✔
Child nudity and child other = person under 18 years of age clothed, nude or in stages of undress.	✔
More than half the child nudity and other child content included boys.	✔
Adults in content	✗
Child pornography content	✗

- Child content seized by police and available to our research coders was divided into three categories – child pornography, child nudity, and child other – and the proportions of these categories in the total content was estimated by coders to the nearest 5%, distinguishing by age (infant/toddler, prepubescent child, pubescent child) and gender (boy or girl); further, gender and age group information were always recorded by police in the development sample.
- The two latter categories include nudity, children in stages of undress, and children fully clothed. This content would NOT meet the legal definition of child pornography (in Canada) as described for Item 6 above.
- If more than half (≥ 51%) an offender's *child nudity and other child content* included boys, the current item was coded positively.
- Images with both boys and girls were counted as both boy and girl content; adults were not included in these gender counts.
- Any child content considered in scoring CPORT can be classified as child pornography (Item 6) OR child nudity and other content (Item 7). No images or material can be considered in scoring BOTH items.

Background:

- A person with a sexual interest in children may find a variety of child material sexually stimulating, not only depictions of child pornography (e.g., Krone, 2004; Taylor & Quale, 2003). This can include depictions of nude children that do not meet legal definitions of child pornography, children in underwear or swimsuits, and children who are fully clothed.
- Interest in boys can include both pornographic and non-pornographic content, because the children in the images are appealing to the person; child pornography offenders often have this content and individuals with pedophilia may also collect this content regardless of having child pornography (see Seto, 2008).
- Having a sexual interest in boys is associated with a greater likelihood of persistence in contact sexual offending (Hanson & Bussiere, 1998; Hanson & Morton-Bourgon, 2005)
- Those with a sexual interest in boys may also be higher in emotional congruence with children; with emotional and intimacy needs fulfilled by children rather than adults (e.g., see Underhill, Wakeling, Mann, & Webster, 2008; McPhail, Hermann, & Fernandez, 2014; McPhail, Hermann, & Nunes, 2013).
- This item may speak to the breadth of the person's interest in children, e.g. content might be sought that is not strictly for sexual arousal but also for aesthetic or emotional reasons (e.g., having a "crush" about a child celebrity).

Additional Item Information:

- In the current sample, most offenders had other child content; only 7% of the development sample had only child pornography and no other child content.
- This content does not meet the Canadian legal definition of child pornography, therefore it may not always be fully catalogued by police or the information may not commonly be shared beyond the investigative file; in the development sample, the CPORT AUC without this item (and with no other missing items) was .75 (95% CI .64 - .85) compared to an AUC of .76, 95% CI [.66, .86]) with this item and no other missing information.

CPORT Recidivism Probabilities

In our 5-year fixed follow-up sample of 266 individuals convicted of child pornography offences, the mean CPORT score was 1.94 (SD = 1.57, CI = 1.74 - 2.12, range 0 – 70; CPORT score was a significant predictor of any sexual recidivism (AUC[5] = .74, 95% CI [.63, .84]) and any child pornography recidivism (AUC = .76, 95% CI [.65, .88) specifically, regardless of missing items. The CPORT was relatively robust for these missing items, with an AUC only slightly higher for any sexual recidivism (.76, 95% CI [.66, .86]) for the 254 cases with no missing items. We discuss missing items on pages 10- 11. Note that sexual recidivism would include child pornography recidivism, as well as other (including contact) sexual offences.

An original goal in the development of a risk tool for individuals with child pornography convictions was to assist in the prioritization of cases for police and other criminal justice professionals as well as gathering information relevant to offending that could be important for case management, supervision, and prioritizing treatment goals. Based on our research, the CPORT may be helpful for ranking individuals.

The following table is used to illustrate the relationship between CPORT scores and observed sexual recidivism in the development sample, as well as the estimated probabilities derived from logistic regression. The tool appears to perform sensibly. However, as per Seto and Eke (2015, p. 12), we do not recommend the actuarial use of the CPORT with reference to the recidivism probabilities reported here until there are further validation studies. Although we do not yet recommend reporting recidivism probabilities in applied risk assessments, if the probabilities are referred to, it should be the predicted estimates from logistic regression that are used, as this is the method recommended for producing more stable and credible recidivism estimates (Hanson, Helmus, & Thornton, 2010) – also see our comments on page 8. As well, as has been demonstrated with other empirical actuarial tools, there is an importance in examining and updating norms over time with large samples, as well as across different types of samples or populations (e.g., see Hanson, Thornton, Helmus, & Babchishin, 2016; Hilton & Eke, in press). The benefit of evidence based tools comes from research, which in turn can lead to changes in the scoring, application, and norms for a given instrument. Consequently, users should expect the CPORT properties to change over time as new information becomes available.

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[5] AUC = area under the curve, a measure of predictive accuracy that can range from 0.00, to 1.00, with .50 signifying chance prediction, and 0 and 1 signifying perfect negative and perfect positive prediction, respectively. In a meta-analysis of risk assessment measures by Hanson and Morton-Bourgon (2009), the average ability of 'empirical actuarial risk assessments' (designed to predict sexual recidivism) to predict sexual recidivism was d 0.67, 95% CI [.63, .72], which relates, approximately, to an AUC of .68, considered to be a moderate effect size (see Rice & Harris, 2005; effect sizes over an AUC of .71 can be considered large).

CPORT Sexual Recidivism Probability Table

CPORT Score	Observed % of Scores in the Sample[a]	Observed Recidivism Rate[b]	Predicted Recidivism Rate (probability estimate) on the basis of logistic regression[c]
0	16%	2.3%	2.4%
1	27%	4.2%	4.5%
2	24%	11.1%	8.5%
3	13%	11.4%	15.2%
4	9%	20.8%	25.8%
5+	6%	47.1%	40.4%

Note: [a] Although the CPORT is relatively robust in terms of missing data, observed and predicted recidivism probabilities are based on the 254 cases with no missing items, as documented in Seto and Eke (2015). [b] The sexual recidivism base rate for the sample (N = 254) was 11%. [c] Probability estimates based on logistic regression analyses, Hosmer-Lemeshow test for goodness of fit, p = .806.

A second way of viewing this information is with a graph. As might be expected, the majority of offenders in the development sample had low scores on the tool (blue line). The red and green lines visually depict that higher scores are related to greater observed as well as predicted sexual recidivism. There is a strong similarity in the observed (red line) and predicted (green line) recidivism.
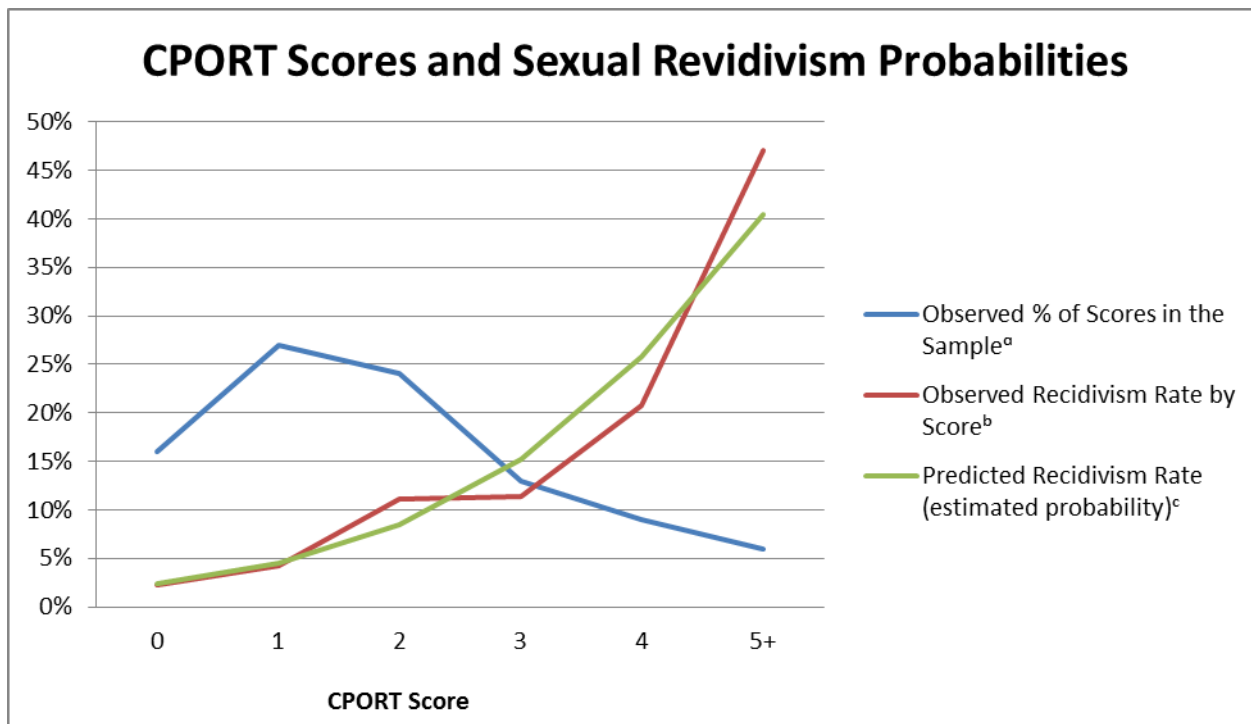
[a] Although the CPORT is relatively robust in terms of missing data, observed and predicted recidivism probabilities are based on the 254 cases with no missing items, as documented in Seto and Eke (2015).
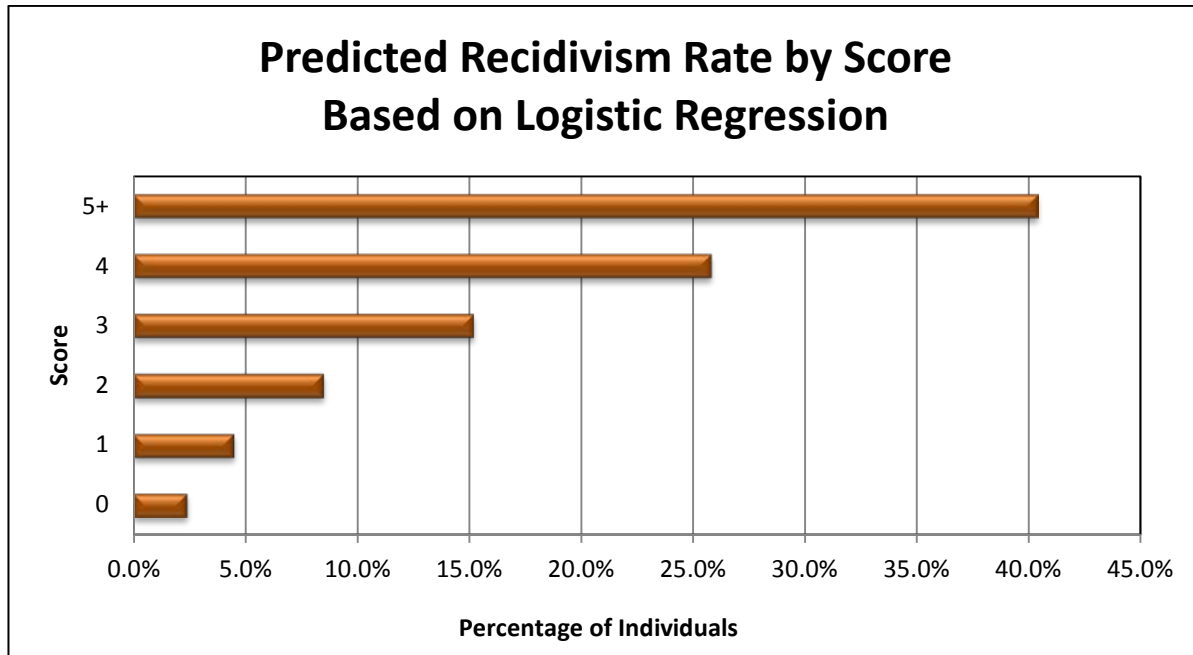
Below is another representation of likelihood of reoffending (predicted recidivism based on logistic regression) based on CPORT scores from the development sample.

Predicted Recidivism Rate by Score
Based on Logistic Regression

The figure below represents the number of offenders in the development sample at each score. As with the information on recidivism probabilities, this is based on the 254 cases with no missing items. Although the CPORT is a scale out of 7, few offenders scored a 5 (7 cases; 2.6%), a 6 (6 cases; 2.3%) or a 7 (4 cases; 1.5%); therefore, scores of 5 and higher were combined. As would be expected, the most common scores in the sample are the lower scores. Based on the earlier figure, these offenders account for the least recidivism; the few offenders with the higher scores (5+) accounted for the most recidivism, in the earlier graph.

Observed Number of Offenders by Score
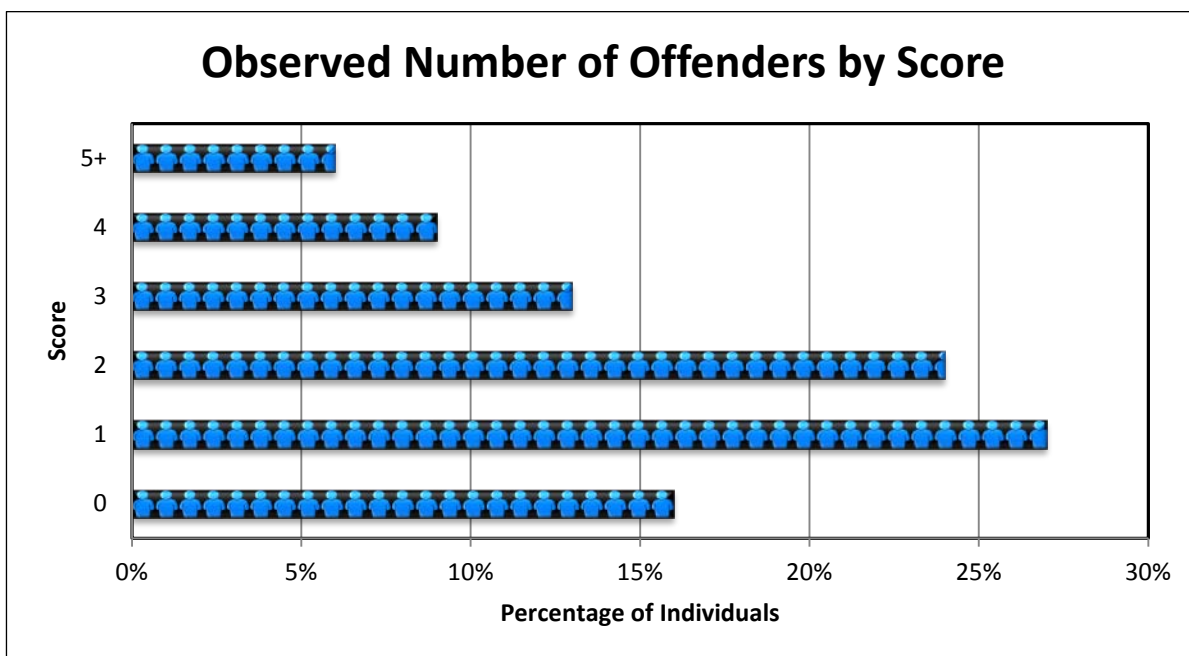
Appendix A: CPORT Form

CHILD PORNOGRAPHY OFFENDER RISK TOOL (CPORT)

Name: DOB: Case number:	Charges at index (include child pornography and otherwise):	**Both factors must be present to score the CPORT:** **YES NO** ☐ ☐ Adult male ☐ ☐ Convicted of a child pornography offence
Date of Index Investigation: Date of Charge: Date of Conviction:	Nature of child pornography offence, what led to arrest:	
Completed by:	Date CPORT completed:	Information reviewed and sources:

	CPORT Risk Factors	**Case Details** **Provide support for your score of 0, 1 or unknown.**	**Item Present:** 0=No 1=Yes ?=Unknown
1.	Offender age at time of index investigation: 35 or younger	Details and sources:	
2.	Any prior criminal history?	Details and sources:	
3.	Any failure on conditional release, including charge at index?	Details and sources:	
4.	Any contact sexual offending, including a charge at index?	Details and sources:	
5.	Indication of pedophilic or hebephilic interests USING CASIC?: Yes No If yes, must have a CASIC score of 3 or more to positively score this item.	Details and sources:	
6.	More boy than girl content in the child pornography material ($\geq 51\%$)	Details and sources:	
7.	More boy than girl content in the nude/other child material ($\geq 51\%$)	Details and sources:	
	We do not recommend scoring CPORT if there is more than one item missing (substituting Item 5 with the CASIC score would not be counted as a missing item).		TOTAL SCORE (0 to 7)

Appendix B: Correlates of Admission of Sexual Interest in Children (CASIC)

Item 5 of CPORT relates to admission to police of sexual interest in children or evidence of a diagnosis of pedophilia/hebephilia. In the development sample, almost all of the small number of individuals who were diagnosed with pedophilia or hebephilia also admitted their sexual interest in children to police investigators, so the primary variable considered here reflects admission of sexual interests in children. One concern is that admission is easily vulnerable to faking or to refusal to respond when asked about sexual interests. This may become a particular issue when individuals are concerned about the potential impact of admission on criminal justice responses, such as sentencing and other risk related decisions.

As detailed in Seto and Eke (2015) and elsewhere in this document, we collected extensive information regarding individuals' collections and collecting behaviours. Using the CPORT development sample, we identified the following behavioural correlates (coded yes/no) of admission of sexual interest in children: (1) never married (54% of sample); (2) child abuse video(s) (64%); (3) content included sex stories involving children (31%); (4) evidence of interest in child pornography spanning a time frame of two years or longer (55%); (5) volunteered with children before or during the index offence (7%); and (6) engaged in sexual communication with a minor, or undercover officer posing as a minor, online (10%). We tentatively have called this the Correlates of Admission of Sexual Interest in Children Scale (CASIC). When summed, the average score on CASIC is 2.21 out of a possible 6, and CASIC score was significantly associated with admission of sexual interest in children, AUC = .71 (95% CI = .65-.77). There were similar findings in a small validation sample (see Eke & Seto, 2016; slides posted on the CPORT Project page).

We provide additional details about CASIC and the dichotomous scoring of the items starting on page 29. These items are coded based on information available at the time of the index child pornography offence and police interviews with offenders and witnesses. As per the coding of CPORT, this is information gathered as part of the investigation therefore post-charge psychological assessments or post-conviction information does not count. When coding each item, we took extensive notes in support or rejection of an item being applicable and suggest this method for anyone collecting information on these items. Initial results from our samples indicate that Item 5 on CPORT could be replaced using a score of 3 or more on the CASIC (see Helmus et al., 2016, slides posted on the CPORT project page); further research needs to be completed to better establish its psychometric properties.

Overall, few items in the development sample were missing, however in practice (e.g., outside of policing) information on certain items might not be as easily available. We have provided information on missing data in the coding information; in our development sample, the more commonly missing item was time span collecting or accessing the child pornography material. Until further research is available, **we do not recommend using CASIC if there is more than one item missing.**

We are also examining other possible indications of sexual interest in children, again based on the information available during a child pornography investigation. For example other forms of admission such as online comments made by offenders (e.g., in chat rooms) as well as the parameters offenders set for collecting child content. We provide examples of these variables in our Appendix C that outlines *Other Considerations.*

Knowledge of variables that may help identify sexual interest in children, including in cases of denial or refusal to answer CPORT Item 5, may assist in considerations of risk and also help identify important treatment and risk management needs. Information about the extent of the material being accessed by an individual, information about online activities, and the time span covered by an individual's interests may not always be consistently documented or shared across stakeholders; the CASIC and other variables highlighting sexual interests may assist with this, while also providing variables for researchers to further assess.

Coding notes for CASIC items:

1) **Never married (coded positively as 1 = yes)**
   (54% of sample; 0.3% of cases missing)
- Marital status at the time of index investigation.
- Negatively coded (0 = no) if the offender was separated, divorced, widowed or had lived common-law at any point leading up to the index arrest.
- Never married offenders may have had dating relationships, but did not live together in a common-law, intimate-partner relationship.
- We did not use a set time period (e.g., 2 years) to define common-law, rather it was based on indication of some commitment (e.g., had moved in together, combined finances).
- Common-law relationships were intimate relationships; living with roommates or extended family did not count.

2) **Child pornography videos (coded positively as 1 = yes)**
   (64% of sample; 0% of cases missing)
- Refers to child pornography content only; sexual acts involving children and/or the focus is the sexual organs or the anal region of a child.
- Coded based on the offender's collection and/or content accessed online regardless of whether downloaded/saved.
- Refers to any video medium (e.g., VHS tapes, digital movie files); "homemade" videos (videos of perpetrated sexual abuse by the index offender, whether traded or not); as well as those traded by others (of their abuse of children) or commercially produced;
- Included partial video clips (the length of the video did not matter).

3) **Child pornography stories (also known as "text" stories)**
   (coded positively as 1 = yes)
   (31% of sample; 4% of cases missing)
- Refers to child pornography content only.
- Coded based on the offender's collection and/or content accessed online regardless of whether downloaded/saved.
- Any text stories depicting sex with children.
- Includes any type of story; for example, stories of incest or kidnapping and sexual assault of an unknown child.
- Can be fantasy based or stories documenting sexual offences perpetrated by the offender.
- In a few cases, offenders had "manuals" or "bulletins" outlining how to sexually offend against a child (e.g., how to groom a child and their parents, how to introduce sex to a child) and in all but one case, the offender also had other text stories; we included the sex offending manual as a text story because the manual described and provided stories about adults having sex with children.

4) **Evidence interest in child pornography spanned two or more years**
   (coded positively as 1 = yes)
   (55% of sample; 16% of cases missing)
- Does not require continuous or regular activity over two years.
- Measured in years, as it is simpler to calculate; further, the exact day/month when first started to collect or access the material was less commonly known/documented.
- This is an "at least" variable; individuals may have been collecting or accessing child pornography content for longer, we could only use the earliest date documented in the investigative file, including information from the forensic analysis of an offender's computer.
- Any type of child pornography content or method used to collect/access counted (e.g., text stories or images, collected online or offline).
- A prior child pornography arrest or charge date could be used in the calculation of "duration".
- Examples of information used included information offenders shared in online conversations (e.g., indicated in a chat that he has collected for five years), or information shared in an interview (e.g., indicates he has been accessing for five years); there was usually forensic evidence to support the self-report information.

5) **Volunteering in a role with high access to children (coded positively as 1 = yes)**
   (7% of sample; 0.3% of cases missing)
- Any volunteering (prior or at index investigation) for a role where high access to children was expected; for example, volunteering for child-serving organizations such as Boy Scouts or Girl Guides, a children's program at a local church, coaching a children's sports team, or running an afterschool activity.
- This item was not coded based only on being around related children, being around children for social reasons (e.g., attending a school event or visiting friends with children), or being around children as a result of employment (e.g., as schoolteacher).
- Excluded volunteer work involving unexpected or incidental access to children (e.g., volunteering at a retirement home where a children's choir irregularly performs).

6) **Engaging in online sexual communications with a minor or officer posing as a minor (coded positively as 1 = yes)**
   (10% of sample; 0% of cases missing)
- Includes any type of online communication (e.g., email, instant messaging) with a child that had a sexual component to it.
- Also includes cases where the offender was involved in sexual communication with an undercover officer posing as a child (regardless of whether the offender later states they suspected they were interacting with an officer).
- Sexual communications included asking the child if they had engaged in masturbation or sex, if they had an intimate relationship or would like one, if they were interested in learning more about sex, offering to assist the child in learning more about sex, sharing sexual images or sexual text with the child, indicating they wanted to have sex with the child. .
- In some cases, the offender started chatting with a real child and the account was later taken over by police after they were contacted by the child or the child's guardian.
- Coded positively regardless of whether the offender attempted to make an offline meeting, or showed up for a meeting, with the child/undercover officer.

CASIC Score
(Correlates of Admitted Sexual Interest in Children)

Date Completed:	Completed by:	Information Sources:

Name:	Case Number:

No (0)	Yes (1)	U/K (?)	Item	Notes
			1　Never married	
			2　Had child pornography videos	
			3　Had child pornography text stories	
			4　Child pornography activity spanning two or more years	
			5　Volunteering in a role with high access to children	
			6　Engaging in online sexual communications with a minor or undercover officer posing as a minor	
			Total Score	**We do not recommend scoring CASIC if there is more than one item missing.**

Appendix C: Other Considerations

We considered a wide range of potential risk variables in our child pornography offender follow-up research. These were informed by the sexual offending literature as well as items suggested by clinicians and police investigators. We considered what information was likely to be available for coding, being mindful of how information might be shared beyond a police investigation. We also paid great detail to the operationalization of items for consistency in coding.

The following is a list of items that we believed had potential but did not statistically predict future sexual offending in our CPORT development sample. They are included here because some users might wonder about the predictive value of other variables. Many of these variables may predict sexual recidivism but may be redundant with existing CPORT items. For example, those with more boy content in our development sample were also more likely to be single, to live alone, have less adult or adolescent pornography, and more likely to volunteer to spend time with children (see Eke & Seto, 2013). Volunteering to spend time with children is also related to admission of sexual interest in children. Those who admitted to sexual interest in child pornography or in children were also more likely to have a wider range of child pornography content (e.g., video and text stories) and to have evidence of interest in child pornography over a longer period of time (see Eke & Seto, 2013 and our Appendix B).

In some cases, the item information was not consistently available (e.g., not all online chat was documented) or had too much missing information to be of benefit. Scoring these items at the time of an investigation, rather than trying to code them based on records after an investigation was closed, could be helpful for future research.

Some variables might be significant predictors of sexual recidivism in larger samples, samples with a higher base rate of recidivism, and/or longer follow-up times. Others might not be valid predictors of sexual recidivism despite their face validity. The benefit of collecting information on these additional items is they can provide context to the offending, and they have future clinical or research applications. For example, a blanket ban on internet or computer use for an offender who spent relatively little time seeking child pornography content or was not involved in online chat with children or others with pedophilic interests might be unnecessarily detrimental on employment and social functioning.

In the development sample, our cases ranged from 1993-2006, with 91% of investigations occurring in the 2000s. It is important to keep in mind that collecting methods and types of content can change over time. As technology and software programming continues to evolve, we may also see changes in content, such as increasingly realistic cartoons or computer generated images of children. We did assess the use of anime and other cartoons to see whether this related to future risk; in our sample it did not. Neither did accessing movies or text stories; rather the breadth of the material accessed was a better indicator of the individual's overall sexual interest in children (again, see Appendix B).

Patterns of collecting can be cyclical, with methods resurfacing over time (e.g., chat rooms becoming popular again). How an individual obtains their child pornography material, or at least how they are detected, might be associated with different offender characteristics. For example, individuals who are reported by third parties (e.g., roommates, family members, IT professionals), detected during the investigation of another incident (e.g., computer fraud, car accident, sexual assault) or detected in online investigations such as peer-to-peer sharing or undercover operations may be somewhat different in relation to their criminal history, sexual interests, and demographic characteristics (see Eke & Seto, 2013) as well as their risk for recidivism. Such knowledge would be valuable for investigative considerations (e.g., targeting those engaged in online activities) where one

consideration is the prioritization of offenders based on the likelihood of past or future contact victims, involvement in trading rings and so forth.

Beyond methods of collecting and type of media (cartoons, real children) perhaps the content details are key as they provide valuable insight into sexual interests and preferences. For example, text stories (regardless of how collected) about loving relationships with children may suggest the offender is also interested in emotional connections to children (e.g., the relationship is described as beautiful and magical) or may provide an indication of thinking errors (e.g., the child makes the sexual advances). Further, knowledge of what a person had on their computer may open dialogue with individuals regarding sexual interests.

The following variables are of potential interest for future research and may be useful for providing more context about child pornography offender risk management. As stated earlier, we are working to develop a coding form and method and pilot it, for example with police services.

Ages of Children in Child Pornography

- Relative distribution of child age in the child pornography images (categorized as infant/toddler, prepubescent, or pubescent) did not predict sexual recidivism and thus was not included in the CPORT.
- It also did not correlate with admission of sexual interest in children, however it did correlate with evidence of a prior diagnosis of pedophilia/hebephilia and likely would be relevant to current diagnosis (e.g., a predominance of pre-pubescent child images over adolescents or adults may suggest pedophilia).
- Anecdotally, we understand that information shared beyond investigators may focus on the extreme images, such as infants or toddlers; providing a more systematic account of the age distributions of children in the content would aid future research as well as assist clinicians.
- The same might be true for the amount of child pornography relative to adult pornography: someone with a small *proportion* of child pornography (e.g., less than 10% of all content) may be less likely to have a sexual interest in children than someone with a large proportion (e.g., over 80% of all pornography or other content depicts children). Proportion might be important above overall counts of child pornography; someone with fewer images (e.g., 100 images) who has carefully screened and collected these images, and has little to no other sexual images, might have a greater sexual interest in children even in comparison with someone who has 5,000 images that make up less than 5% of their sexual content.
- Perhaps estimates could be made regarding age groupings, at the time of the investigation, across types of sexual content (child, adolescent, and adult).

Other Child Content

- CPORT Item 7 is based on other, non-pornographic child content (child nudity, clothed children).
- Aside from the relevance of gender in risk assessment, other child content may have some importance in the offender's sexual fantasies; in our development sample, more than 80% of offenders had some child nudity content, although most (not all) had less nudity than child pornography.
- The relative amounts of different child content did not predict sexual recidivism in the development sample, and thus is not in CPORT.
- However, documentation of child other material can provide important context and be relevant in treatment and management discussions; for example, those individuals who prefer nude and other child

content might have greater social or emotional needs relating to children compared with those who prefer sexually explicit content involving children and adults.

- Of note, some offenders continued to collect nudity/other child content after their index offence, avoiding illegal child pornography content. We knew of two cases in the development sample; this collecting behaviour was not counted as recidivism because it is not a criminal offence (in Canada) to have this kind of child content.

Other Pornography

- The pornography people access and collect can provide an interesting behavioural window into some of their sexual interests (see Seto, 2016). They may not discuss their interests with others and they may not act on these interests, but rather they may go online and access specific pornography content.
- Information about what a person accesses/what is on their computer can highlight sexual preferences along a multitude of dimensions including age, activities (e.g., bondage, voyeurism), and targets (animals, pregnant women).
- In our development sample, we examined both adult pornography in general and paraphilic pornography, whether it depicted children or adults.
- The majority of our sample (90%) had adult pornography, but we were often missing details such as total number of images because this material is not illegal and police may not record legal content.
- We also specifically examined other paraphilic content in each collection as it is not uncommon for individuals to have more than one paraphilic interest (e.g., see Heil & Simons, 2008).
- Most (87%) of our sample had pornography depicting fetish or other paraphilic themes such as bondage or bestiality.
- In our coding, we distinguished between the appearance of any paraphilic content (having any paraphilic content) and content that was considered potentially indicative (e.g., many images, files were descriptively labeled, organized into their own folders, collected over a prolonged period of time) of a paraphilic sexual interest.
- The most common (indicative) paraphilic theme was sadomasochism, with 18% of the sample having pornography considered suggestive. The next most common paraphilic themes were bestiality (15%), fetishism (10%), and urophilia/coprophilia (10%).
- None of the paraphilic themes, assessed dichotomously as *any* (yes/no) or *indicative* (yes/no), predicted sexual recidivism.
- Further, there were no significant differences regarding the presence of adult content or other paraphilic content across the three offender groups (CP only, CP + other offending, CP + contact sex).
- The relative amount of paraphilic content, in comparison to other material accessed or collected, might be meaningful; we could not assess this as we did not have counts of adult or paraphilic content.
- Forensic counts of adult and/or paraphilic content is unlikely to be available as this would be very time and resource consuming, especially when the focus is child pornography and child victim identification.
- Knowing whether individuals had pornography content suggestive of other paraphilic sexual interests could be important for future research on risk assessment and management.

Sexual Interest in Children:

- Sexual interest in children is a key motivator for committing various sexual offences involving children, including child pornography and child molestation (see Seto, 2013); how best to assess sexual interest in children however is not always clear (e.g., see Babchishin, Nunes, & Kessous, 2014).
- Collecting evidence that could relate to the breadth or intensity of sexual interest in children would be helpful across stakeholders, for context relating to offending as well as risk/needs assessments.
- CPORT Item 5 relates to admission of sexual interest in children; however, this item is based on self-report (to police) and could be vulnerable to faking and denial of interests; the CASIC (described in Appendix B) consists of 6 items that predict admission and may assist in assessing sexual interest in children - further research and validation will be important, to more fully understand the psychometric properties of CASIC.
- Other information available in child pornography collections or based on online behaviours might also be helpful, for example: (1) file sharing rules or search criteria (e.g., "girls only! aged 5-12 only! no adult!"), (2) admissions made to others online (e.g., "loved boys since I was a boy, turned on by beautiful sexy boys…" "never had an adult, never want one, kids only"), and (3) postings in child sexual interest groups (e.g., *girl love* or *boy chat* groups). We did not include the collection of this information in our development sample in part because there were poor prospects for this information to be shared with other stakeholders. We are currently testing this extended coding in a validation sample of child pornography cases.
- In our development sample, we did examine whether there was indication an individual had interest in specific children (e.g., rating neighbourhood children for attractiveness); it did associate with admission of sexual interest in children in our CASIC study, but did not predict admission.

Time Involvement with Child Pornography Content: Span and Duration

- We coded evidence of the span of time over which an individual may have been involved with child pornography content; for example, evidence they had been involved in it at some point in the past.
- This information was based on forensic evidence (e.g., time based evidence of downloads), admissions from the offender regarding how long they had been accessing content and evidence of prior child pornography offences.
- The span of time (in years) was not a predictor of recidivism, however was found to correlate with admitted sexual interest in children (see Appendix B).
- Overall, our coding of the item examined the static nature of involvement; we did not necessarily have information about the fluctuating or dynamic aspects of time spent with the content, for example the recency of viewing (in relation to the index charge), how frequently the material was accessed in the last week, month, 3 months or if there have been changes in the frequency of use over time.
- Information relating to time spent thinking of, or engaged in, sexual activity can be an important consideration; for example, in their discussion of psychologically meaningful risk factors for predicting sexual recidivism, Mann, Hanson and Thornton (2010) note the research support for *sexual preoccupation.*

Investment in Child Content

- We assessed variables we believed could relate to the investment an individual had in child pornography content, for example, whether they organized this content (i.e., scored as no effort, low,

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moderate or high effort based on whether the individual used groupings to organize their material, used subfolders, detailed labels) or spent time collecting specific images such as known *series*.

- In our development sample, organization of content did not add to the prediction of sexual recidivism.
- In part, the way organization could be coded could be confounded by how content was accessed, e.g., it might already be organized when trading with other child pornography offenders.
- We also examined the amount of child pornography images, text stories and videos an individual had, with the idea that those with larger collections might have more interest in children and might be more likely to reoffend.
- Larger amounts of material did not predict sexual recidivism, nor did it correlate with admitted sexual interest in children. In part, large collections are fairly easily downloaded. As well, collecting large volumes of material may have more to do with a desire to collect, than a desire to fantasize or masturbate to the material (e.g., some individuals are extremely specific regarding the images they want and may keep fewer images; those they have are important to their fantasy and masturbatory activity).
- There are other variables that could relate to involvement, including financial investment (e.g., purchased new computer for use, invested in faster download speed, purchased software to enhance their use of the internet).
- Documenting this type of information could provide context to an individual's collecting behaviour, could inform case management decisions and also provide other avenues for research.

Investment in Hiding Activities

- We examined one variable that could relate to an effort to hide child pornography activities, or at least a lack of care regarding potential discovery: use of a non-private computer, which we defined as using a computer that others could access, such as a family computer or work computer (we were conscious of the fact that in some cases there may only be one computer for use by a family so we also coded whether there were separate passwords for family users etc).
- In our development sample, this variable was not helpful in predicting risk for sexual recidivism.
- Other potential variables that could assist in understanding an individual's efforts to hide their activities include purchasing encryption software, seeking information on and/or using proxy servers for peer-to-peer sharing, online chats requesting information regarding how to avoid detection/how to secure their computer or content, how to use TOR (The Onion Router, anonymity network software that directs internet traffic through a series of relays to provide anonymity), and so forth.
- Investment could be gradated in some way, from *seeking information* to *implementing strategies*.

Evidence of Emotional Congruence with Children

- For some adults, emotional, social and intimacy needs are fulfilled by children rather than other adults (e.g., see Underhill, Wakeling, Mann, & Webster, 2008; McPhail, Hermann, & Fernandez, 2014; McPhail, Hermann, & Nunes, 2013).
- Some of those who self-identify as having pedophilic interests report that innocence and the playfulness of children is part of what they find attractive (e.g., Wilson & Cox, 1983)
- Evidence of these needs or desires might be reflected in the content an individual accesses as well as their online conversations with others.

- For example, a text story might describe a 'loving', 'consensual' sexual relationship with a child as opposed to detailing the rape or torture of a child.
- A social preference for children (above that for adults) may also be evident; for example, online chats or comments might reflect having few adult relationships, an individual's dissatisfaction with adult relationships, or a preference for spending time with children.

Access To Children

- Access to children differentiated contact child sexual offenders from child pornography offenders in a meta-analysis conducted by Babchishin and colleagues (2015).
- In our development research, we examined child pornography offenders' access to children by coding whether the offender worked with children (e.g., teacher), volunteered to spend time with children (e.g., sports coach), engaged in online sexual communication with children, or resided with children at the time of the index investigation. None of the items significantly predicted sexual recidivism in our CPORT development sample. Volunteering in a role with high access to children and online communication with children (or a police officer posing as a child) are correlates of admitted sexual interest in children (see Appendix B).
- We also coded information regarding evidence of 'literature' providing pro adult/child sexual contact discussions or grooming techniques; we had few cases that included this material (e.g., some offenders had bulletins from the North American Man/Boy Love Association, NAMBLA).
- Online chats or email content provides other opportunities to code this type of content; an individual may request assistance in passing a volunteer screening or request help in grooming a specific child, for example how to seek out vulnerable children, develop a sense of trust and how to introduce sex into the relationship. Some examples are given a recent news article by journalist Robert Cribb (2016) https://www.thestar.com/news/world/2016/01/24/predator-and-prey-the-internets-dark-corners.html

Substance Use

- Substance use is a consistent risk factor in both onset and persistence of sexual offending (e.g., see Seto, 2008)
- We coded substance use based on a Likert–type scale with endpoints of *no use* and *severe problems associated with use* (e.g., drunk driving offences, fired from job for using substances). Some of our information included prior treatment for substance use problems.
- In our development sample, substance use did not predict sexual recidivism.
- It is possible that a larger sample or different sources of substance use information (e.g., including systematic self-reports about substance use) would produce different findings.

There are many other psychologically meaningful variables associated with risk for sexual recidivism (see Mann et al., 2010). The ones discussed here have some potential for documentation from reasonably comprehensive police investigation files.

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