Criminological differences between child pornography offenders arrested in Spain

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ABSTRACT. *Background*. Lack of studies on CP offenders from non-English speaking countries motivated the analysis of the profile of adult men arrested in Spain for such crimes ($N = 347$). *Objective*. The current study examined differences between groups of CP users according to their criminal history (i.e., CP-only offenders, CP offenders with other nonviolent or non-sexually violent crimes, and dual offenders). *Methods*. Analyses of case investigation files were performed across seven key areas: (1) sociodemographic characteristics, (2) criminological data, (3) characteristics of index CP offending, (4) characteristics of CP collections, (5) access to children, (6) indication of pedophilic or hebephilic interests, and (7) recidivism outcomes. *Results*. CP-only offenders presented with fewer prior criminal records and lower general (6.7%) and violent (1.1%) recidivism rates. They were also less likely to be arrested for CP production, although they had greater access to children living in their residence. CP offenders with other nonviolent or non-sexually violent crimes exhibited characteristics on a continuum between the other two groups. Dual offenders were more likely to have prior criminal records for sexual offenses and higher sexual recidivism rates (16.7%). 55.6% had produced their own CP material, and they were more likely to have content depicting boys. They were also more likely to admit or be diagnosed with pedophilic/hebephilic interests, and they also had the largest proportion of legal child-related content (72.2%). *Conclusions*. Authors conclude there are significant differences between dual and CP-only offenders which suggests a need for specialized treatment and risk assessment tools.

Keywords: Child pornography; Child sexual exploitation material; Child sexual abuse; Internet sexual offenders; Dual offenders.

Introduction

The development of Information and Communication Technologies (ICT) has facilitated the Accessibility, Affordability, and Availability ("Triple A Engine"; Cooper, 1998) of child sexual exploitation material (legally referred to as child pornography in Spain), creating a criminal challenge worldwide (Henshaw, Ogloff, & Clough, 2017; Seigfried-Spellar & Soldino, in press; Seto & Ahmed, 2014; Soldino & Guardiola-García, 2017; Wolak, Liberatore, & Levine, 2014). Following the European Union Directive 2011/93, *child pornography* (CP) is defined in Spain as a sexually explicit visual depiction of a person under the age of 18, including both *technical* (i.e., any material that visually depicts any person appearing to be a child engaged in real or simulated sexually explicit conduct or any depiction of the sexual organs of any person appearing to be a child, for primarily sexual purposes) and *virtual* CP (i.e., realistic images of a child engaged in sexually explicit conduct or realistic images of the sexual organs of a child, for primarily sexual purposes). Unlike other countries, non-realistic depictions of fictional children (e.g., *lolicon* and *shotacon*; McLelland & Yoo, 2007; Savage, 2015) or narratives describing sexual encounters involving minors (Crookes, Merdian, & Hassett, 2017) are considered legal materials in Spain. Since 2009, 4,122 individuals in Spain have been either arrested or investigated for CP offenses (Ministerio del Interior, 2018). CP offenses represent 12.36% of the total number of legal proceedings initiated for cybercrimes in Spain (Fiscalía General del Estado, 2018); however, it was not until 2015 that the Criminal Procedure Act authorized the use of "virtual" undercover officers for cybercrime investigations.

Several studies have distinguished between groups of CP users, according to their criminological characteristics and motivations (e.g., Alexy, Burgess, & Baker, 2005; Henry, Mandeville-Norden, Hayes, & Egan, 2010; Merdian, Curtis, Thakker, Wilson, & Boer, 2013, Merdian et al., 2018; Seigfried-Spellar, 2014; Seto & Eke, 2015; Wolak, Finkelhor, &

Mitchell, 2011). Although CP use has been considered a valid indicator of pedophilia (Seto, Cantor, & Blanchard, 2006), not all CP users are motivated by pedophilic sexual interests, nor do all pedophiles view CP (Garrington, Rickwood, Chamberlain, & Boer, 2018; Seto, 2019). Research suggests that in some cases CP use is a manifestation of hyper-sexuality (e.g., part of a broader pattern of pornography use), compulsive sexual behavior, or may be motivated by curiosity or sensation seeking; although in some cases, the individual was accidently exposed to CP (Seto & Ahmed, 2014; Seto, Reeves, & Jung, 2010; Southern, 2008).

In addition, literature suggests there is no direct relation between the commission of a CP offense and the commission of subsequent contact sexual offenses (Aebi, Plattner, Ernest, Kaszynski, & Bessler, 2014; Henshaw et al., 2017; Owens et al., 2016); however, the available data in this regard are controversial and ambiguous. Results from the Seto, Hanson and Babchishin's meta-analysis (2011) indicated 12% of those arrested for CP possession had committed at least one other contact sexual offense against a minor by the time of the detention; while data analyzed by the Federal Bureau of Investigation (FBI; Owens et al., 2016) identified 38% crossover CP offenders. However, studies considering the information provided by the offenders themselves found much higher rates of contact sexual crimes. In this regard, 55% of those interviewed by Seto et al. (2011) admitted prior contact sexual offending, as well as 85% of the sample from Bourke and Hernandez (2009); although, only 26% had official records on this regard. More recently, Bissias et al. (2016) concluded 9.5% of those arrested for distributing CP through peer to peer networks (P2P) had also committed an offline sexual offense against a child (based solely on official data obtained during police investigations); a percentage that increased to 21% when only BitTorrent users were considered.

Multiple explanatory levels have been proposed to understand sexual offending behavior (e.g., its etiology, brain mechanisms concerned, neuropsychological implications, phenomenological analyses; Ward & Beech, 2006). In particular, child contact sex offenders have been characterized by heterogeneous patterns or pathways to offending (Ward, Louden, Hudson, & Marshall, 1995), yet researchers argue existing theories need further investigation into the particularities of Internet sexual offending (Elliott & Beech, 2009; Henshaw et al., 2017). According to Seto's Motivation-Facilitation Model (MFM; 2019), the presence of facilitation factors among some individuals (e.g., self-regulation problems, hostile masculinity, negative affect, alcohol use) leads to disable inhibitions against acting upon the primary motivations for contact sexual offenses (i.e., paraphilia, high sex drive, and intense mating effort) when the opportunity exists (e.g., access to vulnerable child victims and absence of potential guardians). Likewise, trait (e.g., antisocial personality) and state facilitating factors (e.g., intoxication) for contact sexual offending against children, along with situational factors (i.e., opportunity to commit the crime), are considered explanatory for CP offending among motivated individuals. In this sense, hypotheses suggest CP-only offenders with pedophilic or hebephilic sexual interests do not present with the facilitation factors required for engaging in contact sexual offending; although, they do not reach the necessary level of self-control to inhibit their use of CP material (Seto, 2019).

Differences between online-only CP users and dual sex offenders (i.e., CP users who also engage in contact sexual offending) were also analyzed across several studies (e.g., Babchishin, Hanson, & VanZuylen, 2015; Eke, Helmus, & Seto, 2018; Elliott, Mandeville-Norden, & Beech, 2019; Long, Alison, Tejeiro, Hendrick, & Giles, 2016). Results from Babchishin et al.'s meta-analysis (2015) found dual offenders to be more pedophilic, have greater access to children, and display more antisocial traits. On the other hand, Long et al. (2016) identified 17 discriminative variables (e.g., previous convictions, CP production) for

dual offenders, which led to the development of the second version of the Kent Internet Risk Assessment Tool (KIRAT−2). With regards to the type of CP possessed, Long, Alison, and McManus (2013) found greater proportions of higher severity level CP material (e.g., images depicting penetrative acts committed on children). In Seto and Eke (2015), online-only CP users were sub-grouped according to their criminal history (i.e., offenders documented solely for CP offenses in their history or index; CP users with other nonviolent or non-sexually violent offenses) revealing distinctive characteristics between the sub-groups and dual offenders (e.g., dual offenders were more likely to have CP content depicting boys than the other two sub-groups of CP users). In terms of sexual recidivism, all studies indicate remarkably low recidivism rates among online-only CP users, ranging from 0 to 9% for new CP offenses (Eke et al., 2018; Eke, Seto, & Williams, 2011; Faust, Bickart, Renaud, & Camp, 2015; Goller, Jones, Dittmann, Taylor, & Graf, 2016; Krone & Smith, 2017; Osborn, Elliott, Middleton, & Beech, 2010; Seto & Eke, 2015; Seto et al., 2011; Soldino, Carbonell-Vayá, & Seigfried-Spellar, unpublished). However, previous studies suggest that when CP offenders' samples are sub-grouped into dual sex offenders, observed sexual recidivism rates increase (25%; Eke et al., 2018; 14%; Elliott et al., 2019).

Prior studies suggest cultural and environmental factors could be influencing criminal behavior across countries (D'Alessio, Čeč, & Karge, 2017; Sea, Beauregard, & Martineau, 2019; Soldino et al., unpublished). As an example, Pascual, Giménez-Salinas and Igual (2017) found that severity scales for classifying CP content designed in other countries (e.g., SAP scale; Sentencing Advisory Panel, 2002) were not completely suitable for the classification of CP content seized by Spanish law enforcement agencies. As a result, these authors created the Spanish Classification of Child Sexual Exploitation Images (CIESI) and detected a preference among CP offenders investigated by the Civil Guard's Unit of Judicial

Police[1] for CP material depicting pre-pubescent Caucasian females. Furthermore, results

showed greater frequencies of CP photography classified as nudity or erotic poses (CIESI's

level 1), while most of the CP videos were labeled as sexual activity with penetration from

adult to child (CIESI's level 4). However, there is still a notable lack of studies on CP

offenders from non-English speaking countries (Seto, 2019), such as Spain (Pascual et al.,

2017; Soldino et al., unpublished; Soldino & Guardiola-García, 2017).

The present study

The primary aim of this work was to analyze the characteristics of adult men arrested

in Spain for CP offenses, as well as the characteristics of their CP collections. A secondary

aim was to examine if there were differences between CP users, and if so, establish which

distinctive characteristics among dual offenders might help identify them in order to assist

prioritization in police investigations. To this end, we analyzed the data from the digital

investigation files from the Spanish National Police focusing on seven key areas: (1)

sociodemographic characteristics, (2) criminological data, (3) characteristics of index CP

offending, (4) characteristics of CP collections, (5) access to children, (6) indication of

pedophilic or hebephilic interests, and (7) recidivism outcomes. We were also interested in

examining the amount of missing, but potentially relevant, data in the files (e.g., variables

identified as risk factors for recidivism among this population) with the aim of improving the

quality of future police investigations.

We expected to find statistically significant differences across the seven areas

between groups of CP offenders, especially among dual offenders. Based on previous

research, and considering our available data, the following specific hypotheses were tested:

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[1] Spanish military law enforcement agency, independent from the National Police.

dual sex offenders are (1) more likely to be unemployed (Babchishin et al., 2015; Seto & Eke, 2015); (2) more likely to have prior arrests (Babchishin et al., 2015; Long et al., 2016); (3) more likely to produce their own CP material (Long et al., 2016; Seto & Eke, 2015; Wolak, Finkelhor, & Mitchell, 2005); (4) less likely to participate in pedophilic social networking (Babchishin et al., 2015); (5) more likely to have CP content depicting boys (Seto & Eke, 2015); (6) more likely to possess higher severity level CP content (Long et al., 2013); (7) more likely to have greater access to children (Aslan, Edelmann, Bray, & Worell, 2014; Babchishin et al., 2015; Clevenger, Navarro, & Jasinski, 2016; Long et al., 2013); (8) more likely to engage in online grooming behaviors (Long et al., 2016); (9) more likely to have pedophilic or hebephilic interests (Babchishin et al., 2015); and (10) more likely to have higher sexual recidivism rates (Eke et al., 2018; Elliott, Mandeville-Norden, & Beech, 2019) compared to the other sub-groups of CP offenders.

Method

Sample

The initial sample consisted of 544 CP digital case files provided by the three Child Protection Groups of the Central Cybercrime Unit (UCC) of the Spanish National Police which met the eligibility criteria. Closed investigations with sufficient information were included if they involved a man (age 18 or older) arrested for (at least) one CP offense (i.e., accessing, possessing, purchasing, distributing, or making/production) between 2009 and 2013. Non-Spanish individuals arrested in other countries were excluded from the sample.

The initial offense investigated by law enforcement was considered to be the index CP offense. In those four cases where law enforcement arrested the same person more than once between 2009 and 2013, all arrests were initially included in the study. Then, one of the arrests was randomly designated as the index offense, resulting in the other CP arrests

becoming either part of the offender's criminal history or a recidivism event (allowing us to avoid the artificial inflation of CP offense history or recidivism rates). Due to time constraints in data access and, in order to avoid an overrepresentation of cases from more recent years that could be reflecting changes on the characteristics and modus operandi of CP offenders over years (e.g., different platforms used to access the CP material; Soldino & Guardiola-García, 2017), we randomly selected 71 cases per year (as the total number of arrests in 2009 was 71). Finally, we excluded from the sample those eight individuals whose police records were canceled, since this prevented us from classifying them in the different groups, resulting in a total sample of 347 arrestees.

Cases initially came to the attention of the police in a variety of ways, including offender activity online (93.1%; e.g., P2P sharing discovered by police), third-party reporting (4%; e.g., computer technician discovered a customer had CP on his computer and called the police), and victim complaints (2.9%; e.g., for those who had also committed online sexual solicitation offenses[2]). 346 of the 347 arrestees used online technologies to commit (at least in part) their CP offenses. Only one individual created all of the CP material himself during his travels to different countries.

Following Seto and Eke (2015), we distinguished CP offenders according to their criminal histories, dividing them into those who only had CP offenses ($n = 283$), those who also had committed other nonviolent and/or non-sexually violent offenses (either pre-index or at index; $n = 46$), and those who also had committed contact sexual offenses (either pre-index or at index; $n = 18$).

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[2] Cases that initially came to the attention of the police for victim complaints regarding contact sexual offenses were investigated by the Family and Women Unit (UFAM) of the National Police.

Measures

Data regarding each case was retrieved from digital police files, which usually included police occurrence reports, statements made by the arrestee, the victim, or other witnesses, forensic computer analysis reports, and details about the CP content seized by the police. The selection of relevant variables to be measured was determined by the information contained in the investigation files. This selection was also guided by the authors of the Child Pornography Offender Risk Tool (CPORT; Seto & Eke, 2015) through email communications and by previous research suggesting potential variables of interest. Variables analyzed in our study are outlined below; lack of information about these variables was coded as *unknown*.

Sociodemographic characteristics. Date of birth and home country of the arrestee was reported in all cases. Age of the offender was coded at time of index arrest and at the beginning of the index investigation (as a more approximate indicator of the age of the offender at the time the crime was committed). Specific dates of prior arrests were also coded to calculate the age of the offender at his first arrest (for any offense and for sexual offenses specifically) in order to establish the beginning of his criminal career. Details of employment status, occupation, marital status, biological children, and level of computer knowledge were documented by the investigators in most cases.

Criminological data. Criminal history records for each individual were retrieved from the National Police database (i.e., police computer application including information from all Spanish police forces, except the Ertzaintza[3]). Details of any prior arrests were coded

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[3] Police force for the Basque Country. Arrests made in the Basque Country represent 1.17% of the national total (Ministerio del Interior, 2018).

dichotomously. The crimes for which they were arrested were also recorded and categorized by: (a) *violent offenses*: involving physical contact with a person, including contact sexual offenses; (b) *nonviolent offenses*: not involving physical contact with a person, including CP and noncontact sexual offenses; (c) *sexual offenses:* further divided into contact sexual offenses (involving physical contact with a victim), noncontact sexual offenses (not involving physical contact with a victim, including CP offenses) and CP offenses specifically; and (d) *non-sexual offenses* (e.g., theft). Number of prior arrests was also coded.

Characteristics of index CP offending. All of the arrestees had, at least, knowingly accessed/possessed CP material; however, some of them were also investigated for other CP-related offenses. Other types of index CP-related offending, along with means used to access the CP material, were categorized as described in Table 1. Details of security measures (e.g., encryption, access from a cybercafé, use of TOR) adopted by the offenders were also documented by the investigators. In addition, information regarding active CP distribution (excluding automatic distribution through non-encrypted P2P networks) and social networking with other CP users was coded dichotomously.

Characteristics of CP collections. As part of the police investigations, suspects' computers and digital devices were forensically examined for any CP material and any potential evidence of contact sexual abuse offenses. In those cases where details about the CP and other child-related content were not specifically reported in the digital police files reviewed, one police officer analyzed and coded *ad hoc* the content seized during the case investigation (when accessible in a digital format). Gender of children depicted was categorized as: (a) *more boys*, (b) *more girls*, and (c) *both genders*. Counts were collapsed into dichotomous variables of *≥ 51% or not* for practical reasons. For age comparisons, the investigators recorded the age of children depicted in the collections and coded dichotomously the

presence or absence of images of children within three age intervals: (a) *infant/toddler*, (b) *prepubescent*, and (c) *pubescent*. When specifically reported, information on specific content/children, presence of other paraphilic material within the collections, organization of the CP material (moderate to high), and collection size (more than 1,000 images) were coded dichotomously. Severity levels of the CP content were also categorized using the CIESI classification (Pascual et al., 2017; see Table 1). Although this codification was not reported in the original files, one trained police officer coded *ad hoc* dichotomously the presence or absence of CP content within the five severity levels. Information regarding the presence or absence of level 0 material was only reported in 54.5% of files reviewed; non-pornographic child content is not probative or necessary for prosecution in Spain, and thus is not frequently reported in the investigation files.

Access to children. Access to children at the time of the index investigation was coded dichotomously, as an indicator of the presence of opportunity to directly offend against children. Type of access to children was also categorized as described in Table 1.

Indication of pedophilic or hebephilic interests. Admission to police of sexual interest in children or evidence of a diagnosis of pedophilia/hebephilia (e.g., information about previous mental health assessments) was coded dichotomously. Furthermore, six behavioral correlates of pedophilic or hebephilic sexual interests were analyzed using the Correlates of Admission of Sexual Interest in Children (CASIC; Seto & Eke, 2017)[4]. Admissions made to others,

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[4] CASIC items: (1) never married; (2) child pornography content included videos; (3) child pornography content included sex stories involving children; (4) evidence of interest in child pornography spanned 2 or more years; (5) volunteered in a role with high access to children; and (6)

postings in child sexual interest groups (e.g., boylover.net), and sexual contact with minors over the legal age of sexual consent were also coded dichotomously as indicators of sexual interest in children.

Recidivism outcomes. Any new police arrest was coded as *recidivism*, although we focused our analyses on *sexual recidivism*. The crimes for which they were arrested were also recorded and categorized as described previously in the *criminological data* section. Failure on conditions (e.g., probation, parole, or conditional release) imposed on new convictions were also recorded. These recidivism categories were not mutually exclusive. Number of new arrests was also coded. Follow-up time was calculated as the difference between the date of the index arrest and the date when criminal records were checked (January-July 2018). Time in custody (i.e., time spent in prison after the date of the arrest) was subtracted[5], so follow-up time represented the individual's opportunity to offend while residing in the community. We also calculated time at risk as the difference between the date of the index arrest and the date of the first recidivism event (for general recidivism and for sexual recidivism specifically). Recidivism data for each individual were retrieved from the National Police database. Data regarding imprisonment length[6] were retrieved from the Prison Information System (i.e., a

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engaged in online sexual communication with a minor or officer posing as a minor (Seto & Eke, 2017).

[5] Only 3.6% of the sample served time in prison during the follow-up period. Replacement of prison sentences is contemplated by the Spanish legislation for cases in which custodial sentences do not exceed two years, in non-habitual prisoners. According to the Spanish Criminal Code, CP possession offenses shall be punished with the penalty from three months to a year of imprisonment.

[6] According to the Spanish Criminal Code (Art. 76), the ordinary limit for prison sentences is 20 years.

digital database of correctional reports from the Spanish prisons, except those located in Catalonia[7]).

Procedure

Initially, 44 cases were randomly selected for discussion of the coding framework. First and second author, as well as the leader of the Child Protection Group I and the authors of the CPORT, were involved in these initial discussions on the coding framework. The coding process of the whole sample was guided by Michael C. Seto and Angela W. Eke through email communications. Questions that arose during the coding process were put forward for consultation and resolved by consensus. Table 4 "access to CP" categories were designed and coded by the first and third author together. Any doubts in the coding process were discussed with a Detective from the Tippecanoe County High Tech Crimes Unit (West Lafayette, IN, USA), and any disagreements were resolved by consensus.

Due to security restrictions and time limitations in accessing the investigation case files, all 347 cases included in the present study were coded on-site at the headquarters of the UCC only by the first author. Institutional research approval and permission to access case file information were obtained from the National Police and the Secretary of State for Security. Content seized during the case investigation and criminal records were analyzed and coded by one police officer due to restricted access. Data collection occurred between January and July 2018. Time required to code each case file depended on the amount and organization of the information reported, ranging between 1 to 15 cases per day.

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[7] Catalonia is the only Autonomous Community that gathers all the penitentiary administration competences transferred. The prison population in Catalonia represents 14.2% of the national total (Ministerio del Interior, 2018).

Data analysis

First, we conducted a descriptive analysis of all variables for the total sample. Second, we examined differences for the variables of interest across the three groups of CP offenders. Different analyses and effect sizes were applied, as the data set contained a variety of variables in various formats. Chi-square tests were conducted for categorical data with Φ coefficient (2 x 2 contingency tables) and Cramér's V (2 x k contingency tables) as the effect size measures. Φ and V values of .10, .30, and .50 were considered small, moderate, and large effect sizes, respectively, as corresponding figures to Cohen's d values of .20, .50, and .80 when 2 is the smallest row or column of the contingency table (Cohen, 1998). We selected a z-test to compare cell counts across columns using the Bonferroni correction (Field, 2013). Due to small sample sizes, Fisher's exact test (FET) was calculated for 2 x 2 contingency tables (or the Fisher-Freeman-Halton exact test (FFHET) for contingency tables larger than 2 x 2) in which one or more cells did not meet the expected frequency assumption. Differences between groups on continuous variables were tested using one-way ANOVAs with omega squared as the effect size statistic (ω^2 can have values between ± 1; value zero indicates no effect).

As there was no fixed follow-up time for the sample, differences in rates of sexual recidivism between the three groups were examined in two steps. First, log-rank Kaplan-Meier survival estimators and proportional hazards regression models were employed to explore the notion that the three groups recidivated at equal rates at the follow-up period. Second, the effect of type of CP offender on survival was analyzed using Cox proportional-hazards regression.

Finally, a backward stepwise (Wald) binary logistic regression analysis examined the unique contribution of the statistically significant variables, which differentiated between CP-only and dual sex offenders, in a discriminative model for contact sexual offending.

Considering the particularities of CP investigations (i.e., when CP cases are initially detected, the police do not always immediately know the identity of the offender and would therefore be unaware, for example, of any previous arrest), only those statistically significant variables that could be coded by law enforcement officers before knowing the identity of the suspect were included as predictors in the regression model. All statistical analyses were performed using SPSS Version 24.0 statistical software package.

Results

Sociodemographic characteristics

Table 2 describes the sociodemographic characteristics for the full sample. On average, CP offenders were arrested at the beginning of mid-adulthood (M = 41.8 years; SD = 12.1 years; range = 18−77 years) with no statistically significant differences between groups ($F(2, 344)$ = 1.64, p = .2, ω^2 = .004). However, statistically significant differences were found in the beginning of their criminal trajectories, albeit with a small effect size ($F(2, 336)$ = 11.22, $p < .001$, ω^2 = .06). According to prior police arrest data, CP offenders with other nonviolent or non-sexually violent criminal involvement were arrested for the first time at younger ages (M = 32.2 years; SD = 1.7 years; range = 17−53 years) than those who only committed CP offenses (M = 41.8 years; SD = .7 years; range = 19−77 years). Although, no statistically significant differences were found for age of onset of criminal sexual trajectories (measured by the age of their first arrest for sexual crimes; $F(2, 344)$ = 1.59, p = .21, ω^2 = .003), starting on average at mid-adulthood (M = 41.3 years; SD = 12.2 years; range = 18−77 years).

Arrestees were mostly Spanish (86.2%) and working (57.6%) in predominantly skilled occupations (45%). Most of them were single (45.2%) at the time of arrest and did not have biological children (44.1%; although 118 case files lacked information in this regard).

Regarding level of computer knowledge reported, only a minority had advanced knowledge or worked in the computer sector (13.5%). Comparisons between groups with these variables were not statistically significant.

Criminological data

Details on prior arrests for the full sample are presented in Table 3. 81.3% of the sample had no prior criminal records; however, statistically significant differences between groups. By definition, CP-only offenders only had police records for other CP offenses (5.7%) and were less likely to have more than one prior arrest (FFHET, $p < .001$; $V = .45$). Dual offenders were significantly more likely to have criminal records for prior arrests regarding sexual offenses (61.1%) compared to the other two groups (FFHET, $p < .001$; $V = .42$), and they were significantly more likely (50%) than CP offenders with other criminal involvement (15.2%) to have any prior violent offense history ($X^2(1, N = 62) = 7.75$, $p = .01$, $\Phi = .35$). CP offenders with other nonviolent or non-sexually violent offenses were significantly more likely to have criminal records for prior arrests regarding non-sexual offenses (73.9%) than dual offenders (22.2%; $X^2(1, N = 64) = 14.33$, $p < .001$, $V = .47$).

When criminal records of dual offenders were analyzed individually, we identified only one individual whose first criminal sexual record was related to CP offenses. Arrests for CP offenses were subsequent to arrests for other sexual offenses (either contact or non-contact) in 17 of the 18 dual offenders within our sample.

Characteristics of index CP offending

Details about the index CP offense, for the entire sample and for the three groups distinguished by offense history, are summarized in Table 4. 74.9% of the sample were charged with CP distribution; however, only 13% of the sample were considered as active distributors (after excluding automatic distribution through non-encrypted P2P networks).

CP-only offenders were significantly more likely to be charged for this behavior (76.3%) than dual sex offenders (50%; $X^2(2, N = 347) = 6.28$, $p = .045$, $V = .14$), albeit with a small associated effect size. Conversely, dual sex offenders were arrested for CP production in a significantly greater percentage (55.6%) than the other two groups (FFHET, $p < .001$; $V = .53$), with a large associated effect size.

Accordingly, P2P platforms were the preferred means to access CP material for all groups except dual sex offenders, who were more likely to use CP material produced by themselves (55.6%) rather than using online platforms to access it. CP-only offenders were significantly less likely than the other two groups to use webcams for their criminal purposes (FFHET, $p = .002$; $V = .23$) or to have taken the images in person with a camera (not involving physical contact with the child; FFHET, $p < .001$; $V = .57$). In addition, they were also significantly less likely than CP offenders with other nonviolent and non-sexually violent criminal involvement to use texting platforms (FFHET, $p = .002$; $V = .22$) or social media (FFHET, $p = .003$; $V = .2$) to obtain CP material. Marginal significance was also found when comparing the use of email (FFHET, $p = .08$; $V = .12$), with a small effect size associated. Only 8.6% of the sample adopted special security measures (e.g., encryption, access from a cybercafé, use of TOR) to commit their offenses. Furthermore, only 14.4% of the sample contacted other like-minded individuals.

Characteristics of CP collections

Table 5 shows the characteristics of the CP content seized by the police for the entire sample. In general, offenders collected material depicting victims of one preferred gender (either boys or girls) – predominantly female victims (70.6%). As for the age of victims depicted, prepubescent victims were found in the majority of cases (71.5%). Most of the CP material seized (67.4%) was categorized as CIESI's level 1 of severity (i.e., nudity or erotic

poses); however, 45.5% of case files lacked information regarding the presence or absence of level 0 material (i.e., other legal content depicting children).

When the collections where analyzed by type of offender, dual sex offenders were significantly more likely than the other groups to have CP material depicting boys in their collections (55.6%) and less likely to have predominately girl collections (38.9%; FFHET, p = .001; Φ_c = .2). Furthermore, they were significantly more likely to have level 0 materials (72.2% X^2(2, N = 189) = 21.7, p < .001, V = .34). When compared with CP-only offenders, dual sex offenders had a slightly greater level of organization of their material (11.1%; FFHET, p = .056, V = .15) and were significantly more likely to have a focus on specific content/children within their collections (16.7%; FFHET, p = .005, V = .28). Content classified as CIESI's level 3 (i.e., sexual activity between children and adults excluding the penetration of adult to child) was significantly less frequent among CP-only offenders (8.8%; FFHET, p = .001, V = .24); however, no other statistically significant differences between groups related to severity levels were found.

Access to children

Access to children at index differentiated between the three groups of offenders (see Table 6). However, there was a lack of information in over a third of the files (32.9%), and thus, type of access was analyzed only for 101 individuals with known access to children.

Dual sex offenders had, in general, significantly greater access to children at index (61.1%) than CP-only offenders (25.1%; X^2(2, N = 233) = 13.94, p = .001, V = .25). However, the type of access significantly differed between groups. Compared to the other two groups, CP-only offenders were more likely to live with children in their residence (81.7%; X^2 (2, N = 101) = 18.55, p < .001, V = .43). On the other hand, dual sex offenders were more likely to access, but not live with, child relatives (45.5%; FFHET, p < .001, V = .53), with large effect sizes associated. CP offenders with other nonviolent and non-sexually

violent criminal involvement were more likely than CP-only offenders to possess specific information on children not necessary for work or other obvious purposes (21.1%; FFHET, p = .01, V = .29). However, no statistically significant differences between groups were found in the proportion of individuals who worked or volunteered with children.

Indication of pedophilic or hebephilic interests

Admission to police of sexual interest in children or evidence of a diagnosis of pedophilia/hebephilia were found in six files, mostly in dual sex offenders' reports (16.7%), and only 9.5% of the sample obtained a CASIC total score of 3 or higher (used as evidence of sexual interest in children; see Eke et al., 2018). No statistically significant differences were found in CASIC total scores[8] between groups (M = 1.9; SD = .1; range 0−6; Welch's $F(2, 21.63)$ = .19, p = .83); however, dual sex offenders were significantly more likely to have CP narratives (CASIC Item 3; 22.2%; FFHET, p = .003, V = .32). Furthermore, marginal statistical significance was found when separate analyses were performed for CASIC Item 5, suggesting a higher proportion of dual sex offenders volunteered in a role with high access to children[9] (FFHET, p = .09, V = .16), albeit with a small associated effect size. CP-only offenders were significantly less likely than the other two groups to have admitted their sexual interest in children to other people (FFHET, p = .002, V = .22). CP offenders with other nonviolent or non-sexually violent criminal involvement were the only group where

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[8] Total scores were restricted to cases with no more than one item missing information (n = 168; 48.4%), except for a CASIC score of 3 or more (see Eke et al., 2018).

[9] This result contrast the values reported in Table 6 because of the differences in the total number of individuals considered in the analyses.

evidence was found (2 out of 46 case files) regarding sexual contact with minors over the legal age of sexual consent[10].

Recidivism outcomes

Recidivism rates for an average follow-up period of 6.5 years are reported in Table 8. General (6.7%; FFHET, $p = .003$, $V = .18$) and violent (1.1%; FFHET, $p = .001$, $V = .24$) recidivism rates for CP-only offenders were significantly lower compared to the other two groups; non-sexual recidivism (2.1%; FFHET, $p = .001$, $V = .21$) and rates of subsequent failure on conditions (.4%; FFHET, $p = .01$, $V = .2$) were also lower when compared to CP offenders with other nonviolent or non-sexually violent criminal involvement, as well as the number of new arrests (FFHET, $p = .009$, $V = .18$), albeit with small effect sizes associated to all the comparisons. Although the mean follow-up period was significantly shorter for dual sex offenders ($M = 4.2$ years; $SD = .7$ years; range $= 0-7.8$) than for CP-only offenders ($M = 6.7$ years; $SD = .1$ years; range $= 2.6-9$; Welch's $F(2, 33.69) = 6.09$, $p = .006$),, contact sexual recidivism rates among dual sex offenders (16.7%) were significantly higher than those reported for CP-only offenders (.4%; FFHET, $p < .001$, $V = .3$). In addition, marginal significance was found in the comparison between sexual recidivism rates among the three groups of CP offenders (FFHET, $p = .08$; $V = .12$), with a small associated effect size. No statistically significant differences between groups were found for time at risk until the first recidivism event ($M = 2.1$ years; $SD = 1.9$ years; range $= .1-5.7$; Welch's $F(2, 13.71) = 2.48$, $p = .12$), or for the first sexual recidivism event specifically ($M = 2.9$ years; $SD = 2.1$ years; range $= .1-7.1$; $F(2, 15) = .19$, $p = .83$, $\omega^2 = -.1$).

The log-rank Kaplan-Meier survival estimator found the survival rates of the three

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[10] Since 2015, the age of sexual consent is fixed at 16 years (previously at 13) in the Spanish Criminal Code.

groups differed significantly for any sexual recidivism ($\chi^2(2) = 10.58$, $p = .005$, $V = .18$) over the whole duration of the sample up to the time of the recidivism event (see Figure 1), although with a small effect size associated to this comparison. However, the statistical procedure resulted in too small of a sample size to continue calculations for a Cox proportional hazard model.

Discriminative model for contact sexual offending

A discriminative model for contact sexual offending included all of the statistically significant variables that distinguished between CP-only and dual sex offenders and could be accessible to law enforcement officers at the early stages of CP investigations: (1) more boy than girl content in CP collection; (2) CP content within the 0 CIESI's severity level; (3) CP content within the 3 CIESI's severity level; (4) use of webcam to access the CP material; (5) admissions made to others online regarding their pedophilic/hebephilic interests; and (6) the collection and/or content accessed online included sex stories involving children. Results of the backward stepwise (Wald) binary logistic regression analysis are presented in Table 9.

The final model included three discriminative variables for contact sexual offending: (1) more boy than girl content in CP collection (Wald = 5.46, $p = .02$); (2) CP content within the 0 CIESI's severity level (i.e., non-erotic and non-sexualized images of children totally or partially dressed or nude, coming from commercial sources, family albums, or legitimate sources; Wald = 8.87, $p = .003$); and (3) CP content within the 3 CIESI's severity level (i.e., sexual activity between children and adults excluding the penetration of adult to child; Wald = 9.35, $p = .002$). Individuals presenting these features were more likely to be dual offenders compared to CP-only offenders. The odds ratio, Exp(β), in Table 9 is a standardized measure of the change in odds as a result of the presence of the predictor. Therefore, individuals with $\geq 51\%$ boy content in their CP collections are 8 times more likely to be dual offenders. Likewise, individuals with CP content within the 0 or 3 CIESI's severity level are 17 and 21

times, respectively, more likely to be dual offenders. The Hosmer and Lemeshow's Measure (R_L^2) suggested this model explained 38.14% of the variance between dual vs. CP-only offenders ($R_C^2 = .21$; $R_N^2 = .46$). Finally, the Hosmer and Lemeshow test was non-significant ($X^2(2, N = 233) = 13.94$, $p = .001$), indicating the final model fit the data.

Discussion

The current work sought to examine the distinctive characteristics of CP offenders arrested in Spain. Overall, our findings were consistent with Pascual et al. (2017); CP material seized by the National Police predominantly depicted pre-pubescent victims (71.5%), mostly females (70.6%). On the other hand, most of the CP content (either photographs or videos) was classified as nudity or erotic poses (CIESI's level 1). Consistent with Eke et al. (2011) and Seto and Eke (2015), we found statistically significant differences among the arrestees when they were classified according to their criminal history.

CP-only offenders

CP-only offenders had fewer prior criminal offenses than the other two groups of CP offenders, consistent with Seto and Eke (2015); specifically, the percentage of prior criminal records (5.7%) and both general (6.7%) and violent (1.1%) recidivism rates were significantly lower in this group. In terms of their CP offending, these individuals were also significantly less likely to be arrested for CP production (1.4%; i.e., images taken in person with a camera or remotely by webcam or other technologies, excluding physical sexual contact with children depicted) than those in the other two groups. In this case, Seto and Eke (2015) found only statistically significant differences between this group and dual offenders.

On the other hand, CP-only offenders were found to have greater access to children living in their residence (81.7%; i.e., biological, stepchildren, children relatives living with the offender) than the other two groups. This contrasts the findings of prior studies, which

have considered close and unsupervised access to children as a risk marker for contact sex offenses (Long et al., 2016). However, when type of access was not sub-grouped, the percentage of individuals having access to children was lower compared to dual offenders (mostly due to their greater access to child relatives, with no cohabitation). One possible explanation for this finding is that the subgroup of CP-only offenders not motivated by pedophilic sexual interests would not be likely to engage in contact sex offending with these children; on the other hand, as theorized in Seto's MFM (2019), those CP-only offenders with pedophilic or hebephilic sexual interests would not present the facilitation factors required for engaging in contact sexual offending. However, we lack data on which to draw any definitive conclusions in this regard.

As for their CP collections, CP-only offenders were found to have the lowest proportion of CP material categorized as CIESI's level 3. In this regard, Long, Alison, and McManus (2013) hypothesized that greater proportions of Sentencing Advisory Panel (SAP) Levels 1 and 2 (not involving adults) reflected fantasy-driven interests (Briggs, Simon, & Simonson, 2011; Merdian et al., 2018), while a predominance of SAP Levels 3 and 4 (involving adults) might be related to a preference for sexual activities between adults and children. These individuals were also less likely to admit their sexual interest in children to other people online. However, no differences in social networking with other CP users were found between groups (in contrast with hypothesis 4, Babchishin et al., 2015), which might be due to a greater awareness of police online surveillance or to a smaller proportion of individuals with such interests.

CP offenders with other nonviolent or non-sexually violent crimes

CP offenders with other nonviolent or non-sexually violent criminal involvement were, by definition, a group with greater criminal versatility. However, they showed similar characteristics to the other two groups. The only distinctive characteristic found in this group

was that they were more likely than CP-only offenders, but less likely than dual offenders, to be arrested for CP production.

Dual offenders

CP offenders with a contact sex offending history (so-called dual offenders) were the most specialized group in sexual offending; they were more likely to have a previous arrest for sexual offenses (61.1%; hypothesis 2; Babchishin et al., 2015; Long et al., 2016) and presented with higher sexual recidivism rates (16.7%; hypothesis 10; Eke et al., 2018; Elliott, Mandeville-Norden, & Beech, 2019) compared to the other two groups. Survival curves further supported this conclusion, indicating that, when controlling for time at risk, there were significant differences between the three groups with regard to sexual recidivism.

Consistent with prior studies (hypothesis 3; Long et al., 2016; Seto & Eke, 2015; Wolak et al., 2005), we found among dual sex offenders the highest proportion of CP producers (55.6%), in that they recorded their own victims or were actively part of the depicted abuse. Also consistent with hypothesis 5 (Seto & Eke, 2015), they were more likely to have content depicting boys and had smaller proportions of content depicting girls when compared to the other two groups (hypothesis 9; Babchishin et al., 2015). Studies suggest characteristics of CP collections may reflect the sexual preferences of the offender (Glasgow, 2010; Seigfried-Spellar, 2013, 2015; Seto, 2013; Seto et al., 2006). In this sense, sexual interest in boys has been associated with higher rates of sexual recidivism among CP offenders (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005; Seto & Eke, 2015; Soldino et al., unpublished).

For sexual interest in the material, 16.7% of dual offenders' files included an admission or diagnosis of pedophilic/hebephilic interests, in contrast to the other two groups. Likewise, dual sex offenders were more likely to score positively on CASIC Items 3 (i.e., child pornography content included sex stories involving children), and marginal significance

was found regarding Item 5 (i.e., volunteered in a role with high access to children; also considered an indicator of emotional congruence with children; Babchishin et al., 2015; Seto & Eke, 2017); although, no differences on CASIC total scores were found. Paraphilia indicators (such as admissions of pedophilic/hebephilic sexual interests) have been identified as primary motivators for contact sexual offenses (Seto, 2019), and as predictors for sexual recidivism (Hanson & Bussière, 1998; Hanson & Morton-Bourgon, 2005). On the other hand, Crookes et al. (2017) suggested CP narratives could be more harmful than visual material, acting as a more powerful reinforcer of cognitive distortions and an enhancer of pedophilic sexual fantasies. Many individuals with a sexual interest in children seek legal alternatives to CP to satisfy their sexual fantasies, due in part to the dissuasive effect of the penalties (Crookes et al., 2017; Howitt, 1995; Taylor & Quayle, 2003). Not surprisingly, dual sex offenders in our sample were also found to have the largest proportion of CIESI's Level 0 materials (72.2%; i.e., non-erotic and non-sexualized images of children totally or partially dressed or nude, coming from commercial sources, family albums, or legitimate sources).

Consistent with prior studies (hypothesis 7; Aslan et al., 2014; Babchishin et al., 2015; Clevenger et al., 2016; Long et al., 2013), dual offenders were found to have greater access to children compared to CP-only offenders. When differences on type of access were analyzed, this group had greater access to child relatives (with no co-habitation), as well as some marginal evidence on greater likelihood to volunteer with children (when measured as CASIC Item 5). According to prior findings, contact sexual offenders with victims as minors are more likely to offend against child relatives and commit their offenses in the victim's residence (Soldino, Carbonell-Vayá, & Tibau, unpublished). Nevertheless, since 2015, Spanish legislation establishes the obligation to provide negative certificates of the Central Register of Sex Offenders for all professionals and volunteers who work in regular contact with minors. However, being employed in an occupation with high access to children has not

been correlated with sexual interest in children (Seto & Eke, 2017), and we, too, did not find a correlation between job access to children and dual sex offending. On the other hand, our results did not support hypothesis 1 (i.e., no differences were found between groups in their employment status; in contrast with Babchishin et al., 2015; Seto & Eke, 2015); hypothesis 6 (i.e., dual offenders were not more likely to possess higher severity level CP content than the other two groups; in contrast with Long et al., 2013); and hypothesis 8 (i.e., no differences were found between dual offenders and CP users with other nonviolent and/or nonsexually violent offending in their likelihood to engage in online grooming behaviors; in contrast with Long et al., 2016).

Regarding the potential for criminal escalation to contact offenses for CP offenders, our results revealed that only one out of 283 CP-only offenders was arrested for a contact sexual offense during the follow-up period (6.7 years on average). Likewise, we identified only one dual offender whose first criminal sexual record was related to CP offenses. Therefore, our results support previous conclusions about the absence of a direct relationship between the commission of a CP offense and the commission of subsequent contact sexual offenses (Aebi, Plattner, Ernest, Kaszynski, & Bessler, 2014; Henshaw et al., 2017; Owens et al., 2016). Development of sexual interest in children seems to have an offline beginning (Sheehan & Sullivan, 2010). In this sense, CP use would more likely operate as a compensatory method (Riegel, 2004) or a behavioral extension of contact offending (Bourke & Hernandez, 2009), than as its precursor.

Finally, consistent with previous research (Glasgow, 2010; Long et al., 2013; Seigfried-Spellar, 2013, 2015; Seto, 2013; Seto et al., 2006; Seto & Eke, 2015), the regression analysis confirmed the importance of the characteristics of CP collections for classificatory purposes. Specifically, the prevalence of boys in the CP collection and the presence of CP content within the 0 and 3 CIESI's severity levels predicted contact sexual

offending among CP users, and thus, may be useful for prioritization by law enforcement in future CP investigations.

Limitations and future directions

A major concern for research based on police data is that the information gleaned from law enforcement agencies may not represent the full extent of any offending (i.e., the police cannot assume that no incriminating information has been hidden, deleted, or remains otherwise undetected), especially when investigating CP offenders (Beier et al., 2015; Kuhle et al., 2017). On the other hand, other operational issues are likely to provide limitations to our analyses (e.g., for resource reasons many police departments only analyze enough devices to elicit sufficient evidence to secure a conviction and not all of the data they seize).

The high percentage of missing information in the digital investigation files reviewed was also a challenge for this study, in terms of data collection, coding procedures, and statistical analyses. This suggests that police investigators should explicitly collect and analyze relevant risk factors in this population, such as the characteristics of non-pornographic child content (e.g., non-erotic and non-sexualized images of children coming from commercial sources, family albums or legitimate sources). Even though this information may not be probative or necessary for prosecution, it could assist case prioritization, as well as guide treatment and supervision planning (Eke et al., 2018).

Finally, we were concerned about the differences in sample size between the three groups; especially regarding dual offenders (mostly due to the lack of information about cases that initially came to the attention of the police for victim complaints regarding contact sexual offenses). However, this did not prevent us from uncovering several statistically significant differences between them. Future studies with larger samples are needed to analyze, specifically, the distinctive characteristics of dual sex offenders. Furthermore, we

encourage new studies in geographically and culturally different samples that could reveal intercultural differences between CP offenders.

Conclusion

This study provides a baseline and detailed examination of the distinctive characteristics of CP offenders arrested in Spain. Overall, our findings are consistent with what has been previously found in English-speaking samples: CP users do not present as a homogeneous group of individuals. Specifically, when classified according to their criminal history, CP-only and dual offenders may be considered as differentiated subgroups of CP offenders. This might have repercussions on risk, needs and responsivity (Andrews & Bonta, 2010) of each subgroup, which would result in the need to develop specific risk assessment tools and treatment approaches. In this sense, the similarities detected between our sample and those from other English-speaking countries seem encouraging for the development of cross-cultural validation studies of these tools, as well as for the incorporation of those therapeutic ingredients that have been proven effective in other cultural contexts.

Additionally, this study has identified factors, such as the characteristics of CP collections, which could be used to assist with prioritizing cases in terms of the likelihood of contact sexual offending among CP users. However, some variance still remains unexplained, which suggests other relevant risk factors exist for CP users and contact sexual offenders. When human and economic resources are limited, it is preferable to prioritize those investigations where there is a greater likelihood of contact sexual offenses between the suspect and real victims. Identifying the distinctive characteristics of subgroups among CP users may assist law enforcement agencies in terms of decision-making processes and case prioritization (Long et al., 2016), as well as increase the effectiveness of prevention, the development of tailored risk assessment tools, and specific interventions for CP offenders.

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Table 1. Definitions of variables

Variable	Brief description
Type of CP offending (at index)	
CP accessing/possession only	The individual was arrested only for knowingly accessing/possessing CP material
+ CP purchase	An economic transaction is needed for the acquisition of the CP material
+ CP distribution	Sharing CP material with others through P2P[a] networks, email, forums, etc.
+ CP production	CP is taken in person with a camera[b] or remotely by webcam or other technologies[c]
+ Online Child Grooming	Contacting children through ICT[d] for sexual purposes
+ Child prostitution	Promoting the prostitution of an underage person
+ Child Sexual Abuse	Involving physical sexual contact with a child victim
+ Other	E.g., CP selling, threats, exhibition of pornographic material to minors, …
Means used to access the CP material	
Open forum/website	Public access through the World Wide Web, including general chatrooms
Commercial website	Payment is required to gain access
Closed group trading	Password/invitation is required to gain access to the forum/chatroom
P2P[a]	Allows shared access to files without the need for a central server (e.g., Emule, Ares, …)
Encrypted P2P[a]	The traffic flows between peers is encrypted (e.g., Gigatribe)
Texting	Including instant messaging (e.g., MSN Messenger) and free text apps (e.g., Whatsapp)
Webcam	Images are feds or streamed in real time to or through a computer to a computer network
Email	Messages (including images, links, CSS layouts, or email attachments) distributed by electronic means from one computer user to one or more recipients via a network
Social media	Websites and applications that enable users to create and share content or to participate in social networking (e.g., Tuenti[e])
The Onion Router (TOR)	Free and open-source software for enabling anonymous communication
Own production	CP is taken in person with a camera
Other	E.g., multimedia, Internet Relay Chat "IRC" protocols, …
CIESI severity levels (Pascual et al., 2017)	
Level 0 "other relevant material"	Images that are not included in the category of child pornography (i.e., non-erotic and non-sexualized images of children totally or partially dressed or nude, coming from commercial sources, family albums or legitimate sources, as well as images that cannot be included in any of the higher levels)
Level 1 "nudity or erotic poses"	Images of children totally or partially dressed or naked, in provocative or sexualized poses, or that emphasize the genital areas
Level 2 "sexual activity between children"	Images of sexual activity between children or own masturbation
Level 3 "sexual activity between children and adults excluding the penetration of adult to child"	Images of sexual activity with the participation of an adult; penetration produced from child to adult is included but penetration (of any kind) from adult to child is excluded
Level 4 "sexual activity with penetration from adult to child"	Images of sexual activity between children and adults that include penetration from adult to child

Level 5 "sadistic sexual activity and bestiality"	Images of sexual activities that increase physical pain or humiliation unnecessarily, as well as sexual activity between children and animals
Type of access to children	
Children living in residence	Biological, stepchildren, and/or children relatives living with the offender
Children relatives	Children relatives living in another house but with a frequent contact with the offender
Works with children	E.g., school teacher
Volunteers with children	Volunteering in a role with high access to children
Specific information on children	Considered outside of what would be necessary for work or other obvious purposes
Online sexual solicitation	Engaging in online sexual communications with a minor

Note. [a] Peer to peer. [b] Some offenders were actively part of the production and abuse that occurred within the images depicted/recorded. [c] E.g., as part of online child grooming offending. [d] Information and Communication Technologies. [e] Popular social network in Spain.

Table 2. Sociodemographic characteristics distinguishing CP-only offenders and CP offenders with other known criminal involvement either pre-index or at index

Variable	Total sample (N = 347)	CP only (n = 283; 81.6%)	CP + nonviolent and/or nonsexual violent offending (n = 46; 13.3%)	CP + contact sex offending (n = 18; 5.2%)	Comparison statistic
Employment status: n (%)					p = .34[a]; V = .105
Working	200 (57.6)	171 (60.4)	20 (43.5)	9 (50)	
Student	17 (4.9)	15 (5.3)	2 (4.3)	0 (0)	
Unemployed	58 (16.7)	42 (14.8)	12 (26.1)	4 (22.2)	
Retiree/pensioner/medical leave	27 (7.8)	22 (7.8)	4 (8.7)	1 (5.6)	
Unknown	*45 (13)*	*33 (11.7)*	*8 (17.4)*	*4 (22.2)*	
Occupation[b] (N = 200): n (%)					p = .11[a]; V = .13
Unskilled/semiskilled	72 (36)	57 (33.3)	10 (50)	5 (55.6)	
Skilled	90 (45)	81 (47.4)	8 (40)	1 (11.1)	
Professional	38 (19)	33 (19.3)	2 (10)	3 (33.3)	
Marital status: n (%)					p = .43[a]; V = .074
Single	157 (45.2)	128 (45.2)	23 (50)	6 (33.3)	
Married/common law	103 (29.7)	90 (31.8)	10 (21.7)	3 (16.7)	
Separated/divorced/widowed	25 (7.2)	19 (6.7)	4 (8.7)	2 (11.1)	
Unknown	*62 (17.9)*	*46 (16.3)*	*9 (19.6)*	*7 (38.9)*	
Home country: n (%)					p = .7[a]; V = .064
Spain	299 (86.2)	245 (86.6)	40 (87)	14 (77.8)	
Europe (other)	26 (7.5)	20 (7.1)	3 (6.5)	3 (16.7)	
Latin America	20 (5.8)	16 (5.7)	3 (6.5)	1 (5.6)	
Other	2 (.6)	2 (.7)	0 (0)	0 (0)	
Biological children: n (%)	76 (21.9)	61 (21.6)	12 (26.1)	3 (16.7)	X^2 (2, N = 229) = .802, p = .67, V = .059
Unknown	*118 (34)*	*97 (34.3)*	*15 (32.6)*	*6 (33.3)*	
Computer knowledge: n (%)					p = .93[a]; V = .069
Basic	159 (45.8)	130 (45.9)	20 (43.5)	9 (50)	
Medium	45 (13)	38 (13.4)	6 (13)	1 (5.6)	
Advanced	24 (6.9)	20 (7.1)	3 (6.5)	1 (5.6)	
Professional	23 (6.6)	21 (7.4)	1 (2.2)	1 (5.6)	
Unknown	*95 (27.7)*	*74 (26.1)*	*16 (34.8)*	*6 (33.3)*	

Note. Some data are missing, so group sizes vary across variables. Each subscript letter denotes a subset of the row category whose column proportions do not differ significantly from each other at the p < .05 level (using the Bonferroni correction). Values in bold were statistically significant.

[a] The Freeman-Halton extension of Fisher's exact test was calculated for a contingency table larger than 2 x 2 in which one or more cells did not mean the expected minimum of 5. [b] Unskilled/semiskilled included truck drivers and laborers, skilled included mechanics and technicians, and professional included teachers and doctors.

Table 3. Criminological data distinguishing CP-only offenders and CP offenders with other known criminal involvement either pre-index or at index

Criminal history: n (%)	Total sample ($N = 347$)	CP only ($n = 283$; 81.6%)	CP + nonviolent and/or nonsexual violent offending ($n = 46$; 13.3%)	CP + contact sex offending ($n = 18$; 5.2%)	Comparison statistic
Any prior offense	65 (18.7)	16 (5.7)$_a$	37 (80.4)$_b$	12 (66.7)$_b$	X^2 (2, $N = 347$) = 174.01, $p < .001$, $V = .708$
Any prior violent offense[a]	16 (4.6)	−	7 (15.2)$_a$	9 (50)$_b$	X^2 (1, $N = 62$) = 7.75, $p = .01$, $\Phi = .354$
Any prior non-violent offense[b]	57 (16.4)	16 (5.7)$_a$	33 (71.7)$_b$	8 (44.4)$_b$	X^2 (2, $N = 346$) = 109.74, $p < .001$, $V = .636$
Any prior non-sexual offense	38 (11)	−	34 (73.9)$_a$	4 (22.2)$_b$	X^2 (1, $N = 64$) = 14.33, $p < .001$, $\Phi = -.473$
Any prior sexual offense	33 (9.5)	16 (5.7)$_a$	6 (13)$_a$	11 (61.1)$_b$	$p < .001^c$; $V = .42$
Any prior contact offense	9 (2.6)	−	−	9 (50)	−
Any prior non-contact sexual offense	26 (7.5)	16 (5.7)$_a$	6 (13)$_{a, b}$	5 (27.8)$_b$	$p = .003^c$; $V = .198$
Any prior CP offense	23 (6.6)	16 (5.7)$_a$	3 (6.5)$_{a, b}$	4 (22.2)$_b$	$p = .03^c$; $V = .147$
More than one prior offense	19 (5.5)	2 (.7)$_a$	11 (23.9)$_b$	6 (33.3)$_b$	$p < .001^c$; $V = .448$

Note. Some data are missing, so group sizes vary across variables. Each subscript letter denotes a subset of the row category whose column proportions do not differ significantly from each other at the $p < .05$ level (using the Bonferroni correction). Values in bold were statistically significant.

[a] 2 missing cases (.6%). [b] 1 missing case (.3%). [c] The Freeman-Halton extension of Fisher's exact test was calculated for a 2×3 contingency table in which one or more cells did not mean the expected minimum of 5.

Table 4. Index CP offending characteristics distinguishing CP-only offenders and CP offenders with other known criminal involvement either pre-index or at index

Variable: n (%)	Total sample ($N = 347$)	CP only ($n = 283$; 81.6%)	CP + nonviolent and/or nonsexual violent offending ($n = 46$; 13.3%)	CP + contact sex offending ($n = 18$; 5.2%)	Comparison statistic
CP offending (at index)[a]					
CP accessing/possession only	17 (4.9)	13 (4.6)	3 (6.5)	1 (5.6)	$p = .59$[b], $V = .031$
+ CP purchase	70 (20.2)	60 (21.2)	5 (10.9)	5 (27.8)	X^2 (2, $N = 347$) = 3.31, $p = .19$, $V = .098$
+ CP distribution	260 (74.9)	216 (76.3)$_a$	35 (76.1)$_{a, b}$	9 (50)$_b$	X^2 (2, $N = 347$) = 6.28, $p = .045$, $V = .135$
+ CP production	19 (5.5)	4 (1.4)$_a$	5 (10.9)$_b$	10 (55.6)$_c$	$p < .001$[b], $V = .534$
+ Online Child Grooming	9 (2.6)	–	7 (15.2)	2 (11.1)	$p = 1$[c], $\Phi = -.053$
+ Child prostitution	4 (1.2)	–	2 (4.3)	2 (11.1)	$p = .31$[c], $\Phi = .126$
+ Child Sexual Abuse	12 (3.5)	–	–	12 (66.7)	–
+ Other	8 (2.3)	–	7 (15.2)	1 (5.6)	$p = .42$[c], $\Phi = -.131$
Access to CP[a]					
Open forum/website	21 (6.1)	16 (5.7)	2 (4.3)	3 (16.7)	$p = .16$[b], $V = .112$
Unknown	*2 (.6)*	*1 (.4)*	*0 (0)*	*1 (5.6)*	
Commercial website	72 (20.7)	61 (21.5)	6 (13)	5 (27.8)	X^2 (2, $N = 346$) = 2.54, $p = .29$, $V = .086$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
Closed group trading	37 (10.7)	30 (10.6)	4 (8.7)	3 (16.7)	$p = .59$[b], $V = .055$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
P2P	220 (63.4)	185 (65.4)	28 (60.9)	7 (38.9)	X^2 (2, $N = 346$) = 4.22, $p = .12$, $V = .11$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
Encrypted P2P	15 (4.3)	11 (3.9)	2 (4.3)	2 (11.1)	$p = .19$[b], $V = .083$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
Texting	14 (4)	7 (2.5)$_a$	7 (15.2)$_b$	0 (0)$_{a, b}$	$p = .002$[b], $V = .223$
Unknown	*2 (.6)*	*1 (.4)*	*0 (0)*	*1 (5.6)*	
Webcam	5 (1.4)	1 (.4)$_a$	2 (4.3)$_b$	2 (11.1)$_b$	$p = .002$[b], $V = .227$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
Email	22 (6.3)	15 (5.3)	4 (8.7)	3 (16.7)	†$p = .08$[b], $V = .115$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
Social media	7 (2)	2 (.7)$_a$	4 (8.7)$_b$	1 (5.6)$_{a, b}$	$p = .003$[b], $V = .202$

Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
TOR	3 (.9)	2 (0.7)	1 (2.2)	0 (0)	$p = .45^{b}$, $V = .058$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
Own production	11 (3.2)	4 (1.4)$_a$	3 (6.5)$_b$	10 (55.6)$_c$	$p < .001^{b}$, $V = .573$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
Other	4 (1.2)	3 (1.1)	1 (2.2)	0 (0)	$p = .55^{b}$, $V = .043$
Unknown	*1 (.3)*	*0 (0)*	*0 (0)*	*1 (5.6)*	
Security measures adopted	30 (8.6)	22 (7.8)	5 (10.9)	3 (16.7)	$p = .28^{b}$, $V = .076$
Unknown	*1 (.3)*	*1 (.4)*	*0 (0)*	*0 (0)*	
Active CP distribution	45 (13)	33 (11.7)	7 (15.2)	5 (27.8)	$X^2 (2, N = 338) = 4.37, p = .1, V = .114$
Unknown	*9 (2.6)*	*8 (2.8)*	*0 (0)*	*1 (5.6)*	
Social networking	50 (14.4)	40 (14.1)	5 (10.9)	5 (27.8)	$X^2 (2, N = 347) = 3.09, p = .23, V = .094$

Note. Some data are missing, so group sizes vary across variables. Each subscript letter denotes a subset of the row category whose column proportions do not differ significantly from each other at the $p < .05$ level (using the Bonferroni correction). Values in bold were statistically significant.

[a] These categories are not mutually exclusive. [b] The Freeman-Halton extension of Fisher's exact test was calculated for a 2 × 3 contingency table in which one or more cells did not mean the expected minimum of 5. [c] Fisher's exact test was calculated for a 2 × 2 contingency table in which one or more cells did not mean the expected minimum of 5. [†] Marginal significance.

Table 5. Characteristics of CP content distinguishing CP-only offenders and CP offenders with other known criminal involvement either pre-index or at index

Variable: n (%)	Total sample (N = 347)	CP only (n = 283; 81.6%)	CP + nonviolent and/or nonsexual violent offending (n = 46; 13.3%)	CP + contact sex offending (n = 18; 5.2%)	Comparison statistic
Gender of children depicted					$p = .001^b$, $V = .203$
More girls	245 (70.6)	205 (72.4)$_a$	33 (71.7)$_a$	7 (38.9)$_b$	
More boys	48 (13.8)	33 (11.7)$_a$	5 (10.9)$_a$	10 (55.6)$_b$	
Both genders	7 (2)	6 (2.1)$_a$	1 (2.2)$_a$	0 (0)$_a$	
Unknown	*47 (13.5)*	*39 (13.8)*	*7 (15.2)*	*1 (5.6)*	
Age of children depicted[a]					
Infant/toddler	23 (6.6)	20 (7.1)	1 (2.2)	2 (11.1)	$p = .38^b$, $V = .078$
Prepubescent	248 (71.5)	205 (72.4)	31 (67.4)	12 (66.7)	$X^2 (2, N = 288) = 3.67, p = .18, V = .113$
Pubescent	71 (20.5)	54 (19.1)	10 (21.7)	7 (38.9)	$X^2 (2, N = 288) = 3.04, p = .24, V = .103$
Unknown	*59 (17)*	*48 (17)*	*10 (21.7)*	*1 (5.6)*	
CIESI severity levels (Pascual et al., 2017)[a]					
Level 0. Other legal child-related content	58 (16.7)	35 (12.4)$_a$	10 (21.7)$_a$	13 (72.2)$_b$	$X^2 (2, N = 189) = 21.7, p < .001, V = .339$
Unknown	*158 (45.5)*	*141 (49.8)*	*15 (32.6)*	*2 (11.1)*	
Level 1. Nudity or erotic poses	234 (67.4)	191 (67.5)	27 (58.7)	16 (88.9)	$p = .56^b$, $V = .071$
Level 2. Sexual activity between children	102 (29.4)	85 (30)	11 (23.9)	6 (33.3)	$X^2 (2, N = 275) = 27, p = .88, V = .031$
Level 3. Adult-child sexual activity without penetration	41 (11.8)	25 (8.8)$_a$	9 (19.6)$_b$	7 (38.9)$_b$	$p = .001^b$, $V = .24$
Level 4. Adult-child sexual activity with penetration	99 (28.5)	77 (27.2)	16 (34.8)	6 (33.3)	$X^2 (2, N = 275) = 2.56, p = .31, V = .096$
Level 5. Sadism and/or bestiality	18 (5.2)	12 (4.2)	4 (8.7)	2 (11.1)	$p = .12^b$, $V = .104$
Unknown	*72 (20.7)*	*58 (20.5)*	*13 (28.3)*	*1 (5.6)*	
Focus on specific content/children	8 (2.3)	4 (1.4)$_a$	1 (2.2)$_{a, b}$	3 (16.7)$_b$	$p = .005^b$, $V = .278$
Unknown	*118 (34)*	*90 (31.8)*	*22 (47.8)*	*6 (33.3)*	
Other paraphilic material	7 (2)	4 (1.4)	2 (4.3)	1 (5.6)	$p = .15^b$, $V = .108$
Unknown	*105 (30.3)*	*86 (30.4)*	*16 (34.8)*	*3 (16.7)*	
CP organized (moderate to high)	8 (2.3)	5 (1.8)$_a$	1 (2.2)$_{a, b}$	2 (11.1)$_b$	†$p = .056^b$, $V = .154$
Unknown	*106 (30.5)*	*82 (29)*	*20 (43.5)*	*4 (22.2)*	

Collection size (>1000 images)		19 (5.5)	16 (5.7)	1 (2.2)	2 (11.1)	$p = .4^{b}$, $V = .091$
	Unknown	*146 (42.1)*	*116 (41)*	*23 (50)*	*7 (38.9)*	

Note. Some data are missing, so group sizes vary across variables. Each subscript letter denotes a subset of the row category whose column proportions do not differ significantly from each other at the $p < .05$ level (using the Bonferroni correction). Values in bold were statistically significant.

[a] These categories are not mutually exclusive. [b] The Freeman-Halton extension of Fisher's exact test was calculated for a contingency table larger than 2 x 2 in which one or more cells did not mean the expected minimum of 5. [†] Marginal significance.

Table 6. Access to children at index, distinguishing CP-only offenders and CP offenders with other known criminal involvement either pre-index or at index

Variable: n (%)	Total sample ($N = 347$)	CP only ($n = 283$; 81.6%)	CP + nonviolent and/or nonsexual violent offending ($n = 46$; 13.3%)	CP + contact sex offending ($n = 18$; 5.2%)	Comparison statistic
Access to children at index	101 (29.1)	71 (25.1)$_a$	19 (41.3)$_{a, b}$	11 (61.1)$_b$	X^2 (2, $N = 233$) = 13.94, p = .001, V = .245
Unknown	114 (32.9)	96 (33.9)	13 (28.3)	5 (27.8)	
Type of access^a ($N = 101$)					
Children living in residence	70 (69.3)	58 (81.7)$_a$	9 (47.4)$_b$	3 (27.3)$_b$	X^2 (2, $N = 101$) = 18.55, p < .001, V = .429
Children relatives	7 (6.9)	1 (1.4)$_a$	1 (5.3)$_a$	5 (45.5)$_b$	p < .001^b, V = .534
Works with children	12 (11.9)	9 (12.7)	1 (5.3)	2 (18.2)	p = .56^b, V = .111
Volunteers with children	7 (6.9)	5 (7)	0 (0)	2 (18.2)	p = .17^b, V = .188
Specific information on children	8 (7.9)	2 (2.8)$_a$	4 (21.1)$_b$	2 (18.2)$_{a, b}$	p = .01^b, V = .292
Online sexual solicitation	9 (8.9)	−	7 (36.8)	2 (18.2)	p = .42^c, Φ = -.196

Note. Some data are missing, so group sizes vary across variables. Each subscript letter denotes a subset of the row category whose column proportions do not differ significantly from each other at the p < .05 level (using the Bonferroni correction). Values in bold were statistically significant.
^{a} These categories are not mutually exclusive. ^{b} The Freeman-Halton extension of Fisher's exact test was calculated for a 2 × 3 contingency table in which one or more cells did not mean the expected minimum of 5. ^{c} Fisher's exact test was calculated for a 2 × 2 contingency table in which one or more cells did not mean the expected minimum of 5.

Table 7. Indication of pedophilic or hebephilic interests, distinguishing CP-only offenders and CP offenders with other known criminal involvement either pre-index or at index

Sexual interest: n (%)	Total sample ($N = 347$)	CP only ($n = 283$; 81.6%)	CP + nonviolent and/or nonsexual violent offending ($n = 46$; 13.3%)	CP + contact sex offending ($n = 18$; 5.2%)	Comparison statistic
Admission/diagnosis CASIC	6 (1.7)	3 (1)a	0 (0)a	3 (16.7)b	$p = .003$[a], $V = .269$
Item 1. Never married	156 (45)	128 (45.2)	23 (50)	5 (27.8)	$X^2 (2, N = 283) = .92$, $p = .7$, $V = .057$
Missing	*64 (18.4)*	*47 (16.6)*	*9 (19.6)*	*8 (44.4)*	
Item 2. CP videos	265 (76.4)	219 (77.4)	34 (73.9)	12 (66.7)	$X^2 (2, N = 319) = 3.68$, $p = .17$, $V = .107$
Missing	*28 (8.1)*	*22 (7.8)*	*6 (13)*	*0 (0)*	
Item 3. CP text stories	8 (2.3)	4 (1.4)a	0 (0)a	4 (22.2)b	$p = .003$[a], $V = .321$
Missing	*141 (40.6)*	*125 (44.2)*	*14 (30.4)*	*2 (11.1)*	
Item 4. CP activity spanning ≥ 2 years	64 (18.4)	57 (20.1)	3 (6.5)	4 (22.2)	$p = .21$[a], $V = .186$
Missing	*263 (75.8)*	*211 (74.6)*	*40 (87)*	*12 (66.7)*	
Item 5. Volunteering with access to children	7 (2)	5 (1.8)	0 (0)	2 (11.1)	[†]$p = .09$[a], $V = .164$
Missing	*86 (24.8)*	*76 (26.9)*	*8 (17.4)*	*2 (11.1)*	
Item 6. Online sexual communications with minor/undercover officer	13 (3.7)	–	10 (21.7)	3 (16.7)	$p = .74$[b], $\Phi = -.068$
Missing	*2 (.6)*	–	*2 (4.3)*	*0 (0)*	
CASIC score ≥ 3[c]	33 (9.5)	23 (8.1)	6 (13)	4 (22.2)	$p = .22$[a], $V = .128$
More than one item missing	*179 (51.6)*	*149 (52.7)*	*24 (52.2)*	*6 (33.3)*	
Admissions made to others	5 (1.4)	1 (.4)a	2 (4.3)b	2 (11.1)b	$p = .002$[a], $V = .221$
Postings in child sexual interest groups	5 (1.4)	4 (1.4)	0 (0)	1 (5.6)	$p = .35$[a], $V = .09$
Sexual contacts with minors over the age of sexual consent	2 (0.6)	0 (0)a	2 (4.3)b	0 (0)a, b	$p = .03$[a], $V = .195$

Note. The categories are not mutually exclusive. Some data are missing, so group sizes vary across variables. Each subscript letter denotes a subset of the row category whose column proportions do not differ significantly from each other at the $p < .05$ level (using the Bonferroni correction). Values in bold were statistically significant.
[a] The Freeman-Halton extension of Fisher's exact test was calculated for a 2×3 contingency table in which one or more cells did not mean the expected minimum of 5. [b] Fisher's exact test was calculated for a 2×2 contingency table in which one or more cells did not mean the expected minimum of 5. [c] CASIC scores of 3 or more can be used as evidence of pedophilic/hebephilic interests (Eke et al., 2018) [†] Marginal significance.

Table 8. Recidivism outcomes distinguishing CP-only offenders and CP offenders with other known criminal involvement either pre-index or at index

Recidivism outcomes on the basis of new arrests: n (%)		Total sample ($N = 347$)	CP only ($n = 283$; 81.6%)	CP + nonviolent and/or nonsexual violent offending ($n = 46$; 13.3%)	CP + contact sex offending ($n = 18$; 5.2%)	Comparison statistic
Any reoffense		32 (9.2)	19 (6.7)$_a$	9 (19.6)$_b$	4 (22.2)$_b$	$p = .003^a$, $V = .183$
Any violent reoffense		9 (2.6)	3 (1.1)$_a$	3 (6.5)$_b$	3 (16.7)$_b$	$p = .001^a$, $V = .237$
	Unknown	*1 (.3)*	*1 (.4)*	*0 (0)*	*0 (0)*	
Any non-violent reoffense		24 (6.9)	16 (5.7)	6 (13)	2 (11.1)	$p = .11^a$, $V = .105$
	Unknown	*1 (.3)*	*1 (.4)*	*0 (0)*	*0 (0)*	
Any sexual reoffense		19 (5.5)	13 (4.6)	3 (6.5)	3 (16.7)	$^\dagger p = .08^a$, $V = .119$
Any contact sexual reoffense		5 (1.4)	1 (.4)$_a$	1 (2.2)$_{a, b}$	3 (16.7)$_b$	$p < .001^a$, $V = .303$
	Unknown	*1 (.3)*	*1 (.4)*	*0 (0)*	*0 (0)*	
Any non-contact sexual reoffense		13 (3.7)	11 (3.9)	2 (4.3)	0 (0)	$p = .85^a$, $V = .047$
	Unknown	*1 (.3)*	*1 (.4)*	*0 (0)*	*0 (0)*	
Any CP reoffense		12 (3.5)	10 (3.5)	2 (4.3)	0 (0)	$p = .83^a$, $V = .047$
	Unknown	*1 (.3)*	*1 (.4)*	*0 (0)*	*0 (0)*	
Any non-sexual reoffense		14 (4)	6 (2.1)$_a$	6 (13)$_b$	2 (11.1)$_{a, b}$	$p = .001^a$, $V = .205$
Any failure on conditions		4 (1.2)	1 (.4)$_a$	3 (6.5)$_b$	0 (0)$_{a, b}$	$p = .01^a$, $V = .197$
More than one new arrest		8 (2.3)	3 (1.1)$_a$	4 (8.7)$_b$	1 (5.6)$_{a, b}$	$p = .009^a$, $V = .179$

Note. Some data are missing, so group sizes vary across variables. Each subscript letter denotes a subset of the row category whose column proportions do not differ significantly from each other at the $p < .05$ level (using the Bonferroni correction). Values in bold were statistically significant.

[a] The Freeman-Halton extension of Fisher's exact test was calculated for a 2 × 3 contingency table in which one or more cells did not mean the expected minimum of 5. [†] Marginal significance.

Table 9. Backward stepwise (Wald) logistic regression for contact sexual offending

Predictors	β	S.E.	Exp(β)	95% CI
Step 1				
More boy CP	2.09*	1.01	8.09	1.12, 58.42
0 severity level	2.59*	1.09	13.37	1.59, 112.26
3 severity level	3.05**	1.13	21.14	2.33, 191.67
Webcam	42.43	47368.92	2.68E+18	−
Admission made to others	-21.11	40192.97	.00	−
CP narratives	1.40	1.39	4.05	.27, 61.71
Step 2				
More boy CP	2.21*	1.01	9.12	1.25, 66.57
0 severity level	2.3*	.10	9.97	1.41, 70.38
3 severity level	2.78**	1.07	16.18	2.01, 130.34
Webcam	21.35	25059.89	1867916387.53	−
CP narratives	1.66	1.33	5.27	.39, 70.91
Step 3				
More boy CP	2.38*	.99	10.82	1.57, 74.62
0 severity level	2.39*	.99	10.94	1.58, 75.59
3 severity level	2.80**	1.05	16.43	2.09, 129.36
CP narratives	1.66	1.30	5.25	.41, 67.34
Step 4				
More boy CP	2.12*	.91	8.29	1.41, 48.84
0 severity level	2.82**	.95	16.85	2.63, 108.10
3 severity level	3.07**	1.00	21.44	3.01, 152.90

Note. R^2 = .38 (Hosmer & Lemeshow); .21 (Cox & Snell); .46 (Nagelkerke). β = regression coefficient; S.E. = standard error; Exp(β) = exponentiated β; CI = confidence interval. * $p < .05$, ** $p < .01$.
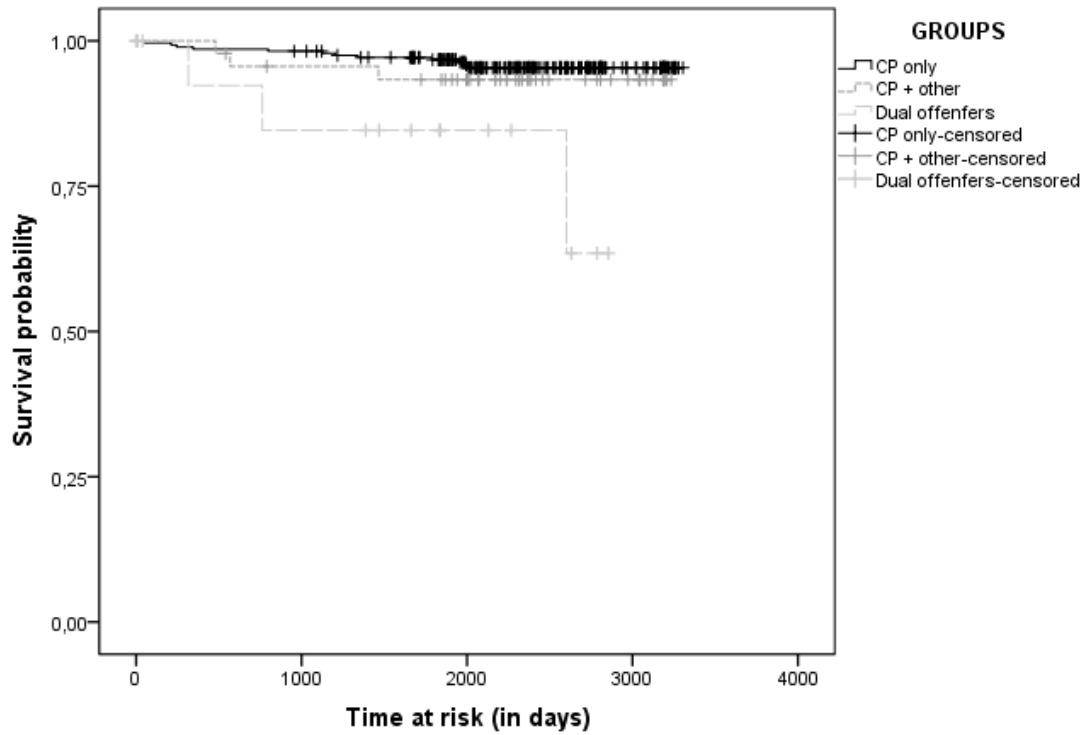
Figure 1. Kaplan-Meier survival plot for sexual recidivism distinguishing between type

of CP offender