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Abstract | Child exploitation material (CEM) is sexually abusive images of children that are typically disseminated via the internet. This paper reviews recent literature to establish a profile of those who view or collect CEM.

CEM offenders are predominantly male, white, with an average age of between 35 and 45 and they are often single. They also tend to be better educated and are more likely to work in professional occupations than other sexual offenders.

CEM offenders tend to be less assertive, less dominant and less socially confident than other sexual offenders and show higher levels of sexual deviancy. They are also more likely to sexually fantasise about children.

They tend to have few previous convictions and are at low risk of reconviction.

This study will help law enforcement and corrections practitioners to target resources towards this offending group.

What is the profile of child exploitation material offenders?

Rick Brown and Samantha Bricknell

Child exploitation material (CEM), often referred to as child pornography, is sexually abusive images of children (Krone & Smith 2017). The creation, access and dissemination of CEM is a form of child sexual exploitation offending that has proliferated and diversified through the advent of the internet and associated technology. The internet provides an efficient infrastructure for large amounts of CEM to be uploaded, shared, stored and concealed. It also allows widespread contact among producers and consumers of CEM in an environment that promotes anonymity. Common methods of distributing CEM, such as peer-to-peer networks, newsgroups and chatrooms (Mitchell et al. 2011; Wolak et al. 2011), can increasingly be accessed from mobile telecommunications platforms, which have improved in both geographic reach and service delivery. The distribution of CEM has also been hidden from law enforcement through improvements in internet protocol anonymisers, encryption and hard drive eraser software (Australian Criminal Intelligence Commission 2017).

Online CEM is now the predominant form of child exploitation material and a focus of law enforcement activity (Australian Criminal Intelligence Commission 2017). During 2016–17 the Australian Federal Police (AFP) received more than 10,000 reports about child sexual exploitation (not confined to CEM) and arrested 70 offenders on 118 charges (AFP 2017). The Office of the Children's eSafety Commissioner has also investigated large numbers of reports of online 'child sex abuse material'—7,400 investigations in 2015–16 and 10,000 in 2016–17 (ACMA & Office of the Children's eSafety Commissioner 2017, 2016). In the same period the Commonwealth Director of Public Prosecutions (CDPP) dealt with 270 indictable matters relating to the use of a carriage service to possess or control 'child pornography' material under s 474.19(1) of the *Criminal Code* (CDPP 2017).

This paper draws together the recent available evidence to describe the demographic, psychological and criminal offending profile of persons who view CEM and the extent to which this group of offenders exhibit a particular combination of traits relevant to their type of offending. This was undertaken to determine whether there were traits that differentiated CEM offenders from other types of offenders that could potentially assist with prevention, detection and treatment.

Terminology

Where appropriate, distinctions are drawn between 'CEM only offenders' (those who were identified as having committed only CEM-related offences), 'contact sexual offenders' (who were identified as only committing sexual offences involving physical contact with a victim) and 'mixed sexual offenders' (who were involved in both CEM and contact sexual offences). Where the generic term 'CEM offender' is used, no evaluation was made as to whether they had also committed contact sexual offences, but they were known to have committed CEM offences.

A further distinction is drawn between contact child sexual offenders and contact sexual offenders in general. Where child victims are known to have been involved, the offenders are termed 'contact child sexual offenders'; otherwise the more generic term 'contact sexual offender' is used to signify child and/or adult offending. No distinction is made between convicted offenders and undetected or unconvicted offenders, as this is a function of the variety of methodologies employed in the studies examined.

Method

Search strategy

Search terms describing the viewed material (child exploitation material, child pornography, erotica), the persons viewing the material (users, consumers, offenders, internet sex offenders) and the media (internet, images) were used to search five research databases—Proquest Criminal Justice, SocIndex, Criminal Justice abstracts with full text, Psychological and Behavioral Sciences Collection, and PubMed. Three journals, selected for their contribution to the subject matter, were also searched. These were the *Journal of Sexual Aggression, Sexual Abuse* and *Child Abuse and Neglect.*

The output was screened in two phases—the first by Australian Institute of Criminology library staff and the second by the authors (see Figure 1). Suitable studies were selected on the basis of the title and abstract and restricted to English language, peer-reviewed literature published from 2000 onwards. This identified studies conducted in Australia, Canada, France, Germany, New Zealand, Switzerland, the United Kingdom and the United States. Offenders were defined as those who viewed, downloaded and collected CEM. While some of these offenders will also have produced CEM and/or committed contact sexual offences, these offences were not the focus of the search strategy.

The second phase of screening was based on the abstract and restricted to studies of adult CEM offenders. Sixty-five publications were selected for final review and 49 of these were included in the study. Sixteen studies were excluded for a variety of reasons, most notably because they were solely discursive in nature, or because they were focused on methodology (eg development of risk assessment tools). The papers included in the analysis are presented in the *Bibliography* section, along with background papers (annual reports etc) not included in the original search. Background papers are marked with an asterisk to indicate they were not part of the literature search.

Figure 1: Literature search and appraisal process
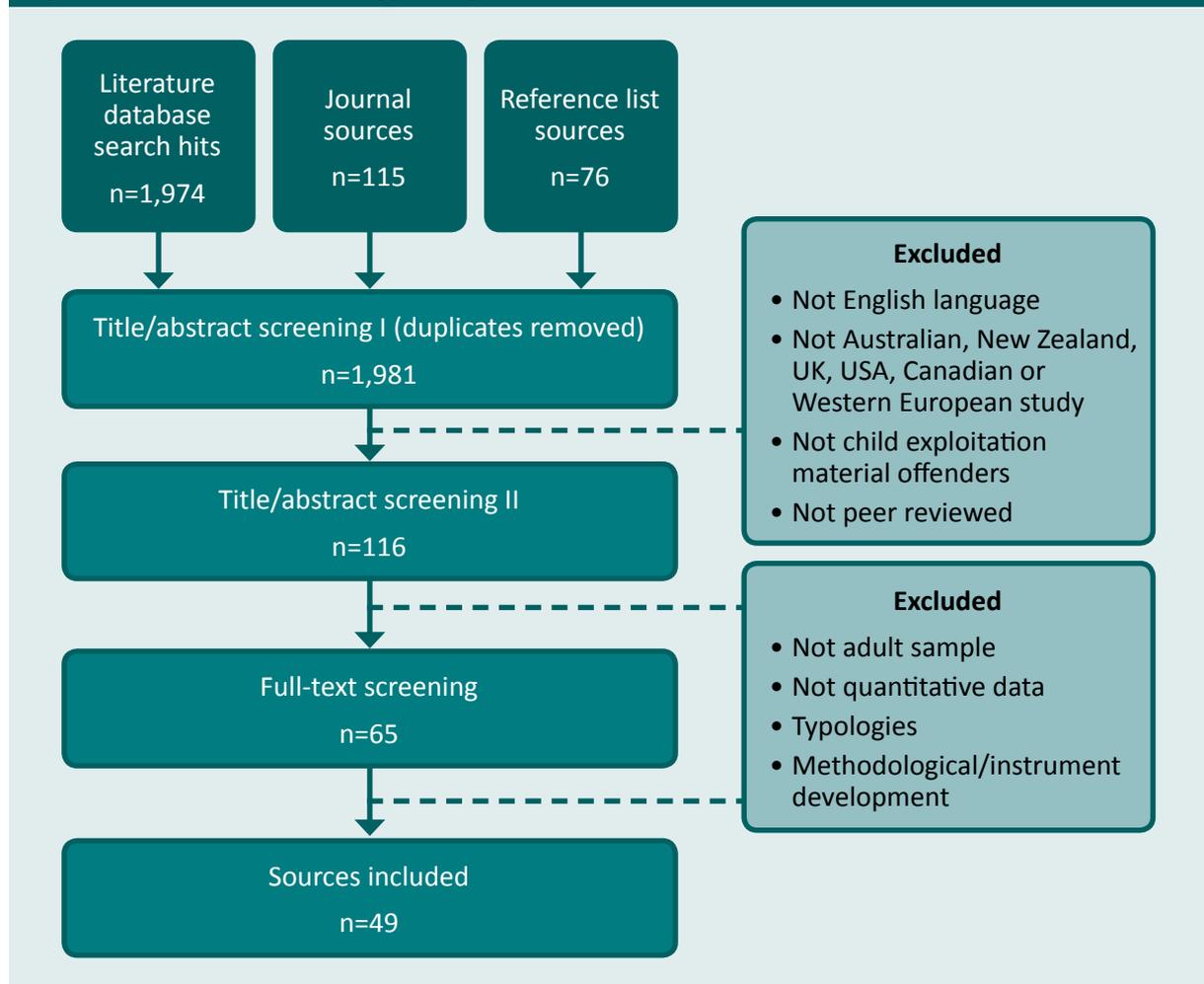
Results

Demographic characteristics

The demographic characteristics examined here were gender, age, ethnicity, marital status, parenting status, education and employment. It is important to note that the results, as with all the findings in this paper, were based largely on convenience samples of CEM offenders who chose to respond to surveys, or were apprehended by law enforcement, convicted, incarcerated, or subject to treatment programs—sometimes voluntarily and sometimes court-mandated. This raises questions about the extent to which these samples are representative of the wider population of both detected and undetected CEM offenders. Each of the convenience samples examined here will have been subject to filtering resulting from social factors (eg stigma associated with self-identifying as a CEM offender, trusting researchers enough to report offending) and legal processes (resulting from decisions made during investigation, prosecution and conviction).

Gender

CEM offenders are predominantly male. Most studies examined all-male samples, although Elliott and Ashfield (2011) and Seigfried-Spellar and Rogers (2010) examined the nature of offending by all-female samples. An online self-report survey of CEM offending found that a third of those who used CEM were female, although this was based on a sample of just 30 CEM offenders (Seigfried, Lovely & Rogers 2008). More often, where both genders were identified, female offenders constituted less than five percent of the sample. For example, a US study of 605 arrested CEM offenders found that less than one percent were female (Wolak, Finkelhor & Mitchell 2011), while a French study found that just three percent of CEM offenders referred for assessment by the court were female (Prat & Jonas 2012).

Age

CEM offenders tend to be older than the average offender. Across the 26 Australian and international studies that identified the mean age of the sample, 22 studies presented an average age of between 35 and 45 years. However, there is evidence that those whose sole offence was possession of CEM tended to be younger than those who had committed contact child sexual offences (whether or not they also possessed CEM) (Aslan & Edelmann 2014; Elliott, Beech & Mandeville-Norden 2013; Neutze et al. 2011; Seto & Eke 2015; Webb, Craissati & Keen 2007). A meta-analysis of six studies that compared the ages of online offenders (including both CEM and child luring offences) and contact child sexual offenders found that the average age of online offenders was 39 years compared with 44 years for contact child sexual offenders (Babchishin, Hanson & Hermann 2011).

Ethnicity

Although the ethnicities of offenders are seldom compared with the ethnic composition of the wider communities from which the samples were drawn, the studies examined suggest that at least 90 percent of CEM offenders are white (Aslan & Edelmann 2014; Clevenger, Navarro & Jasinski 2016; Faust et al. 2015; Navarro & Jasinski 2015; Shelton et al. 2016; Tomak et al. 2009; Wolak, Finkelhor & Mitchell 2005). Contrary to these findings, Ray, Kimonis and Seto (2014) found that just 65 percent of self-reported CEM offenders were white. Those who solely commit CEM offences are also more likely to be white than those that commit contact sexual offences (Faust et al. 2015; Magaletta et al. 2014; Navarro & Jasinski 2015; Webb, Craissati & Keen 2007). In support of this finding, Babchishin, Hanson and Hermann (2011) estimated that 8.2 percent of online offenders (including both CEM and child luring offenders) were classified as coming from minority ethnic backgrounds, compared with 35.4 percent of contact sexual offenders across three studies included in their meta-analysis.

Marital status

A high proportion of CEM offenders are single. Although definitions varied across the 21 studies that included details of marital status (single/never married, married, separated, divorced etc), the proportion that could be categorised as single ranged from 35 percent to 69 percent, with 13 studies reporting that more than 50 percent of their sample were single. Babchishin, Hanson and Hermann (2011) found that across nine studies that included marital status, 50.4 percent of online offenders (including both CEM and child luring offenders) were classified as having never been married, compared with 30.9 percent of the general population. CEM only offenders may also be more likely to be single than contact sexual offenders (Armstrong & Mellor 2016; Aslan & Edelmann 2014; Elliott, Beech & Mandeville-Norden 2013; Jung et al. 2013; Seto & Eke 2015).

Parenting status

Many CEM offenders do not have biological children or live with children. Across 11 studies that addressed parenthood, the proportion of CEM offenders who were parents ranged from 25 percent to 47 percent. There is also evidence to suggest that CEM only offenders were less likely to have children than contact sexual offenders (Babchishin, Hanson & VanZuylen 2015; Elliott, Beech & Mandeville-Norden 2013; Seto et al. 2012).

Education

CEM offenders tend to be better educated than other offenders. Across 11 studies that provided a measure of education, the proportion of CEM offenders who had undertaken study beyond high school ranged from 21 percent to 72 percent. In eight of those studies, more than 50 percent had studied beyond high school. CEM offenders also tend to be better educated than contact sexual offenders. For example, Seto et al. (2012) and Faust et al. (2015) found that CEM only offenders had more years of education than contact sexual offenders. Armstrong and Mellor (2016), Jung et al. (2013) and Seto and Eke (2015) each found that CEM only offenders were more likely to have a higher level of education than contact sexual offenders. Further, a meta-analysis of 15 studies by Babchishin, Hanson and VanZuylen (2015) found that contact child sexual offenders were more likely to have a lower level of education when compared with CEM only offenders.

Employment

While few comparisons are made with the general population, there is some evidence to suggest that many CEM offenders are employed and in professional positions. For example, Clevenger, Navarro and Jasinski (2016), Tomak et al. (2009) and Wolak, Finkelhor and Mitchell (2011) each found that 70 percent or more of CEM offenders were employed. Endrass et al. (2009) found that 45 percent of their sample worked in positions requiring a university diploma, while Seto and Eke (2015) found that 35 percent of CEM offenders worked in professional occupations. However, Babchishin, Hanson and Hermann (2011) found that online offenders (including both CEM and child luring offenders) were more likely to be unemployed than the general population (14.7% vs 5.8%). In contrast, CEM only offenders were around twice as likely as contact sexual offenders to be employed (Armstrong & Mellor 2016; Aslan & Edelmann 2014; Neutze et al. 2011; Seto & Eke 2015).

Psychological characteristics

The psychological profile of male CEM offenders appears to be different to that of contact child sexual offenders and mixed sexual offenders (and the general population), although findings are not conclusive (see, for example, Jung et al. 2013; Webb, Craissati & Keen 2007). Generally, CEM only offenders are characterised as having poorer socioaffective traits; specifically, they are less assertive, less dominant, less socially confident or connected and less able to manage their emotions compared with contact sexual offenders and mixed sexual offenders (Bates & Metcalf 2007; Elliott et al. 2009; Houtepen, Sijtsema & Bogaerts 2014; Magaletta et al. 2014). The observation that CEM only offenders experience lower self-esteem and greater emotional loneliness (Henry et al. 2010; Houtepen, Sijtsema & Bogaerts 2014), however, is not supported by the majority of studies (Babchishin, Hanson & Herman 2011).

The psychological profile of female CEM offenders is less developed, due to the small number of offenders identified and the lack of comparability with male offenders. Seigfried-Spellar and Rogers (2010) found that females who self-reported the use of CEM (n=10) differed from females who did not use CEM in only two of the personality traits measured in the study. Female CEM users were described as exhibiting lower levels of neuroticism and a greater inclination to seek pleasure, impervious to internal or social values.

While CEM offenders are recognised as a heterogeneous group, little attention has been paid to exploring the heterogeneity of psychological characteristics of CEM offenders. Three clusters of CEM offenders were described by Henry et al. (2010) based on a sample of male offenders convicted of internet sexual offences in the United Kingdom. These clusters were based on categorisations that were originally developed from research on men who had committed contact sexual offences. The largest (or 'normal') cluster (n=146) consisted of CEM offenders who were similar to the general population except for having lower self-esteem. The second (or 'emotionally inadequate') cluster (n=107) did not demonstrate attitudes that supported offending behaviour, but did display low self-esteem, under-assertiveness and emotional loneliness. The third (or 'deviant') cluster (n=107) consisted of CEM offenders who combined low self-esteem and greater emotional loneliness with a greater propensity to cognitive distortions. This group also exhibited a lack of victim empathy and exaggerated cognitive and emotional affiliation with childhood (Henry et al. 2010).

Cognitive distortions

Other researchers have also argued that CEM offending may be supported by cognitive distortions, or belief systems that permit or justify specific behaviour (Brumby 1996; Helmus et al. 2013). Ward and Keenan (1999) proposed that cognitive distortions exhibited by child sex offenders are based on five notions:

- children as sexual beings—that children are capable of making decisions about sex;
- entitlement—that the needs of some override those of others;
- dangerous world—that the nature of the world necessitates dominance over others;
- uncontrollability—that the behaviour is not controllable; and
- nature of harm—that children are not necessarily harmed by sexual activity with an adult.

Previous studies indicated that, compared with contact child sexual offenders, CEM offenders exhibited greater empathy towards child victims and were generally less supportive of beliefs that children are sexual beings (Bates & Metcalf 2007; Babchishin, Hanson & Hermann 2011; Babchishin, Hanson & VanZuylen 2015; Henry et al. 2010; Merdian et al. 2014). However, Howitt and Sheldon (2007) described greater individual cognitive distortions among CEM only offenders in which they minimised the harms associated with CEM offending and assumed children were sexually willing. Some of the variation in studies on cognitive distortions among CEM offenders relates to the psychometric properties of the assessment tools used and the validity of assessment items to CEM offenders. A study using qualitative responses from practitioners found greatest consensus for the theory that CEM offenders perceived children as sexual beings (68.8% of practitioners interviewed), with less support for the other notions listed above (Kettleborough & Merdian 2017).

Mental health

Data on the prevalence of mental health conditions among CEM offenders are scarce. Over half of all males (54%; n=25) referred to a New Zealand community-based treatment service between 2005 and 2011 for accessing CEM were assessed as experiencing depression and over a third (35%; n=13) were described as having anxiety or phobias (Price, Lambie & Krynen 2015). A similar proportion of adult male CEM offenders who participated in a sex offender treatment program in New York were diagnosed with anxiety (35%; n=37) and 29 percent (n=31) were diagnosed with depression (McCarthy 2010). There were no statistically significant differences in the diagnosis of depression or anxiety between CEM only and contact sexual offenders. Among Australian CEM only offenders referred for treatment in Nielssen et al.'s (2011) study, 30 percent (n=32) had a 'minor' psychiatric disorder (including depression and anxiety) and 21 percent (n=22) had a major psychiatric disorder. The sample included men who had been detected electronically committing CEM offences and men who had been detected by other, unspecified means. Men in the former group were statistically less likely to have a major psychiatric disorder—12 percent (n=6) compared to 30 percent (n=16) (Nielssen et al. 2011).

Measures of CEM offender contact with mental health services have produced variable results. Forty-one percent (n=37) of CEM only offenders in Webb, Craissati and Keen's (2007) study of child sex offenders had had contact with a mental health service compared with 21 percent (n=25) of contact child sexual offenders. Aslan and Edelmann (2014) found that 34 percent of CEM only offenders, 21 percent of contact child sexual offenders and 34 percent of mixed offenders had had no contact with a mental health service. However, Jung et al. (2013) and Faust et al. (2015) found no significant difference in mental health service contact between CEM only offenders and contact child sexual offenders.

Offending characteristics

Offending characteristics can be divided into two categories—offending prior to committing the CEM offences under investigation and recidivism following an official sanction for CEM offences. This section focuses on the association between contact sexual offending and CEM offending.

Previous offending

CEM only offenders do not typically have previous official offending histories for contact sexual offences. Across eight studies that examined previous contact sexual offending using official criminal justice measures (records of arrest or conviction), the proportion who had a history of contact sexual offences ranged from 1.0 percent to 11.2 percent. However, Clevenger, Navarro and Jasinski's (2016) analysis of the National Juvenile Online Victimization Study in the United States found that prior arrests for sexual offences did not predict CEM possession when controlling for other factors. Beyond these official measures of offending history, there is some evidence to suggest that the prevalence of actual offending may be much higher. Seto, Hanson and Babchishin's (2011) meta-analysis of six studies estimated that self-reported prior contact sexual offending by CEM offenders ranged from 51.4 percent to 60.0 percent. Further, the prevalence of previous sexual offending tended to be lower among those whose current offence was solely CEM possession (CEM only offenders), compared with contact sexual offenders or mixed offenders (Babchishin, Hanson & VanZuylen 2015; Elliott et al. 2009; Long, Alison & McManus 2013; McCarthy 2010).

Recidivism

Rates of reoffending following the detection of a CEM possession offence vary according to the type of offence examined and the length of follow-up. For example, Seto and Eke (2005) found that over an average follow-up period of 2.5 years, 3.9 percent of CEM offenders committed another CEM offence and 1.3 percent committed a contact sexual offence. Faust et al. (2015) found that 1.6 percent of CEM offenders were arrested for a further CEM offence within an average follow-up period of 4.8 years. Over the same time span, 3.0 percent were arrested for a contact sexual offence. Seto and Eke (2015) found that seven percent of those who solely committed CEM offences committed a further CEM offence—that is, they were charged or convicted—within five years. Three percent were charged with or convicted of a contact sexual offence within that time span. Over a six-year follow-up, Endrass et al. (2009) found that 2.6 percent of CEM offenders committed a further CEM offence and none committed a contact child sexual offence.

Taken together, these findings show that over follow-up periods that vary from 2.5 years to six years, the proportion of CEM only offenders who commit a further CEM offence ranges from 1.6 to seven percent. Further, the meta-analysis by Seto, Hanson and Babchishin (2011) found that, over a follow-up period of between 1.5 and six years, 3.4 percent of online offenders committed a further CEM offence and 2.0 percent committed a contact sexual offence. There is some evidence to suggest that rates of reoffending by CEM only offenders are generally lower than those of contact sexual offenders (Eke, Seto & Williams 2011; Seto & Eke 2015, 2005).

Conclusion

This study aimed to synthesise recent research on the profile of CEM offenders. As is often the case, this is limited by the significant variation in the methodologies employed and the samples examined, which means there are caveats to the findings presented here. This paper reviewed studies that used secondary analysis of criminal justice data to examine convicted offenders and studies that used primary data collection, principally through online surveys of convenience samples. While the former were mainly used to examine differences between groups of sex offenders, the latter were used to reveal otherwise hidden offending and to explore the social and psychological characteristics of offenders. Absent was a body of research that examined the prevalence of CEM offenders in the wider community. Despite the shortcomings of each of the methodological approaches examined here, there are a number of conclusions that can be drawn to help generalise what is known about CEM offenders.

Where the demographic profile of CEM offenders is concerned, there is evidence that they are predominantly male and white. They tend to be a little older than the average offender, with the majority aged between 35 and 45 years, although they tend to be younger than contact child sexual offenders. Further, CEM offenders are often single, and many are in professional occupations. They are often better educated than contact child sexual offenders.

CEM offenders tend to be less assertive, less dominant and under-socialised. They also show higher levels of sexual deviancy than contact and mixed sexual offenders and are more likely to sexually fantasise about children. From a mental health perspective, a significant number present with anxiety and/or depression.

In general, less than one in 10 has a previous criminal justice sanction for a contact child sexual offence, although this may mask much higher actual rates of offending. Few CEM offenders go on to reoffend—either with a further CEM offence or with a contact child sexual offence—and they are less likely to reoffend than contact child sexual offenders.

These general findings suggest that the profile of CEM offenders may be different to that of other types of sexual offenders, especially those who commit contact sexual offences against children. Less is known about how similar or different CEM offenders are to the general population, although there is tentative evidence to suggest they may be different in certain important respects.

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