Clayton, E., Jones, C., Brown, J. and Taylor, J. (Accepted 7.2.18) The aetiology of child sexual abuse: a critical review of the empirical evidence. *Child Abuse Review*.

ABSTRACT

This paper reports the results of a critical review of empirical evidence relating to the aetiology of child sexual abuse published over the last fifteen years. The current review found that the psychology, criminal history and prior victimisation of the perpetrator and the gender, disability status, sexuality and family circumstances of the victim are important risk factors for child sexual abuse. Offence characteristics such as the offender-victim relationship, modus operandi of the perpetrator and absence of a capable guardian are also found to be important markers of risk. We make suggestions for future research frameworks and designs and we discuss the implications of the evidence for future primary prevention initiatives, practice and policy. We use this evidence to make recommendations for the development of child maltreatment theory more generally.

KEY PRACTITIONER MESSAGES

- Practitioners working with perpetrators should note that our understanding of CSA
 perpetration is not well advanced and it is likely to be far more complex than current
 understandings.
- Practitioners should be aware of the intersectionality that exists between cultural and sociocultural influences for CSA.
- Practitioners working with children should note that the causes and consequences of
 CSA are both different to and the same as other forms of maltreatment, but we do not
 yet have sufficiently nuanced evidence to say how much these diverge and converge.

 The evidence is mixed and difficult to interpret regarding offenders' own childhood experiences of CSA.

KEY WORDS: Child sexual abuse, primary prevention, aetiology.

INTRODUCTION

Child sexual abuse (CSA) is a major social concern and public health issue (Stoltenborgh, Bakermans-Kranenburg, Alink, & van IJzendoorn, 2015), Unicef (2014) estimated that well over 120 million children world-wide have experienced CSA, and the National Society for the Prevention of Cruelty to Children (NSPCC) estimated that the cost of CSA in the United Kingdom (UK) in 2012 alone was approximately £3.2bn (Saied-Tessier, 2014). In the UK, high profile police investigations and government inquiries have led to greater public attention, increased reporting of non-recent abuse and the UK Home Office has invested £7.5m in a national Centre of Expertise on CSA (csacentre.org.uk). Although reporting of CSA has increased to its highest rate in recorded history with 9% of adults reporting childhood experiences of CSA (ONS, 2016) it remains significantly under-reported across the world (Unicef, 2014). Research exploring the global prevalence of CSA suggests that approximately 18% of women and 8% of men report having experienced sexual abuse in their childhood (Stoltenborgh et al., 2011). Although there is evidence to suggest that the worldwide prevalence of contact CSA is declining (Laaksonen et al., 2011), the scale and scope of CSA indicate an urgent need to address the problem (Stoltenborgh et al., 2011). While there has been sustained focus on the sequelae of CSA and on treatment and remediation practices aimed at tertiary preventions for CSA (Mustaine, Tewksbury, Corzine, & Huff-Corzine, 2014) less is known about the aetiology of CSA and effective primary preventative strategies that can be built into policy and practice.

CSA is detrimental to mental and physical health and wellbeing in both the short and long term (Paolucci, Genuis, & Violato, 2001). Aetiological theories of CSA attempt to identify risk factors, causes, or conditions that lead to the perpetration of CSA. These have been influenced significantly by Bronfenbrenner's (1977) ecological model of human development and later by Belsky's (1993) model of child maltreatment. Bronfenbrenner's model conceptualises a child's development as influenced by the systems in which the child is embedded: family and other immediate contexts, wider networks beyond the child, and sociostructural and cultural factors. These systems are hypothesised as exerting proximal and distal influences that shape a person's development (Bronfenbrenner, 1977). Belsky drew from this model to advance an ecological model of the aetiology of child maltreatment and this has been applied to CSA research. According to Belsky's model a child's likelihood of being maltreated is influenced by the interactions between the different systems that surround the child (Hanson & Morton Bourgon, 2004; Nadan et al, 2014).

Aetiological models of CSA have been influenced significantly by such ecological theories. Finkelhor (1984) for example combined psychological, situational, and cultural factors to explain the conditions required for the perpetration of CSA. These theories have become increasingly complex over time; other models developed since the 1980s have attempted to weave together in complex ways biological, psychological, developmental and cultural explanations of the aetiology of CSA (e.g. Hall & Hirschman, 1991; Marshall & Barbaree, 1990; Ward & Beech, 2006; Ward & Siegert, 2002). Increasingly, attention has been paid to the influence of situational characteristics on CSA perpetration. For instance, Smallbone et al. (2013) developed a model of CSA that combines biological, developmental, ecological and situational factors, integrates situational crime prevention theory, and emphasises personsituation interactions and proximal influences of offence-specific characteristics.

Aetiological theories of CSA over the last 35 years are thus strongly supported by an ecological framework and have arrived at a conceptualisation of CSA as caused by multiple factors at many levels of influence. Despite this expanding knowledge base, the last major review of empirical research exploring the aetiology of CSA, of which we are aware, was conducted by Black et al in 2001, whose key findings are summarised in Table 1.

[Insert Table 1 about here]

METHODS

Aims

This review aimed to explore the evidence relating to risk factors for CSA published since Black et al's (2001) review to assess developments in this field over the subsequent 15 years, to expand on this evidence base and to explore the evidence in terms of its implications for primary prevention.

Definitions and parameters of the review

A broad definition of CSA was required to enable the review to capture evidence pertaining to many various forms of CSA and to allow consideration of commonalities and differences within and between types of CSA. We adopted The World Health Organization (WHO) definition which defines CSA as:

"...the involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared, or else that violate the laws or social taboos of society" (Butchart, et al., 2006, p. 10)

Although we recognise that sexual abuse of children by their peers is a widespread phenomenon in need of attention, this was beyond the scope and scale of this review. We also

recognise that in recent years there has been considerable research into online CSA offending. We believe this warrants a separate review and this was also excluded from the review. This article therefore refers to offline CSA offences only.

We adopted a critical review methodology as this is useful when analysing a body of work which spans several disciplines and approaches (Grant & Booth, 2009). To ensure rigour we employed a systematic search strategy which was refined iteratively and documented at each stage.

Inclusion and Exclusion Criteria

The review included published, empirical research (both qualitative and quantitative) that focused on the aetiology of CSA. The studies included in this review: (a) were published in a peer-reviewed journal; (b) reported empirical research; (c) analysed CSA separately from other types of child maltreatment; (d) did not focus solely on online sexual abuse; (e) were published in the English Language; (f) were published between 2000 and 2015. Studies were only included if they included CSA experiences that met the definition of CSA as outlined by WHO.

Search Strategy

This review focussed on an international area of investigation that spans many professional and academic boundaries. Comprehensive interdisciplinary database coverage was essential. Using [insert name and institution after review]'s online search tool, we conducted an advanced search using the following search string, which was developed and refined via a pilot scoping exercise of free text searches on ASSIA and CINAHL Plus online databases. [Insert tool] interrogates over 90 online databases simultaneously. All returns were exported to reference management software Endnote.

(etiology OR aetiology OR ecology* OR risk* Or factor*) AND (sex* abuse OR "adverse childhood experience" OR ACE OR assault* OR exploit* OR "genital mutilation" OR FGM OR incest* OR molest* OR violen*) AND (perpetrat* OR offen* OR paedophil* OR pedophil* OR parent* OR guardian* OR rapist* OR rape*) AND (child* OR adolescen* OR baby OR babies OR infant* OR young* OR youth* OR teenage*).

Screening and data extraction

Full text articles were retrieved for all returns and were screened first according to title and abstract. The second screening involved an interrogation of methods, results, and discussion sections where it was unclear if studies met the inclusion criteria from screen one.

All articles were screened according to the following hierarchy of exclusion:

- 1) Not CSA: articles that did not match our definition of CSA e.g. domestic violence.
- 2) Not aetiology: articles that were not focused on the risk factors for CSA e.g. effects studies.
- 3) Not research: articles that did not report empirical research that included replicable methods e.g. theoretical articles, editorials, or single case studies.

Only studies which achieved consensus from the whole team were included. Where it was unclear that an article fit the criteria, all members of the team reviewed and the team decided upon the article's inclusion or exclusion. There were no disputes. We mitigated against the risk of bias by having this article reviewed by an external colleague who was not familiar with the research but is familiar with CSA literature. A standardised electronic abstraction proforma was developed for included articles and demographic and bibliographic details were extracted alongside design, methods, sample size, measures and results.

Supplementary searches

In order to address any potential limitations with the [Insert tool here] database system, we conducted additional hand searches of all issues from January 2000 of Child Abuse & Neglect as this was the most frequent source in our included articles. We also conducted a separate Google Scholar search using free text combinations of the following broader search terms: child sexual abuse; child sexual exploitation; neighbourhood; situation/situational; society; culture/cultural; feminism.

RESULTS

After the removal of duplicates and papers not meeting the inclusion criteria, plus the supplementary searches, a total of 34 papers were included in the review (Figure 1).

[Insert figure 1 about here]

Results were organised into the categories: perpetrator correlates, victim correlates, victim family correlates, and offence characteristics. The included articles are summarised in the accompanying online table.

PERPETRATOR CORRELATES

Variables pertaining to the perpetrator were the most frequently studied and reported. Most studies that reported perpetrator variables (n=17) used samples of convicted male offenders (n=11). Data were generated from self-reports, case reports and standardised measures.

Psychological Characteristics

CSA offenders may experience a variety of psychological problems such as: neuroticism (Becerra-Garcia, Garcia-Leon, & Egan, 2012) personality disorders (Bogaerts et al 2005), depression and low mood (Carvalho & Nobre, 2013; Craissati, Webb, & Keen, 2008; These psychological problems may be characteristic of sex offenders in general, for instance Craissati et al. (2008 found that both adult sexual abuse (ASA) and CSA offenders reported similar and high levels of depression. Perpetrators of CSA may exhibit cognitive distortions which support their CSA perpetration, for instance Ganon and Alleyne's (2013) systematic review of 13 studies exploring offence-supportive attitudes of female CSA offenders found that the majority of participants displayed cognitive distortions such as viewing the abuse as not harmful to the victim. Similarly, Nunes et al. (2007) found that in their sample the male CSA offenders were significantly more likely than the male non-CSA offenders to view children as sexually attractive. We are careful to bear in mind that diagnostic tests and self-report of mental health problems are mostly under-taken post-arrest, and therefore these factors may be a consequence of arrest rather than an antecedent of offending behaviours.

Criminal History

Four studies reported on offenders' previous criminal history. Becerra-Garcia at al. (2012) reported that in their sample of adult male CSA offenders 39.3% had prior criminal convictions, although these were not always for CSA offences. Smallbone and Wortley (2001) found that 62.9% of their sample of male CSA offenders had a previous conviction, but that their previous convictions were two times more likely to have been for a non-sexual offence than for a sexual offence. Elliot et al.'s (2010) study of female perpetrators found that 14% had previous criminal convictions. There may also be within-group differences between different types of CSA offenders as Neutze et al. (2011) found that CSA offenders convicted

of contact offences against children were more likely to be known to criminal justice systems than CSA offenders who were convicted of possessing indecent images of children. These findings suggest that CSA offending behaviour may be linked to the factors that increase the likelihood of engaging in offending behaviour more generally. However, this finding needs to be considered alongside the known under-reporting of CSA offences (Csáky, 2008).

Perpetrator Experiences of Abuse

In relation to perpetrators' own developmental experiences there is evidence that perpetrators may have been victims of abuse (sexual, emotional, and/or physical) in their own childhood. In a three-arm comparison of childhood victimisation experiences of CSA offenders, offenders of violent crimes, and offenders of nonviolent crimes, CSA offenders were significantly more likely (60.6%) than violent offenders (18.2%) and non-violent offenders (28%) to report CSA (Stirpe & Stermac, 2003). Smallbone and Wortley (2001) found 55% of their sample of incarcerated male CSA offenders reported at least one CSA experience in their childhood. Strickland (2008) found in a sample of female offenders that the CSA offending group scored significantly higher than the non-CSA offending group on measures of childhood trauma and abuse, particularly for CSA. Two studies (Craissati et al., 2008; Simons, Wurtele, & Durham, 2008) reported that CSA offenders reported significantly more CSA victimisation experiences than ASA offenders, indicating that CSA victimisation may be related more closely to CSA offending than other types of sexual offending. However social desirability biases may skew the evidence, for example Stirpe and Stermac (2003) suggest that it is possible that CSA offenders in their sample exaggerated their childhood experiences in an attempt to excuse their CSA offending behaviour.

VICTIM CORRELATES

The findings on victim characteristics indicate that victims of CSA are a diverse and heterogeneous group. Fifteen studies reported findings for victim correlates, including risk factors associated with the victim directly and vicariously, such as risk factors associated with parental configuration.

Gender

In keeping with a prevalence meta-analyses by Stoltenborgh et al. (2011) which found that girls are over twice as likely to experience CSA than boys, the findings reviewed in our study indicated that female children are at significantly higher risk than male children for CSA victimisation although the experiences of boys are likely to be underrepresented. In two separate studies (Becerra-Garcia et al., 2012; Simons et al., 2008) offenders self-reported that the majority of their victims were female; conversely, Smallbone and Wortley (2001) found that approximately 74% of victims were males, according to offender self-report.

Additionally, regardless of gender of victim female perpetrators are less likely than male perpetrators to be reported (Gannon & Alleyne, 2013).

Disability/Intellectual ability

Four studies reported on the association between child disability and CSA victimisation. Kvam (2004) found that deaf adult females in their sample reported CSA victimisation more than twice as often (45.8%) as hearing females, and that deaf males reported CSA victimisation more than three times as often (42.4%) as hearing males. Spencer et al. (2005) reported on a retrospective nineteen-year whole population sample in the UK and found that registration by social services for sexual abuse was over six times higher for children with moderate to severe learning difficulties and seven times higher among children with conduct disorders. Butler (2013), in a prospective cohort study of 1087 girls and their primary caregivers and household heads found that girls scoring below the lowest tenth percentile in

reading and maths, and girls who were referred for special education were significantly more likely (OR 2.73 and 2.06 respectively) to experience CSA victimisation. There is evidence to suggest that disability acts as a moderator variable on the association between CSA and gender. Two studies (Kvam, 2004; Mueller-Johnson, Eisner, & Obsuth, 2014) report that the relationship between gender and CSA is mediated by disability, which places boys with disabilities at three times higher risk than boys without disabilities. However, Mueller-Johnson et al. (2014) reported that girls with physical disabilities were not more likely to experience contact CSA than girls without physical disabilities.

Age

Four studies reported findings regarding the relationship between age and CSA but a general consensus on age was not reached. There is evidence to suggest that CSA victimisation is more likely to occur in later childhood, that is, age 11 or older (Becerra-Garcia et al. 2013) and that CSA with penetration is more likely to occur for children in the older childhood age range; Leclerc et al., (2009, p.208) found that per unit-increase in child's age from age 1 to 13 years the risk of penetration increased 1.25 times. Levenson et al. (2008) found that offenders who victimised younger children were more likely to perpetrate against both genders than a CSA offender with older victims. There is also evidence to suggest that children who experience CSA in early childhood may be at higher risk of re-victimisation (Barnes et al., 2009).

Sexuality

Two studies reported that homosexual women are at greater risk than heterosexual women for CSA victimisation. Both used retrospective surveys administered in adulthood to determine CSA experience. Stoddard et al. (2009) found in their study of 324 lesbian/heterosexual sister pairs, that lesbians were over 1.5 times more likely than their heterosexual female siblings to

report CSA victimisation experiences and that male relatives were most often identified as the perpetrator. Wilsnack et al. (2012) found that lesbians were significantly more likely (OR 3.07) to report CSA victimisation than heterosexual women and higher rates of abuse by a grandfather, stepfather or mother's boyfriend, and uncle were reported by lesbians than heterosexual women. Within our search parameters we found no research that explored the relationship between sexuality and CSA for males. It is not discernable from these studies whether the sexual identity of young women or girls was known at the time of abuse and if this contributed in some way to risk of sexual victimisation or whether the experience of abuse contributed to the women's decision to openly identify as lesbian. Wilsnack et al. (2012) report more severe abuse and greater use of counselling or psychotherapy services amongst lesbians and suggest that these could influence disclosure rates.

VICTIM FAMILY CORRELATES

Factors related to the victim's family were the least explored in the included studies, although two factors, parental configuration and abuse within the family, are supported by the evidence. All studies that included victim correlates focussed solely on female victims and so cannot be generalised to male victims.

Parental configuration

Butler (2013) found that the presence of both a biological father and biological mother was associated with a lower likelihood of experiencing CSA for girls. Stroebel et al. (2013) found that the presence of a step-father and absence of a biological father increased the risk for CSA in girls by approximately 3.2 times, although it is important to clarify that this abuse was not necessarily perpetrated by the step-father.

Abuse within the family

Two studies explored the relationship between abuse within the family and CSA victimisation. Stroebel et al. (2013) found that girls' reports of sexual abuse perpetrated by their father were five times higher when they also reported that there was physical or verbal abuse between their parents. Testa et al. (2011) found that mothers' CSA and sexual victimisation was positively associated with their daughters' reporting of CSA experiences.

OFFENCE CHARACTERSTICS

One new strand of research that has been pursued since 2000 explores the offence characteristics of CSA. These studies provide insights into commonalities in situations, relationships, and behaviour in the period leading up to CSA perpetration.

Offender-Victim Relationship

Stirpe and Stermac (2003) and Kvam (2004) found that the majority of CSA victims reported that the perpetrator was an acquaintance or known non-relative rather than a family member or stranger. In Kvam's study the abuse took place largely within institutions for deaf children and perpetrators were older students or people employed in the school. Stirpe and Stermac (2003) suggest that chaotic or violent home environments may create increased contact with and, therefore, risk of abuse by known individuals outside the home. Smallbone and Wortley (2001) found that offenders in their sample overwhelmingly reported knowing the child for longer than a year prior to committing the offence, and 71.1% of extra-familial offenders reported that the child's parents knew them and were aware that they had spent time alone with their child.

Location

The findings indicate that the location of CSA events is often an easily accessible place for the offender, such as their home or their car, or the victim's home. Columbino et al. (2011)

found that 75% of offenders committed the offence in a private rather than public location. Smallbone and Wortley (2001) found that the majority of cases of intra-familial offences occurred in the offender's home (83.3%) and the majority of cases of extra-familial offences occurred in the offender's home (45.8%) or a place known to the offender.

Modus Operandi

Research exploring offence characteristics consistently finds that offenders put considerable effort into manipulating the child and the child's environment in order to commit the abuse and that the abuse is premeditated. Smallbone and Wortley's (2001) research emphasised that the modus operandi of offenders depends on a gradual desensitisation or 'grooming' process, through which the offender emotionally manipulates the child and works towards sexual offending. DeCou et al. (2015) found that approximately half of the sample of female offenders reported the index offence as 'incidental' as though it were not planned; however, this study also found evidence for premeditation in the process of perpetration as over two thirds of the sample reported other inappropriate behaviour with children that alludes to premeditation, such as initiating discussions about sex.

Capable Guardian

In situational crime prevention theory, a 'capable guardian' is described as a person who can prevent an offence from occurring, sometimes simply by their presence. Two studies found that offenders were willing to take risks by perpetrating CSA in a situation where a capable guardian could potentially intervene. Leclerc et al. (2015) however reported that the presence of a capable guardian reduced the duration of a CSA event. Smallbone and Wortley (2001) found that some offenders reported that the parents of the child knew the offender and the child were spending time alone together and they may have suspected that the offender was perpetrating CSA.

DISCUSSION

Limitations of the review

Our screening strategy relied heavily on our definition of CSA and the parameters of this research. Our reliance on these parameters (such as excluding peer to peer abuse) resulted in studies being omitted as a result of failing to meet strict criteria despite having useful evidence to add regarding the aetiology of CSA. For instance, we are aware of one study (Pettingell et al. 2006) that provided evidence for the relationship between sexuality, gender, and CSA, but was excluded as it failed to clarify the age of the perpetrators. We did not apply quality judgements to our inclusions which resulted in a broad collection of studies, which had different foci, locations, methods, sample sizes, and sample designs which provided a variety of findings. Our methodology may also have been limited by database functions of [insert university tool name]. We also only included those studies published in English, which disadvantages our study from providing a comprehensive global review. Nevertheless, our systematic searching strategy, supplemented by our additional hand-searches are likely to have strengthened the comprehensiveness of this review.

There are several research and prevention implications. First, we address the implications for research frameworks and design and then address how our findings can support primary prevention initiatives and explore current avenues and future applications of these.

Research Framework

The evidence strongly indicates that CSA is a multiply determined phenomenon and therefore supports the multi-factorial approach emphasised in current CSA theory. The causes and conditions leading to the perpetration of CSA are numerous, varied, and operate at different levels of influence. CSA is related to static factors such as victim disability; dynamic factors such as offence location; proximal factors such as perpetrator psychology; and distal factors

such as perpetrator childhood experiences. A recent review of risk and protective factors for physical and sexual abuse of children and young people in Africa (Meinck et al. 2015) found abuse correlated on all levels of the ecological framework. However, the research reviewed here focused primarily on the effects of single factors, such as perpetrator psychology, and did not explore the relationship between factors or the mechanisms by which factors interact. Noticeably absent from the research is evidence pertaining to community and sociocultural factors. It is important to question critically how different factors interact. For instance, the evidence indicated that girls are more at risk of CSA, however we do not know what mechanisms are operating to produce this increased risk for girls. Feminist theory hypothesises that culture enforces an unequal social structure that disadvantages women and girls. In addition, patriarchal structures may discourage boys from reporting or recognising their experiences as abusive. However, we found no studies exploring the intersections between gender identities and sociocultural constructs. Like Nadan et al. (2014) we argue that there is utility in adopting a research framework that encourages the simultaneous exploration of multiple and intersectional elements for understanding the aetiology of CSA perpetration.

Research design

Empirical research on CSA is extremely heterogeneous. A range of designs were employed in the study of CSA, such as cohort-control (e.g. Varma et al. 2015) and cohort (e.g. Spencer et al., 2005). However, the strength of the evidence is limited because the majority of studies depended on at least some evidence provided by retrospective recall, either by offenders (e.g. Smallbone & Wortley, 2001) or victims (e.g. Wilsnack et al., 2012). The majority of studies (n=29) used cross-sectional designs which means we are unable to ascribe causal directions to findings. Retrospective recall designs risk producing weak evidence as a result of recall biases and we note that social desirability biases may operate when researchers interview offenders (e.g. Stirpe & Stermac, 2003). The majority of studies (n=27) employed measures

which used an element of retrospective self-report. The research reviewed here was therefore unable to provide substantial evidence regarding the direction of causation, the strength of associations and the aetiological pathways for risk factors of CSA. However, this may reflect the complexity involved in researching the causes of complex and multi-determined phenomena such as CSA (Ward & Beech, 2016). Establishing the direction and strength of these relationships has implications for prevention: researchers, policymakers and practitioners need to know what factors cause CSA. Robust prospective research may help in providing these answers. However, we acknowledge that designing such research is not without its limitations. One of these limitations is that causes of CSA may also be consequences of CSA for instance, social isolation may increase the likelihood of a perpetrator targeting a child, but it is also reasonable to expect that social withdrawal is among the consequences of CSA.

Consistent with Black et al. (2001) the studies included in this review defined CSA in various ways: (a) perpetrators convicted of CSA offences (e.g. Smallbone & Wortley, 2001); (b) child or adult retrospective self-report of CSA experiences (e.g. Butler, 2013); (c) children who meet the criteria for CSA set out by a child protection agency or diagnosed by a medical professional (e.g. Spencer et al., 2005). Alongside this there are differences in the way terms were operationalised in research; a large amount of research regarding perpetrators used samples comprised of caught and convicted offenders (e.g. Stirpe & Stermac, 2003), and the terms 'perpetrator' and 'offender' are often used interchangeably and synonymously. Black et al. (2001) did not look at associations with criminality which is a feature of more recent research, nor did their review include studies on sexuality. An emerging theme since Black et al's review is on offence characteristics and the field is clearly evolving. Most studies used exclusively adult samples (n=26), 23 of which used exclusively perpetrator samples, and 19 used exclusively male samples. The findings reported here are therefore mostly descriptive of

adult male perpetrators. It is significant that all of the 19 studies that used exclusively male perpetrator samples drew these samples from populations of convicted offenders. However, it may be that the characteristics of caught and convicted offenders differ in some ways from the whole perpetrator population and there may be important differences to consider that would shed light on perpetrator characteristics hitherto hidden. The research of Beier et al. (2009) exploring the experiences of non-convicted men who experience paedophilic urges who have volunteered to a treatment programme (Project Dunkelfeld) is a noteworthy exception that may illuminate the issue further. Finally, findings from research that operationalised the term 'child' as a person under the age of 16 may miss nuances pertaining to risk for older children. Different definitions and operationalisation of terms creates challenges regarding the generalisability of findings. Greater awareness of these limitations will illuminate where the lacuna in research lies.

Primary prevention

We find that CSA perpetration is extremely heterogeneous, for instance the differences we find in terms of gender and age of victims do not contradict each other but rather point to a large and complex picture of CSA perpetration. An understanding of this complexity is necessary for primary prevention initiatives, for instance, what works for young children may not work for teenagers. The challenge for a successful primary prevention agenda is to identify which factors, and which points in the offence process, are the most responsive to intervention. The evidence suggests that effective primary prevention involves the acknowledgement that CSA is a multi-faceted phenomenon that may manifest when many different factors converge: victim, offender, situation, and culture. A current example of the successful refocusing of primary prevention initiatives comes from the criminological field of situational crime prevention. Situational crime prevention is a highly specific type of prevention that closely examines the common situational elements of a crime and aims to

strengthen situational elements that may block an offence from occurring. For instance, research by Leclerc et al. (2009) and Smallbone and Wortley (2001) have found that a common element of CSA is an adult spending prolonged periods of time alone with a child; therefore Leclerc et al. (2009) recommend that solitary time with a child in day care settings should not be permitted, and that parents should not permit another adult to take their child to a place where they will be alone with them. The same research also found that the general modus operandi of CSA offenders relies on a process of gradual desensitisation over a long time: this timeline presents an opportunity for prevention initiatives to disrupt CSA. The evidence from Smallbone and Wortley (2001) also suggests that the presence of a potential capable guardian may act as a protecting factor against CSA, but not in all situations. Targeting the situational aspects of CSA for primary prevention will require a prevention model that educates society of their responsibilities towards children, and the measures that people can take to protect children from harm. It may, therefore, be beneficial for primary prevention models to use a public health approach to the prevention of CSA: In England, at least, an active discussion of this approach is underway (Brown, 2015). A public health approach to preventing sexual abuse recognises that CSA is prevalent in all societies, its effects, impacts and costs are significant, it can be geographically and generationally transmitted and importantly, steps can be taken to prevent much of it at all levels; primary, secondary and tertiary.

CONCLUSION

In the fifteen years since Black et al's (2001) review empirical research has provided an expansive range of evidence regarding the aetiology of CSA with new and emerging lines of enquiry. This research has established that CSA perpetration is extremely heterogeneous, complex, and is likely to have myriad influences. The evidence base is however limited by design: as retrospective designs dominate this field of enquiry it is difficult to establish

aetiological pathways for CSA. We would therefore recommend that researchers consider using prospective designs. Since Black et al's review there has been an emergence of evidence regarding the situational elements of CSA perpetration. This evidence resonates with a common-sense view of CSA: that without a situation that facilitates the offence CSA perpetration cannot occur. Establishing the situational elements of CSA will inform primary prevention initiatives by illuminating which parts of an offence process are most vulnerable to disruption and which elements can be strengthened to bolster the protective aspects of these situations. Approaching such a model of primary prevention will require public awareness and education, and as such the prevention of CSA through situational factors may be best approached by adopting a public health model of child maltreatment.

Future directions

The sexual abuse of children, as we have found, has many aetiological pathways, and it may be that other types of child maltreatment also share these pathways. There would be value in future research exploring the interface between the aetiology of different types of abuse. This work could provide evidence for general risk factors for maltreatment and risk factors that might be abuse-specific. There would also be value in the creation and development of a unified theory that focuses on the aetiology of child abuse. This theory could explore the convergent and divergent aetiological pathways for sexual, physical, emotional, and psychological abuse and neglect, to further the understanding of child maltreatment.

References

Barnes, J., Noll, J., Putnam, F., & Trickett, P. K. (2009). Sexual and physical revictimization among victims of severe childhood sexual abuse. *Child Abuse Neglect*, *33*(7), 412-420. doi: 10.1016/j.chiabu.2008.09.013

BBC. (2015). Child sexual exploitation 'a national threat'- Cameron. Retrieved 15/10/2015, 2015

Becerra-Garcia, J., Garcia-Leon, A., & Egan, V. (2012). Childhood abuse history differentiates personality in sex offenders. *Journal of Forensic Psychiatry & Psychology*, 23(1), 61-66. doi: 10.1080/14789949.2011.634020

Becerra-Garcia, J., Garcia-Leon, A., & Egan, V. (2013) A Cross-Cultural Comparison of Criminological Characteristics and Personality Traits in Sexual Offenders Against Children: Study in Spain and the United Kingdom. *Psychiatry, Psychology and Law*, 20(3), 344-352, doi: 10.1080/13218719.2012.677758

Beech, Anthony R., and Tony Ward. "The integration of etiology and risk in sexual offenders: A theoretical framework." *Aggression and Violent Behavior* 10.1 (2004): 31-63.

Beier, Klaus M., et al. "Can pedophiles be reached for primary prevention of child sexual abuse? First results of the Berlin Prevention Project Dunkelfeld (PPD)." *The Journal of Forensic Psychiatry & Psychology* 20.6 (2009): 851-867.

Belsky, J. (1993). Etiology of child maltreatment: A developmental Ecological analysis. *Psychological Bulletin*, *114*(3), 413-434. doi: 10.1037/0033-2909.114.3.413

Black, D. A., Heyman, R. E., & Slep, A. M. (2001). Risk factors for child sexual abuse. *Aggression and Violent Behavior*, 6(2-3), 203-229.

Bogaerts, S., Declercq, F., Vanheule, S. and Palmans, V., 2005. Interpersonal factors and personality disorders as discriminators between intra-familial and extra-familial child molesters. *International Journal of Offender Therapy and Comparative Criminology*, *49*(1), pp.48-62.

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, *32*(7), 513-531. doi: 10.1037/0003-066x.32.7.513

Brown, J. a. S.-T., A. (2015). Preventing Child Sexual Abuse. Towards a national strategy for England. In NSPCC (Ed.). https://www.nspcc.org.uk/globalassets/documents/researchreports/preventing-child-sexual-abuse-towards-a-national-strategy.pdf.

Butchart, A., Harvey, A. P., Mian, M., & Furniss, T. (2006). Preventing child maltreatment: a guide to taking action and generating evidence. World Health Organisation.

Butler, A. (2013). Child sexual assault: Risk factors for girls. *Child Abuse Neglect*, *37*(9), 643-652. doi: 10.1016/j.chiabu.2013.06.009

Carvalho, J., & Nobre, P. (2013). Dynamic Factors of Sexual Aggression. The Role of Affect and Impulsiveness. *Criminal Justice and Behavior*, 40(4), 376-387. doi: 10.1177/0093854812451682

Colombino, N., Mercado, C., Levenson, J., & Jeglic, E. (2011). Preventing sexual violence: Can examination of offense location inform sex crime policy? *International Journal Of Law and Psychiatry*, 34(3), 160-167. doi: 10.1016/j.ijlp.2011.04.002

Craissati, J., Webb, L., & Keen, S. (2008). The Relationship Between Developmental Variables, Personality Disorder, and Risk in Sex Offenders. *Sexual Abuse-A Journal of Research and Treatment*, 20(2), 119-138. doi: 10.1177/1079063208317464

Csáky, C. (2008). No one to turn to. The under-reporting of child sexual exploitation and abuse by aid workers and peacekeepers. http://www.savethechildren.org.uk/resources/online-library/no-one-to-turn-to-the-under-reporting-of-child-sexual-exploitation-and-abuse-by-aid-workers-and-peacekeepers *Retrieved 17.02.2017*.

Decou, C. R., Cole, T., Rowland, S., Kaplan, S., & Lynch, S. M. (2015). An Ecological Process Model of Female Sex Offending: The Role of Victimization, Psychological Distress, and Life Stressors. *Sexual Abuse-A Journal of Research and Treatment*, *27*(3), 302-323. doi: 10.1177/1079063214556359

Elliott, I., Eldridge, H., Ashfield, S., & Beech, A. (2010). Exploring Risk: Potential Static, Dynamic, Protective and Treatment Factors in the Clinical Histories of Female Sex Offenders. *Journal Of Family Violence*, 25(6), 595-602. doi: 10.1007/s10896-010-9322-8

Finkelhor, D. (1984). *Child sexual abuse: new theory and research*. New York: London: New York: Free Press London: Collier Macmillan.

Gannon, T. A., & Alleyne, E. (2013). Female Sexual Abusers' Cognition: A Systematic Review *Trauma Violence Abuse*. (Vol. 14, pp. 67-79).

Grant, M. J., & Booth, A. (2009). A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Information & Libraries Journal*, 26(2), 91-108.

Hall, G. C. N., & Hirschman, R. (1991). Toward a theory of sexual aggression: A quadripartite model. *Journal of Consulting and Clinical Psychology*, *59*(5), 662-669. doi: 10.1037/0022-006x.59.5.662

Hanson, R. K., & Morton-Bourgon, K. (2004). Predictors of sexual recidivism: An updated metaanalysis 2004-02. *Ottawa, Canada: Public Safety and Emergency Preparedness Canada*.

Home Office (2017) Centre of Expertise on Child Sexual abuse: https://www.csacentre.org.uk/

- Katz, C. (2013). Internet-related child sexual abuse: What children tell us in their testimonies. *Children and Youth Services Review*, *35*(9), 1536-1542. doi: 10.1016/j.childyouth.2013.06.006
- Kvam, M. H. (2004). Sexual abuse of deaf children. A retrospective analysis of the prevalence and characteristics of childhood sexual abuse among deaf adults in Norway. *Child Abuse Negl*, 28(3), 241-251. doi: http://dx.doi.org/10.1016/j.chiabu.2003.09.017
- Laaksonen, T., Sariola, H., Johansson, A., Jern, P., Varjonen, M., von der Pahlen, B., . . . Santtila, P. (2011). Changes in the prevalence of child sexual abuse, its risk factors, and their associations as a function of age cohort in a Finnish population sample. *Child Abuse Negl*, 35(7), 480-490. doi: 10.1016/j.chiabu.2011.03.004
- Leclerc, B., Proulx, J., Lussier, P. and Allaire, J.F., 2009. Offender–victim interaction and crime event outcomes: modus operandi and victim effects on the risk of intrusive sexual offenses against children. *Criminology*, *47*(2), pp.595-618.
- Leclerc, B., Smallbone, S., & Wortley, R. (2015). Prevention Nearby: The Influence of the Presence of a Potential Guardian on the Severity of Child Sexual Abuse. *Sexual Abuse-A Journal Of Research And Treatment*, 27(2), 189-204. doi: 10.1177/1079063213504594
- Levenson, J., Becker, J., & Morin, J. W. (2008). The Relationship Between Victim Age and Gender Crossover Among Sex Offenders. *Sexual Abuse-A Journal of Research and Treatment*, 20(1), 43-60. doi: 10.1177/1079063208314819
- Marshall, W. L., & Barbaree, H. E. (1990). An Integrated Theory of the Etiology of Sexual Offending. In W. L. Marshall, D. R. Laws, & H. E. Barbaree (Eds.), *Handbook of Sexual Assault* (pp. 257-275): Springer US.
- Meinck, F., Cluver, L. D., Boyes, M. E., & Mhlongo, E. L. (2015). Risk and Protective Factors for Physical and Sexual Abuse of Children and Adolescents in Africa: A Review and Implications for Practice. *Trauma, Violence, & Abuse, 16*(1), 81-107. doi: 10.1177/1524838014523336
- Mueller-Johnson, K., Eisner, M. P., & Obsuth, I. (2014). Sexual Victimization of Youth with a Physical Disability: An Examination of Prevalence Rates, and Risk and Protective Factors. *Journal of Interpersonal Violence*, 29(17), 3180-3206. doi: 10.1177/0886260514534529
- Mustaine, E. E., Tewksbury, R., Corzine, J., & Huff-Corzine, L. (2014). Differentiating Single and Multiple Victim Child Sexual Abuse Cases: A Research Note Considering Social Disorganization Theory. *Journal Of Child Sexual Abuse*, *23*(1), 38-54. doi: 10.1080/10538712.2014.863260
- Nadan, Y., Spilsbury, J. C., & Korbin, J. E. (2014). Culture and context in understanding child
- maltreatment: Contributions of intersectionality and neighborhood-based research. *Child Abuse Neglect* (0). doi: http://dx.doi.org/10.1016/j.chiabu.2014.10.021

Neutze, J., Seto, M. C., Schaefer, G., Mundt, I., & Beier, K. (2011). Predictors of Child Pornography Offenses and Child Sexual Abuse in a Community Sample of Pedophiles and Hebephiles. *Sexual Abuse-A Journal of Research and Treatment, 23*(2), 212-242. doi: 10.1177/1079063210382043

Nunes, K., Firestone, P., & Baldwin, M. (2007). Indirect assessment of cognitions of child sexual abusers with the implicit association test. *Criminal Justice and Behavior*, *34*(4), 454-475. doi: 10.1177/0093854806291703

Office of National Statistics (ONS) 2016:

https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/abuseduringchildhood/findingsfromtheyearendingmarch2016crimesurveyforenglandandwales

Paolucci, E. O., Genuis, M., & Violato, C. (2001). A Meta-Analysis of the Published Research on the Effects of Child Sexual Abuse. *The Journal of Psychology, 135*(1), 17-36. doi: 10.1080/00223980109603677

Pettingell, E. A. R., Bearinger, L., Resnick, M., Murphy, A., & Combs, L. (2006). Hazards of stigma: The sexual and physical abuse of gay, lesbian, and bisexual adolescents in the United States and Canada. *Child welfare*, 85, 2.

Saied-Tessier, A. (2014). Estimating the Costs of Child Sexual Abuse in the UK Retrieved from http://www.nspcc.org.uk/globalassets/documents/research-reports/estimating-costs-childsexual-abuse-uk.pdf website.

Simons, D., Wurtele, S., & Durham, R. (2008). Developmental experiences of child sexual abusers and rapists. *Child Abuse Negl, 32*(5), 549-560. doi: 10.1016/j.chiabu.2007.03.027

Smallbone, S., Marshall, W. L., & Wortley, R. (2013). *Preventing child sexual abuse: Evidence, policy and practice*: Routledge.

Smallbone, S., & Wortley, R. (2001). Child Sexual Abuse: Offender Characteristics and Modus Operandi. *Australian Institute of Criminology trends and issues in crime and criminal justice*.

Spencer, N., Devereux, E., Wallace, A., Sundrum, R., Shenoy, M., Bacchus, C., & Logan, S. (2005). Disabling Conditions and Registration for Child Abuse and Neglect: A Population-Based Study. *Pediatrics*, *116*(3), 609-613. doi: 10.1542/peds.2004-1882

Stirpe, T. S., & Stermac, L. E. (2003). An Exploration of Childhood Victimization and Family-of-Origin Characteristics of Sexual Offenders Against Children. *International Journal Of Offender Therapy And Comparative Criminology*, 47(5), 542-555. doi: 10.1177/0306624x03253316

Stoddard, J., Dibble, S., & Fineman, N. (2009). Sexual and Physical Abuse: A Comparison Between Lesbians and Their Heterosexual Sisters. *Journal Of Homosexuality*, *56*(4), 407-420. doi: 10.1080/00918360902821395

Stoltenborgh, M., van Ijzendoorn, M., Euser, E., & Bakermans-Kranenburg, M. (2011). A Global Perspective on Child Sexual Abuse: Meta-Analysis of Prevalence Around the World. *Child Maltreat*, *16*(2), 79-101. doi: 10.1177/1077559511403920

Strickland, S. M. (2008). Female sex offenders: exploring issues of personality, trauma, and cognitive distortions. *Journal of Interpersonal Violence*, 23(4), 474-489.

Stroebel, S. S., Kuo, S., O'Keefe, S., Beard, K., Swindell, S., & Kommor, M. (2013). Risk Factors for Father-Daughter Incest: Data from an Anonymous Computerized Survey. *Sexual Abuse- A Journal Of Research And Treatment*, *25*(6), 583-605. doi: 10.1177/1079063212470706

Testa, M., Hoffman, J., & Livingston, J. (2011). Intergenerational transmission of sexual victimization vulnerability as mediated via parenting. *Child Abuse Neglect*, *35*(5), 363-371. doi: 10.1016/j.chiabu.2011.01.010

Unicef. (2014). Hidden in plain sight: A statistical analysis of violence against children.

Varma, S., Gillespie, S., McCracken, C., & Greenbaum, V. J. (2015). Characteristics of child commercial sexual exploitation and sex trafficking victims presenting for medical care in the United States. *Child Abuse Neglect*, *44*, 98-105. doi: http://dx.doi.org/10.1016/j.chiabu.2015.04.004

Ward, T., & Beech, A. (2006). An integrated theory of sexual offending. *Aggression and Violent Behavior*, 11(1), 44-63. doi: 10.1016/j.avb.2005.05.002

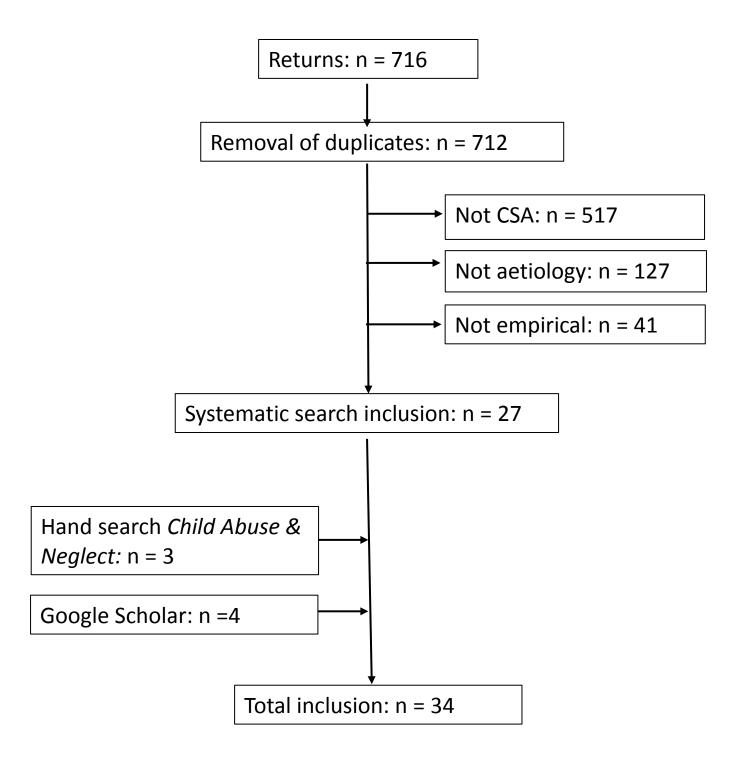
Ward, T., & Siegert, R. J. (2002). Toward a comprehensive theory of child sexual abuse: A theory knitting perspective. *Psychology, Crime & Law, 8*(4), 319-351. doi: 10.1080/10683160208401823

Wilsnack, S. C., Kristjanson, A. F., Hughes, T. L., & Benson, P. W. (2012). Characteristics of childhood sexual abuse in lesbians and heterosexual women. *Child Abuse & Neglect*, *36*(3), 260-265. doi: http://dx.doi.org/10.1016/j.chiabu.2011.10.008

Table 1: Key findings from Black et al (2001) – Risk factors for child sexual abuse (when compared with non-abused/abusers)

Perpetrator		Vio	ctim	Pa	rents of the Victim		ctims' ighbourhood
A	Less educated	V	No effect size determined for	V	Reported more psychological distress.	A	Poverty
	Most likely to		age of victim.				Lower property
	be				Reported more		values
	unemployed.		Females more at		psychiatric symptoms.		
_	-ı ·		risk	_		>	Considered
	Those in	_	Dala a succession		Mothers had more		dangerous
	employment were often		Below average school		stressful life events.		
	engaged in		performance.	>	One parent families		
	'blue-collar',				 especially father 		
	lower income work	~	More likely to be enrolled in SE.		only families		
				>	Lower income		
>	No effect size	>	Lower				
	determined for		intelligence		Step-families		
	age of		score				
	perpetrators				Poor parental		
			Behaviour		relationships were most		
	More often extra-familial		problems		at risk.		
		>	Neglect and	>	Leaving a child at home		
	More		physical abuse		without supervision		
	traditionally		increased risk				
	masculine				Less satisfied with their		
			Prior sexual		parenting.		
	Scored higher		victimisation				
	on emotional	_	Vitalianiania - 5		History of prior sexual		
	and sexual		Victimisation of		victimisation		
	need fulfilment		a family member				

Figure One: Study Flow Chart



Online Table: Table of Risk Factors for Child Sexual Abuse

Authors	Sample and Design	Definition of CSA	Perpetrator Risk	Perpetrator	Victim Risk	Victim	Situational Risk
			Factors	Experiences	Factors	Experiences	Factors
Barnes et al. 2009	Region: USA Design: Cohort: 15 year prospective longitudinal Sample: Females (age 6-16 at study outset) with substantiated CSA (n=89) compared with non-abused females (n=90) Measures: Comprehensive Trauma Interview.	Intra-familial contact abuse	Tactors	Experiences	Re-victimisation: Abused females 1.99 times more likely to have experienced sexual revictimization than comparison females. Age of onset: Of those who reported a second sexual victimisation age of onset was on average four years earlier than abused females who did not report a second sexual victimisation of sexual victimisation of sexual victimisation	Experiences	ractors
Becerra-Garcia	Region: Spain	1. Conviction of	Psychological:				
et al. 2012		CSA	All sample				
	Design: Cross-	2. "If they had	scored higher on				

	sectional Sample: 50 adult male offenders incarcerated for CSA (n=33) or ASA (n=17). Measures: NEO Five Factor Inventory and self-report interview.	been touched in a sexual way or were threatened physically unless performed a sexual act." (Page 63).	'neuroticism' scale.		
Becerra-Garcia et al. 2013	Region: Spain and UK Design: Crosssectional Sample: 112 adult male offenders incarcerated in the UK or Spain. Measures: NEO Five Factor Inventory and case file analysis.	Conviction of a contact offence.	Criminal history: 39.3% had prior convictions (not necessarily for CSA) Country of origin: criminological characteristics of offence remained the same regardless of country	Age: 57.2% of offenders perpetrated against victims aged between 11 and 17; 39.3% against victims aged between 5 and 10; 3.5% against victims aged between 0 and 4. Gender: 75.9% were female; 19.6% were male; 4.5% of offenders perpetrated against both genders.	
Bogaerts et al.	Region: Belgium	Conviction of CSA	Psychological:		

2005	Design: Cross-sectional Sample: 84 adult male CSA offenders, 41 of whom are intrafamilial and 43 who are extrafamilial offenders. Comparison group of 80 adult males. Measures: Parental Bonding Instrument; Adult Attachment Scale; Erikson Psychosocial Stage Inventory.	offence	Within group differences: Both intra and extra familial offending related to personality disorders (measured by the Assessment of the DSM-IV Personality Disorders (1998) test) but intra- familial abuse is compounded by relational attitudes of adults to children.			
Butler 2013	Region: USA Design: Cohort (Prospective longitudinal) Sample: 1087 girls, their primary caregivers and household heads Measures: Self-report interview;	Self-report question: "Have you ever been sexually assaulted or raped?"		Academic performance: Girls scoring below the tenth percentile in maths and spelling (OR2.73) and girls referred for special education (OR2.06) were significantly more likely to experience CSA.	Income: Risk for CSA declines when family income was over 400% of poverty threshold. Parental configuration: Presence of both parents in childhood was associated with lower likelihood for reporting	

	Woodcock-Johnson Revised Tests of				CSA	
	Achievement;					
	Achenbach					
	Behavioural Problems Checklist.					
	Problems Checklist.					
Carvahlo and	Region: Portugal	Conviction of CSA	Psychological:			
Nobre 2013.	Design: Cross-	offence	Those convicted			
	sectional		of child sexual			
	Sample: 33 male		abuse presented			
	CSA		significantly less positive affect			
	offenders and 32		than the control			
	male offenders of		group (*nb: low			
	rape plus a non- random control		levels of positive affect are			
	group (number		associated with			
	unknown)		depression and			
	Measures:		low mood).			
	Screening Scale of					
	Paedophilic					
	Interests; Sexual					
	experience survey					
	(perpetration form); Positive and					
	Negative					
	Affect Schedule.					
Columbino et	Region: USA	Conviction of CSA				Location: 75% of
al. 2011	Design: Cross-	offence				offenders committed
	sectional.					offence in private
						location (i.e. place of

	Sample: Casefiles of 1557 adult male sex offenders released from New Jersey prison between 1996 and 2007. 1202 CSA offenders and 355 ASA offenders. Measures: Content analysis and Static-99 Risk Score					residence) and not public or restricted locations.
Connolly and Woollons 2008	Region: New Zealand Design: Cross-sectional Sample: 44 adult male CSA offenders, 23 male offenders convicted of rape, 58 nonsexual offenders. Measures: Retrospective selfreport questionnaire.	Conviction of CSA offence		Prior Victimisation: Both ASA and CSA groups reported significantly higher levels for sexual, physical, emotional abuse and neglect than non-sexual offenders, indicating a relationship between all types of abuse and adult sexual offending.		
Craissati et al. 2008	Region: UK Design: Cross-	1. Conviction of CSA offence.	Psychological: Both ASA and CSA offenders	Prior Victimisation: CSA offenders		

	sectional Sample: 162 adult male CSA offenders and 79 adult male ASA offenders Measures: case file analysis; Risk matrix 2000; Static-99; PCL-R; MCMI-III (self-report instrument for diagnostic screening of emotional problems); Offender Assessment System (OASys) & OASys Mental Health Need & OASys Dangerous and Severe Personality Disorder.	2. Self-report in interview	reported high levels of depression and anxiety. CSA offenders reported greater levels of multiple dysfunctional personality traits than ASA offenders.	(34%) significantly reported more CSA victimisation than ADA offenders (7%).		
DeCou et al. 2014	Region: USA Design: Qualitative using grounded theory. Crosssectional. Sample: 23 convicted female CSA offenders and 1 non-CSA female sex	Conviction of CSA offence		Life stressors: A common theme was the experience of significant stressful life events in the year prior to committing the		Co-offender: Half of the sample reported a male co-offender with whom the offender was in a relationship. Incidental: Nearly half of the offenders described the process as 'one thing leading to

	offender. Total sample of 24. Measures: Semistructured interviews			index CSA offence, such as mental health problems.		another' and not purposefully decided upon. However more than two thirds of this sample breached
				Prior victimisation: Half of the sample reported that they had experienced sexual victimisation in		adult-child boundaries prior to the CSA act, such as discussing sex, which may indicate some sort of pre-meditation.
				their own life, such as CSA and rape in adulthood. Substance		
Elliott et al.	Region: UK	None given	Psychological:	misuse: Majority reported using substances before and during the index offence Parental		
2010	Design: Cross-sectional Sample: 43 adult females referred to Lucy Faithful Foundation on basis of criminal	5. J.	81% reported low self-esteem, 78% reported low confidence and 86% reported feeling socially isolated (*nb this may be	relationships: Approximately half of sample reported poor attachment (49%) and parental rejection (51%).		

	convictions (n=24) or family court findings and/or admissions (n=19) Measures: Case-file analysis		a consequence of committing offence) 42% were being prescribed antidepressants at time of offence. Cognitive distortions: Majority of sample displayed offence- supportive beliefs. Criminal record: 14% had previous criminal convictions for non-sexual crimes.	Prior victimisation: 67% reported physical, sexual, and/or emotional abuse. 42% reported sexual abuse.		
Gannon and Alleyne 2013	Region: UK, US, 'Nordic' countries, Netherlands. Design: Systematic Review Sample: 13 studies	None given	Cognitive distortions: Studies often found that the majority of participants showed offence-supportive beliefs			

	included		e.g.		
			perpetrator viewing the abuse as not harmful		
Greenberg et al. 2000	Region: Canada Design: Cross- sectional Sample: 400 male offenders aged over 18. Measures: Psychiatric interview; DSM-III interview; case file analysis of crime records	Conviction of contact CSA offence	Recidivism: A larger proportion of men who offended against children known, but not related, to them (extrafamilial) were charged with a new CSA offence than intrafamilial offenders.		
Kvam 2004	Region: Norway Design: Cohort Sample: Total cohort of 1999 Norwegian Deaf Register (N=1150) and 500 randomly sampled persons from general population. Measures: Self	"The sexual exploitation of a child under legal age who is developmentally incapable of understanding or resisting the sexual contact" (page 241).		Disability: 45.8% of deaf females and 42.4% of deaf males reported CSA. Deaf females reported CSA twice as often as hearing females, and deaf males reported CSA more than three	

	administered questionnaire.			times as often as hearing males.	
Leclerc et al. 2009	Region: Canada Design: Cross- sectional. Sample: 219 adult male offenders. Measures: Semi- structured interview using QIDS and Casefile analysis.	Conviction of contact offence of child 13 years or younger.		Age, gender, and CSA type: Females were 3.78 times more likely to experience penetration than males. For each one-unit increase of the victim's age (1 to 13 years old) the risk of penetration increased 1.25 times.	Modus operandi: Offenders who Used manipulation/grooming techniques were six times more likely to make the victim participate in the CSA episode than offenders who did not manipulate/groom their victim.
Leclerc et al. 2015	Region: Australia Design: Cross- sectional Sample: 87 adult male offenders. Measures: Self- report questionnaire.	Conviction of CSA offence			Capable guardian: A large proportion of CSA occurred when a potential capable guardian was present, indicating the willingness of perpetrators to take risks. However the presence of a capable guardian was inversely associated with duration of offence and

					strongly negatively associated with occurrence of
					penetration.
Levenson et al. 2008	Region: USA Design: Cross- sectional Sample: 362 adult male CSA offenders Measures: Case-file analysis	Conviction of CSA offence.		Age and gender: "The proportion of offenders with victims of both genders significantly increased as the victims' ages decreased, and sex offenders with preschoolaged victims were most likely to have abused both boys and girls. A sex offender with a victim of 6 years of age or younger had more than 3 times the odds of having perpetrated sexual crimes against both genders than a sex offender with only older victims. Sex offenders with victims of both genders had more	

				than 3 times the odds of having preschool victims." page 43.	
Long et al. 2012	Region: UK Design: Cross-sectional Stratified opportunity sample. Sample: 120 male offenders. 60 of whom were convicted for Indecent Images Of Children (IIOC) and 60 who were convicted of IIOC and contact offences Measures: Case-file analysis	Conviction of IIOC and/or contact CSA offence.			Quantity of IIOC: Dual offenders had significantly less IIOC than IIOC only offenders. Access: Dual offenders were significantly more likely to have any access to children than IIOC only offenders. IIOC activity: The longer the offender had been downloading IIOC the more IIOC images at higher (severe) levels were found. Producers: The offenders who produced their own IIOC were more likely to be dual offenders (54% of dual offenders, compared to 20% of IIOC only offenders) and were more likely to engage

					in grooming behaviours and were more likely to have IIOC at the higher levels. IIOC and contact CSA
					homology: "Sadistic penetrative dual sexual offenders possess a
					higher proportion of Level 4 IIOC and less level 1 than penetrative and touching offenders." (Page 389).
Lussier et al. 2007	Region: Canada Design: Cross- sectional	Conviction of sexual offence.	Psychological: CSA offenders showed higher levels of		
	Sample: 553 convicted adult male offenders (sample includes ASA offenders).		Internalization problems whereas ASA offenders reported more		
	Measures: Retrospective semistructured interview and casefile		problems with externalisation (e.g. anger).		
	analysis of police records.				

Mueller-	Dagiana	Divided into		Candanced	
	Region:			Gender and	
Johnson et al.	Switzerland.	contact and		disability	
2014	Design: Cross-	noncontact abuse,		interaction: Girls	
	sectional	both are defined in			
	sectional	detail on page		reported higher	
	stratified sample of	3187.		lifetime	
	cohort of ninth			prevalence overall	
	graders attending			than boys	
	state schools.			however boys	
	state schools.			with disabilities	
	Sample: Boys and			were	
	girls, with and			approximately 3	
	without disabilities.			times more likely	
	Valid responses=			than boys without	
	6749.			disabilities to	
	0/49.			experience contact	
	Measures: Juvenile			CSA and 2 times	
				more likely to	
	Victimization			experience	
	Questionnaire and			noncontact CSA	
	Sexual Abuse and			but girls with	
	Victimization			disabilities were	
	Questionnaire.				
				not more likely to	
				experience contact	
				CSA than girls	
				without	
				disabilities,	
				although they	
				were 1.4 times	
				more likely to	
				experiences	
				noncontact CSA.	
				noncontact CSA.	
Neutze et al.	Region: Germany.	Diagnosis	Psychological:		
2011			Psychological		
	Design: Cross-				

S r a a F F	Sample: 155 self- referred paedophiles and hebephiles to Berlin Prevention Project Dunkelfeld. Measures: UCLA		problems were high for the whole sample and the whole sample was similar in terms of emotional		
S	Coneliness Scale; Child Identification Scale-Revised; Allgemeine		deficits, cognitive distortions, and sexual self- regulation		
I N N N N N N N N N N N N N N N N N N N	Depressionsskala; NEO-FFI Neuroticism; Bumby MOLEST scale; Empathy for Children Scale; Sexual Behavior Involving Minors Scale (SBIMS); High Risk Situations Test; Self-efficacy Scale Related to Minors; NEO-FFI Conscientiousness; Coping Inventory For Stressful Situations; Balanced Inventory of Desirable Responding.		problems. Criminal record: Contact offenders were more likely to be known to criminal justice services than IIOC only perpetrators		
2007	Region: Canada Design: Cross-	"Offenders were classified as child	Cognitive distortions: CSA		

	sectional	molesters if they	offenders showed			
	Sample: 22 convicted adult male CSA offenders and 29 convicted non- sexual offenders. Measures: IAT; The RRASOR; Static-99.	incarcerated for a sexual offence or a sexually motivated crime (e.g., convicted of murder but files indicate sexual assault of victim) and (b) had at least one index (i.e., current) or prior conviction for a sexual offence or a sexually motivated crime against an extra-familial victim less than 14 years of age." Page 459	significantly higher levels than the non-sex offenders of offence- supportive cognitive distortions in relation to regarding children as sexually autonomous.			
Nunes et al. 2013	Region: Canada Design: Cross- sectional. Sample: 432 adult male offenders.	"sexual acts which were committed against the offender before the age of 16 where the abuser was at least 5 years older than the offender"		Prior victimisation: "Compared to sexual offenders who had not been sexually abused, those who had been		
	Measures: Screening Scale for Pedophilic Interests	(page 706)		sexually abused before age 16 sexually offended		

	(SSPI) and			against		
	Static-99R.			significantly younger victims and had significantly more indicators of pedophilic interest." page 703		
Seto et al. 2013	Region: Sweden Design: Cross- sectional Population- representative sample of adult males aged between 17 and 20 years. Sample: 1978 adult males. Measures: Survey	Victimisation definition: "A participant was considered to have experienced sexual coercion if he endorsed ever having been pressured or forced into sexual touching, masturbation, oral, anal, or vaginal intercourse, or someone exposing him/herself against the participant's will." page 70	Cognitive distortions: Sexual interest in children was Significantly related to viewing IIOC.			
Simons et al. 2007	Region: USA Design: Cross- sectional	Conviction of CSA offence Sexual abuse items were modified from the	Age of onset: Average age of perpetration onset	Prior victimisation: Compared to ASA offenders		

	Sample: 137 adult male CSA offenders and 138 adult males convicted of rape of an adult (ASA). Measures: Presentence Investigative Report- Case file analysis; Redirecting Sexual Aggression Sexual History Disclosure Questionnaire; Childhood Experiences Behavior Questionnaire; Polygraph reports; Balanced inventory of desirable responding (BIDR).	Sexual Abuse Scale (see page 553)	for CSA offenders was 14 years old.	(43%) CSA Offenders reported more CSA victimisation (73%). Of those who reported CSA victimisation, the CSA offenders experienced CSA at a much younger age than the ASA offenders		
Smallbone and Wortley 2001	Region: Australia Design: Cross- sectional Sample: 79 adult male intrafamilial CSA offenders, 60 adult male extra- familial CSA offenders, 30 adult male mixed-type CSA offenders and	Conviction	Criminal Record: 62.9% of all the sample had a previous conviction, which was approximately twice as likely to have been for a non-sexual offence (40.6%) than a sexual			Duration of offending behaviour: Intrafamilial offenders offended over a shorter average time period (4.4 years) than extrafamilial offenders (7.8). Location: Majority of offences took place in

	13 adult male CSA offenders who denied their offences. Measures: Self-report questionnaire.		offence (22.2%)			offender's home (83.3% for intrafamilial, 45.8% for extra-familial). Modus Operandi: Offenders reported working towards sexual touching by spending long periods of time emotionally manipulating the child/grooming. Capable Guardian: Some offenders reported that the child's parents often knew they were spending time alone together, and may even have
Stoddard et al. 2009	Region: USA. Design: Cross-	Question: "Were you ever	Gender: Of those who	Sexuality: Lesbians were		suspected CSA.
	sectional Sample: 324	sexually/physically abused or assaulted as an adult/child (16 or	reported CSA victimisation the most	significantly more likely than their heterosexual sisters to		
	lesbian/heterosexual sister pairs.	older/ less than 16 years old)?" page 411	commonly reported gender of the perpetrator	report CSA (26.6% and 15.7%		
	Measures: Survey	22.12	was male.	respectively).		
Stroebel et al. 2013	Region: US Design: Cross-	CSA self-reported by victim as			Parental relationship:	

	sectional Sample: 2034 female students.	perpetrated by father. See page 588 for operationalisation			CSA reports were approximately 5 times higher for those that
	Measures: Computer-assisted self-interview.	of CSA events			reported physical and/or verbal abuse between parents.
					Acceptance of sexualised
					behaviours: Families accepting of father-daughter nudity increased likelihood of reports of CSA.
					Parental configuration: Where another man, who was not the biological father, had taken a father-type position within the family risk for CSA
					increased by approximately 3.2 times.
Spencer et al. 2005	Region: UK Design: Birth-	Registration for child abuse or neglect by social		Disability: • Risk of registration for CSA was over 7	

cohort, retrospective longitudinal. Sample: 119729 infants born in West-Sussex	services		times higher among children with conduct disorders, and over 6 times higher for children	
between January 9183 and December 2001. Measures: Case-file			with moderate/severe learning difficulties.	
Stirpe and Stermac 2003 Region: Canada Design: Cross- sectional Sample: 33 convicted adult male CSA offenders, 66 adult male violent (non-CSA) e non-violent (non- CSA) offenders. Measures: Semi- structured interview.	Conviction of CSA and "unwanted contact of a sexual nature and includes those activities involving contact, such as sexual touching andvaginal, anal, or oral sex" (page 546).	Prior victimisation: CSA offenders (60.6%) significantly more likely to have been a victim of CSA than nonviolent offenders (28%) and violent offenders (18.2%). CSA offenders significantly more likely to report physical discipline/abuse in family home. Gender of and relationship to		

	1	T	1		1	T T
				perpetrator of		
				prior		
				victimisation: Of		
				all the sample, of		
				those that		
				reported CSA		
				reported C5/1		
				victimisation in		
				their own		
				childhood the		
				majority reported		
				majority reported		
				that the		
				perpetrator was		
				most commonly		
				an acquaintance		
				(62.5%).		
				The majority of		
				the total sample		
				reported that the		
				perpetrator was		
				male (65.8%).		
				maic (03.070).		
Strickland	Region: USA	Conviction of CSA		Prior		
2008				victimisation:		
	Design: Cross-			CSA offenders		
	sectional			had significantly		
	0 1 60 0 1			higher rates of		
	Sample: 60 female			CSA		
	CSA			victimisation and		
	offenders compared					
	with 70 female			total childhood		
				trauma than		
	nonsexual offenders.			female offenders		
	Measures: The			of nonsexual		
				oi nonsexuai		
	Multi-phasic Sex					

	Inventory- II Female Version, The Substance Abuse Subtle Screening Inventory-3, The Childhood Trauma Questionnaire- Brief Version.		crimes.			
Testa et al. 2011	Region: USA Design: Cross- sectional Sample: 913 mothers and daughters (who were soon to attend college)/ Measures: Self- report questionnaires.	For detailed description see page 366			Mother's experience of CSA as risk factor for daughter's experience of CSA: mothers' CSA victimization was Positively associated with daughters' victimization.	
Wilsnack et al. 2012	Region: USA Design: Longitudinal cohort (retrospective) Sample: All samples from 2001 National Study of Health and Life Experiences of	"(1) any intrafamilial sexual activity before age 18 that was unwanted by the respondent, or that a involved a family member 5 or more years older than the		Sexuality: Lesbians were significantly more likely than heterosexual women to report CSA and CSA with physical contact. *Lesbians		

	Women and 2001 Chicago Life Experiences of Women longitudinal studies. Measures: Retrospective questionnaires.	respondent; or (2) any extrafamilial sexual activity that occurred before age 18 and was unwanted, or that occurred before age 13 and involved another person 5 or more years older than the respondent" (page 261).		significantly more likely to report more severe CSA.	
Varma et al. 2015	Region: USA Design: Cross-sectional Sample: 24 children who had experienced child sexual exploitation (CSE) and a gender matched comparison of 57 CSA patients. Aged between 12 and 18. Measures: Case-file analysis and observations.	Diagnosis		Experiences and behaviours: the factors that were significantly more common in the CSE group than the CSA group related to sexual history and deviant behaviour, such as use of contraception and history of STI and history of running away from home and history with police and history of drug use.	