

The aetiology of child sexual abuse:

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The aetiology of child sexual abuse: a critical review of the empirical evidence

ABSTRACT

This paper reports the results of a critical review of empirical evidence relating to the aetiology of child sexual abuse (CSA) published over the last fifteen years [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN, i.e. ‘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

- Understanding of CSA perpetration is not well advanced and it is likely to be far more complex than currently thought.
- Intersectionality exists between cultural and sociocultural influences for CSA.
- 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 *et al.*, 2015), UNICEF (2014) estimated that well over 120 million children world-wide have experienced CSA [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN], and the National Society for the Prevention of Cruelty to Children (NSPCC) estimated that the cost of CSA in the 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 (<https://www.csacentre.org.uk>). Although reporting of CSA has increased to its highest rate in recorded history with nine per cent of adults reporting childhood experiences of CSA (Office for National Statistics, 2016) it remains significantly under-reported across the world (UNICEF, 2014). Research exploring the global prevalence of CSA suggests that approximately 18 per cent of women and eight per cent 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 *et al.*, 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 *et al.*, 2001). Aetiological theories of CSA attempt to identify risk factors, causes, or conditions that lead to the perpetration of CSA [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN]. 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 socio-structural 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 and 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 and Hirschman, 1991; Marshall and Barbaree, 1990; Ward and Beech, 2006; Ward and Siegert, 2002). Increasingly, attention has been paid to the influence of situational characteristics on CSA perpetration. For instance, Smallbone *et al.* (~~2013~~[2008](#)) developed a model of CSA that combines biological, developmental, ecological and situational factors, integrates situational crime prevention theory, and

emphasises person-situation 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.* (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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN] 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN, i.e. ‘This article... 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 and 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN].

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 The University of Edinburgh's online search tool 'Discover-Ed', we conducted an advanced search using the following search string:

(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*).

This research string was developed and refined via a pilot scoping exercise of free text searches on ASSIA and CINAHL Plus online databases. ‘Searcher’ interrogates over 90 online databases simultaneously. All returns were exported to reference management software Endnote.

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 whether an article met the inclusion criteria, all members of the team reviewed it and decided upon its 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 unfamiliar with the research but 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 'Searcher' database system, we conducted additional hand searches of all issues from January 2000 of *Child Abuse & Neglect* as this was the most frequent source of 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 articles not meeting the inclusion criteria, plus the supplementary searches, a total of 34 articles were included in the review (Figure 1).

[Insert figure 1 about here]

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

PERPETRATOR CORRELATES

Variables pertaining to the perpetrator were the most frequently studied and reported

[PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN].

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 *et al.*, 2012) personality disorders (Bogaerts *et al.*, 2005), depression and low mood (Carvalho and Nobre, 2013; Craissati *et al.*, 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 undertaken 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 *et al.* (2012) reported that in their sample of adult male CSA offenders 39.3 per cent had prior criminal convictions, although these were not always for CSA offences. Smallbone and Wortley (2001) found that 62.9 per cent 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 per cent 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN, i.e. 'Perpetrators may have been victims of abuse 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 (28.0%) to report CSA (Stirpe and Stermac, 2003). Smallbone and Wortley (2001) found 55 per cent 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 *et al.*, 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN]. 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-analysis 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN] 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 per cent 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 and 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 19-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 *et al.*, 2014) reported 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 [PUBLISHER – THE PRECEDING UNDERLINED

WORDS ARE FOR THE MARGIN], 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN]. 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

[PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN],

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 stepfather 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 stepfather.

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 CHARACTERISTICS

One new strand of research that has been pursued since 2000 explores the offence

characteristics of CSA [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE

FOR THE MARGIN]. 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 per cent 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 per cent 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

[PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN]

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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN]. 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 'Searcher'. 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN]. 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN]. 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 and 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 and 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 multiply-determined phenomena such as CSA (Ward and Beech, 2006). 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN] 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 and 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 and 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN, i.e. ‘The findings reported here are...

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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN]: 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 period of 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 [PUBLISHER – THE PRECEDING

UNDERLINED WORDS ARE FOR THE MARGIN]. 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 [PUBLISHER – THE PRECEDING UNDERLINED WORDS ARE FOR THE MARGIN].

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.

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