



THE UNIVERSITY *of* EDINBURGH

This thesis has been submitted in fulfilment of the requirements for a postgraduate degree (e.g. PhD, MPhil, DClinPsychol) at the University of Edinburgh. Please note the following terms and conditions of use:

This work is protected by copyright and other intellectual property rights, which are retained by the thesis author, unless otherwise stated.

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.



Childhood Trauma and its Psychosocial Sequelae: a Thesis Portfolio

Charlotte Lemaigre

Word count: 20,440

Doctorate in Clinical Psychology
University of Edinburgh
May 2017



THE UNIVERSITY *of* EDINBURGH

This thesis has been submitted in fulfilment of the requirements for a postgraduate degree (DClinPsychol) at the University of Edinburgh. Please note the following terms and conditions of use:

- This work is protected by copyright and other intellectual property rights, which are retained by the thesis author, unless otherwise stated.
- A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.
- This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the author.
- The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.
- When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

DClinPsychol Declaration of Own Work

Name: Charlotte Lemaigre

Title of Work: Childhood Trauma and its Psychosocial Sequelae: a Thesis Portfolio.

I confirm that this work is my own except where indicated, and that I have:

- Read and understood the Plagiarism Rules and Regulations
 - Composed and undertaken the work myself
 - Clearly referenced/listed all sources as appropriate
 - Referenced and put in inverted commas any quoted text of more than three words (from books, web, etc.)
 - Given the sources of all pictures, data etc. that are not my own
 - Not made undue use of essay(s) of any other student(s), either past or present (or where used, this has been referenced appropriately)
 - Not sought or used the help of any external professional agencies for the work (or where used, this has been referenced appropriately)
 - Not submitted the work for any other degree or professional qualification except as specified
 - Acknowledged in appropriate places any help that I have received from others (e.g. fellow students, technicians, statisticians, external sources)
 - Complied with other plagiarism criteria specified in the Programme Handbook
 - I understand that any false claim for this work will be penalised in accordance with the University regulations
 - Received ethical approval from the School of Health in Social Science, University of Edinburgh
- OR
- Received ethical approval from an approved external body and registered this application and confirmation of approval with the School of Health in Social Science's Ethical Committee

Signature

Date 01.05.2017

Please note:

- If you need further guidance on plagiarism, you can:
 - Speak to your personal tutor or supervisor
 - View university regulations at <http://www.ed.ac.uk/schools-departments/academic-services/policies-regulations>
- Referencing for most assessed work should be in the format of the BPS style guide, which is freely available from the BPS web site.

Acknowledgements

In truth, this has been a grueling, yet very rewarding journey...not least because I started my empirical study from scratch seven months before the deadline! Firstly I would like to thank Dr. Emily Taylor for her expert advice, wisdom and guidance. Emily, your support exceeded that which is required from an academic supervisor. For that, I am continually grateful.

A heartfelt thank you to the Men's SHARE project and to the men who selflessly gave up their time to take part in my study. Thank you for your openness and honesty about your experiences. Your participation will help us to shape the psychological care you deserve. Special mention goes to John Murphy and Julie Podet, without whom my research would not have been possible. Your tremendous efforts in recruitment have helped me miraculously get the project finished on time. John, thank you for being my voice of reason and Julie, thank you for your patience and your calming presence.

I'd like to thank my fellow trainees for their solidarity over the past three years. Thank you for your camaraderie during the turbulent times! I also owe an enormous thank you to my non-psychology friends for reminding me that there is life outside of clinical training. Thank you for soothing the mini-crises with prosecco and time with you away from my desk. Thank you to my hübscher, Seb. Despite the distance, I have felt your continued encouragement and your love for me.

Finally, an extra special thank you to the Lemaigres: Mum, Dad, Alex, Tom and Ben. Thank you for your unwavering belief in me. Thank you for picking me up and dusting me off when I did not believe in myself. I did it!!

Contents

Acknowledgements	4
Contents	5
List of Figures, Tables and Appendices	7
Thesis Portfolio Abstract.....	8
Chapter 1: Systematic Review	10
Barriers and facilitators to disclosing sexual abuse in childhood and adolescence: a systematic review.	10
1.2 Abstract.....	11
1.3 Introduction.....	12
1.3.1 Disclosure Rates of Childhood Sexual Abuse	13
1.3.2 Predictors of Disclosing Childhood Sexual Abuse	15
1.4 Methods.....	19
1.4.1 Protocol.....	19
1.4.2 Eligibility Criteria	19
1.4.3 Literature Search Strategy.....	20
1.4.4 Study Selection	21
1.4.5 Assessment of Methodological Quality	22
1.5 Results	30
1.5.1. Study Characteristics	30
1.5.2. Abuse Characteristics.....	32
1.5.3. Disclosure Characteristics.....	33
1.5.4 Methodological Strengths and Limitations of Included Studies.....	36
1.5.5 Study Findings	39
1.6 Discussion.....	45
1.6.1 Current State of the Evidence	46
1.6.2 Limitations of the Studies	47
1.6.3 Strengths and Limitations of the Review	48
1.6.4 Implications for Research	48
1.6.5 Clinical Implications.....	49
1.7 References	52
Chapter 2: Bridging Chapter.....	59
The Impact of Childhood Trauma on Adult Psychological Functioning	59
2.1 Disclosure and Adult Outcomes	59
2.2 The Long-term Effects of Childhood Trauma	60
2.3 The Treatment of Unresolved Trauma.....	62
2.4 Conclusions.....	62
2.5 References.....	64

Chapter 3: Empirical Study	66
Childhood Trauma and Suicidality in a Cohort of.....	66
Socio-Economically Deprived Scottish Men.....	66
3.1 Abstract.....	67
3.2 Introduction.....	68
3.2.1 Childhood Trauma and Suicidal Behaviour.....	68
3.2.2 Emotion Regulation	72
3.2.3 Interpersonal Difficulties	74
3.2.4 Rationale for the study	77
3.3 Methods.....	78
3.3.1 Study design.....	78
3.3.2 Participants.....	78
3.3.3 Procedure	79
3.3.4 Measures	81
3.3.5 Ethical Considerations	84
3.3.6 Statistical Analysis.....	85
3.4 Results	87
3.4.1 Participants.....	87
3.4.2 Normality of Data	89
3.4.3 Descriptive Statistics.....	89
3.4.4 Prevalence of Suicidality	90
3.4.5 Prevalence of Childhood Trauma	90
3.4.6 Correlational Analysis	91
3.4.7 Confounding Variables	94
3.4.8 Mediation Analysis	94
3.5. Discussion.....	98
3.5.1 Correlations between predictor and outcome variables	98
3.5.2 Multiple Mediation Model.....	101
3.5.3 Limitations	104
3.5.4 Research Implications.....	106
3.5.5 Clinical Implications.....	108
3.5.6 Conclusions.....	110
3.6 References.....	112

List of Figures, Tables and Appendices

Figure 1. Flow chart detailing the systematic review search strategy.....	25
Figure 2. Mediation model.....	97
Table 1. Summary of characteristics and findings of included studies.....	26
Table 2. Quality ratings for included studies.....	35
Table 3. Sample demographic characteristics.....	88
Table 4. Summary descriptive statistics for all variables measured.....	89
Table 5. Prevalence of childhood abuse.....	90
Table 6. Pearson’s correlation matrix showing relationships between variables.....	93
Table 7. Specific indirect effects of potential mediators.....	96
Appendix 1: Manuscript draft of the thesis portfolio’s systematic review; submitted to the journal <i>Child Abuse & Neglect</i> on 21 st February 2017.....	125
Appendix 2: Author submission guidelines for <i>Child Abuse & Neglect</i>	157
Appendix 3: Systematic review quality criteria.....	168
Appendix 4: Empirical study proposal.....	173
Appendix 5: University of Edinburgh ethical approval.....	189
Appendix 6: Participant Information Sheet.....	190
Appendix 7: Participant Consent Form.....	193
Appendix 8: Participant Debrief Sheet.....	194
Appendix 9: Author submission guidelines for <i>Archives of Suicide Research</i>	195

Thesis Portfolio Abstract

Background: It is widely understood that survivors of childhood trauma (emotional abuse, physical abuse, sexual abuse and emotional, physical neglect) have poorer mental health outcomes than their non-abused counterparts; one of which is an increased risk of suicidality. The disclosure of childhood abuse is key to safeguarding against further victimization and promoting better psychosocial outcomes for survivors in the long-term.

Aims: The aims of this thesis portfolio are twofold. Firstly, to review the published literature investigating the barriers and facilitators to disclosing sexual abuse as perceived by children and adolescents (Chapter 1). Secondly, to research the relationship between childhood trauma and suicidality in a cohort of socio-economically deprived men living in Scotland (Chapter 3). The bridging chapter (Chapter 2) discusses the main themes that connect chapters one and three, notably the possible negative impact of childhood trauma on adult psychosocial functioning.

Method: An exploratory systematic review and meta-synthesis of the literature was carried out. Strict eligibility criteria were predefined and a comprehensive search strategy identified a total of thirteen studies for review. For the empirical study, a total of 86 adult men with past and/or present suicidality participated in a quantitative cohort study and completed measures on childhood trauma, emotion regulation, interpersonal difficulties and suicidal behaviour. Multiple mediation analysis was used to analyse the data and to answer the study's research questions.

Results: The exploratory review highlighted that existing research into child and adolescent disclosures of sexual abuse is still in its infancy and that robust, longitudinal studies with more sophisticated methodologies are required to replicate findings. The collective body of literature identified that limited support, perceived negative consequences and feelings of self-blame, shame and guilt serve as significant barriers to disclosure whilst being asked or prompted through the provision of developmentally appropriate information facilitates young people to tell. The empirical study found that emotion regulation and interpersonal difficulties mediate the relationship between childhood trauma and suicidality in a sample of adult men.

Conclusion: Several important clinical implications were identified in both parts of the thesis portfolio. Firstly, the systematic review identified the need for family members, friends and frontline professionals to explicitly ask children about the possibility of sexual abuse. It was also considered imperative that recipients are supported in responding to disclosures in positive and supportive ways so as to reduce young peoples' feelings of responsibility, self-blame, shame and guilt. The empirical study concluded that dysfunctional emotion regulation and interpersonal difficulties are implicated in the overall collateral and compounding psychosocial sequelae of childhood trauma. The provision of psychological interventions for men with past and/or present suicidality should support individuals to develop healthy social problem-solving and emotion regulation skills. Providing effective, trauma-informed interventions for these individuals will move their treatment beyond simple risk management and focus, instead, on instilling recovery and resilience.

Chapter 1: Systematic Review¹

Barriers and facilitators to disclosing sexual abuse in childhood and adolescence: a systematic review.

Author: Charlotte Lemaigre ^a with second reviewer Dr. Emily Taylor ^b

^a Trainee Clinical Psychologist, Clinical and Health Psychology Department, Medical School, Teviot Place, University of Edinburgh, EH8 9AG, UK. Email: c.lemaigre@sms.ed.ac.uk

^b Lecturer in Clinical Psychology, School of Health and Social Science, University of Edinburgh Teviot Place, Edinburgh, EH8 9AH, UK.

Word count: 8,910

¹ This chapter contains a systematic review of the research on the perceived barriers and facilitators to disclosing sexual abuse as experienced by children and adolescents. A manuscript draft of this systematic review was submitted to the journal *Child Abuse & Neglect* on 21st February 2017 (see Appendix 1).

1.2 Abstract

Children and young people often choose not to disclose sexual abuse, thus preventing access to help and allowing perpetrators to continue undetected. A nuanced understanding of the barriers (and facilitators) to disclosure is therefore of great relevance to practitioners and researchers. The literature was systematically searched for studies related to child and adolescent disclosures of sexual abuse. Thirteen studies were reviewed and assessed for methodological quality. Results of the review illustrate the heterogeneous nature of these empirical studies. Findings demonstrate that young people face a number of different barriers such as limited support, perceived negative consequences and feelings of self-blame, shame and guilt, when choosing to disclose. Being asked or prompted, through the provision of developmentally appropriate information, about sexual abuse facilitates disclosure. The review highlights the need for robust, longitudinal studies with more sophisticated methodology to replicate findings. The review identifies the need for developmentally appropriate school-based intervention programmes that facilitate children's disclosure by reducing feelings of responsibility, self-blame, guilt and shame. In addition, prevention programmes should encourage family members, friends and frontline professionals to identify clues of sexual abuse, to explicitly ask children about the possibility of sexual abuse and also to respond supportively should disclosures occur. Facilitating disclosure in this way is key to safeguarding victims and promoting better outcomes for child and adolescent survivors of sexual abuse.

Keywords: Barriers, facilitators, disclosure, sexual abuse, children, adolescents.

1.3 Introduction

The World Health Organisation (WHO) defines childhood sexual abuse (CSA) as the 'involvement of a child in sexual activity that he or she does not fully comprehend and is unable to give informed consent to' (WHO, 1999 p. 15). CSA can be categorized as either contact or non-contact abuse. The former can involve physical contact between abuser and child, such as sexual touching, fondling and penetration. Non-contact abuse can involve non-touching activities such as flashing, grooming, sexual exploitation, online abuse and exposure to pornography. The various types of experiences, which constitute both contact and non-contact abuse, are extensive and wide-ranging.

In a recent meta-analysis of global CSA rates, Stoltenborgh *et al* (2011) identified a combined prevalence of 11.8% amongst 9,911,748 participants, with higher rates for females (18%) than males (7.6%). It is not clear whether this gender imbalance reflects gender differences in childhood sexual abuse prevalence or disclosure rates but does reflect the over-representation of females in the wider CSA literature. Different prevalence rates were found in different continents of origins. The highest combined rates were found in Australia (21.5%) and the lowest combined rates were found in Asia (11.3%). Although these differences may reflect true cross-cultural differences in CSA rates and children's ability to disclose, findings may also reflect disagreements about the definition of CSA as well as differences in its measurement and reporting i.e. self-reported vs. informant-reported studies. Despite these possibilities, Stoltenborgh *et al* (2011) conclude CSA to be a global problem of significant extent.

More locally, official national statistics suggest sharp rises in the reporting of CSA throughout the United Kingdom. In 2013/2014 a total of 22,294 sexual offences against under-16s were reported to the police; a 26% increase in reported incidence from the previous year (Jütte *et al*, 2015). A national prevalence study sampling a total of 2,275 young people across the UK found that one in twenty 11-17 year olds (4.8%) experienced sexual abuse at some point in their childhood (Radford *et al*, 2011). Although children were encouraged to report unwanted sexual activity of any kind, this study did not specifically measure non-contact abuse such as flashing or (non)-consensual sexual activity between underage adolescents. As such, it is possible that Radford *et al's* (2011) findings are conservative in nature and rather, reflect just the 'tip of the iceberg' i.e. an underreporting of CSA prevalence in the UK. Critically, underreporting is commonplace in CSA research (National Research Council, 2014).

Prevalence studies rely on sampled populations reporting their experiences of CSA, however, child sexual victimization is both under reported and under-recorded (Reitsema & Grietens, 2016). Research has shown that 60-70% of childhood sexual abuse experiences are not disclosed until adulthood (London *et al*, 2005), which critically means that many instances of CSA remain hidden and more importantly, many young people's stories and experiences remain untold.

1.3.1 Disclosure Rates of Childhood Sexual Abuse

It is widely understood that survivors of child maltreatment have poorer mental health outcomes in comparison to their non-abused counterparts. Schore (2001) argues that trauma interferes with healthy psychological and neurodevelopmental processes including attachment (Roche *et al*, 1999) and child brain development (Perry, 1995). As such, experiencing childhood sexual abuse can result in significant

psychopathological consequences including depressive and anxiety disorders (PTSD, obsessive compulsive disorder (OCD)), eating disorders, personality disorders, interpersonal sensitivity and self-injurious or suicidal behaviour (Maniglio, 2009). Critically, disclosing adverse childhood experiences is key to halting the abuse (Paine & Hansen, 2002). Disclosure is a doorway through which victims access legal and therapeutic interventions that help to resolve the trauma of child abuse. Yet not all children who are sexually abused disclose their experiences. Extant research has identified discrepancies in CSA disclosure rates depending on populations. As such, there is no universal agreement on the percentage of children and adolescents who self-disclose their experiences of sexual abuse.

Research studies on disclosure rates predominantly adopt retrospective study designs sampling adult populations. A possible reason for this is that many children do not (and will never) tell of their experiences or they delay disclosing their abuse histories into adulthood. Jonzon and Lindblad (2004), for example, found less than one third of their sample to have disclosed during childhood. Survivors waited on average 21 years before disclosing their experiences of abuse. Of note, London *et al* (2005) conducted a narrative review of 11 articles, which retrospectively surveyed adult populations on their patterns of CSA disclosure. Across these studies, childhood disclosure rates ranged between 31% (Arata, 1998) and 87% (Fergusson *et al*, 1996). The modal disclosure rate (in 6 of the 11 papers) was just over 33%. Critically, each study adopted a different working definition of childhood sexual abuse (such as ‘unwanted sexual attention’ (Ussher & Dewberry, 1995), ‘intrafamilial before 16 years’ (Roesler & Wind, 1994) and ‘unwanted contact before 14 years’ (Arata, 1998)) and sampled varying populations (e.g. clinical vs. non-clinical samples). In addition, adult retrospective studies are inherently at risk of confounding and selection/recall bias. It

is therefore particularly difficult to draw firm conclusions about childhood disclosure rates from adult retrospective studies. As such, investigating self-disclosure rates in child and adolescent populations may be more helpful.

In an epidemiological study of adolescent disclosures of sexual abuse, Priebe and Svedin (2008) surveyed 4,339 high school children (2,324 females and 2,015 males). A total of 1,962 reported experiences of unwanted sexual abuse. Disclosure rates found were 65% for females and 23% for males. In another study of child and adolescent disclosure of sexual abuse, sampling 28 young people (aged 3 to menarche) diagnosed with a sexually transmitted disease, Lawson and Chaffin (1992) found a true positive disclosure rate of sexual contact of only 43% and a 57% rate of false negatives. These studies indicate that although some survivors of childhood sexual abuse disclose their experiences, many do not. What is striking is that studies such as these suggest that research can uncover first-time disclosures. Young people are therefore not spontaneously disclosing nor are they being explicitly asked about their experiences of sexual abuse. The possible adverse results of this secrecy are that many children are at risk of ongoing and repeated sexual victimisation, which may increase the likelihood of developing negative mental health outcomes in the future. Moreover, many perpetrators remain unidentified and therefore free to commit acts against other children. Inconsistent findings in disclosure rates have led to a growing body of research in the literature pertaining to the predictors and processes, such as the barriers and facilitators involved in patterns of (non)-disclosure of childhood sexual abuse.

1.3.2 Predictors of Disclosing Childhood Sexual Abuse

Over the past few decades, research has attempted to provide clarity on disclosure processes. Studies have aimed to shed light on the possible predictors of disclosure

across the lifespan. It is posited that certain individual, social and cultural variables influence a survivor's decision to disclose. Demographic variables such as age and gender have been implicated in decisions to disclose. Some studies have identified age effects, suggesting that younger children are more likely to delay disclosure than older children (Smith *et al*, 2000). Younger children are more likely to disclose to adults (Lamb & Edgar-Smith, 1994; Roesler & Wind, 1994; Arata, 1998; Palmer *et al*, 1999) whilst older children and adolescents are more likely to disclose to peers (Lamb & Edgar-Smith, 1994; Edgath & Ormstad, 2000; Tang, 2002). Yet, other studies have failed to find a significant relationship between age and disclosure patterns (Kellogg & Hoffman, 1995). Regarding the role of gender in the disclosure of childhood sexual abuse, studies generally report higher disclosure rates for sexually abused females in comparison to sexually abused males. This may be an artifact of the under-representation of males in the CSA literature. These findings may also reflect gender variances in CSA prevalence data (Stoltenborgh *et al*, 2011) and/or gender differences more generally in help-seeking behaviour (Galdas, Cheater & Marshall, 2005). These factors may all derive from a (unconscious) binary view of women as victims and men as perpetrators, as espoused in feminist literature (e.g. Knight & Hatty, 1987).

Extant research has investigated the role of abuse characteristics (such as intra vs. extra-familial) on victims' decisions to disclose. Intrafamilial abuse (abuse that occurs within the family i.e. the perpetrator is a family member) has been found to impede disclosure. For example, in a study sampling 204 adult females with a history of CSA, Arata (1998) found disclosure to be less common when the victim knows the perpetrator. Disclosure has been found to be more likely when the abuse is extra-familial in nature (abuse that occurs out with the family i.e. the perpetrator is a stranger) (London *et al*, 2005). However, not all studies agree. Lamb and Edgar-Smith

(1994), for example, surveyed 60 adults (48 females and 12 males) who had been sexually abused during childhood. Although many respondents reported significant intrafamilial abuse, no association was found between abuse type and the likelihood to disclose.

Social and psychological factors such as anticipated social reactions and fear of negative consequences, such as shame, blame, embarrassment and/or disbelief have been implicated in the decisions to tell. Intuitively and as would be expected, psychological constructs such as shame and self-blame impede disclosure and have been found to result in adult survivors withholding disclosure of their childhood sexual abuse experiences (Kellogg & Hoffman, 1997; Ullman, 2002). Despite the fact that these many factors have been to some degree implicated in a child's decisions to tell, there is limited consensus within the literature about an optimal set of conditions and factors that facilitate CSA disclosures.

To better understand the above contrasting findings, Tener and Murphy (2015) conducted a literature review of 28 articles investigating adult disclosures of CSA published between 1980 and 2013. They concluded that disclosing sexual abuse is a difficult process involving several domains and that the barriers and facilitators to disclosing sexual abuse involve a complex interplay between several intrapersonal, interpersonal and social factors, which are still only partially understood. Authors also argue that the act of disclosing CSA in adulthood rather than childhood brings with it new barriers and facilitators, which may be qualitatively different to those experienced by children and adolescents (Tener & Murphy, 2015). As such, findings borne from retrospective studies sampling adult populations are limited in their generalisability to child and adolescent populations.

Paine and Hansen (2002) conducted a comprehensive review of the literature investigating childhood disclosures of sexual abuse. They addressed existing models of the disclosure process in addition to the motivational factors facilitating and/or inhibiting disclosing CSA. Authors concluded that the very nature of childhood sexual abuse makes it difficult for young people to tell of their experiences; many delay disclosure or maintain the secret for significant periods of time. Alongside a complex interplay between multifaceted internal and external factors, cognitive and developmental barriers are posited as important drivers in children and adolescents' decisions to withhold disclosures of sexual abuse. Paine and Hansen (2002) argue that there exists very little literature on the facilitators for disclosure in these populations. This sparse literature may reflect the more complex methodological issues and ethical concerns one must consider when researching vulnerable groups, namely child victims of sexual abuse (Barns, 2011). Since Paine and Hansen's (2002) work, however, additional research investigating child and adolescent disclosures of CSA has been conducted, yet there remain opposing and contrasting findings. McElvaney (2013) reviewed literature on delays, non-disclosures and partial disclosures of child sexual abuse in adult and child populations. As with Paine and Hansen's (2002) review, the author identified the intricacy and complexity involved in individuals' disclosure journeys. As such, no conclusive trends can be drawn from each of the individual studies published. This highlights the need to better understand the common findings across these studies with each study's methodological quality in mind.

Given that disclosure is pivotal for a child to access help, it is important to understand the factors that facilitate a child's decision to tell. To the authors' knowledge, no published systematic reviews to date have examined studies investigating the barriers

and facilitators to disclosing sexual abuse in childhood and adolescence. In synthesizing findings from these studies, the current review aims to address the following questions:

1. What barriers do children and adolescents face when disclosing sexual abuse?
2. What factors are associated with facilitating children and adolescents to disclose their experiences of sexual abuse?

1.4 Methods

1.4.1 Protocol

A systematic review and meta-synthesis of research exploring the barriers and facilitators to disclosing CSA in childhood and adolescence was conducted. As is recommended in the University of York's Centre for Reviews and Dissemination guidance for undertaking reviews in healthcare (2009), a review protocol was developed before a full, systematic literature search was undertaken. Predefining a systematic review's method and scope (e.g. inclusion/exclusion criteria) in advance minimizes bias and maintains transparency throughout. The protocol that was developed guided the systematic search of the literature to identify papers that met the review's eligibility criteria. The systematic review protocol can be accessed on: http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42016035672

1.4.2 Eligibility Criteria

Research about disclosures of sexual abuse in child and adolescent populations is growing, yet limited. As such, a decision was made not to apply a date restriction to the search. Articles that employed either a qualitative, quantitative or a mixed methods

study design were considered eligible for inclusion. Studies were included if the principal aim was the investigation of disclosures of sexual abuse in child and adolescent populations: an operationalised inclusion criterion was set at a mean age for the sample of under 18.0 years. Studies that investigated disclosures of CSA made by a sample with a mean age of 18.0 years and above were excluded from the review. Studies adopting secondary data analysis strategies were also excluded. In addition, non-peer reviewed articles, professional opinions and editorial publications were excluded.

1.4.3 Literature Search Strategy

An initial comprehensive literature review was conducted in order to ensure that no other systematic review on child and adolescent disclosures of CSA had been conducted. This revealed that an unpublished thesis had been carried out on child disclosures of CSA (Morrison, 2016), which adopted a different analytical method (meta-ethnography) including qualitative studies only (n=7). To the authors' knowledge, no other reviews have specifically and systematically examined the barriers and facilitators to disclosing sexual abuse in childhood and adolescence. The current review, therefore, is unique in its scope and as a result, complements and contributes to the literature in this field.

The literature search was initially conducted in April 2016 using the following databases: Ovid (PsycINFO (1806-2016), Medline (1946-2016) and EMBASE (1980-2016)), EBSCO (including CINAHL Plus (1990-2016) and ERIC) and ProQuest (PILOTS (1871-2016), Social Services Abstracts and Applied Social Sciences Index and Abstracts (ASSIA) (1987-2016)). Search terms were developed by consulting

existing research on disclosure, reviewing subject heading fields in databases and refining test searches to identify combined search terms to retrieve all eligible studies. The same Boolean search terms were used for each of the databases ((barrier* OR inhibit* OR withhold* OR obstacle OR decision OR fear OR obedienc* OR motiv* OR detect*) AND (facilitat* OR intention* OR motivat* OR purpose* OR enabl* OR support*) AND (disclos* OR report* OR tell* OR deci* OR help seek*) AND (“sex* abus*” OR “child* sex*” OR CSA OR rape OR victimi?ation OR incest) AND (child* OR adolescen* OR infan* OR teen* OR youth OR young adult*).

In order to identify studies of interest that were not indexed by the chosen eight databases, a Google Scholar search and manual searches of the references of studies included within the review were conducted. Weekly alerts were set up for each of the databases informing the authors of any new publications that met the current review’s eligibility criteria.

1.4.4 Study Selection

Figure 1 (Moher *et al*, 2009) presents a flow chart detailing the individual stages of the literature search strategy. From the 2,668 records identified, 824 duplicates were removed. A total of 1,043 titles were screened for relevance and 929 articles were excluded, as they were deemed irrelevant to the review question. Thereafter, 115 abstracts were reviewed and assessed against the predefined eligibility criteria. Seventy-four articles were excluded at this stage. The remaining 41 articles were accessed in full and assessed for suitability. Eleven studies met all criteria for inclusion. An additional two papers that were eligible for inclusion were identified, firstly through the included studies’ references lists and secondly via Google Scholar. As such, the total number of studies included in the review was 13.

Throughout the study selection process, a total of 102 papers were excluded. Twenty-five papers were excluded because although the research was within the field of childhood sexual abuse (CSA), the research did not focus on the act of disclosing CSA specifically. Instead, these articles explored how children and adults communicate about sex and sexual abuse, decision-making processes in CSA reporting and prosecution and assessing credibility in CSA allegations, to name but a few. Thirty-five papers were excluded because of their chosen sample (e.g. adult retrospective studies, mean age for chosen sample of 18.0 and above or sampling professionals such as police officers and clinicians or caregivers such as parents). Twenty-one articles were excluded because they were not considered empirical research, for example, clinical opinions and editorials, literature reviews and book chapters. Finally, 22 articles were excluded because they were not considered primary studies; these articles analysed secondary data such as training evaluation forms, confidential case files and existing forensic interview transcripts.

The remaining studies that met the current review's eligibility criteria were reviewed in full. Table 1 provides summary information for each of these 13 articles, which includes study design, sample, abuse and disclosure characteristics, data analysis strategy and main findings.

1.4.5 Assessment of Methodological Quality

Methodological quality criteria that ensured qualitative and quantitative designs were fairly evaluated were developed with reference to a range of published criteria and recommendations (Critical Appraisal Skills Programme (CASP), 2014; CRD, 2009; SIGN, 2008; PRISMA; Liberati *et al*, 2009; Murphy *et al*, 1998; Jeanfreau & Jack,

2010 and Shenton, 2004). See Appendix 3 for a copy of the quality criteria that were developed and used to rate the methodological quality of the included studies.

Studies were rated on a total of 15 quality criteria items across five different dimensions: research questions/aims, sampling, methodology, data analysis and findings. Each quality criterion was assessed according to the following quality ratings, 'well covered', 'adequately addressed', 'poorly addressed', 'not addressed', 'not reported' and 'not applicable'. An overall quality rating score was calculated for each of the 13 included studies so as to facilitate the synthesis of findings in light of their methodological strength and rigor. Points were allocated per quality rating such that 'well covered' (3 points), 'adequately addressed' (2 points), 'poorly addressed' (1 point) and 'not addressed', 'not reported' or 'not applicable' (0 points). A total quality rating score was calculated for each study based on the core 11-quality criteria ('research question/aim', 'sampling strategy', 'power', 'sampling characteristics', 'study design and method', 'measures', 'abuse characteristics', 'disclosure characteristics', 'confounding variables', 'data analysis' and 'findings'). An overall quality rating score was calculated for each of the 13 included studies to facilitate the synthesis of findings in light of their methodological rigor; these are provided in Table 2. The nine articles that adopted a qualitative or mixed-methods study design were further assessed on an additional four quality criteria that are relevant for qualitative research ('credibility', 'dependability', 'conformability' and 'transferability'). Out of a possible 12 points in this case, the nine studies were assigned a secondary quality rating score for the qualitative component to their methodology. This score is given in brackets under the 'Overall Quality Rating Score' column found in Table 2.

The first author appraised all of the 13 included studies. To minimize errors and reduce possible assessment bias, two independent reviewers individually assessed a total of six randomly selected studies on each of the 15 quality criteria. Raters agreed on 75 out of the possible 90 items across the six studies (83.3% agreement). An inter-rater reliability analysis using Cohen's Kappa statistic was performed to assess agreement between raters. Adopting Altman's (1999) classification of Cohen's Kappa, a good inter-rater agreement was found ($K = 0.80$, $p < 0.05$). Scoring discrepancies on 15 items were resolved through discussion. Agreement between raters on all items for each domain was sought before overall quality descriptors were assigned to each study included in the review.

Figure 1. Flow chart detailing the systematic review search strategy.

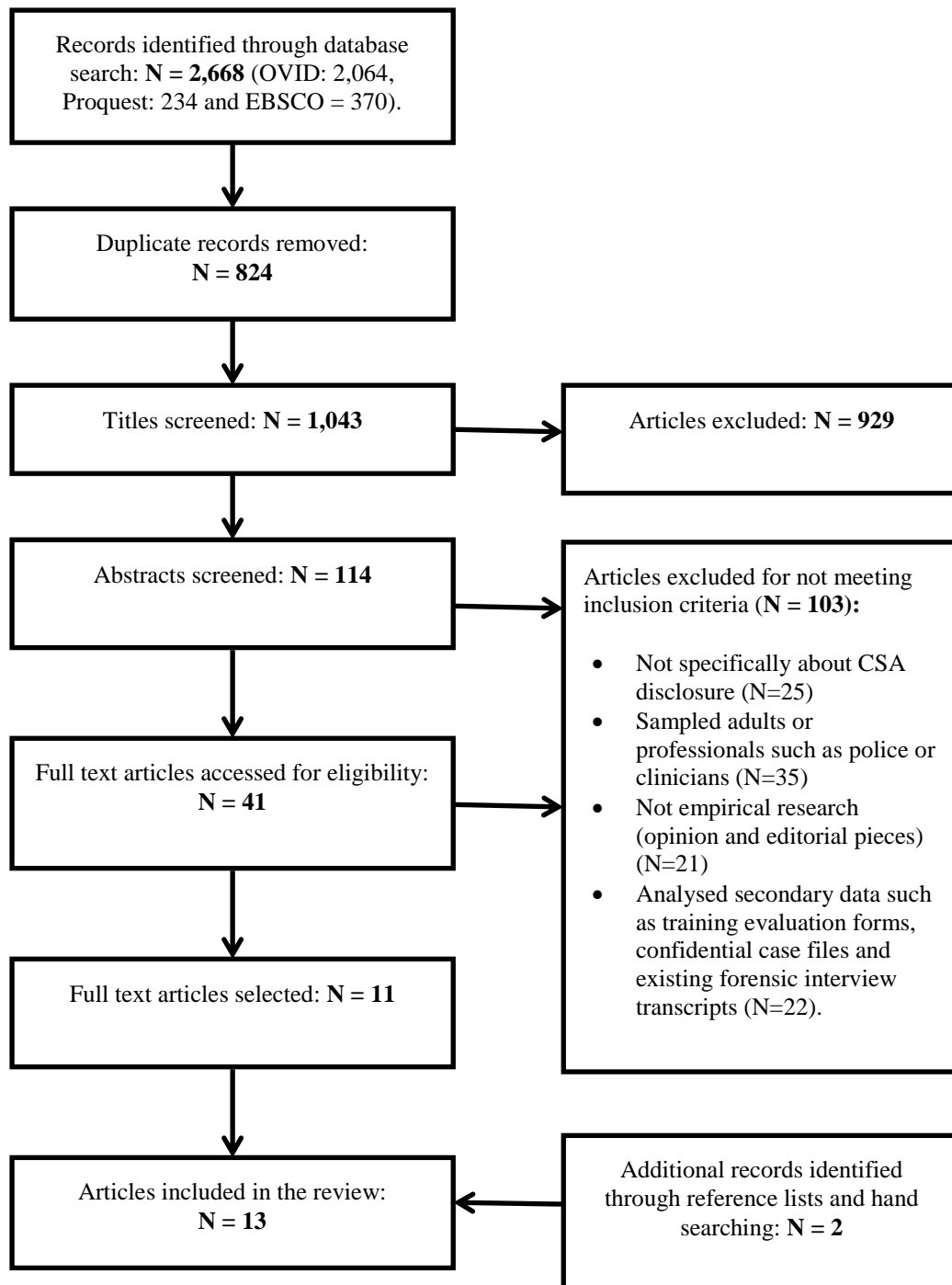


Table 1. Summary of characteristics and findings of included studies.

Authors (Year), Country	Study Design	Sample and Sampling Strategy	Sample Characteristics	Abuse Characteristics	Disclosure Characteristics	Data Analysis	Main Findings
Crisma <i>et al</i> (2004). Italy.	Qualitative.	General population. Volunteer Sampling	N=36. Gender: 35 females; 1 male. Age: <18 years (N=31) 18-21 years (N=4) >22 years (N=1).	Type: rape (N=23), attempted rape (N=2), fondling/touching (N=10) peeping (N=1). Perpetrators: all males; father, stepfather, grandfather or brother (N=8), other relatives (N=7), partners/friends (N=13). Duration: single episode (N=13), <1 year (N=5), >1 (N=18).	Number: none (N=7), 1 (N=12), 2 (N=8), 3 or more (N=9). Recipient: nobody (N=7), friends (N=15), parents (N=10), other family members (N=11), and professionals (N=12).	Not articulated.	Barriers: lack of information; desire for autonomy and maturity; wish to protect family members, limited support gained from professionals and adults.
Gries, Goh & Cavanaugh (1996). USA.	Quantitative. Cross-sectional	Foster children. Purposive Sampling	N=96 Gender: 47 females, 49 males. Age: mean= 8.3 years, range= 3-17 years.	Type: physical abuse (N=19), exposure to others (N=9), exposure to pornography (N=5), fondling (N=49), anal penetration (N=7), genital penetration (N=18), touching offender (N=14).	Number: disclosed prior to study (N=43), no prior disclosure made (N=53). Recantation: (N=9; 4 females, 5 males).	Pearson chi-squared.	More females than males disclosed during assessment; more males than females disclosed physical abuse. Barriers: younger children more likely to recant disclosure. Facilitators: personal history, CSA was worst experience and identification of body parts.
Hershkowitz <i>et al</i> (2007). Israel.	Mixed methods	Children who had made allegations of sexual abuse. Purposive Sampling	N=30 Gender: 12 females, 18 males. Age: mean = 9.2 years, range 7-12 years.	Frequency: single event (N=16) multiple (N=14). Type: sexual exposure or fondling over clothes (N=18), touching under clothes, including genital penetration (N=12), sexual touch over clothes (N=12) and under clothes (N=18). Perpetrator: familiar (N=18), stranger (N=12). Threats: no (N=20), yes (N=10). Reward: no (N=23) yes (N=7). Age at onset: 9 and under (N=15), over 9 (N=15).	First recipient: siblings or friends (47%), parents (43%) other adults (10%). Latency: between 1 week and 2 years (53%), up to 1 month (76%), up to 1 year (19.8%) > 1 year (6.6%). Spontaneous (57%) Prompted (43%) Recantation: 13%	Content analysis. Pearson chi-squared. Fisher's exact statistics.	Barriers: 10-12 year olds more likely to delay disclosure than 7-9 year olds. Unsupportive parental reactions; feelings of fear and shame; perpetrator was familiar, abuse was serious and repeated. Facilitators: receiving positive emotional support; being prompted.

Jensen <i>et al</i> (2005). Norway.	Qualitative	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=22. Gender: 15 females; 7 males. Age: mean = 7.5 years, range 3-16 years	Type: sexual; fondling genitals (N=11), cunnilingus/fellatio (N=4), masturbation/ ejaculation (N=4), vaginal or anal intercourse (N=3) Perpetrator: all males, all family members.	Recipient: parents (N=18), peers (N=3) uncle (N=1).	Grounded Theory Interpretative Phenomenology.	Barriers: perceived negative consequences for suspected offender and family; perceived lack of support. Facilitators: contact with suspended offender as a trigger for disclosure, someone interpreting symptoms, joint focus of attention.
Kellogg & Houston (1995). USA.	Quantitative Cross-sectional	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=345 Gender: 286 females, 59 males Age: mean = 17.92	Type: anogenital penetration (N=165), oral-genital contact/penetration (N=41), fondling (N=138). Perpetrator: adult family member (N=124), adult acquaintances (N=82), stranger (N=51) peer acquaintances (N=51) and peer family members (N=20). Gang-related (N=14) and more than one perpetrator (N=145)	First recipient: Friend (N=57), teen relative (N=20), adult relative (N=44), school personnel (N=5), nonrelative adult (N=14), other (N=3). Latency: mean = 2.3 years, median = 5-6 months.	Pearson chi-squared ANOVA	Barriers: Positive feelings for the perpetrator and self-blame. Facilitators: The inability to contain the information, feeling tired of the sexual experiences, fear of negative consequences of ongoing abuse, school intervention.
McElvaney <i>et al</i> (2012). Ireland.	Qualitative	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=22. Gender: 16 females, 6 males. Age: range 8-18.	Type: Experiences ranged from sexual fondling to vaginal and anal penetration. Perpetrator: intrafamilial (N=11), extrafamilial (N=9) intra/extrafamilial (N=2).	Not articulated	Grounded Theory	The process of disclosure is conceptualised as tri-phasic: active withholding, pressure cooker effect and confiding.
McElvaney <i>et al</i> (2014). Ireland.	Qualitative	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=22. Gender: 16 females, 6 males. Age: range 8-18.	Type: Experiences ranged from sexual fondling to vaginal and anal penetration.	Latency: range no delay to 9 years, 1 year (N=4), 2 years (N=5), 4 years (N=3), 7 years (N=2) 9 years (N=2). Recipient: N=15 peer.	Grounded Theory	Barriers: shame, self-blame, fears and concerns for self and others. Facilitators: being believed, being asked, and peer influence.
Mont'Ros-Mendoza & Hecht (1989). USA.	Qualitative	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=8 Gender: 6 females, 2 males. Age: range 7-16 years.	Frequency: 1 occasion (N=7), multiple (N=1). Perpetrators: intrafamilial (N=4), extrafamilial (N=4).	Recipient: peers (N=5), adult friends (N=2) parents (N=1).	Systematic interpretive analysis. Content analysis.	Facilitators: relational factors (choice of trusted person) and being in a safe location (alone with recipient outside of home).

Munzer <i>et al</i> (2016). Germany.	Quantitative Cross-sectional	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=42 Gender: 25 females, 17 males. Age: mean = 12.6, range: 6- 12 years	Type: flashing/sexual exposure (N=25), rape (N=20), exposure to pornography (N=12), verbal sexual harassment (N=9), nonspecific sexual assault (N=6), statutory rape and sexual misconduct (N=4). Perpetrator: father (N=11), other adult men (N=13), grandfather (N=2), minor brother (N=2) and peer (N=22). Frequency: single event (N=16), repeated (N=24). Number of victimizations: Mean = 9.6; Range = 1-171 Age at onset: mean = 9.0, range = 4-6.	Latency: mean=17 months, range=same day-10 years. First recipient: mother (N=18), father (N=2), peers (N=8), social worker (N=4), teacher (N=2) and police (N=1). Formal recipient: police (N=19), health care provider (N=14), counselor (N=8), judge (N=5), youth welfare service (N=5) none (N=15). Intentional: (N=25) Prompted: (N=2).	Absolute and relative frequencies.	Barriers: shame, guilt/responsibility, self-blame, threats made by perpetrator, did not want to burden parents, protect the perpetrator.
Schaeffer <i>et al</i> (2011). USA.	Mixed methods	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=191 Gender: 141 females, 50 males. Age: mean = 8.9 years.	Type: range from non-contact e.g. exposure to pornography, to fondling, to intercourse.	Recipient: mother (N=59), father (N=4), both parents (N=8), stepmother (N=1), grandmother (N=10), aunt (N=2), teacher (N=8), mental health provider (N=4), parent of another child (N=4), CPS worker (N=3), police (N=2), family friend (N=1) babysitter (N=1).	Grounded Theory. Pearson chi- squared.	11-18 year olds more likely to disclose to peer; 3-10 year olds more likely to disclose to adult. Barriers: threats by perpetrator, fears of the child, lack of opportunity, lack of understanding and relationship with perpetrator. Facilitators: disclosure as result of internal stimuli, outside influences and direct evidence of abuse.
Schonbucher <i>et al</i> (2012). Switzerland.	Mixed methods	Mixed sample: general population and children's hospital. Volunteer sampling	N=26 Gender: 23 females, 3 males. Age: mean = 17.0 years, range = 15.4-18.3 years.	Type: contact without penetration (N=14), rape (N=9). Perpetrator: all males, intrafamilial (N=8), stranger (N=6), adolescent perpetrators (N=13). Age at onset: mean = 11.7 years, range = 3-17 years.	Latency: immediate-within 24 hours (30.1%), delayed (65.4%). Not disclosed prior to interview (N=1). Range = days-years.	Inductive content analysis. Relative frequencies Fisher's exact	Barriers: to not burden others; lack of trust; guilt/shame; lack of understanding; fear of disbelief; fear of perpetrator; fear of parental sanctions and to not destroy family. Facilitators: extra-familial perpetrator; CSA one-off event; age of victim was over 12 years; perpetrator is a minor; parents living together.

Shalhoub-Kevorkian (2005). Israel.	Qualitative.	School children. Convenience Sampling and Volunteer Sampling.	N=628 (focus group) N=28 (interviews) Gender: 28 females.	Type: rape (N=22), attempted rape (N=6). Perpetrator: extended family (N=9), nuclear family (N=5), school peer (N=3), acquaintances (N=7) stranger (N=1).	Not articulated.	Not articulated.	Barriers: fear of losing familial support, being killed, violating family honor, ruining reputation, social shame and repercussions for self. Negative responses from professionals.
Søftestad <i>et al</i> (2013). Norway.	Qualitative	Children who had made allegations of sexual abuse. Purposive Sampling	N=13 Gender: 8 females, 5 males. Age: range: 7-15 years.	Perpetrator: father (N=5), mother (N=1), grandfather (N=1), older male cousins (N=3) and one older male foster brother (N=1).	Not articulated.	Grounded Theory.	Conversations on suspicion, receiving information, contributing in decision-making, sharing feelings, engaging in conversations on meaning making.

1.5 Results

The characteristics for each study are detailed in Table 1. These are also briefly summarised below before a synthesis of findings within the context of the methodological appraisal of the included studies is presented.

1.5.1. Study Characteristics

Four of the studies were conducted in the USA (Gries *et al*, 1996; Kellogg & Houston, 1995; Mont’Ros-Mendoza & Hecht, 1989; and Schaeffer *et al*, 2011), two in Ireland (McElvaney *et al*, 2012, 2014), two in Norway (Jensen *et al*, 2005; Søftestad *et al*, 2013) and two in Israel (Hershkowitz *et al*, 2007; Shalhoub-Kevorkian, 2005). The remaining three studies were published in Italy (Crisma *et al*, 2004), Germany (Munzer *et al*, 2016) and Switzerland (Schonbucher *et al*, 2012).

Three studies adopted a quantitative, cross-sectional design (Gries *et al*, 1996; Kellogg & Houston, 1995; Munzer *et al*, 2016). Seven studies used a qualitative design (Crisma *et al*, 2004; Jensen *et al*, 2005; McElvaney *et al*, 2012, 2014; Mont’Ros-Mendoza & Hecht, 1989; Shalhoub-Kevorkian, 2005; Søftestad *et al*, 2013) and three studies employed a mixed methods design (Hershkowitz *et al*, 2007; Schaeffer *et al*, 2011; Schonbucher *et al*, 2012). The three studies adopting a quantitative study design analysed their data with Pearson’s chi-squared tests (Gries *et al*, 1996; Kellogg & Houston, 1995), Analysis of Variance (ANOVA) tests (Kellogg & Houston, 1995) and with absolute/relative frequencies (Munzer *et al*, 2016). Three of the seven qualitative studies adopted grounded theory as their method of data analysis. One study employed grounded theory and interpretative phenomenological analysis (IPA) (Jensen *et al*, 2005) and one study employed content analysis and

systematic interpretive analysis (Mont’Ros-Mendoza & Hecht, 1989). Two qualitative studies did not articulate their theoretical orientation or their adopted method for data analysis (Crisma *et al*, 2004 and Shalhoub-Kevorkian, 2005). The mixed methodology studies adopted various data analysis strategies. Hershkowitz *et al* (2007) adopted content analysis, Pearson’s chi-squared test and Fisher’s exact tests. Schaeffer *et al* (2011) adopted grounded theory and Pearson’s chi-squared test and Schonbucher *et al* (2012) employed relative frequencies, content analysis and fisher’s exact test.

All of the 13 studies sampled children and adolescents (with a mean age of 18.0 years and below) who had experienced sexual abuse. In seven studies, the cohort consisted of a “clinical” sample of young people known to health care and child welfare systems such as hospital and child psychiatry clinics or support centers for sexually abused children (Jensen *et al*, 2005; Kellogg & Houston, 1995; McElvaney *et al*, 2012, 2014; Mont’Ros-Mendoza & Hecht, 1989; Munzer *et al*, 2016; Schaeffer *et al*, 2011). Two studies sampled participants from the judicial sector. For example, Søftestad *et al* (2013) sampled children who had recently made allegations of sexual abuse to legal multi-professional disclosure teams and Hershkowitz *et al* (2007) sampled alleged victims who were interviewed using the National Institute of Child Health and Human Development (NICHD) Investigative Interview Protocol (Orbach *et al*, 2000). One study sampled a cohort of foster children (Gries *et al*, 1996) and one study researched a school-based sample (Shalhoub-Kevorkian, 2005). One study sampled children and adolescents from the general population (Crisma *et al*, 2004) and one study included a mixed sample of children from both the general population and from a children’s hospital (Schonbucher *et al*, 2012). The majority of studies (77%) adopted a purposive sampling strategy, two papers adopted volunteer sampling

strategies (Crisma *et al*, 2004; Schonbucher *et al*, 2012) and one study adopted both volunteer and purposive sampling strategies by conducting semi-structured interviews with a group of self-selecting adolescents who had initially taken part in school-based focus groups (Shalhoub-Kevorkian, 2005).

Sample characteristics for the included studies were compared. One study (McElvaney *et al*, 2014) included the same participants in both their 2012 and 2014 publications. As such, sample characteristics were taken from McElvaney *et al*'s (2012) study only. Therefore, a total of 658 females and 421 males were sampled across all 13 studies. It is not clear whether this gender imbalance reflects gender differences in childhood sexual abuse prevalence data (see Office for National Statistics, 2016) or higher disclosure rates for sexually abused females in comparison to their male counterparts or whether this difference simply reflects the over-representation of females in the wider CSA literature. Ages of the included sample were reported differently between studies. Means were reported in seven studies. In these studies, the mean age of a total of 752 participants was 13.41 years. For the remaining studies, means were calculated using reported age ranges. Assuming that the ages of participants were uniformly distributed within the reported ranges, the adjusted mean was found to be 13.25 years. One study was excluded from this analysis (Crisma *et al*, 2004) because no upper age limit for their sample was defined.

1.5.2. Abuse Characteristics

Included studies were heterogeneous in measuring characteristics of the disclosed abuse. The two most commonly measured and reported characteristic of abuse were 'type' and 'perpetrator'. Eleven studies measured the type of abuse e.g. non-contact offenses or contact offenses with/without penetration. Ten studies reported the

alleged perpetrator of the abuse. Three studies measured the frequency of abuse (Hecht & Mont’Ros-Mendoza, 1989; Hershkowitz *et al*, 2007 and Munzer *et al*, 2016). Two studies measured the victim’s age at the onset of abuse (Munzer *et al*, 2016 and Schonbucher *et al*, 2012). Other characteristics that were measured were the duration of abuse (Crisma *et al*, 2004) and whether or not the alleged perpetrator used rewards or made threats (Hershkowitz *et al*, 2007). Three studies (Crisma *et al*, 2004; Hershkowitz *et al*, 2007 and Schonbucher *et al*, 2012) were considered to have covered abuse characteristics well by measuring the most number of abuse characteristics. Gries *et al*, (1996), Søftestad *et al* (2013), Schaeffer *et al* (2011) and McElvaney *et al* (2014) each only measured and reported one abuse characteristic and these studies were therefore considered to have only poorly addressed the operationalisation of abuse characteristics.

1.5.3. Disclosure Characteristics

Characteristics of the victim’s disclosures were also measured heterogeneously between studies. The most commonly measured disclosure characteristic was ‘recipient’, with eight of the thirteen studies (62%) measuring who the victim disclosed to. Five studies (38%) measured the delay (latency) of disclosure. Only two studies measured the number of disclosures that the victim had made (Crisma *et al*, 2004 and Gries *et al*, 1996). Two studies measured whether the victim had made recantations as part of their disclosure (Gries *et al*, 1996 and Hershkowitz *et al*, 2007) and two studies measured whether the disclosure had been spontaneous or prompted (Hershkowitz *et al*, 2007 and Munzer *et al*, 2016). Although none of the studies were considered to have well covered the operationalisation of disclosure characteristics, two studies (Hershkowitz *et al*, 2007 and Munzer *et al*, 2016) measured the most

number of characteristics; a total of four each. Four studies (Schonbucher *et al*, 2012; Schaeffer *et al*, 2011; Jensen *et al*, 2005 and Hecht & Mont’Ros-Mendoza, 1989) each measured only one disclosure characteristic and three studies did not measure or report a single characteristic of the victim’s disclosure (Søftestad *et al*, 2013; Shalhoub-Kevorkian, 2005 and McElvaney *et al*, 2012) and as such, were considered to have not addressed the operationalisation of disclosure characteristics.

Table 2. Quality ratings for included studies.

W/C=well covered; A/A=adequately addressed; P/A=partially addressed; N/AD=not addressed; N/REP-not reported; N/APP=not applicable.

Study	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Overall Quality Rating Score out of 33 (out of 12)
	Research question/aim	Sampling strategy	Power	Sampling Characteristics	Study design and method	Measures	Abuse characteristics	Disclosure characteristics	Confounding variables	Data analysis	Findings	Credibility (validity)	Dependability (reliability)	Confirmability (objectivity)	Transferability (generalisability)	
Crisma <i>et al</i> (2004)	W/C	A/A	A/A	P/A	A/A	N/AD	W/C	P/A	N/AD	P/A	A/A	P/A	P/A	P/A	A/A	20 (5)
Gries, Goh & Cavanaugh (1996)	W/C	N/AD	N/AD	P/A	A/A	N/AD	P/A	P/A	P/A	W/C	W/C	N/APP	N/APP	N/APP	N/APP	19 -
Hershkowitz <i>et al</i> (2007)	A/A	A/A	A/A	A/A	W/C	A/A	A/A	A/A	P/A	A/A	W/C	N/APP	N/APP	N/APP	N/APP	24 -
Jensen <i>et al</i> (2005)	A/A	A/A	A/A	P/A	W/C	N/AD	A/A	P/A	N/AD	A/A	W/C	A/A	A/A	A/A	W/C	20 (9)
Kellogg & Houston (1995)	P/A	P/A	A/A	W/C	W/C	P/A	P/A	P/A	N/AD	A/A	W/C	N/APP	N/APP	N/APP	N/APP	23 -
McElvaney <i>et al</i> (2012)	W/C	N/AD	A/A	A/A	W/C	W/C	A/A	N/AD	A/A	W/C	W/C	A/A	A/A	A/A	A/A	25 (8)
McElvaney <i>et al</i> (2014)	W/C	N/AD	A/A	P/A	W/C	W/C	P/A	P/A	P/A	W/C	A/A	A/A	A/A	A/A	A/A	22 (8)
Mont'Ros-Mendoza & Hecht (1989)	W/C	A/A	P/A	P/A	W/C	W/C	P/A	P/A	N/AD	A/A	A/A	A/A	P/A	P/A	A/A	23 (6)
Munzer <i>et al</i> (2016)	W/C	A/A	A/A	A/A	W/C	A/A	A/A	A/A	P/A	P/A	W/C	N/APP	N/APP	N/APP	N/APP	25 -
Schaeffer <i>et al</i> (2011)	W/C	A/A	A/A	W/C	W/C	A/A	P/A	P/A	N/AD	W/C	W/C	A/A	A/A	A/A	A/A	25 (8)
Schonbucher <i>et al</i> (2012)	W/C	A/A	A/A	W/C	W/C	A/A	W/C	A/A	A/A	W/C	W/C	P/A	P/A	A/A	A/A	28 (6)
Shalhoub-Kevorkian (2005)	W/C	N/AD	P/A	P/A	A/A	P/A	P/A	N/AD	P/A	P/A	A/A	N/AD	P/A	N/AD	P/A	19 (2)
Søftestad <i>et al</i> (2013)	W/C	P/A	P/A	A/A	W/C	W/C	P/A	N/AD	N/AD	W/C	W/C	A/A	A/A	A/A	A/A	23 (8)

1.5.4 Methodological Strengths and Limitations of Included Studies

The methodological standard of research is critical when interpreting results. This is particularly imperative to bear in mind when conducting a systematic review. It is important to interpret studies within the context of their methodological strengths and limitations. As such, the collective strengths and weaknesses of the studies are discussed below and additional relevant information is outlined in Table 2.

One of the overall strengths of the included studies was a well-articulated research question. All but three of the studies set out to answer a relevant research question that was contextually developed. Two studies stated research questions but these were not contextually developed (Hershkowitz *et al*, 2007; Jensen *et al*, 2005) and one study (Kellogg & Houston, 1995) merely alluded to its study aims. Well articulated research aims included an aim to understand the barriers and facilitators to disclosing sexual abuse or more generally, to explore the patterns of disclosure in child and adolescent populations. A second overall strength of the included studies was in their study design and method. The majority of studies (77%) adopted a study design that was appropriate and justified for their stated research question and their methods (such as recruitment strategies, data collection and ethical issues) were well articulated. A further overall strength of the studies was in relation to their results. Study findings were anchored in and accurately reflected the data. Studies that adopted a qualitative design made good use of quotations to demonstrate the codes and themes that had been developed from the data. There was, however, some evidence of both over and under-analysis in a couple of studies, where findings appeared to over reach the data or conversely, where synthesis of data was inadequate (Shalhoub-Kevorkian, 2005).

With regards to methodological limitations, one general criticism of the included studies was in relation to confounding variables. None of the 13 studies were considered to have covered this well. In fact, only two studies provided some information or made reference to potential confounders, such as whether any previous disclosures had been made. Five studies provided only limited information about potential confounders and six studies did not address or make any reference to potential confounders at all (Crisma *et al*, 2004; Hecht & Mont'Ros-Mendoza, 1989; Jensen *et al*, 2005; Kellogg & Houston, 1995; Schaeffer *et al*, 2011; Søftestad *et al*, 2013). A second criticism of the included studies was with regards to their sampling strategies and the operationalisation of their sample characteristics. No studies were considered to have covered their sampling strategy well and only seven studies were considered to have adequately addressed this. Four studies (Gries *et al*, 1996; McElvaney *et al*, 2002 and 2004; Shalhoub-Kevorkian, 2005) were considered to have not addressed this criterion at all in so far as inclusion and exclusion criteria were not fully articulated and no references were made to missing data, attrition rates or reasons for non-participation. Regarding sample characteristics, only three studies (Kellogg & Houston, 1995; Schaeffer *et al*, 2011 and Schonbucher *et al*, 2012) were considered to have well covered the quality criterion of sample characteristics. In these studies, characteristics of the participants were clearly articulated, these were compared to national demographics and if appropriate, missing demographic information was outlined and explained. The remaining 10 studies met only one or two of the above criteria and so were considered to have only partially or adequately addressed this criterion. Undoubtedly, it is important to interpret findings within the parameters of the population that is being sampled. It is difficult to apply research findings when it is unclear who the research participants are and how they have been

sampled and this has implications for both the reliability and validity of the studies' results and conclusions.

In a similar vein, a further criticism is that of recruitment and whether the samples are representative of child and adolescent survivors of sexual abuse as a whole. The majority of studies sampled children and adolescents who had disclosed their experiences of sexual abuse. One study researched a school-based sample (Shalhoub-Kevorkian, 2005) and only one study sampled children and young people from the general population. In this qualitative study (Crisma *et al*, 2004) 17% of their sample had not disclosed prior to taking part in the research interview. This sampling bias means that children who have been sexually abused but have not yet disclosed are neglected and under-represented in the research sample. The barriers and impediments to disclosure that these silent children face may be different to those that are felt by children and young people who have disclosed their experiences of abuse. Moreover, nine of the 13 studies sampled children who were known to health care and child welfare systems or the judicial sector. As these children and adolescents were receiving help and support following their disclosures or any formal allegations made, one might assume that the barriers and facilitators experienced by these individuals would be markedly different to those felt by children and adolescents who do not receive any care or support following their disclosures of abuse. Therefore, study findings should be interpreted in light of the possibly biased sampling strategies that have been adopted in the included studies.

1.5.5 Study Findings

Findings of the included studies can broadly be categorized into two groups, as per the review's research questions: to understand the barriers that children and adolescents face when disclosing sexual abuse and to identify the factors that are associated with facilitating them to disclose. As such, study findings pertaining to the barriers and the facilitators of CSA disclosure are discussed below.

1.5.5.1 Barriers: Ten studies specifically reported findings on the barriers of CSA disclosure. One study (Mont'Ros-Mendoza & Hecht, 1989) did not articulate findings about barriers but focused on the reported facilitators for disclosure instead. Two qualitative studies (Søftestad *et al*, 2013 and McElvaney *et al*, 2012) aimed to explore disclosure processes more generally. As such, they proposed an overall model of disclosure rather than identifying specific barriers and facilitators as experienced by children and adolescents.

Overall, various barriers were identified yet some were more commonly identified than others. Six studies found perceived lack of understanding and limited support from adults (parents or professionals) to be impediments of disclosure (Crisma *et al*, 2004; Hershkowitz *et al*, 2007; Jensen *et al*, 2005; Schaeffer *et al*, 2011; Schonbucher *et al*, 2012; Shalhoub-Kevorkian, 2005). This finding is congruent with existing research, which has identified that an individual may be motivated to withhold disclosure because of the anticipated negative social reactions of the recipient (Ullman, 2002). Similar findings have been identified in adult retrospective studies (Allnock & Miller, 2013). In retrospective studies sampling adult populations, similar findings have been identified. Wager (2012), for example, surveyed 481 adults who disclosed sexual abuse in their childhood; 57% of which reported a negative response

(i.e. disbelief and lack of support) from the disclosure recipient. Allnock and Miller (2013) found as many as 54 out of 60 young adults aged 18-24 to have had some negative experiences during their disclosure journeys. These findings demonstrate that when disclosing sexual abuse, children and adolescents may be met with a lack of understanding and limited support from others. The fear and anticipation of these negative social reactions may impede young people from disclosing their experiences of abuse, as identified by studies in the current review.

This finding appears to fit with the second most commonly identified barrier: perceived negative consequences for the self and for others. Studies found that children and adolescents feared negative consequences for themselves such as parental sanctions (McElvaney *et al*, 2014; Schonbucher *et al*, 2012), losing familial support, social-shame, ruining their reputation, violating the family honor and being killed (Shalhoub-Kevorkian, 2005). Children also feared negative consequences for the suspected offender (e.g. imprisonment) and for their family (e.g. family break-up) (Crisma *et al*, 2004; Jensen *et al*, 2005; McElvaney *et al*, 2014; Munzer *et al*, 2016; Schaeffer *et al*, 2011; Schonbucher *et al*, 2012). McElvaney *et al* (2014) echoed these findings; they argued that children feared that their disclosure would place a heavy burden on others. Thus, children withhold disclosure in a bid to protect loved ones and family members. It is possible that relational and family dynamics such as the relationship between the alleged perpetrator and the victim (Schaeffer *et al*, 2011) as well as the victim's thoughts and feelings towards the suspected offender play a part in whether a child is impeded by a fear of negative consequences when choosing to disclose. Indeed, the child's love for (Kellogg & Houston, 1995; Munzer *et al*, 2016) and the need to protect (Crisma *et al*, 2004; Schonbucher *et al*, 2012) the alleged perpetrator were found as potential barriers to victims disclosing their experiences of

sexual abuse. This may partially explain why previous research has identified that victims of intra-familial abuse are more likely to delay disclosure than victims of extra-familial abuse (Arata, 1998; Goodman-Brown *et al*, 2003; Hershkowitz *et al*, 2007; London *et al*, 2005; Smith *et al*, 2000). It may be that extant research ignores the social and (inter)-relational dynamics of disclosures and views them simply as unidirectional processes instead (Reitsema & Grietens, 2016). Instead, young victims should not be understood in isolation, rather as part of a systemic, interpersonal and emotional unit. Indeed, as Flåm and Haugstvedt (2013) describe, “children do not tell, delay, recant or reaffirm accounts of their sexual victimization in a vacuum” (p.634). Given the heterogeneity of (and lack of statistical control) of the relational dynamics in the family units represented within the included studies, limited conclusions can be drawn about the factors that contribute to a child’s felt sense of and perception of possible negative consequences to self or others upon disclosing their experiences of sexual abuse.

Six studies identified the child’s emotional response to the abuse (guilt, shame, self-blame and responsibility for the perpetrator’s actions) as important barriers to disclosure. Quantitative studies found children were significantly more likely to delay disclosing if they experienced feelings of guilt and shame (Munzer *et al*, 2016; Schonbucher *et al*, 2012). Kellogg and Houston (1995) found that children who delayed disclosure were significantly more likely to believe that the abuse was their fault as much as it was the perpetrators’. This felt sense of responsibility along with feelings of self-blame and shame, were also identified as barriers to disclosure in McElvaney *et al*’s (2014) qualitative study.

These findings appear to fit with psychological research and theory highlighting the role of constructs such as shame and guilt in CSA (Browne & Finkelhor, 1986; Romero *et al*, 1999; Ullman, 2002). For example, Hoffman (1997) investigated unwanted sexual experiences by conducting a cross-sectional survey sampling 538 young adults who attended sexual abuse clinics. Authors found that victims of multiple perpetrators were significantly more likely than victims of single perpetrators to delay disclosure of sexual abuse due to feelings of shame. Moreover, Roesler and Wind (1994) surveyed 228 volunteer adult female survivors of intra-familial sexual abuse and similarly found that shame served as a significant barrier to timely disclosure.

1.5.5.2 Facilitators: Eight studies specifically reported findings on the possible facilitators of disclosure, amongst which there appears to be more heterogeneity and less consistency. The most commonly identified facilitator was children being prompted (e.g. adults interpreting signs and symptoms) or being asked directly about possible abuse (Hershkowitz *et al*, 2007; Jensen *et al*, 2005; McElvaney *et al*, 2014; Sjøftestad *et al*, 2013). Of these four studies, only Hershkowitz *et al* (2007) measured whether disclosures were spontaneous or prompted. The other three studies, qualitative in design, did not operationalize this disclosure characteristic yet identified this as an important facilitator. This finding fits with research, which has identified that disclosures are more likely to be made following a prompt rather than initiated by the young person (Kogan, 2004). As such, it may be that children do not disclose simply because they are not asked (McGee *et al*, 2002).

This facilitator is congruent with other relational factors that have been identified as facilitators of disclosure. Mont’Ros-Mendoza and Hecht (1989), for example, found

that having a trusted target person to whom to disclose to facilitates the victims in doing so. Schonbucher *et al* (2012) found that immediate disclosure was more likely when the victim's parents still lived together. The importance of relational factors such as these fit with research which suggests that close relationships and parental bonding play an important role in facilitating young people to disclose sexual abuse (Priebe & Svedin, 2008).

An important finding in the included studies was the importance in providing young people with information about sexual abuse that is both developmental age and stage appropriate. Kellogg and Houston (1995), for example, found that a school-based intervention about unwanted sexual experiences supported Hispanic victims to disclose. In addition, Sjøftestad *et al* (2013) emphasized the importance for a victim to receive information about sexual abuse as this supported them to engage in meaningful conversation, during which disclosure of intra-familial abuse can be made. This echoes Crisma *et al* (2004) findings, which suggest that a possible barrier to adolescents disclosing sexual abuse is a lack of information, particularly about the possible risks of sexual abuse as well as the help and support that is available.

Other significant facilitators identified included the converse of the abovementioned barriers. For example, disclosures were facilitated if the victim did not feel any guilt or shame (Schonbucher *et al*, 2012), if the child received positive emotional support and understanding i.e. being believed (Hershkowitz *et al*, 2007; McElvaney *et al*, 2012) and if the abuse was extra-familial (Schonbucher *et al*, 2012).

1.5.5.3 *Age*: Extant research has identified age as a significant predictor of disclosure. Previous findings suggest that younger children are less likely to disclose than older children (McElvaney *et al*, 2015). Four studies in the current review reported findings in relation to age as a possible predictor of disclosure (Gries *et al*, 1996; Hershkowitz *et al*, 2007; Schaeffer *et al*, 2011; Schonbucher *et al*, 2012). Unfortunately, these findings were mixed. Gries *et al* (1996), for example, found that younger children were more likely to recant their allegations of abuse than older children and adolescents. In a similar vein, Schonbucher *et al* (2012) found that disclosure was more likely if the victim's age at the onset of abuse was less than 12 years. Although these findings seem to fit with previous research (Goodman-Brown, 2003; Smith *et al*, 2000), Hershkowitz *et al* (2007) found the contrary i.e. that older children (10-12 year olds) were more likely to delay disclosure than the younger children (7-9 year olds) in their sample. Age has also been associated with the victim's choice of disclosure recipient. In this current review, Schaeffer *et al* (2011) found that 3-10 year olds were more likely to disclose to adults, whilst 11-18 year olds were more likely to disclose to peers. Although this was the only study to have reported findings on the relationship between age and disclosure patterns, this finding fits with existing research (Lamb & Edgar-Smith, 1994; Edgath & Ormstad, 2000; Tang 2002).

1.5.5.4 *Gender*: Research has identified gender as a significant predictor of disclosure. For example, Goodman-Brown *et al* (2003) and Ungar *et al* (2009) found girls to be less reluctant to disclose than boys. Only one study in the current review reported findings on possible gender effects. In this quantitative, cross-sectional study, Gries *et al* (1996) found that males were significantly more likely to disclose physical abuse than females. In addition, more females than males were found to have disclosed over the course of the study's comprehensive sexual abuse assessment. Yet,

no significant gender effects were found in relation to disclosures made prior to the victim's referral into the study. It must be noted that this study was limited in its methodological rigor insofar as measures used were not validated and it is unclear whether the study was sufficiently powered. As such, caution should be exerted when interpreting the possible effect of gender on child and adolescent disclosures of sexual abuse.

1.6 Discussion

The current review has demonstrated that children and adolescents face a number of different barriers and facilitators when disclosing sexual abuse. There appears to be, however, common threads amongst these factors. From the included studies, findings suggest that the optimal condition for a disclosure is for an individual to directly ask the child about their experiences and that this individual provides active listening and support, minimizes the child's feelings of guilt and shame and reduces their fear of negative consequences. With this in mind, this review recommends that prevention and intervention programmes should be developed both for the victims of sexual abuse and also for potential recipients of victims' disclosures. The impetus would be on reducing feelings of responsibility, self-blame, shame and guilt as experienced by young people. Programmes encouraging children to disclose should exist alongside programmes encouraging family members, friends and frontline professionals to identify clues of sexual abuse, to directly ask children about the possibility of sexual abuse and to also respond supportively should disclosures occur.

1.6.1 Current State of the Evidence

Disclosure is best understood as a multifaceted process that is still not fully understood. What complicates the picture further is a lack of standardization across studies and this systematic review demonstrates the heterogeneity of the research to date. Included studies adopted different study designs (seven qualitative; three quantitative and three mixed methods) varied in measures selected and types of data analyses employed. Abuse characteristics (e.g. type, frequency, duration, perpetrator) and disclosure characteristics (e.g. number, latency, recipient) varied greatly between studies. Whilst this illustrates the heterogeneous nature of sexual abuse more generally, it also meant that explicit like-for-like comparisons were not possible as no two studies were directly comparable. In addition, various recruitment procedures were used and different samples (clinical and non-clinical populations) were studied. As such, it is uncertain whether the samples included in this review are representative of child and adolescent survivors of sexual abuse as a whole (Olafson & Lederman, 2006). Moreover, the majority of studies sampled young people who had disclosed their experiences of CSA. This sampling bias means that children who have been sexually abused but have not yet disclosed are under-represented in the research sample. The barriers and impediments to disclosure that these silent children face may be different to those that are felt by children and young people who have disclosed their experiences of abuse. Many of the included studies sampled children who were known to health care and child welfare systems. As these young people were receiving support following their disclosures and formal allegations, one might hypothesize that retrospective, hindsight bias plays a significant role in how children and adolescents recall the barriers and facilitators that they faced when deciding to tell. It is important to interpret findings within the parameters of the population that is being sampled;

therefore study findings should be interpreted in light of the possibly biased sampling strategies adopted. These considerations demonstrate that the current state of the research is predominantly at an exploratory stage.

1.6.2 Limitations of the Studies

Studies varied in their methodological rigour. Some scored comparably better according to the quality criteria than others. Despite some areas of strength, many studies had similar shortcomings, which may have contributed to the heterogeneity of findings. Some previous research has implicated variables such as age, developmental stage, gender, perpetrator and the type of abuse (intra vs. extra-familial) in a child's decision to disclose. Confounding variables such as these were not well reported or statistically controlled for in any data analysis. This may be due to the exploratory and qualitative nature of the studies; six did not address possible confounds at all, five only partially addressed this and only one adequately addressed this dimension. Without future research that adequately controls for these possible confounding variables, firm conclusions about the predictors of disclosure cannot be made at this stage. Finally, only findings from studies published in English were identified and synthesized. This may reflect the fact that few studies have been conducted in non-English speaking countries. If this is the case, the concern is that there is a gap in the evidence base relating to cross-cultural variations in disclosure processes. Studies not carried out in English may articulate interesting findings about the disclosure journeys of children and adolescents out-with of Western culture. This seems a particularly important gap in the literature to address given that child abuse should be understood as a 'global problem deeply rooted in cultural, economic and political practices' (WHO, 2002) and

that cultural differences are reflected in global CSA prevalence data (see Stoltenborgh *et al*, 2011).

1.6.3 Strengths and Limitations of the Review

A particular strength of the current review is that it employed a rigorous search strategy and additional searches using Google Scholar and manual searches through reference lists provided confidence that eligible papers were not missed. Moreover, the review included studies of all methodological design. Reducing the review's inclusion criteria to only qualitative or quantitative papers might have limited the number of studies eligible for inclusion, thereby limiting the breadth and depth of findings the review could have drawn from. Regarding its limitations, the review was written qualitatively. This was due to the heterogeneity in the included studies' methodologies. As such, quantitative analysis was not possible. To draw more definitive conclusions about the possible predictors of timely disclosure of childhood sexual abuse, it would be necessary to conduct a systematic meta-analysis. However, this would be dependent on further quantitative developments within the research field. Despite these limitations, the current review adds to the understanding of the barriers and facilitators that children and adolescents face when disclosing experiences of sexual abuse.

1.6.4 Implications for Research

This systematic review highlights a need for more rigorous empirical research on child and adolescent disclosures of sexual abuse that includes designs and sampling strategies that permits detailed analysis of mechanisms of disclosure. Specifically longitudinal designs that incorporate all know factors may contribute to the evidence-

base by obtaining data throughout a child's disclosure journey rather than at a single, retrospective point in time. It may be helpful to truncate the child and adolescent age range of 0-18 years into smaller age bands to empirically research more age-specific patterns of disclosure. In addition, there is also scope to develop research that investigates the efficacy of interventions aimed at facilitating disclosures in children who would otherwise remain silent.

1.6.5 Clinical Implications

Child sexual victimisation is underreported and under-recorded (Reitsema & Grietens, 2016) and there may not be any clear signs that a child or adolescent has been sexually abused. The detection of sexual abuse often relies on disclosure, which the current review has argued is a complex and multifaceted process. Barriers may impede a child or young person from telling someone about their experiences. Whilst it is important to understand what these barriers are, it is perhaps even more important to understand specific factors that facilitate a child's disclosure. Improving our understanding of what helps children tell can inform how individuals and services support more children to disclose. For example, this review recommends that developmentally appropriate information should be communicated to children via school-based programmes, perhaps as part of the education curriculum. Specifically, these interventions should reinforce that sexual abuse is wrong and that children and young people are neither responsible nor to blame. Reducing potential feelings of guilt and self-blame, which have been identified as significant barriers of disclosure, may encourage children and adolescents to disclose their experiences of sexual abuse.

The current review recognizes the risk for children disclosing intra-familial abuse. Research has demonstrated that abuse of this nature may result in disclosure latency and even non-disclosure in child and adolescent victims. Protocols need to be established that ensure those receiving disclosures know how to respond and react in order to minimize the perceived and actual harm to the child's position within the family. That said the complexity and sensitivity of managing these disclosures warrant further thought and research.

Most importantly, the current review has identified that prompting or asking children directly about their experiences of sexual abuse facilitates disclosure by providing them with permission to tell. This is in line with the Scottish Government Mental Health Strategy 2012-2015 (Commitment 18) (The Scottish Government, 2012), which pledges to develop better identification of trauma. As such, there appears to be a need to raise awareness of this with possible recipients of disclosures such as family members, and frontline professionals such as teachers and general practitioners. This recommendation is in line with the World Health Organization's (2006) publication: 'Prevention Child Maltreatment: a guide to taking action and generating evidence', which advocates the need for training programmes for (prospective) parents in the prevention of child maltreatment. Interestingly, the guidance argues that training programmes aimed at health care professionals are required only for interventions for adult survivors (aged ≥ 18 years). To extend on this guidance, the current review recommends that training programmes aimed at potential recipients, including healthcare professionals, should educate individuals about how to identify specific behaviours that may indicate the presence of sexual abuse in children across all developmental stages (and not just in adulthood). Prevention programmes should aim to develop skills in recipients explicitly asking children in ways that are

developmentally appropriate. In addition, there is also scope for raising awareness amongst the general population with the use of public awareness campaigns aimed at supporting non-professionals, victims' families, friends and peers to know how to ask.

Along similar lines, prevention strategies and training programmes should also educate individuals about what to do if someone tells. Supportive and helpful responses to a disclosure could go some way in reducing potential feelings of guilt and shame. Given that these have been identified as significant barriers of disclosure, recognizing and minimizing feelings of guilt and shame may support child and adolescent victims to disclose more readily and with more confidence. This is of utmost importance given that timely disclosure is key to safeguarding children against (re)-victimisation whilst also increasing the likelihood of better outcomes for child and adolescent survivors of sexual abuse.

1.7 References

* Indicates studies included in the current systematic review.

Allnock, D., & Miller, P. (2013). No one noticed, no one heard: a study of disclosures of childhood abuse.

Arata, C. M. (1998). To tell or not to tell: Current functioning of child sexual abuse survivors who disclosed their victimization. *Child Maltreatment*, 3(1), 63-71.

Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological bulletin*, 99(1), 66.

* Crisma, M., Bascelli, E., Paci, D., & Romito, P. (2004). Adolescents who experienced sexual abuse: Fears, needs and impediments to disclosure. *Child abuse & neglect*, 28(10), 1035-1048.

Centre for Research and Dissemination (CRD) (2009) Systematic Reviews: CRD's guidance for undertaking reviews in health care. Accessed at: https://www.york.ac.uk/media/crd/Systematic_Reviews.pdf on 15th February 2017.

Critical Skills Appraisal Programme (CASP) (2014). Accessed at: http://media.wix.com/ugd/dded87_a02ff2e3445f4952992d5a96ca562576.pdf on 15th February 2017.

Edgardh, K., & Ormstad, K. (2000). Prevalence and characteristics of sexual abuse in a national sample of Swedish seventeen- year- old boys and girls. *Acta paediatrica*, 89(3), 310-319.

Flåm, A. M., & Haugstvedt, E. (2013). Test balloons? Small signs of big events: A qualitative study on circumstances facilitating adults' awareness of children's first signs of sexual abuse. *Child abuse & neglect*, 37(9), 633-642.

Galdas, P. M., Cheater, F., & Marshall, P. (2005). Men and health help- seeking

behaviour: literature review. *Journal of advanced nursing*, 49(6), 616-623.

Goodman-Brown, T. B., Edelstein, R. S., Goodman, G. S., Jones, D. P., & Gordon, D. S. (2003). Why children tell: A model of children's disclosure of sexual abuse. *Child abuse & neglect*, 27(5), 525-540.

* Gries, L. T., Goh, D. S., & Cavanaugh, J. (1997). Factors associated with disclosure during child sexual abuse assessment. *Journal of Child Sexual Abuse*, 5(3), 1-19.

* Hershkowitz, I., Lanes, O., & Lamb, M. E. (2007). Exploring the disclosure of child sexual abuse with alleged victims and their parents. *Child abuse & neglect*, 31(2), 111-123.

Jeanfreau, S. G., & Jack Jr, L. (2010). Appraising qualitative research in health education: guidelines for public health educators. *Health promotion practice*, 11(5), 612-617.

* Jensen, T. K., Gulbrandsen, W., Mossige, S., Reichelt, S., & Tjersland, O. A. (2005). Reporting possible sexual abuse: A qualitative study on children's perspectives and the context for disclosure. *Child abuse & neglect*, 29(12), 1395-1413.

Jonzon, E., & Lindblad, F. (2004). Disclosure, reactions, and social support: Findings from a sample of adult victims of child sexual abuse. *Child maltreatment*, 9(2), 190-200.

Jütte, S., Bentley, H., Tallis, D., Mayes, J., Jetha, N., O'Hagan, O., Brookes, H., McConnell, N. (2015). How safe are our children? The most comprehensive overview of child protection in the UK. *NSPCC*. Accessed at <https://www.nspcc.org.uk/globalassets/documents/research-reports/how-safe-children-2015-report.pdf> on 21st February 2017.

* Kellogg, N. D., & Huston, R. L. (1995). Unwanted Sexual Experiences in Adolescents: Patterns of Disclosure. *Clinical Pediatrics*, 34(6), 306-312.

- Kellogg, N. D., & Hoffman, T. J. (1997). Child sexual revictimization by multiple perpetrators. *Child Abuse & Neglect, 21*(10), 953-964.
- Knight, R. A., & Hatty, S. (1987). Theoretical and methodological perspectives on domestic violence: Implications for social actions. *Australian Journal of Social Issues, 22*, 452–464.
- Kogan, S. M. (2004). Disclosing unwanted sexual experiences: Results from a national sample of adolescent women. *Child abuse & neglect, 28*(2), 147-165.
- Lamb, S., & Edgar-Smith, S. (1994). Aspects of disclosure mediators of outcome of childhood sexual abuse. *Journal of Interpersonal Violence, 9*(3), 307-326.
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., ... & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *PLoS Med, 6*(7), e1000100.
- London, K., Bruck, M., Ceci, S. J., & Shuman, D. W. (2007). Disclosure of child sexual abuse: A review of the contemporary empirical literature. *Child sexual abuse: Disclosure, delay and denial*, 11-39.
- * McElvaney, R., Greene, S., & Hogan, D. (2012). Containing the secret of child sexual abuse. *Journal of interpersonal violence, 27*(6), 1155-1175.
- * McElvaney, R., Greene, S., & Hogan, D. (2014). To tell or not to tell? Factors influencing young people's informal disclosures of child sexual abuse. *Journal of interpersonal violence, 29*(5), 928-947.
- McElvaney, R. (2015). Disclosure of Child Sexual Abuse: Delays, Non- disclosure and Partial Disclosure. What the Research Tells Us and Implications for Practice. *Child Abuse Review, 24*(3), 159-169.

- McGee, H., Garavan, R., de Barra, M., Byrne, J., & Conroy, R. (2002). The SAVI report: sexual abuse and violence in Ireland.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & Prisma Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS med*, 6(7), e1000097.
- * Mont'Ros-Mendoza, T., & Hecht, M. L. (1989). Factors Facilitating the Disclosure of Sexual Abuse by Children and Adolescents.
- Morrison, S. E. (2016). Legal disclosure of childhood sexual abuse: what can professionals tell us? D Clin Psy thesis
<http://theses.gla.ac.uk/7582/1/2016morrisonclinpsy.pdf> on 15th February 2017.
- * Münzer, A., Fegert, J. M., Ganser, H. G., Loos, S., Witt, A., & Goldbeck, L. (2016). Please tell! Barriers to disclosing sexual victimization and subsequent social support perceived by children and adolescents. *Journal of interpersonal violence*, 31(2), 355-377.
- Murphy, E., Dingwall, R., Greatbatch, D., et al., 1998. Qualitative research methods in health technology assessment: a review of the literature. DOH, York.
- National Research Council. (2014). *New directions in child abuse and neglect research*. National Academies Press.
- Olafson, E., & LEDERMAN, J. C. S. (2006). The state of the debate about children's disclosure patterns in child sexual abuse cases. *Juvenile and family court journal*, 57(1), 27-40.
- Paine, M. L., & Hansen, D. J. (2002). Factors influencing children to self-disclose sexual abuse. *Clinical psychology review*, 22(2), 271-295.
- Palmer, S. E., Brown, R. A., Rae-Grant, N. I., & Loughlin, M. J. (1999). Responding

to children's disclosure of familial abuse: What survivors tell us. *Child welfare*, 78(2), 259.

Perry, B. D., Pollard, R. A., Blakley, T. L., Baker, W. L., & Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation, and use dependent development of the brain: How states become traits. *Infant mental health journal*, 16(4), 271-291.

Priebe, G., & Svedin, C. G. (2008). Child sexual abuse is largely hidden from the adult society: An epidemiological study of adolescents' disclosures. *Child abuse & neglect*, 32(12), 1095-1108.

Reitsema, A. M., & Grietens, H. (2016). Is anybody listening? The literature on the dialogical process of child sexual abuse disclosure reviewed. *Trauma, Violence, & Abuse*, 17(3), 330-340.

Roesler, T. A., & Wind, T. W. (1994). Telling the secret: Adult women describe their disclosures of incest. *Journal of Interpersonal Violence*, 9(3), 327-338.

Romero, G. J., Wyatt, G. E., Loeb, T. B., Carmona, J. V., & Solis, B. M. (1999). The prevalence and circumstances of child sexual abuse among Latina women. *Hispanic Journal of Behavioral Sciences*, 21(3), 351-365.

* Schaeffer, P., Leventhal, J. M., & Asnes, A. G. (2011). Children's disclosures of sexual abuse: Learning from direct inquiry. *Child abuse & neglect*, 35(5), 343-352.

* Schönbucher, V., Maier, T., Mohler-Kuo, M., Schnyder, U., & Landolt, M. A. (2012). Disclosure of child sexual abuse by adolescents: A qualitative in-depth study. *Journal of Interpersonal Violence*, 27(17), 3486-3513.

Scottish Intercollegiate Guidelines Network (2008). SIGN 50: A guideline developer's handbook.

- * Shalhoub-Kevorkian, N. (2005). Disclosure of child abuse in conflict areas. *Violence Against Women, 11*(10), 1263-1291.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information, 22*(2), 63-75.
- Smith, D. W., Letourneau, E. J., Saunders, B. E., Kilpatrick, D. G., Resnick, H. S., & Best, C. L. (2000). Delay in disclosure of childhood rape: Results from a national survey. *Child abuse & neglect, 24*(2), 273-287.
- * Sjøftestad, S., Toverud, R., & Jensen, T. K. (2013). Interactive Regulated Participation: Children's perspectives on child-parent interaction when suspicion of child sexual abuse is raised. *Qualitative Social Work, 12*(5), 603-619.
- Stoltenborgh, M., van IJzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. J. (2011). A global perspective on child sexual abuse: meta-analysis of prevalence around the world. *Child maltreatment, 16*(2), 79-101.
- Tang, C. S. K. (2002). Childhood experience of sexual abuse among Hong Kong Chinese college students. *Child abuse & neglect, 26*(1), 23-37.
- Tener, D., & Murphy, S. B. (2015). Adult disclosure of child sexual abuse: A literature review. *Trauma, Violence, & Abuse, 16*(4), 391-400.
- Ullman, S. E. (2002). Social reactions to child sexual abuse disclosures: A critical review. *Journal of child sexual abuse, 12*(1), 89-121.
- World Health Organisation (1999). Report of the consultation on child abuse prevention 29-31 March 1999 WHO, Geneva. Website: accessed at: <http://apps.who.int/iris/handle/10665/65900> on 15th February 2017.
- World Health Organisation (2002). Child Abuse and Neglect Factsheet. Accessed at: http://www.who.int/violence_injury_prevention/violence/world_report/factsheet

[s/en/childabu_sefacts.pdf](#) on 15th February 2017.

World Health Organisation (2006). Preventing Child Maltreatment: A guide to taking action and generating evidence. Accessed at:

http://apps.who.int/iris/bitstream/10665/43499/1/9241594365_eng.pdf on 21st February 2017.

Chapter 2: Bridging Chapter

The Impact of Childhood Trauma on Adult Psychological Functioning

The systematic review included in Chapter 1 of this thesis portfolio synthesized findings of thirteen studies investigating the barriers and facilitators to disclosing sexual abuse in childhood and adolescence. It concluded that young people face a number of different barriers when choosing to disclose and that disclosures are facilitated when young victims are explicitly asked and/or prompted. Timely disclosure is key to safeguarding against (re)-victimisation by halting the abuse and also key to young people accessing legal and therapeutic support. Anecdotally, the act of disclosure, in itself, may be viewed as a positive, helpful and healing process that supports victims to move on from their trauma. This hypothesis has received some research attention over the past decade.

2.1 Disclosure and Adult Outcomes

Studies have aimed to explore differences in psychological outcomes between disclosing and non-disclosing survivors of childhood trauma. Ruggiero *et al* (2004) for example, explored associations between disclosure of childhood rape and mental health outcomes in a national representative sample of 3,220 adult women, 288 of which reported at least one incident of penetrative sexual abuse before the age of 18. Results showed that women who waited longer than one month to disclose had a significantly higher past-year prevalence of depression and post-traumatic stress disorder (PTSD) compared to women who disclosed immediately. This effect was still evident after controlling for demographic and rape characteristics such as

frequency and victim-perpetrator relationship. In a similar vein, Wyatt and Newcomb (1990) conducted a retrospective study investigating the possible mediators of CSA on adult outcomes. Authors explored associations between the circumstances of abuse, the extent of disclosure and subsequent outcomes in a community sample of 111 females. They found that non-disclosure was significantly related to poorer adult outcomes such as emotional and interpersonal-specific problems. Of note, Wyatt and Newcomb (1990) researched sexual abuse in isolation and sampled only self-selecting female victims. Critically, the over-representation of CSA and females in the wider literature is problematic because current findings cannot be generalized to other types of childhood trauma (physical and emotional abuse and neglect) or to male samples, who may experience the impact of childhood trauma on adult psychosocial functioning differently from their female counterparts.

In short, disclosure can be a doorway through which survivors access therapeutic interventions that help to resolve the trauma of child abuse. It is important for young victims to receive support that helps them make sense of their experience and manage any distress and confusing feelings that arise following (sexual) abuse. Trauma can significantly interfere with healthy social and emotional development processes (Schore, 2001). In adulthood, reparative work can support male and female survivors to learn healthy social and emotional coping skills that will improve their stunted psychosocial functioning thereby supporting them to move on from the long-term, negative effects of unresolved childhood trauma.

2.2 The Long-term Effects of Childhood Trauma

The long-term effects and the negative impact of unresolved trauma on future health and psychological adjustment have been well documented in the literature. In a

systematic review of reviews, Maniglio (2009) assessed 14 reviews sampling a total of 260,000 subjects from 587 different studies. Findings suggested that childhood sexual abuse is a non-specific risk factor insofar as survivors are at an elevated risk of a wide range of health problems including significant psychopathology. This can include depressive and anxiety disorders (PTSD, obsessive compulsive disorder (OCD)), eating disorders, personality disorders, interpersonal sensitivity and self-injurious or suicidal behaviour. As previously discussed, there is often a focus on childhood sexual abuse in the literature; however other types of childhood trauma have also been examined. Research has demonstrated that the negative long-term effects of trauma are not restricted to sexual abuse only. In their systematic review and meta-analysis, Norman *et al* (2012) assessed 124 studies investigating associations between childhood physical abuse, emotional abuse and emotional neglect and subsequent mental and physical health. Interestingly, similar findings to those of Maniglio's (2009) review were found; studies demonstrated robust evidence suggesting an association between exposure to non-sexual abuse and poor outcomes in adulthood, such as depressive and anxiety disorders, drug use and suicide attempts. Critically, however, only 16 of these 124 studies adopted a prospective study design so temporal relationships cannot be confirmed. A further limitation is that the included studies often did not include matched comparison groups nor did they control for possible confounders such as whether their samples had received psychological intervention. As such, we cannot be certain that these negative outcomes are limited only to adult survivors who have not had the opportunity to resolve their childhood trauma.

2.3 The Treatment of Unresolved Trauma

There exist very few high-quality treatment outcome studies from which evidence-based interventions for unresolved trauma (i.e. complex traumatic stress disorders; Courtois & Ford, 2009) can be drawn. Scottish Government's guide to delivering evidence-based psychological therapies (The Matrix, 2015) grades its treatment as 'C', denoting that there is 'no evidence to date but opinion suggests that this therapy might be helpful' (The Scottish Government, Matrix, 2014 p.7). The recommended therapy adopts a tri-phasic approach to treating survivors of child abuse; the main components of which include training in managing emotions, processing memories of the trauma and developing trustworthy relationships (Herman, 1992). These targeted components (emotion dysregulation and interpersonal difficulties) have routinely been cited as long-term negative effects of childhood trauma (Davis *et al*, 2001; Kim & Cicchetti, 2010; Messman-Moore *et al*, 2010; Huh *et al*, 2014;).

2.4 Conclusions

Extant literature demonstrates that survivors of child maltreatment (physical abuse, sexual abuse, emotional abuse and emotional, physical neglect) have poorer mental health outcomes (Maniglio, 2009; Norman *et al*, 2012). It is widely accepted that trauma can have a significant impact on a survivor's emotional and social development (Lamb & Edgar-Smith, 1994). Yet, research has continuously demonstrated that not all those who are abused subsequently develop psychological problems (Cicchetti & Toth, 2005). As such, what remains unclear is the mechanisms through which childhood trauma leads to negative outcomes, such as suicidality in adulthood. Of note, there is a particular dearth of evidence concerning male survivors of childhood trauma.

The empirical study in Chapter 3 of this thesis portfolio aims to understand the mechanisms through which childhood trauma may lead to suicidality in a sample of adult men. It is important to develop our understanding in this field so that effective and targeted clinical interventions may be offered to men who have experienced abuse and who are considered most “at-risk” of attempting or completing suicide (Scowcroft, 2016; Scottish Government’s Suicide Prevention Strategy, 2013). This is of particular importance given the current lack of knowledge of effective interventions for survivors of unresolved trauma (Scottish Government Matrix, 2015). In short, this thesis portfolio’s empirical study addresses the following research recommendation: ‘future studies are needed in the investigation of male trauma particularly in respect to adult outcomes and mediators to adult socio-emotional functioning’ (Lamb & Edgar-Smith, 1994, p323).

2.5 References

- Cicchetti, D., & Toth, S. L. (2005). Child maltreatment. *Annu. Rev. Clin. Psychol.*, *1*, 409-438.
- Courtois, C. A., & Ford, J. D. (Eds.). (2009). *Treating complex traumatic stress disorders: An evidence-based guide*. Guilford Press.
- Davis, J. L., Petretic-Jackson, P. A., & Ting, L. (2001). Intimacy dysfunction and trauma symptomatology: Long-term correlates of different types of child abuse. *Journal of Traumatic Stress*, *14*(1), 63-79.
- Herman, J. L. (1997). *Trauma and recovery* (Vol. 551). Basic books.
- Huh, H. J., Kim, S. Y., Yu, J. J., & Chae, J. H. (2014). Childhood trauma and adult interpersonal relationship problems in patients with depression and anxiety disorders. *Annals of general psychiatry*, *13*(1), 26.
- Kim, J., & Cicchetti, D. (2010). Longitudinal pathways linking child maltreatment, emotion regulation, peer relations, and psychopathology. *Journal of Child Psychology and Psychiatry*, *51*(6), 706-716.
- Lamb, S., & Edgar-Smith, S. (1994). Aspects of disclosure mediators of outcome of childhood sexual abuse. *Journal of Interpersonal Violence*, *9*(3), 307-326.
- Maniglio, R. (2009). The impact of child sexual abuse on health: A systematic review of reviews. *Clinical psychology review*, *29*(7), 647-657.
- Messman-Moore, T. L., Walsh, K. L., & DiLillo, D. (2010). Emotion dysregulation and risky sexual behavior in revictimization. *Child abuse & neglect*, *34*(12), 967-976.

- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. *PLoS Med*, 9(11), e1001349.
- Ruggiero, K. J., Smith, D. W., Hanson, R. F., Resnick, H. S., Saunders, B. E., Kilpatrick, D. G., & Best, C. L. (2004). Is disclosure of childhood rape associated with mental health outcome? Results from the National Women's Study. *Child maltreatment*, 9(1), 62-77.
- Schore, A. N. (2001). The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant mental health journal*, 22(1- 2), 201-269.
- Scowcroft, M. (2016). Samaritans Suicide Statistics Report 2016. Accessed at: <https://www.samaritans.org/sites/default/files/kcfinder/files/Samaritans%20suicide%20statistics%20report%202016.pdf> on 24th February 2017.
- Scottish Government and NHS Education for Scotland. (2014). "The Matrix. Introduction to the Evidence Tables and How to Use Them". Accessed at: http://www.nes.scot.nhs.uk/media/3503016/the_matrix_2014_part_2_-_intro_to_the_evidence_tables_final_word_doc.pdf on 7th March 2017.
- Scottish Government and NHS Education for Scotland. (2015). "The Matrix Evidence Tables. Adult Mental Health" Accessed at: http://www.nes.scot.nhs.uk/media/3403916/matrix_-_adultmentalhealthtables.pdf on 24th February 2017.
- Wyatt, G. E., & Newcomb, M. D. (1990). Internal and external mediators of women's sexual abuse in childhood. *Journal of consulting and clinical psychology*, 58(6), 758.

Chapter 3: Empirical Study ²

Childhood Trauma and Suicidality in a Cohort of Socio-Economically Deprived Scottish Men.

Charlotte Lemaigre^{12*} and Dr. Emily Taylor²

¹ West Lothian NHS Addictions Service, Civic Centre, Livingston, EH54 6FF

² Clinical and Health Psychology, School of Health in Social Science, University of
Edinburgh, Scotland.

* Corresponding author. Tel.: 01506 282845 • Email: s0792561@sms.ed.ac.uk

Word count: 10,376

² Prepared for submission to the journal *Archives of Suicide Research* (Impact Factor 1.639).
See Appendix 9 for author submission guidelines.

3.1 Abstract

Objectives: There is little research investigating suicidality in adult men, despite epidemiological data suggesting that they are most at risk. This quantitative study investigated childhood trauma and suicidal behaviour in a cohort of socio-economically deprived men. *Methods:* Eighty-six participants completed self-report measures on childhood trauma, emotion regulation, interpersonal difficulties and suicidal behaviour. *Results:* Mediation analysis indicated that emotion dysregulation and interpersonal difficulties significantly mediated the relationship between childhood trauma and suicidality. *Conclusions:* Study results suggest that early childhood adversity results in dysfunctional emotion regulation, which leads to suicidality within the context of impoverished social environments. The provision of psychological interventions aimed at improving social and emotional functioning may help to safeguard men who are most at risk of suicide.

Keywords: childhood trauma, emotion-regulation, social-isolation, suicidality, men.

3.2 Introduction

The World Health Organization (WHO) estimates that there were 804,000 deaths by suicide worldwide in 2012 (WHO, 2014). In the United Kingdom, recent prevalence data indicate a suicide mortality rate of 10.9 deaths per 100,000 people (Office for National Statistics, 2016; Samaritans Suicide Statistics Report, 2016). Over the years, Scotland has shown higher suicide rates (14.0 deaths per 100,000) and national figures from 2012-2014 suggest that 72.5% of those who completed suicide in Scotland were male (Suicide Prevention Strategy, 2013). The Samaritans Suicide Statistics Report (2016) revealed that the highest suicide rate in the UK in 2014 was for males aged 45-49 at 26.5 deaths per 100,000 people.

Tackling suicide is a high priority on the WHO's global public health agenda insofar as WHO Member States have committed to working towards a target of a 10% reduction in suicide rates by 2020. This is reflected in local Government policy such as Commitment 9 of the Scottish Government's current Suicide Prevention Strategy (2013-2016), which aims to 'contribute to developing the national and international evidence base' (Suicide Prevention Strategy, p.14). In light of these priorities, researchers have started investigating suicidality more extensively over the past decades. Some research has attempted to identify possible risk and predictive factors of suicidality, for example, childhood trauma.

3.2.1 Childhood Trauma and Suicidal Behaviour

An expanding body of research has investigated the role of adverse childhood experiences such as physical, emotional and sexual abuse as possible predictors of suicidal behaviour throughout the lifespan. Dube *et al* (2001) conducted a

retrospective cohort study of 17,337 adults who completed self-report measures on childhood abuse and suicide attempts as part of the American Adverse Childhood Experiences (ACE) study, which ran between 1995 and 1997. Authors found a strong correlation between the two variables, whereby childhood trauma increased the risk of attempted suicide amongst adults twelve fold.

Much of the existing research has focused on the role of childhood sexual abuse (CSA) on suicidality. Fergusson *et al* (2008), for example, investigated the link between exposure to CSA, childhood physical abuse (CPA) and adjustment in adulthood. Authors found a stronger effect of CSA on later mental health outcomes (suicidal ideation and attempts) than CPA. Bebbington *et al* (2009) utilized data from a total of 8,580 participants in the randomized, cross-sectional British Psychiatric Morbidity Survey (2007) to test the hypothesis that suicidal behaviours are significantly associated with childhood abuse. Participants who had experienced sexual abuse were found to be 10 times more likely to have attempted suicide over the course of their lifetime than those who had not. Interestingly, other studies have also found stronger effects for CSA than other forms of abuse on suicidal behaviour (see Coll *et al*, 2001; Osvath *et al*, 2004; O’Leary & Gould, 2009). These are interesting findings given that sexual abuse rarely happens in isolation. Rather, perpetrators may employ additional physically abusive (using force) or emotionally abusive (making threats) strategies to maintain the secrecy of the sexual abuse. The focus on CSA in the literature may highlight a general under-identification of other forms of abuse, especially emotional.

Other types of trauma have to some extent been implicated in suicidal behaviour. In a community sample of 1,376 women, Mullen *et al* (1996) compared the impact of

CSA, CPA and childhood emotional abuse (CEA) on long-term negative outcomes. Authors found CPA and CEA to increase risk of suicidality (5-fold and 12-fold respectively) in adult life. Childhood emotional neglect (CEN) has also been researched, although not as extensively as other forms of abuse, in the context of suicidal behaviour. Both Kaslow *et al* (2000) and Sfoggia *et al* (2008) identified high CEN scores in suicidal behaviour groups compared to non-suicidal controls. Interestingly, other studies have failed to replicate this finding. For example, Sarchiapone *et al* (2009) found no significant differences in CEN scores between their non-/suicidal samples. In addition, Ystgaard *et al* (2004) found a non-significant relationship between emotional neglect and suicidal behaviour. These findings may go some way in highlighting the complexity of neglect and the diverse ways in which it is defined and measured across studies. Moreover, it is difficult to draw clear lines between categories of abuse and neglect because instances of child maltreatment rarely occur in isolation. As such, the delineation of discrete types of abuse and neglect within research settings can be problematic.

Interpreting these disparate findings should be done with caution for a number of reasons. Firstly, studies have adopted different definitions, classifications and methods of reporting (self-report vs. clinician-rated) childhood maltreatment and suicidality (ideation vs. behaviour). Moreover, research has sampled both clinical and non-clinical populations. These limitations have obvious implications for the generalisability of findings. In addition, some studies do not control for confounding variables, such as adult re-victimisation, which may render studies open to Type 1 errors. Despite these methodological concerns, the link between child maltreatment and adult suicidal behaviour has been well researched. However much of this research has sampled predominantly female populations.

Despite what epidemiological data tells us about men in their middle years being most at risk of suicidal behaviour, Kirtley and O'Connor (in Wyllie *et al*, 2012) argue that there is a dearth of psychological research in relation to trauma and negative outcomes in this population. This may be because male victims are unlikely to seek help (Galdas *et al*, 2005) or disclose their experiences of childhood abuse. Holmes *et al* (1997) argue that containing the secret and denying the impact of the abuse on their lives serve as (unhelpful) coping strategies. Despite this, there still remains a significant risk of negative outcome and poor mental health for males following childhood trauma. Dyer *et al* (2009; 2013), for example, sampled a clinical sample of 44 adult males attending therapy for complex trauma. They found that emotional and physical neglect were significant correlates of a history of self-harm and that psychological processes such as alterations in self-perception (shame and guilt) mediated this relationship. Male suicidality has also been found to be more common in socioeconomically disadvantaged individuals (Johnson *et al*, 2002; Gunnell *et al*, 2004; Dennis *et al*, 2007; Samaritans, 2017). This highlights the roles that childhood trauma and low socio-economic status play in male posttraumatic aggression and associated destructive behaviours such as suicidality.

Generally, empirical research suggests that the presence of child abuse and maltreatment should be considered a general risk factor for suicidality (Mina & Gallop, 1998; Maniglio, 2009; Norman, 2012). However, research that samples males with a history of trauma is sparse. As such, the factors associated with and the mechanisms by which childhood abuse leads to suicidality in this population have not yet been well established. Published research has not included additional variables, such as emotion regulation or interpersonal difficulties, which may mediate the relationship between childhood trauma and suicidality in adulthood (Joiner, 2005).

With Government policy aiming to reduce the country's high male suicide rate, it is imperative to further our knowledge of risk factors that contribute to suicidality in male populations.

3.2.2 Emotion Regulation

Emotion regulation refers to an ability to shape one's emotions and control the ways in which these emotions are expressed (Gross, 2015). Theories of healthy socio-emotional development posit that we learn to regulate our emotions within the context of human interaction through our early infant-carer relationships. Theories also stress the importance of the availability and responsiveness of our caregivers for the healthy development of emotion regulation skills (Bornstein *et al*, 2012; Thomson, 2008). Emotional dysregulation is posited to develop 'through the interaction between the vulnerability to high-intensity emotion and an inadequate learning...for managing emotional intensity in constructive ways' (Adrian *et al*, 2011 pg. 398). In environments that are frightening and/or laden with distress, abusive caregivers do not provide children with the necessary processes that scaffold the development of healthy emotional awareness. Emotion under- or over-regulation may develop as a survival strategy in abusive situations, which is then ill suited to the wider, non-abusive environment. It is not surprising therefore, that early relational trauma has been found to disrupt a child's ability to develop the required processes for successful emotion regulation (Kim-spoon *et al*, 2013). Research has aimed to demonstrate the link between experiencing early emotionally charged events such as childhood trauma and subsequent emotion dysregulation in adulthood.

Kim and Cicchetti (2010) conducted structural equation modeling on longitudinal data exploring child maltreatment, emotion regulation and psychopathology in a

sample of 215 maltreated and 206 non-maltreated children. They found CSA, CPA and CEN to be significantly related to difficulties in regulating emotion. These findings are congruent with research demonstrating abused and neglected children's limited skills in emotion regulation (see, for example Messman-Morre *et al*, 2010). Similar findings have also been drawn from studies sampling specific psychiatric populations. Carvalho-Fernando *et al* (2014), for example, found greater levels of CEA and CEN to be significantly associated with emotion dysregulation in a sample of 49 patients with Borderline Personality Disorder (BPD) and 48 patients with current Major Depressive Disorder (MDD). Unfortunately, much of the research exploring the link between child maltreatment and emotion regulation is understood within the context of female clinical and psychiatric populations (e.g. BPD, MDD and anxiety disorders). There is a dearth of research exploring this relationship in non-clinical and male samples.

Research has also implicated emotion dysregulation in suicidality. Rajappa *et al* (2012) investigated the relationship between Gratz and Roemer's (2004) dimensions of emotion dysregulation and suicidality in 96 young adults aged 18-30. Participants with a history of multiple suicide attempts scored significantly higher than those with no suicidal ideation/past attempts on two dimensions: 'non-acceptance of emotional responses' and 'limited access to emotion regulation strategies'. After controlling for diagnoses of anxiety and/or depression, authors found that having limited access to emotion regulation strategies predicted suicidality. Similarly, Weinberg and Klonsky (2009) found the 'strategies' dimension to be most strongly associated with suicidal behaviour in a community sample of 428 adolescents aged 13-17. This suggests that suicidal behaviours may serve as a strategy to regulate one's emotional distress (Linehan, 1993; Wagner & Zimmerman, 2006). Critically, research has focused on

children, adolescents and college students therefore findings cannot be generalised beyond these samples because emotion dysregulation is considered a normative aspect of adolescent development (Dahl, 2001). In addition, confounding variables that have also been implicated in suicidal behaviour, such as lack of social support (Kleiman & Liu, 2013) are neither adequately measured nor controlled across studies. Methodological limitations aside, one could predict from the research that experiencing childhood trauma such as physical, emotional and sexual abuse and neglect affects one's ability for successful emotion regulation and that emotion dysregulation subsequently leads to suicidal behaviour. Interestingly, no studies have yet investigated emotion regulation as a potential mediating factor in the relationship between childhood trauma and adult suicidality, let alone in a non-clinical sample of adult men.

3.2.3 Interpersonal Difficulties

Attachment theory (Bowlby, 1969) plays a pivotal role in how we conceptualise the impact of child maltreatment on interpersonal relationships in adulthood. There is a wealth of research suggesting that insecure attachment styles often result from childhood trauma and that one's attachment style can substantially contribute to later psychological adjustment (see Roche *et al*, 1999). Herman's (1992) model of complex Post Traumatic Stress Disorder (c-PTSD) posits that relational difficulties such as social inhibition and social isolation are commonplace in individuals with abuse histories. This is highlighted in the forthcoming edition of the proposed WHO International Classification of Diseases (ICD-11) c-PTSD diagnosis (Maercker *et al*, 2013). The proposed criteria emphasize the three core clusters of PTSD (re-experiencing, hyper-vigilance and avoidance) along with symptoms relating to

negative self-concept, emotion dysregulation and interpersonal difficulties (Cloitre *et al*, 2013).

This theorized link between childhood trauma and interpersonal difficulties has been investigated empirically over the past couple of decades. Huh *et al* (2014) sampled a total of 325 adults with diagnoses of depression and/or anxiety on self-report measures of child maltreatment and current interpersonal distress. CEA, CEN and CSA were found to be significantly associated with greater interpersonal problems such as non-assertion and social inhibition. Authors concluded that childhood emotional and sexual trauma substantially contributes to interpersonal problems in adulthood. Similar findings to these have been identified in other studies such as in non-clinical, community populations (Davis *et al*, 2001). Critically, Huh *et al* (2014) adopted a cross-sectional design, which makes it difficult to draw firm causal conclusions about childhood trauma and interpersonal difficulties. Moreover, its focus on *current* interpersonal distress in outpatient psychiatric patients may not have captured stable and historical patterns of interpersonal functioning. It is possible that the interpersonal distress that was measured in the study was in actual fact a byproduct of the negative symptoms of depression and anxiety such as social withdrawal and/or avoidance. Despite this study's limitations, it provides empirical support for the claim that childhood trauma can negatively impact on adult interpersonal functioning.

Interpersonal difficulties have often been implicated in suicidal behaviour (Meltzer *et al*, 2002; Milnes *et al*, 2002), particularly in adolescent populations (see King & Merchant, 2008 for a literature review). Zaroff *et al* (2014), for example, found interpersonal stress (rather than depression or hopelessness) to predict suicidality in a

sample of 273 undergraduate students aged 17-23. Similarly, Johnson *et al* (2002) conducted a well-controlled longitudinal study (between 1975-1993) in a community sample of 659 families in the United States. Authors aimed to explore associations between maladaptive parenting and abuse, interpersonal difficulties and suicidal behaviour in late adolescence and early adulthood. Interpersonal difficulties such as loneliness and social isolation in adolescence were found to mediate the relationship between maladaptive parenting/abuse and suicide attempts in late adolescence and early adulthood. This study's strengths lie in its methodological rigour insofar as it adopted a prospective longitudinal design. Critically however, the mean age of the offspring at the time of the final interview (1991-1993) was only 22 years. In a bid to investigate whether this relationship remains evident throughout the life course, Stansfeld *et al* (2017) explored the roles of childhood adversity and interpersonal difficulties on midlife suicidal ideation. Surveying 9,377 adults (aged 45 years) from the UK 1958 British Birth Cohort Study, authors found that interpersonal difficulties (as measured by a count of the number of partnership separations between ages 16 and 42) predicted suicidal ideation. Authors also found that interpersonal difficulties mediated the association between childhood physical and sexual abuse and midlife suicidal ideation. This suggests that interpersonal risk factors evident in childhood and adolescence, such as social isolation, persist into adulthood and that these can significantly contribute to suicidality throughout the life course. Such findings are in keeping with the Interpersonal Theory of suicide (Joiner, 2005), which emphasizes the risk that perceived burdensomeness and social isolation (thwarted belongingness) can have on suicidality. Moreover, the finding that good social support protects against suicidal behaviour is commonplace in the literature (see McLean *et al*, 2008).

3.2.4 Rationale for the study

Lang & Sharma-Patel (2011) argue that proposed functional explanations of suicidality include elements of affect-regulation as well as interpersonal motivations. It can be argued that the two concepts overlap given the interpersonal contexts within which we learn to modulate our emotions (Bornstein *et al*, 2012; Bowlby, 1969). Indeed, a child learns effective emotional and social skills through healthy primary and secondary intersubjectivity with a responsive and attentive caregiver (Trevarthen, 1979; Zeedyk, 2006). Based on the psychological theory and research evidence discussed above, one may hypothesize that abuse and neglect interfere with a child's capacity to learn effective affect-regulation and social problem solving skills. In turn, emotion dysregulation along with overlapping interpersonal functioning difficulties may significantly contribute to male suicidal risk in adulthood.

To the author's knowledge, research that fully explores these possible associations is scarce. As such, there remains a gap in the literature for the empirical investigation of emotion regulation and interpersonal difficulties in the relationship between childhood trauma and suicidality in adult men. Based on existing research, the following hypotheses are proposed:

1. Emotion dysregulation will mediate the relationship between childhood trauma and suicidal behaviour.
2. Interpersonal difficulties will mediate the relationship between childhood trauma and suicidal behaviour.

3.3 Methods

3.3.1 Study design

A quantitative cohort study was conducted using four self-report questionnaires, which provided scores on childhood trauma, emotion regulation, interpersonal difficulties and suicidal behaviour. A study protocol was approved by a member of the academic team from the University of Edinburgh's School of Health in Social Science. A copy of the proposal can be found in Appendix 4.

3.3.2 Participants

To test the overall fit of a regression model, Green (1991) proposes the following formula; $N \geq 50 + 8m$ whereby 'N' is the number of participants and 'm' is the number of predictor variables. As per this formula, the sample size required to detect moderate effect sizes is 74. Calculated using Daniel Soper's *a priori* sample size calculator for multiple regression the minimum sample size required for the study was 76 (Soper, 2017). This is based on a power level of 0.8 (Cohen, 1988) for a medium effect size of 0.15 at a significance level of 0.05 with three predictor variables (childhood trauma, emotion regulation and interpersonal difficulties). These power calculations were considered appropriate because the current study employs Preacher and Hayes' (2009) multiple mediation approach, which employs regression coefficients for bootstrapping.

A non-clinical sample of 86 adult men was recruited from the Men's Suicide, Harm, Awareness, Recovery and Empathy (SHARE) Project, which is a community project based in an area of socio-economic deprivation in Scotland. Funded by Scottish Government's Choose Life Suicide Prevention Strategy 2013-2016, Men's SHARE

adopts a prevention and intervention approach for men with past and/or current suicidality. The project aims to reduce suicidality by offering weekly support groups and one-to-one sessions with the project worker (Health in Mind, 2016). Due to its cohort design, every man who accessed the groups and the one-to-one support over a specific time period was approached to take part.

Potential participants were included if they were male; aged over 18; had experienced suicidality in the past; had a sufficient understanding of the English language to respond to questionnaires and were able to provide informed consent. Potential participants with a moderate to severe learning disability were excluded from the current study.

3.3.3 Procedure

A total of 98 service users were engaged with the Men's SHARE project over the recruitment period (November 2016 to March 2017). Four men were considered ineligible to participate because they did not meet the inclusion criteria. The remaining 94 were invited to take part. Seven individuals were eligible but declined participation. The total sample consisted of 86 men representing a response rate of 91.49%.

Participants were recruited into the study by the project team in several different ways. The project team consisted of the principal researcher, the project worker and a Citizens Advice Bureau manager, who provides advice and support to Men's SHARE service users. All potential participants were provided with verbal information about the study and were given a participant information sheet (see Appendix 6). Initially, the project worker conducted a mail-shot to all service users at a single time point

with information about the study and a short cover note explaining that they would be approached at group and individual sessions to participate in the study. This mail-shot also encouraged individuals to contact a member of the project team directly if they were interested in taking part. In this instance, a convenient meeting time was scheduled no sooner than 24 hours after initial contact was made. Participants were given the opportunity to review all information pertaining to the study and ask any questions before providing informed written consent (see Appendix 7) and completing the study's questionnaires. Participants were also recruited directly from the project's individual and group sessions. Having previously received the participant information sheet, eligible individuals were given the opportunity to participate in the study whilst they attended their usual evening support group. During the course of these groups, participants provided informed consent and were offered the choice to complete the questionnaires either in small groups or as a one-to-one with a member of the project team. Upon completing the study's measures, all participants received both verbal and written debrief. The debrief letter (see Appendix 8) thanked participants for taking part and outlined steps that could be taken in the event that the study caused them any distress (see section 3.3.5 for further details on ethical considerations of the study and how these were managed).

3.3.4 Measures

3.3.4.1 Demographic Information: Demographic information was obtained from a self-report questionnaire. Demographics captured the respondent's age, ethnicity, marital status, and current average annual household income, level of education, employment status, personal history of mental health diagnoses and whether they had ever received a form of talking therapy.

3.3.4.2 Childhood Trauma Questionnaire (CTQ): The Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) is a standardised 28-item, retrospective self-report measure of five different types of childhood maltreatment: emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect. The relevance of statements to one's childhood experiences are scored on a five-point Likert scale, whereby 1=Never True, 2=Rarely True, 3=Sometimes True, 4=Often True, 5=Very Often True. Positively phrased items are reversed scored and items are summed to generate a total score for each trauma domain. Score ranges are categorized as follows: none or minimal, low to moderate, moderate to severe and severe to extreme. A minimization/denial scale is calculated from three items, which identifies false-negative reports of child abuse. To assess the degree of trauma that respondents have experienced, an overall dose effect can be calculated, whereby higher total scores indicate greater levels of trauma experienced. The CTQ has been validated in research settings investigating childhood maltreatment in both clinical and non-clinical populations. The measure has demonstrated robust psychometric properties (Baker & Maiorino, 2010) with high internal consistency (Cronbach's alpha = .79 to .94), high test-retest reliability ($r = .79$ to $.81$) (Bernstein & Fink, 1998) and good convergent validity between clinicians' ratings and CTQ scores (Bernstein

et al, 2003; Bernstein & Fink, 1998). For the purposes of the current study, the total score was chosen for mediation analysis. Cronbach's alpha for the total scale score was .89.

3.3.4.3 Difficulties in Emotion Regulation Scale (DERS): The Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) is a standardised 36-item self-report, multidimensional measure of difficulties in emotion regulation. Respondents score how often each item applies to them according to a five-point Likert scale whereby 1=Almost Never (0-10%), 2=Sometimes (11-35%), 3>About Half the Time (36-65%), 4=Most of the Time (66-90%), 5=Almost Always (91-100%). Positively phrased items are reversed scored before individual items are summed to generate a score for the six different subscales; non-acceptance of emotional response, difficulty engaging in goal-directed behaviour, impulse control difficulties, lack of emotional awareness, limited access to regulation strategies and lack of emotional clarity. An overall total score is obtained from summing each subscale score, with higher scores indicating greater problems with emotion regulation. The measure has demonstrated excellent internal consistency (Cronbach's alpha = .93), good overall test-retest reliability ($r = .88$) and adequate test-retest reliability of the subscales ($r = .57$ to $.89$) (Gratz & Roemer, 2004). For the purposes of the current study, the DERS total score was chosen for the mediation analysis. Cronbach's alpha for the total score scale was .83.

3.3.4.4 Inventory of Interpersonal Problems (IIP-32): The Inventory of Interpersonal Problems (IIP-32; Horowitz *et al*, 2000) is a 32-item, standardised, self-report measure of an individual's most salient interpersonal difficulties. The measure is split into two sections. The first section asks respondents to score how

hard they find doing certain things with people, for example 'Get along with people'. The second section asks respondents to answer items related to things that they may do too much, for example 'I open up to people too much'. Both sections are scored according to a five-point Likert scale whereby 0=Not at all, 1=A little bit, 2=Moderately, 3=Quite a bit, 4=Extremely. Items are summed to generate a score on eight interpersonal domains: domineering/controlling, vindictive/self-centered, cold/distant, socially inhibited, non-assertive, overly accommodating, self-sacrificing and intrusive/needy. The measure has demonstrated excellent internal consistency for all items ($\alpha = .90$) and acceptable test-retest reliability of the subscales ($r = .64$ to $.84$) (Barkham *et al*, 1996).

For the purposes of the current study, the socially inhibited subscale was chosen for the mediation analysis. Horowitz *et al* (2000) posit that individuals who score highly on the social inhibition subscale of the IIP-32 are avoidant and detached from social relationships, which may result in pervasive social isolation. A recent meta-analytic review found that social isolation increases the likelihood of early mortality by 29% (Holt-Lunstad *et al*, 2015). As such, the justification for selecting the socially inhibited subscale for IIP-32 was made on theoretical and empirical grounds. Cronbach's alpha for the socially inhibited subscale score was .83.

3.3.4.5 Suicide Behaviours Questionnaire-Revised (SBQ-R): The Suicide Behaviours Questionnaire-Revised (SBQ-R; Osman *et al*, 2001) is a brief 4-item self-report questionnaire assessing four different dimensions of suicidality. The first item assesses lifetime suicide ideation and is scored on a six-point Likert scale ranging from 'Never' to 'I have attempted to kill myself and really hoped to die'. The second item assesses the frequency of suicidal ideation over the past year on a five-point

Likert scale, with responses ranging from 'Never' to 'Very Often (5 or more times)'. The third item assesses threat of suicide attempt on a five-point Likert scale with responses ranging from 'No' to 'Yes, more than once and really wanted to do it'. The final item assesses the likelihood of future suicidality on a seven-point Likert scale with responses ranging from 'Never' to 'Very Likely'. Scores, in points, are given for each response along each Likert scale, resulting in a total score ranging from 3-18 with higher scores indicating greater levels of suicidality. Osman *et al* (2001) posit a cutoff score of ≥ 7 for an adult general population. The majority of psychometric testing for the SBQ-R has been conducted on adolescent populations, both psychiatric inpatient adolescents and high school students. The validation with adult populations was conducted within undergraduate students and psychiatric adult inpatient samples. As the current study uses non-clinical sample of adult men, findings should be considered in light of Osman *et al's* (2001) validation samples. The SBQ-R has demonstrated good internal consistency in the adult psychiatric inpatient sample ($\alpha = .87$) and adequate internal consistency in the undergraduate sample ($\alpha = .76$) (Osman *et al*, 2001). For the purposes of the current study, the SBQ-R total score was chosen for the mediation analysis. Cronbach's alpha for the total score scale was 0.71.

3.3.5 Ethical Considerations

Ethical approval was gained from the University of Edinburgh's Department of Clinical and Health Psychology Ethics Research Panel. See Appendix 5 for a letter confirming ethical approval. NHS ethical approval and Research and Development consent from the NHS health board were not required as participants were not identified from or because of their past or present use of healthcare services within the National Health Service.

Potential ethical implications of the current study's methodological procedure were considered. Firstly, when completing questionnaires pertaining to historical traumatic experiences, there was potential to cause distress to participants. Secondly, it was considered possible that completion of the SBQ-R could increase the likelihood of suicidal behaviour by exposing previously unidentified risk. Steps were taken to ensure that neither of these ethical concerns arose whilst carrying out the study. For example, the participant information sheet outlined the rationale for the study and participants were made aware of the nature of the questions on the CTQ. In addition, potential participants were discussed with the project worker and any deemed emotionally or physically frail were offered additional support in completing the self-report measures. In the case that participating in the study caused participants immediate distress, available supports, such as emergency contact details, were fully articulated within the study paperwork. Participating in the study was anonymous and strictly confidential however it was felt necessary to caveat this with the possible requirement to break confidentiality should participants disclose imminent suicidal risk. This limit to confidentiality was both fully articulated on the participant information sheet and verbally discussed with participants in advance of their participation. It was therefore clear that any concerns relating to this would be passed on to relevant agencies. Participants were made fully aware that they were free to withdraw from the study at any point and that this would not affect their routine support from the project.

3.3.6 Statistical Analysis

Data were analysed using SPSS Version 22. In the first instance, preliminary data exploration was conducted using descriptive statistics and bivariate correlations were

carried out to assess relationships between key variables. Possible covariance of demographic variables was also considered. To address the research hypotheses, a multiple mediation analysis was carried out using Preacher and Hayes (2008) 'Indirect' SPSS macro for multiple mediation. A mediation effect is said to be significant if the upper and lower bounds of the bias corrected bootstrapped confidence intervals do not contain zero i.e. the mediation effect is not zero at $p < .05$.

3.4 Results

3.4.1 Participants

The mean age of participants was 41.9 years (SD = 12.10, median = 42.00), ranging from 18 to 69 years.

The sample was recruited from an area of Scotland with high levels of social and economic deprivation. The area is geographically split into 112 data-zones. According to the Scottish Index of Multiple Deprivation (SIMD), eight of these data-zones are in the most deprived 20% data-zones in Scotland in 2012 (CPRIG, 2016). This socioeconomic status is reflected in the current sample's demographic characteristics. For example, the majority of participants were educated to high school level only (51.2%) and earned between £5,000 and £10,399 per annum (32.6%) i.e. below the current poverty threshold of £14,133 per annum (60% of UK median income) (Poverty and Social Exclusion, 2016). Fifty-nine men (68.6%) were out of work at the time of their participation. Of note, 64 men (74.4%) reported having received a mental health diagnosis, 67.2% of which had received a form of (talking) therapy. Of the 48 reports of (talking) therapy received, 41.7% of participants had seen a Psychologist and 39.6% had seen a Psychiatrist. Interestingly, the area from which the current sample was recruited has been shown to have a higher anti-depressant prescribing rate than any other area in the health board (CPRIG, 2016). Further demographic information is provided in Table 3 below.

Table 3. Sample demographic characteristics.

		Number	% of total sample
Ethnicity	Caucasian	86	(100%)
Marital status	Married or cohabitating	22	(25.6%)
	In a relationship but living separately	10	(11.6%)
	Divorced	16	(18.6%)
	Widowed	1	(1.2%)
	Single	37	(43.0%)
Income	Less than £5,000	12	(14.0%)
	£5,000 to £10,399	28	(32.6%)
	£10,400 to £15,599	25	(29.1%)
	£15,600 to £20,799	11	(12.8%)
	£20,800 to £25,999	5	(5.8%)
	£26,000 to £36,399	1	(1.2%)
	£36,400 to £51,999	4	(4.7%)
	£52,000 to £77,999	0	(0.0%)
	£78,000 or more	0	(0.0%)
Level of education	Less than high school	2	(2.3%)
	High school	44	(51.2%)
	Technical trades	30	(34.9%)
	University	6	(7.0%)
	Postgraduate or professional	4	(4.7%)
Employment	Employed	23	(26.7%)
	Self-employed	4	(4.7%)
	Out of work but looking for work	10	(11.6%)
	Out of work but not currently looking for work	13	(15.1%)
	Student	1	(1.2%)
	Retired	4	(4.7%)
	Unable to work	31	(36.0%)
Received diagnosis?	Yes	64	(74.4%)
	No	22	(25.6%)
Mental health diagnosis	Attention deficit hyperactivity disorder (ADHD)	2	(3.03%)
* Percentages calculated from total number of diagnoses reported (N=66)	Anxiety and Depression	17	(25.76%)
	Autism Spectrum Disorder (ASD)	1	(1.52%)
	Bipolar disorder	3	(4.55%)
	Depression	27	(40.91%)
	Neurosis	1	(1.52%)
	Personality disorder	2	(3.03%)
	Post traumatic stress disorder (PTSD)	8	(12.12%)
	Psychosis	3	(4.55%)
	Work-related stress	1	(1.52%)
	Not articulated	2	(3.03%)
Received (talking) therapy?	Yes	43	(67.2%)
	No	21	(32.8%)
Type of (talking) therapy	Alcohol/drug counselor	2	(4.16%)
* Percentages calculated from total number of forms of talking therapy reported (N=48)	Army	1	(2.08%)
	Community Mental Health Worker (CMHW)	1	(2.08%)
	Community Psychiatric Nurse (CPN)	3	(6.25%)
	Counselling	2	(4.16%)
	Psychiatrist	19	(39.58%)
	Psychologist	20	(41.67%)

3.4.2 Normality of Data

The Shapiro-Wilks test of normality was conducted and revealed that the distribution of data relating to childhood trauma as measured by the CTQ differed significantly from a normal distribution ($W = .960$, $df = 86$, $p < 0.05$) with a right skew. Data for the remaining variables (DERS, IIP-32 socially inhibited and SBQ-R) did not significantly differ from a normal distribution. The data were additionally assessed for significant skewness and kurtosis. The skewness/kurtosis statistic was divided by its respective standard error and converted to a standardised Z-score (Field, 2009). For sample sizes between 50 and 300, an absolute z-value over 3.29 suggests a significantly non-normal distribution with an alpha of $p < .05$ (Kim, 2013). Calculations showed no significant skewness or kurtosis. As such, parametric tests were selected to investigate bivariate correlations and address the study hypotheses.

3.4.3 Descriptive Statistics

The mean, median, standard deviations and range of scores relating to all variables explored (childhood trauma, emotion dysregulation, interpersonal difficulties (socially inhibited) and suicidal behaviour) are presented in Table 4 below.

Table 4. Summary descriptive statistics for all variables measured.

Measure	Maximum score for scale	Mean	Median	SD	Range
CTQ Total Score	100	59.80	55.00	21.17	86.00
DERS Total Score	180	126.66	127.00	29.11	126.00
IIP-32 Socially Inhibited	16	10.48	11.00	4.32	16.00
SBQ-R Total Score	18	11.51	12.00	3.49	15.00

3.4.4 Prevalence of Suicidality

Six participants (7.0%) scored below and 80 participants (93.0%) scored above the clinical cutoff of ≥ 7 (Osman *et al*, 2001). One participant scored the minimum three points and three participants scored a maximum 18 points.

3.4.5 Prevalence of Childhood Trauma

Seven participants (8.1%) reported no childhood trauma. Four participants (4.7%) reported one type of trauma, 17 participants (19.8%) reported two types of trauma, 16 participants (18.6%) reported three types, 17 participants (19.8%) reported four types and 25 participants (29.1%) reported five different types of childhood trauma. Using the *low to moderate* cut-off, the sample reported a prevalence of 72.1% for emotional abuse, 60.5% for physical abuse, 38.4% for sexual abuse, 83.7% emotional neglect and 69.8% for physical neglect. Of note, the highest reported prevalence was found for emotional neglect. Further details regarding levels of severity across the five types of child abuse are presented in Table 5.

Table 5. Prevalence of childhood abuse.

Type of Abuse	None N (%)	Low – Moderate N (%)	Moderate – Severe N (%)	Severe – Extreme N (%)	Total Sample N (%)
Emotional Abuse	24 (27.9%)	14 (16.3%)	17 (19.8%)	31 (36.0%)	62 (72.1%)
Physical Abuse	34 (39.5%)	12 (14.0%)	12 (14.0%)	28 (32.6%)	52 (60.5%)
Sexual Abuse	53 (61.6%)	7 (8.1%)	8 (9.3%)	18 (20.9%)	33 (38.4%)
Emotional Neglect	14 (16.3%)	18 (20.9%)	11 (12.8%)	43(50.0%)	72 (83.7%)
Physical Neglect	26 (30.2%)	6 (7.0%)	24 (27.9%)	30 (34.9%)	60 (69.8%)

The CTQ's minimization/denial scale is used to assess the possibility of false-negative reports of child abuse (Bernstein & Fink, 1998). Scores on this subscale range from one to three. Seventy-one (82.6%) participants obtained a score of zero; ten participants (11.6%) obtained a score of one; two participants (2.3%) obtained a score of two and three participants (3.5%) scored a maximum three points. A Spearman's rho correlation identified a moderate negative correlation between the CTQ minimization/denial scale and the CTQ total score ($r = -.476, p < .000$), with the CTQ minimization/denial scale explaining 22.7% of the variance in CTQ total scores. A decrease in CTQ total scores is therefore significantly related to an increase in the CTQ minimisation/denial scale, which may suggest a true prevalence of trauma higher than that which is currently reported in the sample.

3.4.6 Correlational Analysis

Bivariate (Pearson's r) correlations were performed to investigate relationships between different types of childhood trauma, emotional dysregulation, interpersonal difficulties and suicidal behaviour. These relationships are presented in Table 6. The correlation matrix revealed many of these variables to be significantly correlated, some of which are detailed and discussed below.

The effect sizes of the correlations were considered in line with Cohen's (1992) guidelines such that an effect of $0.1 < r > 0.3$ was considered small, $0.3 < r > 0.5$ was considered moderate and $r > 0.5$ was considered large. Unsurprisingly, all types of childhood trauma significantly correlated with one another (see Table 4). The CTQ total score significantly correlated with the DERS total score ($r = .332, p < .01$; moderate effect) and also with the IIP-32 socially inhibited subscale ($r = .273, p < .05$; small effect). All types of childhood trauma other than sexual abuse ($r = .164, p$

= .131, ns) were found to significantly correlate with emotion dysregulation. The effect sizes for these correlations were small-to-moderate. Interestingly, difficulties with emotion regulation were also significantly correlated with the IIP-32 socially inhibited subscale ($r = .558$, $p < .01$; large effect). Two types of childhood trauma significantly correlated with the IIP-32 socially inhibited subscale: physical abuse ($r = .238$, $p < .05$; small effect) and emotional neglect ($r = .284$, $p < .01$; small effect). Finally, the bivariate analysis showed that the CTQ total score ($r = .299$, $p < .01$; small effect), emotional abuse ($r = .223$, $p < .05$; small effect), physical abuse ($r = .359$, $p < .01$; moderate effect) and physical neglect ($r = .252$, $p < .05$; small effect) were significantly correlated with suicidal behaviour. Neither sexual abuse nor emotional neglect was significantly correlated with suicidal behaviour. The DERS total score ($r = .581$, $p < .01$; large effect) and the IIP-32 socially inhibited subscale ($r = .504$, $p < .01$; large effect) significantly correlated with suicidal behaviour. Additional correlations are presented in Table 6.

Table 6. Pearson's correlation matrix showing relationships between variables.

	CTQ Total	Emotional Abuse	Physical Abuse	Sexual Abuse	Emotional Neglect	Physical Neglect	DERS Total	IIP-32 Socially Inhibited	SBQ-R Total
CTQ Total Score	1	.812**	.787**	.661**	.796**	.793**	.332**	.273*	.299**
Emotional Abuse		1	.633*	.360**	.589**	.506**	.315**	.195	.223*
Physical Abuse			1	.389**	.435**	.530**	.262*	.238*	.359**
Sexual Abuse				1	.372**	.429**	.164	.117	.187
Emotional Neglect					1	.677**	.238*	.284**	.129
Physical Neglect						1	.308**	.209	.252*
DERS Total							1	.558**	.581**
IIP-32 Socially Inhibited								1	.504**
SBQ-R Total									1

*. Correlation is significant at the .05 level (2-tailed); **. Correlation is significant at the .01 level (2-tailed).

3.4.7 Confounding Variables

In order to control for possible confounding variables, analyses were carried out to establish whether demographic variables collected related to scores on the outcome variable. If these relationships were significant, the demographic variable would need to be included in the multiple mediation analysis to control for its potential effect. A Pearson correlation (2-tailed) was carried out to examine the relationship between age and suicidal behaviour. This relationship was non-significant ($r = .077$, ns). As such, age did not need to be included as a possible covariate. Next, the relationship between the categorical demographic variable of ‘diagnosis received’ and suicidal behaviour was analysed by way of an independent samples t-test. Levene’s test was non-significant ($F = .132$, $p = .717$) indicating equality of variance. With equal variance assumed, the relationship between diagnosis received and suicidal behaviour was significant ($t = 2.895$, $df = 84$, $p < .01$). Participants who had received a diagnosis of a mental health problem reported significantly higher levels of suicidality ($M = 12.13$, $SD = 3.36$) compared to those who had not ($M = 9.73$, $SD = 3.31$). As such, the covariate (diagnosis received) was included in the mediation analysis because of its theoretical and empirical association with the dependent variable (suicidality). Although some research has linked these factors with suicidality, other demographic variables including employment, income and relationship status were not tested because the current sample was considerably skewed towards low employment, low income and living alone; a unique feature of the recruited population.

3.4.8 Mediation Analysis

As a significant relationship was observed between the independent variable (childhood trauma) and the dependent variable (suicidality) possible mediation effects

could be assessed for (Hayes, 2013). A multiple mediation analysis was carried out to test the hypotheses that emotion dysregulation and interpersonal difficulties (social inhibition) mediate the relationship between childhood trauma and suicidal behaviour.

Field (2009) argues that high correlations (above 0.9) between variables may suggest significant multicollinearity and as such, these variables should not be included in the same mediation analysis. As per Table 6, significant correlations were found between three predictor variables: childhood trauma and emotion dysregulation ($r = .332$, $p < .01$; a moderate effect), childhood trauma and social inhibition ($r = .273$, $p < .05$; a small effect) and emotion dysregulation and social inhibition ($r = .558$, $p < .01$; large effect). As none of the effect sizes for these significant correlations exceeded Field's (2009) $r = 0.9$ cut-off, no multicollinearity was found between variables so all were included in the same mediation analysis. The CTQ total score was entered as the predictor/independent variable and SBQ-R total score was entered as the outcome/dependent variable. The DERS total score and the IIP-32 socially inhibited subscale score were entered into the model as potential mediators of the relationship between childhood trauma and suicidality. See Figure 2. Diagnosis received was entered as a covariate.

The significance of direct and indirect effects was determined based on the upper and lower 95% bias-corrected confidence intervals (CI) not including zero. The total effect (c) represents the total effect of childhood trauma on suicidality, not controlling for the possible mediators. The direct effect (c') represents the effect of childhood trauma on suicidality after controlling for the presence of the possible mediators. The total indirect effect through which emotion regulation and interpersonal difficulties mediate the relationship between childhood trauma and suicidality can be calculated

by subtracting the direct effect from the total effect ($c - c'$). This represents the variance explained by the mediators in the relationship between childhood trauma and suicidal behaviour.

A model summary generated an adjusted $R^2 = .41$, implying that the three predictors explained 41% of variance in the SBQ-R ratings, with the model reaching statistical significance, $F(4,81) = 14.41, p < .001$. The total effect of the relation between childhood trauma (CTQ) and suicidality (SBQ-R) before accounting for the effect of emotion dysregulation and interpersonal difficulties was significant ($B = -.049, SE = .0164, p < 0.01, 95\% \text{ CI } [.0163, .0816]$), such that high levels of childhood trauma were associated with higher levels of suicidality. The direct effect of the relation between childhood trauma and suicidality became non-significant after controlling for emotion dysregulation and interpersonal difficulties ($B = .0181, SE = .0150, p = .231, 95\% \text{ CI } [-.0118, .0480]$). The total indirect effect via the mediators (the difference between the total and direct effects) was significant (point estimate of .0308, $SE = .0094, 95\% \text{ CI } [.0151, .0524]$). The specific indirect effects for the mediation analysis are reported in Table 7.

Table 7. Specific indirect effects of potential mediators.

	Point estimate of indirect effect from bootstrapping	Standard Error (SE)	BCBCI	
			Lower	Upper
DERS Total Score	.021	.0080	.0081	.0394*
IIP-32 Socially Inhibited	.010	.0078	.0018	.0247*
Total Indirect Effect	.031	.0094	.0151	.0524*

Note: BCBCI is bias corrected bootstrapped confidence interval with 5000 samples.

* Significant mediation effect at $p < .05$ where lower and upper BCBCI values do not include 0.

Both the DERS total score and IIP-32 socially inhibited score appear to be significant mediators in the relationship between childhood trauma and suicidal behaviour. This suggests that dysfunctional emotion regulation and interpersonal difficulty in terms of being socially inhibited mediate the relationship between childhood trauma and suicidality in adult men. Since the direct effect (path c') was non-significant in the above multiple mediation analysis, these two factors can be said to fully mediate the relationship between childhood trauma and suicidal behaviour in the current sample.

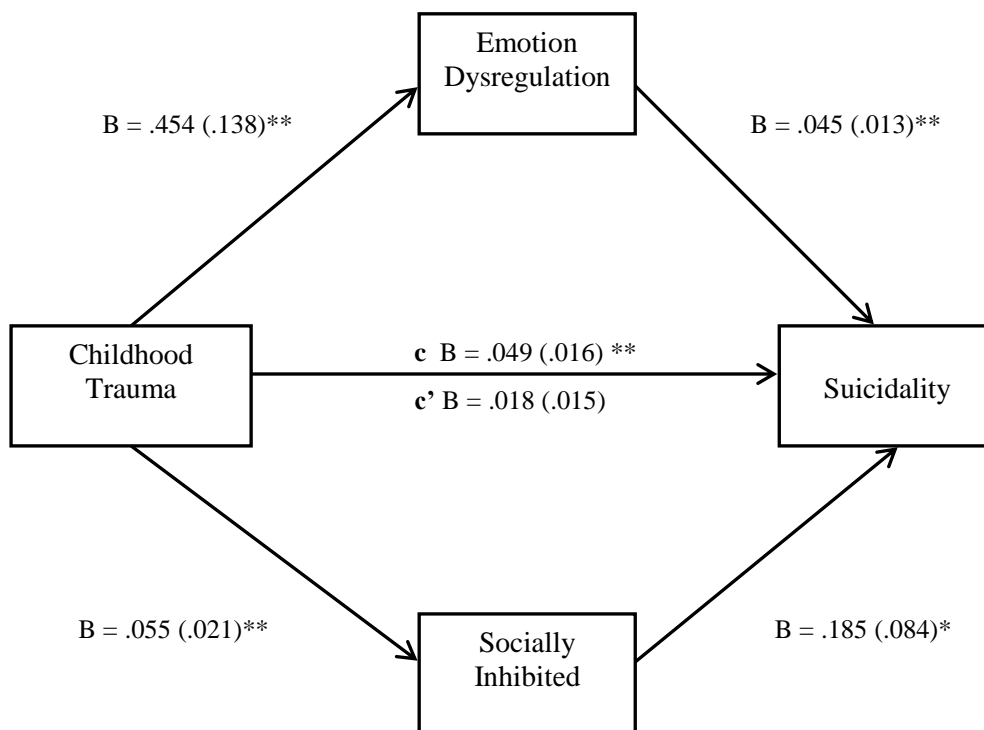


Figure 2. Mediation model.

Mediating effects of emotion dysregulation (as measured by the DERS total score) and interpersonal difficulties (as measured by the IIP-32 socially inhibited subscale score) on the relationship between childhood trauma (as measured by the CTQ total score) and suicidality (as measured by the SBQ-R total score). All figures represent uncorrected path Beta-coefficients with the SE provided in parentheses. The results indicate that the relationship between childhood trauma and suicidality became non-significant when mediators were accounted for. Bootstrapping indicated that emotion dysregulation and interpersonal difficulties (social inhibition) significantly mediated the relationship between childhood trauma and suicidality.

*. Significant at the $p < .05$ level. **. Significant at the $p < .01$ level.

3.5. Discussion

The current study has demonstrated that emotional dysregulation and interpersonal difficulties (being socially inhibited) mediate the relationship between childhood trauma and suicidality in a cohort of adult men. This finding highlights the possible negative collateral and compounding effect of childhood trauma insofar as it predicts suicidality within the context of dysfunctional affect regulation and reduced interpersonal functioning. What follows is the potential to target social isolation and treat emotion regulation difficulties as possible interventions to reduce active suicidality in this population.

3.5.1 Correlations between predictor and outcome variables

Assessing different types of childhood abuse and neglect enabled analysis of the specific forms of trauma and their relation to suicidality. The strongest relationships identified were with childhood emotional abuse (CEA) and childhood physical abuse (CPA). This fits with research which has demonstrated that adults who experience CPA and CEA are five and 12 times (respectively) more likely to attempt suicide than those who do not (Mullen *et al*, 1996). The current study highlights the significant impact that physical and emotional abuse can have on the psychosocial functioning of adult men in particular, thereby making an important addition to the literature. Interestingly, Briere (1990) argues that physical abuse often co-occurs with emotional abuse and that this combination is often related to more significant generalised psychosocial difficulties.

Childhood sexual abuse (CSA) was not significantly related to an increase in suicidality. Findings of the current study contrast those, which suggest stronger effects of CSA on suicidality (Coll *et al*, 2001; Fergusson *et al*, 2008; O’Leary &

Gould, 2009; Osvath *et al*, 2004). Critically, studies focusing on sexual abuse in isolation may, as an unintended consequence, under-identify and under-play the significant role of other forms of childhood trauma such as CPA and CEA in suicidality (see Norman *et al*, 2012). This is particularly important given that sexual abuse rarely occurs in isolation. Researching distinct forms of abuse may further our understanding of how different types of child maltreatment specifically relate to impaired adult psychosocial functioning such as engaging in suicidal behaviour.

Childhood sexual abuse was not related to interpersonal difficulties, whilst other forms of trauma were. This is an interesting finding given research has demonstrated the deleterious effect of CSA on later psychosocial functioning (Maniglio, 2009). It seems apparent that there is a potential role of gender differences within these disparate findings. As previously mentioned, much of the extant research on interpersonal difficulties and CSA is based on female samples. Research has highlighted differences in male vs. female interpersonal and social functioning (see for example, Reevy & Maslach, 2001). As such, the difference from published research here can be expected. Moreover, CSA involves an intimate interpersonal violation (Davis & Petretic-Jackson, 2000) and it may be that the specific interpersonal dynamics of CSA with boys differs to those with girls. Consequent interpersonal functioning in adult intimate relationships for male and female survivors of CSA may therefore be affected in different ways. This highlights the importance of the findings for beginning to redress the gender imbalance of the evidence base.

In a similar vein, CSA was the only form of trauma that was not related to emotion dysregulation. To understand this finding, one can consider the impact of child maltreatment occurring inside vs. outside the family home. Neglect and certain forms

of abuse (i.e. emotional abuse) typically occur at the hands of a child's primary care giver whilst perpetrators of sexual abuse can be either intra or extra-familial. The healthy development of emotion regulation is therefore dependent on having available and responsive caregivers who are our first socializing agents (Fruzzetti *et al*, 2005). A child who is either emotionally or physically neglected or abused at home by their primary care giver may lack the necessary processes and human interactions that scaffold the development of healthy emotional awareness. In comparison, a child who has a safe and nurturing home environment but is sexually abused by an extra-familial perpetrator may still have the opportunity to learn effective emotion regulation strategies from their non-abusing primary care givers. As such, specific forms of childhood trauma including neglect, emotional abuse and sexual abuse may relate to emotion dysregulation in different ways. Critically, specific sexual abuse characteristics such as whether the abuse was intra/extra-familial or who the alleged perpetrator was were not measured in scope of the current study. We can therefore neither rule in nor out the hypothesis that CSA and emotion dysregulation are unrelated because of characteristics specific to the reported sexual abuse.

An anticipated finding was that greater levels of emotion regulation difficulties were significantly related to greater levels of social inhibition. It is theorised that emotions are learned and managed within the context of an individual's interpersonal network. By having healthy and validating interpersonal relationships in adulthood, individuals can form new or alter former ineffective emotion regulation strategies (Saarni *et*, 1998). This suggests that being socially inhibited or avoiding healthy interpersonal relationships may limit opportunities for individuals to learn how to successfully regulate affect in ways that are appropriate for their social and interpersonal contexts. Experiencing early interpersonal trauma may lead to the development of negative

self-to-self, self-to-other and other-to-self relating. These beliefs and patterns of interpersonal functioning may interfere with an individual's ability to seek help from others at times of emotional distress, which may be considered a healthy strategy of affect regulation. Indeed, childhood adversity has been linked to unhelpful coping mechanisms such as social disengagement and withdrawal (Stansfeld *et al*, 2017). Individuals with dysfunctional emotion regulation may therefore have unhelpful social coping strategies that limit the opportunity to form validating interpersonal networks which in turn support the development of healthy affect regulation. With this theoretical framework in mind, the finding that greater levels of emotional dysregulation are related to greater levels of social inhibition is expected. However, in the absence of longitudinal studies in which variables are temporally ordered, causation cannot be ascertained. What remains is an understanding that both emotion regulation and interpersonal difficulties are indeed affected by childhood trauma, that these two factors influence one another and also increase the risk of suicidality. As such, both emotion regulation and interpersonal functioning could be addressed in the prevention of suicide.

3.5.2 Multiple Mediation Model

The significant relationship between childhood trauma and suicidality in the sample became non-significant with the introduction of the mediating variables. As such, the multiple mediation analysis showed that both emotion regulation and interpersonal difficulties (social inhibition) mediated the relationship between childhood trauma and suicidality. The study hypotheses were therefore supported. This finding indicates that increased levels of childhood trauma are associated with increased levels of emotion dysregulation and social inhibition, which in turn lead to increased levels of

suicidality. This suggests that dysfunctional affect regulation leads to suicidality within the context of impoverished social environments, which fits with conceptualisations of suicide as an attempt to cope with extreme emotional distress and/or relationship deficits (Samaritans, 2017).

The Samaritan's (2017) report 'Dying from Inequality' emphasises the significant risk of low social support and social isolation on suicidality, particularly in socioeconomically disadvantaged individuals (Fergusson *et al*, 2000; Meltzer *et al*, 2002). Socioeconomic disadvantage can be said to increase the presence and strength of risk factors whilst concurrently weakening protective factors against it. The current sample represented a cohort of socioeconomically disadvantaged men living in Scotland. In light of the current samples' demographics, Fergusson *et al's* (2000) findings are supported. Low social support is reported in socioeconomically disadvantaged individuals (Samaritans, 2017) and is also a common finding in studies assessing risk factors of suicidality (Johnson *et al*, 2002; Gunnell *et al*, 2004; Dennis *et al*, 2007). Social inhibition may result in impoverished social support, which may increase the risk of these men in particular to engage in suicidal behaviour. The current study found an effect of social inhibition on suicidality, which fits with an interpersonal theory of suicide (Joiner, 2005).

Experiencing early adversity such as childhood abuse and/or neglect is considered a general risk factor for poorer adult health outcomes (Maniglio, 2009; Norman *et al*, 2012). These outcomes spread across societal (high levels of socioeconomic deprivation), community (lack of support and impoverished social networks) and individual (emotional psychological distress, poor mental health and reluctance to seek help) risk factors that are associated with suicidality (Samaritans, 2017). This

suggests a negative collateral and compounding effect of childhood abuse on adult outcomes, particularly in relation to suicidality. Subsequent and ongoing difficulties with emotional regulation and interpersonal sensitivities may lead to a type of cumulative “psychological” allostatic load (McEwan & Stellar, 1993). This may explain why, despite reaching statistical significance, the overall magnitude of the effects of the two mediating factors (emotion dysregulation and interpersonal difficulties) was small in the current study. The variance explained in the mediation may also be small due to the strength of the particular relationship between childhood trauma and emotion dysregulation. This pathway was comparably much stronger than other relationships between key variables (see Figure 1). The relation between child maltreatment and emotion dysregulation is well established in the literature and was also demonstrated in the current study. This fits well with supported neurodevelopmental theories accounting for the impact of childhood trauma on brain and emotion development (Perry & Pollard, 1997; Schore, 2001). This established pathway, therefore, may account for much of the variance found within the multiple mediation analysis. Another explanation for the small mediating effects found is the lack of measurement and control of other potential variables. To name but a few, stressful life events in adulthood (adult re-victimisation), substance misuse (Fergusson *et al*, 2000; Hawton *et al*, 2012) previous self-harm and physical health problems (Chan *et al*, 2016) have all been implicated in suicidality. This suggests that suicide is a multifactorial phenomenon that is the result of a complex interaction between numerous variables. The current study, however, has shown that the emotion dysregulation and interpersonal difficulties are part of this complex picture. Admittedly other important mediators that are shaped by childhood adversity may also play significant roles in increasing the risk of suicidality across one’s lifespan.

Unfortunately, other potential variables such as these were not captured within the scope of the current study.

3.5.3 Limitations

Although the current study increases our understanding of the relationship between childhood trauma, emotion regulation, interpersonal difficulties and suicidality, its results should be considered in light of its limitations. Firstly, the study's sample was recruited from a specific demographic population: notably adult men with past and/or current suicidality living in an area of socioeconomic deprivation in Scotland. This sampling bias means that findings from the current study should not be generalised out-with of this cohort. That said this study is unique insofar as the sample population is under-represented in the literature (see Kirtley & O'Connor in Wyllie *et al*, 2012). As such, this study provides new insight into the mechanisms through which childhood abuse leads to suicidality in an under-researched population therefore making a valuable contribution to the literature. It must be noted that correlational analyses used in this study prohibit firm conclusions about causal mechanisms being made. To address this methodological limitation, theory driven variables were investigated using mediation analysis, however, even with this data analysis strategy, there remains a risk of retrospective bias due to reliance on self-report questionnaires to assess relationships between variables of interest.

A further limitation is that other potential confounding and mediating factors that have been shown to relate to suicidality, such as negative life events in adulthood or substance misuse, were not measured. Related to this, specific abuse characteristics were not measured either. As discussed above, it can be hypothesized that intra-familial abuse (at the hands of the primary care giver) may have greater impact on the

development of dysfunctional emotion regulation and social skills than extra-familial abuse. Future studies could measure and control for other variables of interest, as well as abuse-specific characteristics (such as perpetrator, frequency, duration and type). This would require a bigger sample size and more sophisticated statistical analysis such as structural equation modeling (SEM). Unfortunately, this study was limited in its recruitment from a relatively small cohort so SEM was not possible.

The study did not ask participants whether they had previously disclosed their experiences of abuse (including when, to whom and how the disclosure was received) and/or whether they had ever received an evidence-based intervention for unresolved trauma reactions i.e. c-PTSD (Courtois & Ford, 2009; Scottish Government; Matrix, 2015). It is possible that men who disclosed and/or who were able to resolve their trauma through psychological intervention reported less severe emotion dysregulation and interpersonal problems than those who did not. This study was limited insofar as these variables were not measured.

The measures used in the study were selected because they have been shown to be valid in non-clinical samples. It is possible, however, that the study was limited by its use of self-report questionnaires. For example, the DERS is a subjective measure that could be biased by current mood. Scores on the DERS could therefore have been influenced by how participants were feeling on that particular day. The SBQ-R was chosen as it provides a continuous total score with higher scores indicating greater levels of suicidality. Critically, the measure does not capture specific suicidal information such as the number of previous suicide attempts and self-harming history. Neither does it distinguish between suicidal ideation and suicidal behaviour. This distinction has been made in previous research and studies that have captured specific

suicide characteristics have shown robust relationships between non-suicidal self-injury, suicide ideation and attempted suicide (Klonsky *et al*, 2013). The measure also does not distinguish between suicidal ideation vs. suicidal behaviour. As such, it is difficult to draw comparisons between the current study and other studies investigating suicidality. Finally, scores on the DERS, IIP-32 and SBQ-R may have been influenced by how long participants had been supported by the project. It is possible that those longer in service reported significantly lower levels of emotional dysregulation, social inhibition and suicidality than those who had not been supported for as long. Critically, this information was not captured within the scope of the current study. Despite these potential limitations, it is important to note that the nature of self-report questionnaires may also serve to remove the potential interpersonal barriers that may be perceived by participants who report experiences of childhood trauma and suicidality in interview-based research. As such, the use of self-report measures in the current study may have been advantageous in facilitating more honest responses on the CTQ and the SBQ-R.

3.5.4 Research Implications

One of the study's most interesting findings is the significant impact that childhood emotional and physical neglect can have on affect regulation and interpersonal functioning. Indeed, Horwarth (2007) posits that neglect can result in relationship difficulties in adulthood that are often characterised by social isolation or frequent separations. Although there have been some improvements over recent years, neglect has received considerably less attention than other forms of abuse by researchers and practitioners alike (Tanner & Turney, 2006). In fact, neglect is 'rarely the focus of research in its own right' (Moran p.2). Very few studies exist that have prospectively

investigated the natural course of neglect and its long-term consequences using longitudinal study designs (Norman *et al*, 2012). With more methodologically robust empirical studies, there is scope to develop our understanding of the specific consequences for the distinct types of child maltreatment across the life course.

To the author's knowledge, this study is the first to have investigated emotion regulation and social inhibition as potential mediators in the relationship between childhood trauma and suicidality. Seeing as research with this population is still in its infancy, it was decided that understanding broad concepts such as emotion dysregulation more generally would be better suited than researching its specific dimensions. Future research could build on the current study's novel findings by investigating specific domains of dysfunctional emotion regulation. For example, the 'strategies' dimension of the DERS has been implicated in suicidal behaviour (Weinberg & Klonsky, 2009; Rajappa *et al*, 2012). Indeed, as previously discussed, suicidal behaviours may serve as a (coping) strategy to regulate one's emotional distress (Linehan, 1993; Wagner & Zimmerman, 2006; Samaritans, 2017). In addition, there may also be scope to conduct qualitative research to 'flesh out' the current study's findings. Interviewing men with past and/or current suicidality may provide more of a narrative on the ways in which emotion dysregulation and dysfunctional interpersonal are a consequence of childhood trauma and subsequently inform suicidal behaviour. Given the deleterious and compounding impact that childhood abuse appears to have on adult psychosocial functioning, it could be that different findings are identified when comparing participants who experience one type of trauma compared to those who experience multiple forms of abuse. Future studies could therefore seek to investigate differences between individuals who report single event vs. repeated trauma in childhood.

The finding that emotion dysregulation and social inhibition are related may also warrant further investigation. The strength of this association was below the cut-off for multicollinearity ($r < 0.8$) (Field, 2009) so although these two variables were related, they remain two independent psychological phenomena. Future studies could aim to explore this association further, either in relation to suicidality or in relation to childhood trauma. Finally, current findings could lead to the development of psychological interventions for men at risk of suicide. This would give rise to the opportunity for intervention studies that evaluate the efficacy of interventions that aim to reduce suicidality by targeting the development of emotion regulation and social-problem solving skills.

3.5.5 Clinical Implications

The findings of this study show the importance of emotion dysregulation and interpersonal difficulties (being socially inhibited) in suicidal men who have experienced childhood trauma. This finding has several important clinical implications. First and foremost, this finding can be drawn upon to enhance the therapeutic practice of the Men's SHARE project. If difficulties with regulating emotions and being socially inhibited are significant factors in service users' suicidality, the project could support men to develop helpful emotion regulation (distress tolerance techniques) *and* helpful social skills (asking for help in times of emotional distress and developing healthy social networks). The findings extend beyond the SHARE project and apply to other community agencies that also support men in emotional and interpersonal distress. Given that vulnerable men often fall through the gap of clinical services (Galdas *et al*, 2005), it is important for community and non-statutory organizations to know how best to support their clients'

psychosocial needs. There is therefore scope for clinicians to offer these agencies teaching, training and consultation so that emotional and social therapeutic interventions can be effectively delivered. In this way, providing effective, trauma-informed interventions for men presenting with emotional and social crises and with past and/or current suicidality will move their treatment beyond simple risk management and focus, instead, on recovery and on the development of resilience.

This finding could enhance the wider clinical practice for adult men who present to mental health services with current suicidality. In the first instance, the presence of early relational trauma, emotion regulation ability and interpersonal functioning should be assessed and targeted in treatment. The significance of these factors fits with Scottish Government's guide to delivering evidence-based psychological therapy to survivors of complex trauma (Scottish Government; Matrix, 2015), which recommends training in managing emotions and developing trustworthy relationships. The Matrix (2015) recommendations for suicidality are consistent with those proposed by the National Institute for Health and Care Excellence (NICE, 2004), which posits that there is no "one size fits all" (Matrix, p.35) in the treatment of self-harm and suicidality and that interventions should be tailored to the individual. Of course, understanding pathways to suicide can inform suicide prevention. With that in mind, the findings of the current study could potentially help shape guidance on suicidality and enhance clinical practice. Indeed, there is scope for developing assessments and interventions that address emotion regulation skills. This could progress existing treatment interventions that target the development of healthy affect regulation and social problem-solving elements in order to reduce suicidality.

Finally, given what is known about the impact of childhood abuse, early intervention is vital in preventing its transmission into adulthood. Taking a preventative rather than curative stance, interventions that target young survivors of abuse may change their life trajectory, thereby reducing the subsequent risk of suicidality. Indeed, the early recognition of suicidal risk factors is key in preventing suicidal behaviour. Scottish Government's 'Getting it Right for Every Child (GIRFEC)' guidance emphasizes a cross-professional approach to supporting the wellbeing of children. As such, there is scope for schools to intervene early in teaching children who are at risk of abuse and neglect, healthy emotion regulation skills as well as skills in social and interpersonal functioning. Reducing social inhibition and increasing skills in emotion regulation from an early age may be relevant in preventing the potential long-term consequences of child maltreatment, including suicidality.

3.5.6 Conclusions

The relationship between childhood trauma and suicidal behaviour has received some attention in the literature over recent decades. This was the first study, however, to investigate the potential mediating roles of emotion dysregulation and interpersonal difficulties, specifically in a sample of adult, suicidal men from socioeconomically disadvantaged backgrounds. Whilst this study showed that emotion dysregulation and social inhibition are implicated in the overall collateral and compounding sequelae of childhood trauma, it is argued that additional factors to these contribute to suicidality in adulthood. Suicide is a multi-faceted phenomenon, which results from a complex interaction between many psychological and social factors. Suicide is still not fully understood. Indeed, if it were easy to predict suicide, suicide would not be considered a global problem (WHO, 2017). However, this study contributes to our knowledge

and understanding of potential pathways to suicide, emphasizing the role that dysfunctional affect regulation and inhibited interpersonal functioning may play. This study proposes that interventions should support individuals to develop healthy emotion regulation skills, reduce levels of social inhibition and develop supportive social networks (from which help can be sought at times of emotional distress) in a bid to continue the downward trend that is evident in recent suicide statistics (Office for National Statistics, 2016).

3.6 References

- Adrian, M., Zeman, J., Erdley, C., Lisa, L., & Sim, L. (2011). Emotional dysregulation and interpersonal difficulties as risk factors for nonsuicidal self-injury in adolescent girls. *Journal of abnormal child psychology*, 39(3), 389-400.
- Baker, A. J., & Maiorino, E. (2010). Assessments of emotional abuse and neglect with the CTQ: Issues and estimates. *Children and Youth Services Review*, 32(5), 740-748.
- Barkham, M., Hardy, G. E., & Startup, M. (1996). The IIP- 32: A short version of the Inventory of Interpersonal Problems. *British Journal of Clinical Psychology*, 35(1), 21-35.
- Bebbington, P. E., Cooper, C., Psych, M. R. C., Minot, S., Psych, M. R. C., Brugha, T. S., ... & Psych, M. R. C. (2009). Suicide attempts, gender, and sexual abuse: data from the 2000 British Psychiatric Morbidity Survey. *American Journal of Psychiatry*.
- Bernstein, D. P., & Fink, L. (1998). *Childhood trauma questionnaire: A retrospective self-report: Manual*. Harcourt Brace & Company.
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., ... & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child abuse & neglect*, 27(2), 169-190.
- Bornstein, M. H., Suwalsky, J. T., & Breakstone, D. A. (2012). Emotional relationships between mothers and infants: Knowns, unknowns, and unknown unknowns. *Development and psychopathology*, 24(01), 113-123.
- Bowlby, J. (1969). *Attachment and Loss: Attachment; John Bowlby*. Basic Books.

- Briere, J., & Runtz, M. (1990). Differential adult symptomatology associated with three types of child abuse histories. *Child abuse & neglect*, 14(3), 357-364.
- Carvalho Fernando, S., Beblo, T., Schlosser, N., Terfehr, K., Otte, C., Löwe, B., ... & Wingenfeld, K. (2014). The impact of self-reported childhood trauma on emotion regulation in borderline personality disorder and major depression. *Journal of Trauma & Dissociation*, 15(4), 384-401.
- Chan, M. K., Bhatti, H., Meader, N., Stockton, S., Evans, J., O'Connor, R. C., ... & Kendall, T. (2016). Predicting suicide following self-harm: systematic review of risk factors and risk scales. *The British Journal of Psychiatry*, bjp-bp.
- Cloitre, M., Garvert, D. W., Brewin, C. R., Bryant, R. A., & Maercker, A. (2013). Evidence for proposed ICD-11 PTSD and complex PTSD: A latent profile analysis. *European journal of psychotraumatology*, 4.
- Cohen, J. (1992). A power primer. *Psychological bulletin*, 112(1), 155.
- Coll, X., Law, F., Tobías, A., Hawton, K., & Tomàs, J. (2001). Abuse and deliberate self-poisoning in women: a matched case-control study. *Child abuse & neglect*, 25(10), 1291-1302.
- Community Planning Research and Information Group (CPRIG) (2016). Midlothian Moving Forward. Community Planning for Midlothian. Accessed at: <https://www.google.co.uk/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=cprig+midlothian+2016&> on 11th March 2017.
- Courtois, C. A., & Ford, J. D. (Eds.). (2009). *Treating complex traumatic stress disorders: An evidence-based guide*. Guilford Press.
- Dahl, R. E. (2001). Affect regulation, brain development, and behavioral/emotional health in adolescence. *CNS spectrums*, 6(01), 60-72.

- Davis, J. L., & Petretic-Jackson, P. A. (2000). The impact of child sexual abuse on adult interpersonal functioning: A review and synthesis of the empirical literature. *Aggression and violent behavior, 5*(3), 291-328.
- Davis, J. L., Petretic- Jackson, P. A., & Ting, L. (2001). Intimacy dysfunction and trauma symptomatology: Long- term correlates of different types of child abuse. *Journal of Traumatic Stress, 14*(1), 63-79.
- Dennis, M., Baillon, S., Brugha, T., Lindesay, J., Stewart, R., & Meltzer, H. (2007). The spectrum of suicidal ideation in Great Britain: comparisons across a 16–74 years age range. *Psychological medicine, 37*(06), 795-805.
- Dube, S. R., Anda, R. F., Felitti, V. J., Chapman, D. P., Williamson, D. F., & Giles, W. H. (2001). Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the Adverse Childhood Experiences Study. *Jama, 286*(24), 3089-3096.
- Dyer, K. F., Dorahy, M. J., Hamilton, G., Corry, M., Shannon, M., MacSherry, A., ... & McElhill, B. (2009). Anger, aggression, and self- harm in PTSD and complex PTSD. *Journal of clinical psychology, 65*(10), 1099-1114.
- Dyer, K. F., Dorahy, M. J., Shannon, M., & Corry, M. (2013). Trauma typology as a risk factor for aggression and self-harm in a complex PTSD population: The mediating role of alterations in self-perception. *Journal of Trauma & Dissociation, 14*(1), 56-68.
- Elsevier Child Abuse & Neglect Guide for Authors (2017). Accessed at <http://www.apastyle.org/learn/faqs/web-page-no-author.aspx> on 25th April 2017
- Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2008). Exposure to childhood sexual and physical abuse and adjustment in early adulthood. *Child abuse & neglect, 32*(6), 607-619.

- Fergusson, D. M., Woodward, L. J., & Horwood, L. J. (2000). Risk factors and life processes associated with the onset of suicidal behaviour during adolescence and early adulthood. *Psychological medicine*, 30(01), 23-39.
- Field, A. (2009). *Discovering statistics using SPSS*. Sage publications.
- Floen, S. K., & Elklit, A. (2007). Psychiatric diagnoses, trauma, and suicidality. *Annals of General Psychiatry*, 6(1), 12.
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological science*, 18(3), 233-239.
- Fruzzetti, A. E., Shenk, C., & Hoffman, P. D. (2005). Family interaction and the development of borderline personality disorder: A transactional model. *Development and psychopathology*, 17(04), 1007-1030.
- Galdas, P. M., Cheater, F., & Marshall, P. (2005). Men and health help-seeking behaviour: literature review. *Journal of advanced nursing*, 49(6), 616-623.
- Gunnell, D., Harbord, R., Singleton, N., Jenkins, R., & Lewis, G. (2004). Factors influencing the development and amelioration of suicidal thoughts in the general population. *The British Journal of Psychiatry*, 185(5), 385-393.
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of psychopathology and behavioral assessment*, 26(1), 41-54.
- Green, S. B. (1991). How many subjects does it take to do a regression analysis. *Multivariate behavioral research*, 26(3), 499-510.
- Gross, J. J. (2015). *Handbook of Emotion Regulation: second edition*. New York: Guildford Press.

- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Hawton, K., Saunders, K. E., & O'Connor, R. C. (2012). Self-harm and suicide in adolescents. *The Lancet*, *379*(9834), 2373-2382.
- Health in Mind. (2016). SHARE (Suicide, Harm, Awareness, Recovery & Empathy) Project. Accessed at: <http://www.health-in-mind.org.uk/services/orchard-centre-services/SHARE.html> on 4th April 2017.
- Herman, J. L. (1992). Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *Journal of traumatic stress*, *5*(3), 377-391.
- Holmes, G. R., Offen, L., & Waller, G. (1997). See no evil, hear no evil, speak no evil: Why do relatively few male victims of childhood sexual abuse receive help for abuse-related issues in adulthood?. *Clinical Psychology Review*, *17*(1), 69-88.
- Holt-Lunstad, J., Smith, T. B., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: a meta-analytic review. *Perspectives on Psychological Science*, *10*(2), 227-237.
- Horowitz, L. M., Alden, L. E., Wiggins, J. S., & Pincus, A. L. (2000). Inventory of interpersonal problems (IIP-32/IIP-64). London: Psychological Corporation.
- Horwath, J. (2007). *Child neglect: Identification and assessment*. Palgrave Macmillan.
- Huh, H. J., Kim, S. Y., Yu, J. J., & Chae, J. H. (2014). Childhood trauma and adult interpersonal relationship problems in patients with depression and anxiety disorders. *Annals of general psychiatry*, *13*(1), 26.
- Johnson, J. G., Cohen, P., Gould, M. S., Kasen, S., Brown, J., & Brook, J. S. (2002). Childhood adversities, interpersonal difficulties, and risk for suicide attempts

during late adolescence and early adulthood. *Archives of general psychiatry*, 59(8), 741-749.

Joiner Jr, T. E., Brown, J. S., & Wingate, L. R. (2005). The psychology and neurobiology of suicidal behavior. *Annu. Rev. Psychol.*, 56, 287-314.

Kaslow, N. J., Thompson, M. P., Brooks, A. E., & Twomey, H. B. (2000). Ratings of family functioning of suicidal and nonsuicidal African American women. *Journal of Family Psychology*, 14(4), 585.

Kim, H. Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative dentistry & endodontics*, 38(1), 52-54.

Kim, J., & Cicchetti, D. (2010). Longitudinal pathways linking child maltreatment, emotion regulation, peer relations, and psychopathology. *Journal of Child Psychology and Psychiatry*, 51(6), 706-716.

Kim-Spoon, J., Cicchetti, D., & Rogosch, F. A. (2013). A longitudinal study of emotion regulation, emotion lability, negativity, and internalizing symptomatology in maltreated and nonmaltreated children. *Child development*, 84(2), 512-527.

King, C. A., & Merchant, C. R. (2008). Social and interpersonal factors relating to adolescent suicidality: A review of the literature. *Archives of Suicide Research*, 12(3), 181-196.

Kleiman, E. M., & Liu, R. T. (2013). Social support as a protective factor in suicide: Findings from two nationally representative samples. *Journal of affective disorders*, 150(2), 540-545.

Klonsky, E. D., May, A. M., & Glenn, C. R. (2013). The relationship between nonsuicidal self-injury and attempted suicide: converging evidence from four samples. *Journal of abnormal psychology*, 122(1), 231.

- Lang, C. M., & Sharma-Patel, K. (2011). The relation between childhood maltreatment and self-injury: A review of the literature on conceptualization and intervention. *Trauma, Violence, & Abuse, 12*(1), 23-37.
- Linehan, M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. Guilford press.
- Maercker, A., Brewin, C. R., Bryant, R. A., Cloitre, M., Reed, G. M., van Ommeren, M., ... & Rousseau, C. (2013). Proposals for mental disorders specifically associated with stress in the International Classification of Diseases-11. *The Lancet, 381*(9878), 1683.
- Maniglio, R. (2009). The impact of child sexual abuse on health: A systematic review of reviews. *Clinical psychology review, 29*(7), 647-657.
- May-Chahal, C., & Cawson, P. (2005). Measuring child maltreatment in the United Kingdom: a study of the prevalence of child abuse and neglect. *Child abuse & neglect, 29*(9), 969-984.
- McEwen, B. S., & Stellar, E. (1993). Stress and the individual: mechanisms leading to disease. *Archives of internal medicine, 153*(18), 2093-2101.
- McLean, J., Maxwell, M., Platt, S., Harris, F. M., & Jepson, R. (2008). *Risk and protective factors for suicide and suicidal behaviour: A literature review*. Scottish Government.
- Meltzer, H. (2002). *Non-fatal suicidal behaviour among adults aged 16 to 74 in Great Britain*. Stationery Office Books (TSO).
- Messman-Morre, T., Walsh, K., & DiLillo, D. (2010). Emotion dysregulation and risky sexual behavior in revictimization. *Child Abuse & Neglect, 34*(12), 967–976.

- Milnes, D., Owens, D., & Blenkiron, P. (2002). Problems reported by self-harm patients: perception, hopelessness, and suicidal intent. *Journal of Psychosomatic Research*, 53(3), 819-822.
- Mina, E. E. S., & Gallop, R. M. (1998). Childhood sexual and physical abuse and adult self-harm and suicidal behaviour: a literature review. *The Canadian Journal of Psychiatry*, 43(8), 793-800.
- Moran, P. Neglect: research evidence to inform practice. *Action for Children*.
Accessed at:
https://www.actionforchildren.org.uk/media/3368/neglectc_research_evidence_to_inform_practice.pdf on 4th April 2017
- Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., & Herbison, G. P. (1996). The long-term impact of the physical, emotional, and sexual abuse of children: A community study. *Child abuse & neglect*, 20(1), 7-21.
- National Institute for Health and Care Excellence (NICE). (2004). Self-harm in over 8s: short-term management and prevention of recurrence. Accessed at:
<https://www.nice.org.uk/guidance/cg16> on 4th April 2017.
- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: a systematic review and meta-analysis. *PLoS Med*, 9(11), e1001349.
- Office for National Statistics. (2016). Suicides in the UK: 2015 registrations.
Accessed at:
<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/2015registrations> on 4th April 2017.

- O'Leary, P., & Gould, N. (2009). Men who were sexually abused in childhood and subsequent suicidal ideation: Community comparison, explanations and practice implications. *British Journal of Social Work*, 39(5), 950-968.
- Osman, A., Bagge, C. L., Gutierrez, P. M., Konick, L. C., Kopper, B. A., & Barrios, F. X. (2001). The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and nonclinical samples. *Assessment*, 8(4), 443-454.
- Osvath, P., Vörös, V., & Fekete, S. (2004). Life events and psychopathology in a group of suicide attempters. *Psychopathology*, 37(1), 36-40.
- Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The prevalence of child sexual abuse in community and student samples: A meta-analysis. *Clinical psychology review*, 29(4), 328-338.
- Perry, B. D., & Pollard, R. (1997, November). Altered brain development following global neglect in early childhood. In *Proceedings from the Society for Neuroscience Annual Meeting (New Orleans)*.
- Poverty and Social Exclusion (PSE). (2016). Income Threshold Approach. Accessed at: www.poverty.ac.uk/definitions-poverty/income-threshold-approach-on-11th-March-2017 on 4th April 2017.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, 36(4), 717-731.
- Preacher, K. J., & Hayes, A. F. (2008). Assessing mediation in communication research. *The Sage sourcebook of advanced data analysis methods for communication research*, 13-54.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, 40(3), 879-891.

- Rajappa, K., Gallagher, M., & Miranda, R. (2012). Emotion dysregulation and vulnerability to suicidal ideation and attempts. *Cognitive Therapy and Research*, 36(6), 833-839.
- Reevy, G. M., & Maslach, C. (2001). Use of social support: Gender and personality differences. *Sex roles*, 44(7-8), 437-459.
- Roche, D. N., Runtz, M. G., & Hunter, M. A. (1999). Adult Attachment A Mediator Between Child Sexual Abuse and Later Psychological Adjustment. *Journal of Interpersonal Violence*, 14(2), 184-207.
- Saarni, C., Campos, J. J., Camras, L. A., & Witherington, D. (1998). Emotional development: Action, communication, and understanding. *Handbook of child psychology*.
- Sarchiapone, M., Jaussent, I., Roy, A., Carli, V., Guillaume, S., Jollant, F., ... & Courtet, P. (2009). Childhood trauma as a correlative factor of suicidal behavior—via aggression traits. Similar results in an Italian and in a French sample. *European Psychiatry*, 24(1), 57-62.
- Samaritans. (2016). Suicide Statistics Report 2016. Accessed at: <https://www.samaritans.org/sites/default/files/kcfinder/files/Samaritans%20suicide%20statistics%20report%202016.pdf> on 4th April 2017.
- Samaritans. (2017). Dying from Inequality Report. Accessed at: <http://www.samaritans.org/sites/default/files/kcfinder/files/Samaritans%20Dying%20from%20inequality%20report%20-%20summary.pdf> on 4th April 2017.
- Schore, A. N. (2001). Effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health. *Infant mental health journal*, 22(1- 2), 7-66.

- Scottish Government and NHS Education for Scotland. (2015). "The Matrix Evidence Tables. Adult Mental Health" Accessed at: http://www.nes.scot.nhs.uk/media/3403916/matrix_-_adultmentalhealthtables.pdf on 4th April 2017.
- Scottish Government. (2012). Mental Health Strategy for Scotland: 2012-2015. Accessed at: <http://www.gov.scot/Publications/2012/08/9714> on 4th April 2017.
- Scottish Government. (2013). Suicide Prevention Strategy 2013-2016. Accessed at: <http://www.gov.scot/Resource/0043/00439429.pdf> on 4th April 2017.
- Scottish Government. (2016). The Scottish Index of Multiple Deprivation (SIMD). Accessed at: <http://www.gov.scot/Topics/Statistics/SIMD> on 4th April 2017.
- Scottish Government. (2017). Getting it right for every child (GIRFEC). Accessed at: <http://www.gov.scot/Topics/People/Young-People/gettingitright> on 4th April 2017.
- Sfoggia, A., Pacheco, M. A., & Grassi-Oliveira, R. (2008). History of childhood abuse and neglect and suicidal behavior at hospital admission. *Crisis*, 29(3), 154-158.
- Soper, D. (2017). Free Statistics Calculators. Accessed at: <http://www.danielsoper.com/statcalc/calculator.aspx?id=1> on 4th April 2017.
- Stansfeld, S. A., Clark, C., Smuk, M., Power, C., Davidson, T., & Rodgers, B. (2017). Childhood adversity and midlife suicidal ideation. *Psychological medicine*, 47(2), 327-340.
- Stoltenborgh, M., van IJzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. J. (2011). A global perspective on child sexual abuse: meta-analysis of prevalence around the world. *Child maltreatment*, 16(2), 79-101.

Taylor & Francis Online; Archives of Suicide Research; Instructions for authors (2017). Accessed at <http://www.tandfonline.com/action/authorSubmission?show=instructions&journalCode=usui20> on 25th April 2017.

Thompson RA. Early attachment and later development: Familiar questions, new answers. In: Cassidy J, Shaver PR, editors. *Handbook of attachment: Theory, research, and clinical applications*. New York: Guilford Press; 2008. pp. 348–365.

Trevarthen, C. (1979). Communication and cooperation in early infancy: A description of primary intersubjectivity. *Before speech: The beginning of interpersonal communication, 1*, 530-571.

Trevarthen, C., & Hubley, P. (1978). Secondary intersubjectivity: Confidence, confiding and acts of meaning in the first year. *Action, gesture and symbol: The emergence of language*, 183-229.

Turney, D., & Tanner, K. (2006). Therapeutic interventions for children who have experienced neglect and their families in the UK.

Wagner, B. M., & Zimmerman, J. H. (2006). Developmental Influences on Suicidality Among Adolescents: Cognitive, Emotional, and Neuroscience Aspects.

Weinberg, A., & Klonsky, E. D. (2009). Measurement of emotion dysregulation in adolescents. *Psychological Assessment, 21*(4), 616.

WHO (2014). *Preventing suicide: a global imperative*. World Health Organization, Geneva. Accessed at: http://www.who.int/mental_health_suicide-prevention/world_report_2014/en/ on 4th April 2017.

WHO (2017). *Suicide*. World Health Organization, Geneva. Accessed at: <http://www.who.int/mediacentre/factsheets/fs398/en/> on 4th April 2017.

- Wyllie, C., Platt, S., Brownlie, J., Chandler, A., Connolly, S., Evans, R., ... & Scourfield, J. (2012). Men, suicide and society: Why disadvantaged men in mid-life die by suicide. *Ewell, Surrey, UK: Samaritans.*
- Ystgaard, M., Hestetun, I., Loeb, M., & Mehlum, L. (2004). Is there a specific relationship between childhood sexual and physical abuse and repeated suicidal behavior?. *Child abuse & neglect, 28(8), 863-875.*
- Zaroff, C. M., Wong, H. L., Ku, L., & Van Schalkwyk, G. (2014). Interpersonal stress, not depression or hopelessness, predicts suicidality in university students in Macao. *Australasian psychiatry, 22(2), 127-131.*
- Zeedyk, M. S. (2006). From intersubjectivity to subjectivity: The transformative roles of emotional intimacy and imitation. *Infant and Child development, 15(3), 321-344.*

Appendix 1: Manuscript draft of the thesis portfolio's systematic review; submitted to the journal *Child Abuse & Neglect* on 21st February 2017.

Elsevier Editorial System(tm) for Child
Abuse & Neglect
Manuscript Draft

Manuscript Number:

Title: Barriers and facilitators to disclosing sexual abuse in childhood
and adolescence: a systematic review

Article Type: Invited Review

Corresponding Author: Dr. Emily P Taylor, DClinPsychol

Corresponding Author's Institution: University of Edinburgh

First Author: Charlotte Lemaigre, MA Hons

Order of Authors: Charlotte Lemaigre, MA Hons; Emily P Taylor,
DClinPsychol; Claire Gittoes, D Clin Psych

EMILY TAYLOR, DClinPsychol
LECTURER IN CLINICAL PSYCHOLOGY
DIRECTOR OF LEARNING AND TEACHING School
of Health in Social Science
PROGRAMME DIRECTOR MSc Children and Young
People's Mental Health and Psychological
Practice AND MSc Psychological Therapies

Telephone: 0131 650 3892
E-mail: Emily.Taylor@ed.ac.uk

SECTION of CLINICAL *and* HEALTH PSYCHOLOGY

School of Health in Social Sciences
The University of Edinburgh
Medical School
Teviot Place
Edinburgh EH8 9AG

21ST FEBRUARY 2017

Dr Christine Wekerle
Editor-in-Chief
Child Abuse & Neglect

Review Article

Barriers and facilitators to disclosing sexual abuse in childhood and adolescence: a systematic review

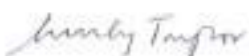
Thank you for agreeing to review the above article detailing a systematic review for the journal Child Abuse & Neglect (agreement made with the first author, Charlotte Lemaigre). We consider this article to be of substantial relevance to practitioners, with clear evidence emerging of the need to educate adults (professional and non-professional) in how and when to ask children about possible sexual abuse, as well as reinforcing the need for education directed at children about CSA.

I will be serving as corresponding author for this manuscript. All of the authors listed have agreed to this manuscript and to their authorship and order. I assume responsibility for keeping all authors informed of our progress through editorial review.

The word count of the whole manuscript, minus the abstract (220 words), is 4977 (6679 including tables).

We look forward to receiving reviewers' comments and your appraisal of this article.

Kind regards



Dr. Emily Taylor

The barriers and facilitators to disclosing sexual abuse in childhood and adolescence: a systematic review.

Charlotte Lemaigre¹

Dr. Emily Taylor²

Dr. Claire Gittoes³

¹ Trainee Clinical Psychologist
School of Health and Social Science
University of Edinburgh
Teviot Place
Edinburgh
EH8 9AG
United Kingdom
Email: c.lemaigre@sms.ed.ac.uk

² Corresponding author
Lecturer in Clinical Psychology
School of Health and Social Science
University of Edinburgh
Teviot Place
Edinburgh
EH8 9AG
United Kingdom
E-mail: Emily.taylor@ed.ac.uk
Telephone: +44 (0)131 650 3892

³ Clinical Psychologist
Children's Wellbeing Duty Social Work Team
Randall House
Macmerry Business Park
EH33 1RW
Email: cgittoes@eastloathian.gov.uk
Telephone: +44 (0)1875 824 090

Abstract

Children and young people often choose not to disclose sexual abuse, thus preventing access to help and allowing perpetrators to continue undetected. A nuanced understanding of the barriers (and facilitators) to disclosure is therefore of great relevance to practitioners and researchers. The literature was systematically searched for studies related to child and adolescent disclosures of sexual abuse. Thirteen studies were reviewed and assessed for methodological quality. Results of the review illustrate the heterogeneous nature of these empirical studies. Findings demonstrate that young people face a number of different barriers such as limited support, perceived negative consequences and feelings of self-blame, shame and guilt, when choosing to disclose. Being asked or prompted, through provision of developmentally appropriate information, about sexual abuse facilitates disclosure. The review highlights the need for robust, longitudinal studies with more sophisticated methodology to replicate findings. The review identifies the need for developmentally appropriate school-based intervention programmes that facilitate children's disclosure by reducing feelings of responsibility, self-blame, guilt and shame. In addition, prevention programmes should encourage family members, friends and frontline professionals to identify clues of sexual abuse, to explicitly ask children about the possibility of sexual abuse and also to respond supportively should disclosures occur. Facilitating disclosure in this way is key to safeguarding victims and promoting better outcomes for child and adolescent survivors of sexual abuse.

Keywords: Barriers, facilitators, sexual abuse, children, adolescents.

Declaration: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

1. Introduction

The World Health Organisation (WHO) defines childhood sexual abuse (CSA) as the 'involvement of a child in sexual activity that he or she does not fully comprehend and is unable to give informed consent to' (WHO, 1999 p. 15). The various types of experiences, which constitute CSA, are wide-ranging. In a recent meta-analysis of global CSA rates, Stoltenborgh *et al* (2011) identified a combined prevalence of 11.8% amongst 9,911,748 participants, with higher rates for females (18%) than males (7.6%). It is not clear whether this gender imbalance reflects gender differences in childhood sexual abuse prevalence or disclosure rates but does reflect the over-representation of females in the wider CSA literature. Varying prevalence rates by country were also noted, possibly reflecting true cross-cultural differences in CSA rates, children's ability to disclose. Variations may also reflect disagreements about the definition of CSA as well as differences in its measurement and reporting.

Prevalence studies rely on sampled populations reporting their experiences of CSA, however, child sexual victimization is both under reported and under-recorded (Reitsema & Grietens, 2016). The act of disclosing CSA is key to halting abuse and instigating legal and therapeutic intervention (Paine & Hansen, 2002) yet not all children who are sexually abused disclose and as many as 60-70% delay disclosure into adulthood (London *et al*, 2005). Research studies on disclosure rates are predominantly retrospective, sampling adult populations. Critically, these studies are inherently at risk of confounding and selection/recall bias. More recently, there has been an increased focus on researching disclosure in child and adolescent populations. Some research has shown that only a third of victims disclose during childhood (Jonzon & Lindblad, 2004; London *et al*, 2005).

Priebe and Svedin (2008) surveyed 4,339 high school children and found that 45% reported experiences of unwanted sexual abuse. Of these, only 65% of females and 23% of males had previously disclosed, indicating that although some survivors of CSA disclose their experiences, many do not. What is striking is that studies such as these suggest that research can uncover first-time disclosures. Young people are therefore not spontaneously disclosing nor are they being explicitly asked about their experiences of sexual abuse. The possible adverse results of this secrecy are that many children are at risk of ongoing sexual abuse and that many perpetrators remain unidentified and therefore free to commit acts against other children. There is a growing body of research in the literature pertaining to predictors and processes involved in patterns of (non)-disclosure of CSA.

Demographic variables such as age and gender have been implicated in decisions to disclose. Some studies have identified age effects, suggesting that younger children are more likely to delay disclosure than older children (e.g. Smith *et al*, 2000), although other studies have failed to replicate this pattern (e.g. Kellogg & Hoffman, 1995).. Younger children are more likely to disclose to adults (Lamb & Edgar-Smith, 1994; Roesler & Wind, 1994; Arata, 1998; Palmer *et al*, 1999) whilst older children and adolescents are more likely to disclose to peers (Edgarth & Ormstad, 2000; Tang, 2002). Studies generally report higher disclosure rates for sexually abused females in comparison to sexually abused males. This may be an artifact of the under-representation of males in the CSA literature. These findings may also reflect gender variances in CSA prevalence data (Stoltenborgh *et al*, 2011) and/or gender differences more generally in help-seeking behaviour (Galdas, Cheater & Marshall, 2005). These factors may all derive from an

(unconscious) binary view of women as victims and men as perpetrators, as espoused in feminist literature (e.g. Knight & Hatty, 1987). Research has also investigated the role of abuse characteristics on victims' decisions to disclose. For the most part, disclosure has been found to be more likely when the abuse is extra-familial (abuse that occurs out with the family) (Arata, 1998; London *et al*, 2005). However, not all studies agree; Lamb and Edgar-Smith (1994) found no association between abuse type and the likelihood to disclose in a sample of 60 adults who had been sexually abused as children. Other factors such as anticipated social reactions and fear of negative consequences such as disbelief along with psychological constructs such as shame and self-blame have also been researched (Kellogg & Hoffman, 1997; Ullman, 2002). Despite the fact that these many factors have been to some degree implicated in a child's decisions to tell, there is limited consensus within the literature about an optimal set of conditions and factors that facilitate CSA disclosures. Indeed, a recently conducted literature review of adult disclosures of CSA concluded that the barriers and facilitators to disclosing sexual abuse involve a complex interplay between several intrapersonal, interpersonal and social factors, which are still only partially understood (Tener & Murphy, 2015).

Disclosing CSA in childhood may involve barriers and facilitators that are qualitatively different to those experienced by adults. Paine and Hansen (2002) concluded in their literature review that alongside a complex interplay between multifaceted internal and external factors, cognitive and developmental barriers are important drivers in children and adolescents' decisions to withhold disclosure. Since this review, additional research investigating child and adolescent disclosures of CSA has been conducted, yet there remain opposing and contrasting findings. As such, no conclusive trends can be drawn

from each of the individual studies published. This highlights the need to better understand the common findings across these studies with each study's methodological quality in mind.

McElvaney (2013) reviewed literature on delays, non-disclosures and partial disclosures of child sexual abuse in adult and child populations. As with Paine and Hansen's (2002) review, the author identified the intricacy and complexity involved in individuals' disclosure journeys. Given that disclosure is pivotal for a child to access help, it is important to understand the factors that facilitate a child's decision to tell. To the authors' knowledge, no published systematic reviews to date have examined studies investigating the barriers and facilitators to disclosing sexual abuse in childhood and adolescence. In synthesizing findings from these studies, the current review aims to address the following questions: 1) What barriers do children and adolescents face when disclosing sexual abuse? 2) What factors are associated with facilitating children and adolescents to disclose their experiences of sexual abuse?

2. Methods

2.1 Protocol

A review protocol was developed and published before a full, systematic literature search was undertaken. Predefining a systematic review's method and scope in advance minimizes bias and maintains transparency throughout. The review protocol that was developed guided the systematic search of the literature to identify papers that met the review's eligibility criteria. The systematic review protocol can be accessed on:

http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42016035672

2.2 Eligibility Criteria

Research about disclosures of sexual abuse in child and adolescent populations is growing, yet limited. As such, a decision was made not to apply a date restriction to the search. Articles that employed either a qualitative, quantitative or a mixed methods study design were considered eligible for inclusion. Studies were included if the principal aim was the investigation of disclosures of sexual abuse in child and adolescent populations: an operationalised inclusion criterion was set at a mean age for the sample of under 18.0 years. Studies that investigated disclosures of CSA made by a sample with a mean age of 18.0 years and above were excluded from the review. Studies adopting secondary data analysis strategies were also excluded. In addition, reviews, professional opinions and editorial publications were excluded.

2.3 Literature search strategy

An initial comprehensive literature review was conducted in order to ensure that no other systematic review on child and adolescent disclosures of CSA had been conducted. This revealed that an unpublished thesis had been carried out on child disclosures of CSA (Morrison, 2016), which adopted a different analytical method (meta-ethnography) including qualitative studies only (n=7). To the authors' knowledge, no other reviews have specifically and systematically examined the barriers and facilitators to disclosing sexual abuse in childhood and adolescence. The current review, therefore, is unique in its scope and as a result, complements and contributes to the existing literature in this field.

The literature search was initially conducted in April 2016 using the following databases: Ovid (PsycINFO (1806-2016), Medline (1946-2016) and EMBASE (1980-2016)),

EBSCO (including CINAHL Plus (1990-2016) and ERIC) and ProQuest (PILOTS (1871-2016), Social Services Abstracts and Applied Social Sciences Index and Abstracts (ASSIA) (1987-2016)). The same search strategy was adopted for each of the three databases. Weekly alerts were set up for each of the databases informing the authors of any new publications that met the current review's eligibility criteria.

2.4 Study Selection

Figure 1 (Moher *et al*, 2009) presents a flow chart detailing the individual stages of the literature search strategy. From the 2,668 records identified, 824 duplicates were removed. A total of 1,043 titles were screened for relevance and 929 articles were excluded, as they were deemed irrelevant to the review question. Thereafter, 115 abstracts were reviewed and assessed against the predefined eligibility criteria. Seventy-four articles were excluded at this stage. The remaining 41 articles were accessed in full and assessed for suitability. Eleven studies met all criteria for inclusion. Finally two manual searches, firstly through the included studies' references lists and secondly via Google Scholar were conducted. An additional two papers that were eligible for inclusion were identified. As such, the total number of studies included in the review was 13. Table 1 provides summary information for each of these 13 articles, which includes study design, sample, abuse and disclosure characteristics, data analysis strategy and main findings.

2.5 Assessment of Methodological Quality

Methodological quality criteria that ensured qualitative and quantitative designs were fairly evaluated were developed with reference to a range of published criteria and

recommendations (CASP, 2014; CRD, 2009; SIGN, 2008; PRISMA; Liberati *et al*, 2009; Murphy *et al*, 1998; Jeanfreau & Jack, 2010; Shenton, 2004).

Studies were rated on a total of 15 quality criteria items across five different dimensions: research questions/aims; sampling; methodology; data analysis and findings. Each quality criterion was assessed according to the following quality ratings, 'well covered' (3 points), 'adequately addressed' (2 points), 'poorly addressed' (1 point) and 'not addressed', 'not reported' and 'not applicable' (0 points). An overall quality rating score was calculated for each of the 13 included studies to facilitate the synthesis of findings in light of their methodological rigor.

A total quality rating score was calculated for each study based on the core eleven-quality criteria. Studies were allocated a total quality rating score out of a possible 33 points; these are provided in Table 2. The nine articles that adopted a qualitative or mixed-study design were further assessed on an additional four quality criteria that are relevant for qualitative research: credibility, dependability, conformability and transferability. Out of a possible 12 points in this case, the nine studies were assigned a secondary quality rating score for the qualitative component to their methodology. This score is given in brackets under the 'Overall Quality Rating Score' column found in Table 2.

The first author appraised all of the 13 included studies. To minimize errors and reduce possible assessment bias, two independent reviewers individually assessed randomly selected studies on each of the 15 quality criteria. Agreement between raters on all items for each domain was sought before overall quality descriptors were assigned.

Figure 1: Flow chart detailing the systematic review search strategy.

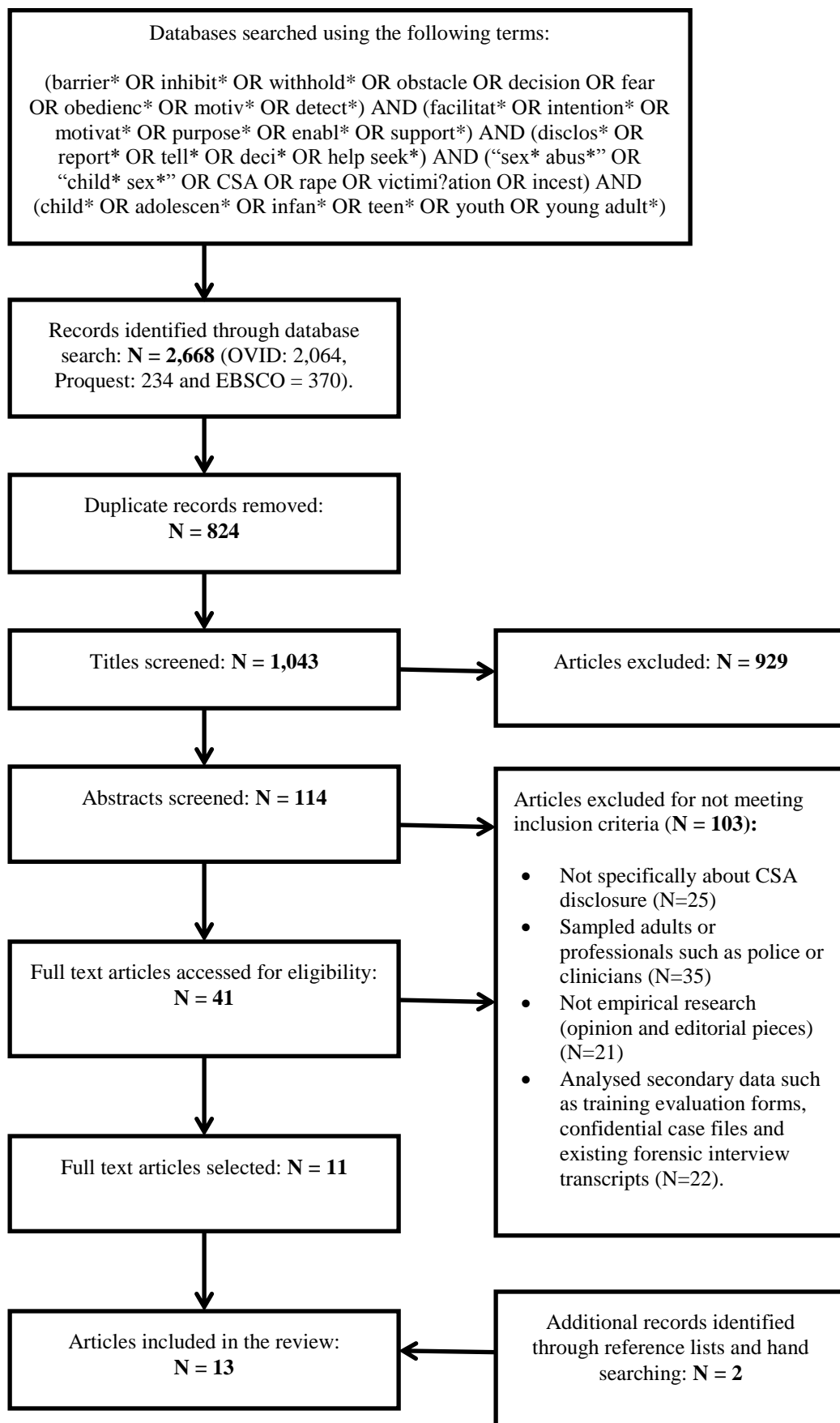


Table 1. Summary of characteristics and findings of included studies.

Authors (Year), Country	Study Design	Sample and Sampling Strategy	Sample Characteristics	Abuse Characteristics	Disclosure Characteristics	Data Analysis	Main Findings
Crisma et al (2004), Italy.	Qualitative.	General population. Volunteer Sampling	N=36. Gender: 35 females; 1 male. Age: <18 years (N=31) 18-21 years (N=4) >22 years (N=1).	Type: rape (N=23), attempted rape (N=2), fondling/touching (N=10) peeping (N=1). Perpetrators: all males; father, stepfather, grandfather or brother (N=8), other relatives (N=7), partners/friends (N=13). Duration: single episode (N=13), <1 year (N=5), >1 (N=18).	Number: none (N=7), 1 (N=12), 2 (N=8), 3 or more (N=9). Recipient: nobody (N=7), friends (N=15), parents (N=10), other family members (N=11), and professionals (N=12).	Not articulated.	Barriers: lack of information; desire for autonomy and maturity; wish to protect family members, limited support gained from professionals and adults.
Gries, Goh & Cavanaugh (1996), USA.	Quantitative. Cross-sectional	Foster children. Purposive Sampling	N=96 Gender: 47 females, 49 males. Age: mean= 8.3 years, range= 3-17 years.	Type: physical abuse (N=19), exposure to others (N=9), exposure to pornography (N=5), fondling (N=49), anal penetration (N=7), genital penetration (N=18), touching offender (N=14).	Number: disclosed prior to study (N=43), no prior disclosure made (N=53). Recantation: (N=9; 4 females, 5 males).	Pearson chi-squared.	More females than males disclosed during assessment; more males than females disclosed physical abuse. Barriers: younger children more likely to recant disclosure. Facilitators: personal history, CSA was worst experience and identification of body parts.
Hecht & Mont'Ros-Mendoza (1989), USA.	Qualitative	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=8 Gender: 6 females, 2 males. Age: range 7-16 years.	Frequency: 1 occasion (N=7), multiple (N=1). Perpetrators: intrafamilial (N=4), extrafamilial (N=4).	Recipient: peers (N=5), adult friends (N=2) parents (N=1).	Systematic interpretive analysis. Content analysis.	Facilitators: relational factors (choice of trusted person) and being in a safe location (alone with recipient outside of home).
Hershkovitz et al (2007), Israel.	Mixed methods	Children who had made allegations of sexual abuse. Purposive Sampling	N=30 Gender: 12 females, 18 males. Age: mean = 9.2 years, range 7-12 years.	Frequency: single event (N=16) multiple (N=14). Type: sexual exposure or fondling over clothes (N=18), touching under	First recipient: siblings or friends (47%), parents (43%) other adults (10%). Latency: between 1	Content analysis. Pearson chi-squared. Fisher's exact statistics.	Barriers: 10-12 year olds more likely to delay disclosure than 7-9 year olds. Unsupportive parental reactions; feelings of fear

				clothes, including genital penetration (N=12), sexual touch over clothes (N=12) and under clothes (N=18). Perpetrator: familiar (N=18), stranger (N=12). Threats: no (N=20), yes (N=10). Reward: no (N=23) yes (N=7). Age at onset: 9 and under (N=15), over 9 (N=15).	week and 2 years (53%), up to 1 month (76%), up to 1 year (19.8%) > 1 year (6.6%). Spontaneous (57%) Prompted (43%) Recantation: 13%		and shame; perpetrator was familiar, abuse was serious and repeated. Facilitators: receiving positive emotional support; being prompted.
Jensen et al (2005). Norway.	Qualitative	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=22. Gender: 15 females; 7 males. Age: mean = 7.5 years, range 3-16 years	Type: sexual; fondling genitals (N=11), cunnilingus/fellatio (N=4), masturbation/ ejaculation (N=4), vaginal or anal intercourse (N=3) Perpetrator: all males, all family members.	Recipient: parents (N=18), peers (N=3) uncle (N=1).	Grounded Theory Interpretative Phenomenology.	Barriers: perceived negative consequences for suspected offender and family; perceived lack of support. Facilitators: contact with suspended offender as a trigger for disclosure, someone interpreting symptoms, joint focus of attention.
Kellogg & Houston (1995). USA.	Quantitative Cross-sectional	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=345 Gender: 286 females, 59 males Age: mean = 17.92	Type: anogenital penetration (N=165), oral-genital contact/penetration (N=41), fondling (N=138). Perpetrator: adult family member (N=124), adult acquaintances (N=82), stranger (N=51) peer acquaintances (N=51) and peer family members (N=20). Gang-related (N=14) and more than one perpetrator (N=145)	First recipient: Friend (N=57), teen relative (N=20), adult relative (N=44), school personnel (N=5), nonrelative adult (N=14), other (N=3). Latency: mean = 2.3 years, median = 5-6 months.	Pearson chi-squared ANOVA	Barriers: Positive feelings for the perpetrator and self-blame. Facilitators: The inability to contain the information, feeling tired of the sexual experiences, fear of negative consequences of ongoing abuse, school intervention.
McElvaney et al (2012). Ireland.	Qualitative	Clinical population: children known to health care and child welfare systems.	N=22. Gender: 16 females, 6 males. Age: range 8-18.	Type: Experiences ranged from sexual fondling to vaginal and anal penetration. Perpetrator: intrafamilial (N=11),	Not articulated	Grounded Theory	The process of disclosure is conceptualised as tri-phasic: active withholding, pressure cooker effect and confiding.

		Purposive Sampling		extrafamilial (N=9) intra/extrafamilial (N=2).			
McElvaney et al (2014). Ireland.	Qualitative	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=22. Gender: 16 females, 6 males. Age: range 8-18.	Type: Experiences ranged from sexual fondling to vaginal and anal penetration.	Latency: range no delay to 9 years, 1 year (N=4), 2 years (N=5), 4 years (N=3), 7 years (N=2) 9 years (N=2). Recipient: N=15 peer.	Grounded Theory	Barriers: shame, self-blame, fears and concerns for self and others. Facilitators: being believed, being asked, and peer influence.
Munzer et al (2016). Germany.	Quantitative Cross-sectional	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=42 Gender: 25 females, 17 males. Age: mean = 12.6, range: 6-12 years	Type: flashing/sexual exposure (N=25), rape (N=20), exposure to pornography (N=12), verbal sexual harassment (N=9), nonspecific sexual assault (N=6), statutory rape and sexual misconduct (N=4). Perpetrator: father (N=11), other adult men (N=13), grandfather (N=2), minor brother (N=2) and peer (N=22). Frequency: single event (N=16), repeated (N=24). Number of victimizations: Mean = 9.6; Range = 1-171 Age at onset: mean = 9.0, range = 4-6.	Latency: mean=17 months, range=same day-10 years. First recipient: mother (N=18), father (N=2), peers (N=8), social worker (N=4), teacher (N=2) and police (N=1). Formal recipient: police (N=19), health care provider (N=14), counselor (N=8), judge (N=5), youth welfare service (N=5) none (N=15). Intentional: (N=25) Prompted: (N=2).	Absolute and relative frequencies.	Barriers: shame, guilt/responsibility, self-blame, threats made by perpetrator, did not want to burden parents, protect the perpetrator.
Schaeffer et al (2011). USA.	Mixed methods	Clinical population: children known to health care and child welfare systems. Purposive Sampling	N=191 Gender: 141 females, 50 males. Age: mean = 8.9 years.	Type: range from non-contact e.g. exposure to pornography, to fondling, to intercourse.	Recipient: mother (N=59), father (N=4), both parents (N=8), stepmother (N=1), grandmother (N=10), aunt (N=2), teacher (N=8), mental health provider (N=4), parent of another child (N=4), CPS worker (N=3), police (N=2), family friend (N=1) babysitter	Grounded Theory. Pearson chi-squared.	11-18 year olds more likely to disclose to peer; 3-10 year olds more likely to disclose to adult. Barriers: threats by perpetrator, fears of the child, lack of opportunity, lack of understanding and relationship with perpetrator. Facilitators: disclosure as result of internal stimuli,

					(N=1).		outside influences and direct evidence of abuse.
Schonbucher <i>et al</i> (2012). Switzerland.	Mixed methods	Mixed sample: general population and children's hospital. Volunteer sampling	N=26 Gender: 23 females, 3 males. Age: mean = 17.0 years, range = 15.4-18.3 years.	Type: contact without penetration (N=14), rape (N=9). Perpetrator: all males, intrafamilial (N=8), stranger (N=6), adolescent perpetrators (N=13). Age at onset: mean = 11.7 years, range = 3-17 years.	Latency: immediate-within 24 hours (30.1%), delayed (65.4%). Not disclosed prior to interview (N=1). Range = days-years.	Inductive content analysis. Relative frequencies Fisher's exact	Barriers: to not burden others; lack of trust; guilt/shame; lack of understanding; fear of disbelief; fear of perpetrator; fear of parental sanctions and to not destroy family. Facilitators: extra-familial perpetrator; CSA one-off event; age of victim was over 12 years; perpetrator is a minor; parents living together.
Shalhoub-Kevorkian (2005). Israel.	Qualitative.	School children. Convenience Sampling and Volunteer Sampling.	N=628 (focus group) N=28 (interviews) Gender: 28 females.	Type: rape (N=22), attempted rape (N=6). Perpetrator: extended family (N=9), nuclear family (N=5), school peer (N=3), acquaintances (N=7) stranger (N=1).	Not articulated.	Not articulated.	Barriers: fear of losing familial support, being killed, violating family honor, ruining reputation, social shame and repercussions for self. Negative responses from professionals.
Søftestad <i>et al</i> (2013). Norway.	Qualitative	Children who had made allegations of sexual abuse. Purposive Sampling	N=13 Gender: 8 females, 5 males. Age: range: 7-15 years.	Perpetrator: father (N=5), mother (N=1), grandfather (N=1), older male cousins (N=3) and one older male foster brother (N=1).	Not articulated.	Grounded Theory.	Conversations on suspicion, receiving information, contributing in decision-making, sharing feelings, engaging in conversations on meaning making.

3. Results

Sample, abuse and disclosure characteristics for each study are detailed in Table 1. A total of 658 females and 421 males were sampled across all 13 studies. Ages of the included sample were reported differently between studies. Means were reported in seven articles. In these studies, the mean age of a total of 752 participants was 13.41 years. For the remaining studies, means were calculated using reported age ranges. Assuming that the ages of participants were uniformly distributed within the reported ranges, the adjusted mean was found to be 13.25 years. One study was excluded from this analysis (Crisma *et al*, 2004) because no upper age limit for their sample was defined.

3.1 Methodological strengths and limitations of included studies

The methodological rigour of studies varied. An overall strength of the studies was well-articulated research questions that were contextually developed. Studies aimed to understand the barriers and facilitators to disclosing sexual abuse or more generally, to explore the patterns of disclosure in child and adolescent populations. Only one study (Kellogg & Houston, 1995) merely alluded to its study aims. A further strength was in relation to their results; study findings were anchored in and accurately reflected the data. Qualitative studies made good use of quotations to demonstrate the codes and themes that had been developed. Only in a couple of studies was there evidence of over and under-analysis where findings appeared to over reach the data or conversely, where synthesis of data was inadequate (Shalhoub-Kevorkian, 2005). One general criticism of the included studies was in relation to confounding variables. Only two studies made reference to potential confounders, such as whether any previous disclosures had been

made. No studies were considered to have covered their sampling strategy well. Four studies did not address this criterion at all insofar as eligibility criteria were not fully articulated and no references were made to missing data, attrition rates and reasons for non-participation. Additional relevant information is outlined in Table 2.

3.2 Study Findings

Findings of the included studies can broadly be categorized into two groups, as per the review's research questions: to understand the barriers that children and adolescents face when disclosing sexual abuse and to identify the factors that are associated with facilitating them to disclose.

3.2.1 Barriers: Ten studies reported findings on the barriers of CSA disclosure. One study (Hecht & Mont'Ros-Mendoza, 1989) did not articulate findings about barriers but focused on the reported facilitators for disclosure instead. Two qualitative studies (Søftestad *et al*, 2013 and McElvaney *et al*, 2012) aimed to explore disclosure processes more generally. As such, they proposed an overall model of disclosure rather than identifying specific barriers and facilitators as experienced by children and adolescents.

Various barriers were identified yet some were more commonly identified than others. Six studies found perceived lack of understanding and limited support from adults (parents or professionals) to be impediments of disclosure (Crisma *et al*, 2004; Hershkowitz *et al*, 2007; Jensen *et al*, 2005; Schaeffer *et al*, 2011; Schonbucher *et al*, 2012; Shalhoub-Kevorkian, 2005). This finding is congruent with research, which has identified anticipated social reactions to be an important driving factor in an individual's decision to disclose (Ullman, 2002). Similar findings have been identified in adult

retrospective studies (Allnock & Miller, 2013). These findings demonstrate that when disclosing sexual abuse, children and adolescents may be met with a lack of understanding and limited support from others. The fear and anticipation of these negative social reactions may impede young people from disclosing their experiences of abuse. This finding appears to fit with the second most commonly identified barrier: perceived negative consequences for the self and for others. Studies found that children and adolescents feared negative consequences for themselves such as parental sanctions (McElvaney *et al*, 2014; Schonbucher *et al*, 2012), losing familial support, social-shame, ruining their reputation, violating the family honor and being killed (Shalhoub-Kevorkian, 2005). Children also feared negative consequences for the suspected offender (e.g. imprisonment) and for their family (e.g. family break-up) (Crisma *et al*, 2004; Jensen *et al*, 2005; McElvaney *et al*, 2014; Munzer *et al*, 2016; Schaeffer *et al*, 2011; Schonbucher *et al*, 2012). It is possible that relational and family dynamics such as the relationship between the alleged perpetrator and the victim (Schaeffer *et al*, 2011) as well as the victim's thoughts and feelings towards the suspected offender play a part in whether a child is impeded by a fear of negative consequences when choosing to disclose. Indeed, the child's love for (Kellogg & Houston, 1995; Munzer *et al*, 2016) and the need to protect (Crisma *et al*, 2004; Schonbucher *et al*, 2012) the alleged perpetrator were found as potential barriers to victims disclosing their experiences of sexual abuse. This may partially explain why previous research has identified that victims of intra-familial abuse are more likely to delay disclosure than victims of extra-familial abuse (Arata, 1998; Goodman-Brown *et al*, 2003; Hershkowitz *et al*, 2007; London *et al*, 2005; Smith *et al*, 2000). It may be that published research views

disclosure as a unidirectional process, ignoring the potential evolving, relational and interactional context within which disclosures occur (Reitsema & Grietens, 2016). Indeed, as Flâm and Haugstvedt (2013) describe, “children do not tell, delay, recant or reaffirm accounts of their sexual victimization in a vacuum” (p.634).

Six studies identified the child’s emotional response to the abuse (guilt, shame, self-blame and responsibility for the perpetrator’s actions) as important barriers to disclosure. Quantitative studies found children were significantly more likely to delay disclosing if they experienced feelings of guilt and shame (Munzer *et al*, 2016; Schonbucher *et al*, 2012). Kellogg and Houston (1995) found that children who delayed disclosure were significantly more likely to believe that the abuse was their fault as much as it was the perpetrators’. This felt sense of responsibility along with feelings of self-blame and shame were also identified as barriers to disclosure in McElvaney *et al*’s (2014) qualitative study. These findings appear to fit with psychological research and theory highlighting the role of constructs such as shame and guilt in CSA (Browne & Finkelhor, 1986; Romero *et al*, 1999; Ullman, 2002).

3.2.2 Facilitators: Children being prompted or being asked directly about possible abuse was the most commonly identified facilitator (Hershkowitz *et al*, 2007; Jensen *et al*, 2005; McElvaney *et al*, 2014; Søftestad *et al*, 2013). Of these studies, only Hershkowitz *et al* (2007) measured whether disclosures were spontaneous or prompted. The other three studies, qualitative in design, did not operationalize this disclosure characteristic yet identified this as an important facilitator. Children may not disclose simply because they are not asked (McGee *et al*, 2002). This facilitator fits with

research, which has identified that disclosures are more likely to be made following a prompt rather than initiated by a young person (Kogan, 2004), particularly if the disclosure is received by a trusted person (Hecht & Mont’Ros-Mendoza, 1989). These relational factors suggest that close relationships may play an important role in facilitating young people to disclose sexual abuse (Priebe & Svedin, 2008).

Providing young people with information about sexual abuse that is developmentally appropriate is pivotal to facilitating disclosures. Kellogg and Houston (1995) found that a school-based intervention about unwanted sexual experiences supported victims to disclose. In addition, Søftestad *et al* (2013) emphasized the importance of a victim receiving information about sexual abuse to support them to engage in meaningful conversations during which disclosure of intra-familial abuse can be made. This echoes Crisma *et al’s* (2004) findings, which suggested that a possible barrier to adolescents disclosing CSA is a lack of information, particularly about the possible risks of sexual abuse as well as the support that is available. Other significant facilitators identified were if the victim did not feel any guilt or shame (Schonbucher *et al*, 2012), if the child received positive emotional support and understanding (Hershkowitz *et al*, 2007; McElvaney *et al*, 2012) and if the abuse was extra-familial (Schonbucher *et al*, 2012).

Table 2. Quality ratings for included studies.

W/C=well covered; A/A=adequately addressed; P/A=partially addressed; N/AD=not addressed; N/REP-not reported; N/APP=not applicable.

Study	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Overall Quality Rating Score out of 33 (out of 12)
	Research question/aim	Sampling strategy	Power	Sampling Characteristics	Study design and method	Measures	Abuse characteristics	Disclosure characteristics	Confounding variables	Data analysis	Findings	Credibility (validity)	Dependability (reliability)	Confirmability (objectivity)	Transferability (generalisability)	
Crisma <i>et al</i> (2004)	W/C	A/A	A/A	P/A	A/A	N/AD	W/C	P/A	N/AD	P/A	A/A	P/A	P/A	P/A	A/A	20 (5)
Gries, Goh & Cavanaugh (1996)	W/C	N/AD	N/AD	P/A	A/A	N/AD	P/A	P/A	P/A	W/C	W/C	N/APP	N/APP	N/APP	N/APP	19 -
Hershkowitz <i>et al</i> (2007)	A/A	A/A	A/A	A/A	W/C	A/A	A/A	A/A	P/A	A/A	W/C	N/APP	N/APP	N/APP	N/APP	24 -
Jensen <i>et al</i> (2005)	A/A	A/A	A/A	P/A	W/C	N/AD	A/A	P/A	N/AD	A/A	W/C	A/A	A/A	A/A	W/C	20 (9)
Kellogg & Houston (1995)	P/A	P/A	A/A	W/C	W/C	P/A	P/A	P/A	N/AD	A/A	W/C	N/APP	N/APP	N/APP	N/APP	23 -
McElvaney <i>et al</i> (2012)	W/C	N/AD	A/A	A/A	W/C	W/C	A/A	N/AD	A/A	W/C	W/C	A/A	A/A	A/A	A/A	25 (8)
McElvaney <i>et al</i> (2014)	W/C	N/AD	A/A	P/A	W/C	W/C	P/A	P/A	P/A	W/C	A/A	A/A	A/A	A/A	A/A	22 (8)
Mont'Ros-Mendoza & Hecht (1989)	W/C	A/A	P/A	P/A	W/C	W/C	P/A	P/A	N/AD	A/A	A/A	A/A	P/A	P/A	A/A	23 (6)
Munzer <i>et al</i> (2016)	W/C	A/A	A/A	A/A	W/C	A/A	A/A	A/A	P/A	P/A	W/C	N/APP	N/APP	N/APP	N/APP	25 -
Schaeffer <i>et al</i> (2011)	W/C	A/A	A/A	W/C	W/C	A/A	P/A	P/A	N/AD	W/C	W/C	A/A	A/A	A/A	A/A	25 (8)
Schonbucher <i>et al</i> (2012)	W/C	A/A	A/A	W/C	W/C	A/A	W/C	A/A	A/A	W/C	W/C	P/A	P/A	A/A	A/A	28 (6)
Shalhoub-Kevorkian (2005)	W/C	N/AD	P/A	P/A	A/A	P/A	P/A	N/AD	P/A	P/A	A/A	N/AD	P/A	N/AD	P/A	19 (2)
Søftestad <i>et al</i> (2013)	W/C	P/A	P/A	A/A	W/C	W/C	P/A	N/AD	N/AD	W/C	W/C	A/A	A/A	A/A	A/A	23 (8)

4. Discussion

The current review has demonstrated that children and adolescents face a number of different barriers and facilitators when disclosing sexual abuse. There appears to be, however, common threads amongst these factors. From the included studies, findings suggest that the optimal condition for a disclosure is for an individual to directly ask the child about their experiences and that this individual provides active listening and support, minimizes the child's feelings of guilt and shame and reduces their fear of negative consequences. With this in mind, this review recommends that prevention and intervention programmes should be developed both for the victims of sexual abuse and also for potential recipients of victims' disclosures. The impetus would be on reducing feelings of responsibility, self-blame, shame and guilt as experienced by young people. Programmes encouraging children to disclose should exist alongside programmes encouraging family members, friends and frontline professionals to identify clues of sexual abuse, to directly ask children about the possibility of sexual abuse and to also respond supportively should disclosures occur.

4.1 Current state of the evidence

Disclosure is best understood as a multifaceted process that is still not fully understood. What complicates the picture further is a lack of standardization across studies and this systematic review demonstrates the heterogeneity of the research to date. Included studies varied in measures selected and types of data analyses employed. Moreover, various recruitment procedures were used and different samples were studied. It is uncertain whether the samples included in this review are representative of child and adolescent survivors of sexual abuse as a whole (Olafson & Lederman, 2006). The

majority of studies sampled young people who had disclosed their experiences of CSA. This sampling bias means that children who have been sexually abused but have not yet disclosed are under-represented in the research sample. The barriers and impediments to disclosure that these silent children face may be different to those that are felt by children and young people who have disclosed their experiences of abuse. Moreover, many studies sampled children who were known to health care and child welfare systems. As these young people were receiving support following their disclosures and formal allegations, one might hypothesize that retrospective, hindsight bias plays a significant role in how children and adolescents recall the barriers and facilitators that they faced when deciding to tell. It is important to interpret findings within the parameters of the population that is being sampled; therefore study findings should be interpreted in light of the possibly biased sampling strategies adopted. In addition to this, abuse and disclosure characteristics varied between studies. Whilst this may appropriately illustrate the heterogeneous nature of sexual abuse more generally, it prohibited explicit like-for-like comparison of study findings. This demonstrates that the current state of the research is predominantly at an exploratory stage.

4.2 Limitations of the studies

Studies varied in their methodological rigour. Despite some areas of strength, many studies had similar shortcomings, which may have contributed to the heterogeneity of findings. Some previous research has implicated variables such as age, developmental stage, gender, perpetrator and the type of abuse (intra vs. extra-familial) in a child's decision to disclose, so the inconsistent reporting of these in the current sample lends uncertainty to the validity of some of the findings. Without future research that

adequately controls for these possible confounding variables, firm conclusions about the predictors of disclosure cannot be made at this stage. Finally, only findings from studies published in English were identified and synthesized. This may reflect the fact that few studies have been conducted in non-English speaking countries. If this is the case, the concern is that there is a gap in the evidence base relating to cross-cultural variations in disclosure processes. Studies not carried out in English may articulate interesting findings about the disclosure journeys of children and adolescents out-with of Western culture. This seems a particularly important gap in the literature to address given that child abuse should be understood as a ‘global problem deeply rooted in cultural, economic and political practices’ (WHO, 2002) and that cultural differences are reflected in global CSA prevalence data (see Stoltenborgh *et al*, 2011).

4.3 Strengths and limitations of the review

A particular strength of the current review is that it employed a rigorous search strategy and additional searches using Google Scholar and manual searches through reference lists provided confidence that eligible papers were not missed. Moreover, the review included studies of all methodological design. Reducing the review’s inclusion criteria to only qualitative or quantitative papers might have limited the number of studies eligible for inclusion, thereby limiting the breadth and depth of findings the review could have drawn from. Regarding its limitations, the review was written qualitatively. This was due to the heterogeneity in the included studies’ methodologies. As such, quantitative analysis was not possible. To draw more definitive conclusions about the possible predictors of timely disclosure of childhood sexual abuse, it would be necessary to conduct a systematic meta-analysis. However, this would be dependent on

further quantitative developments within the research field. In this context, the current review adds to the understanding of the barriers and facilitators that children and adolescents face when disclosing experiences of sexual abuse.

4.4 Implications for research

This systematic review highlights a need for more rigorous empirical research on child and adolescent disclosures of sexual abuse that includes designs and sampling strategies that permits detailed analysis of mechanisms of disclosure. Specifically longitudinal designs that incorporate all known factors may contribute to the evidence-base by obtaining data throughout a child's disclosure journey rather than at a single, retrospective point in time. It may be helpful to truncate the child and adolescent age range of 0-18 years into smaller age bands to empirically research more age-specific patterns of disclosure. In addition, there is also scope to develop research that investigates the efficacy of interventions aimed at facilitating disclosures in children who would otherwise remain silent.

4.5 Clinical implications

Child sexual victimisation is underreported and under-recorded (Reitsema & Grietens, 2016) and there may not be any clear signs that a child or adolescent has been sexually abused. The detection of sexual abuse often relies on disclosure, which the current review has argued is a complex and multifaceted process. Barriers may impede a child or young person from telling someone about their experiences. Whilst it is important to understand what these barriers are, it is perhaps even more important to understand specific factors that facilitate a child's disclosure. Improving our understanding of what

helps children tell can inform how individuals and services support more children to disclose. For example, this review recommends that developmentally appropriate information should be communicated to children via school-based programmes, perhaps as part of the education curriculum. Specifically, these interventions should reinforce that sexual abuse is wrong and that children and young people are neither responsible nor to blame. Reducing potential feelings of guilt and self-blame, which have been identified as significant barriers of disclosure, may encourage children and adolescents to disclose their experiences of sexual abuse.

The current review recognizes the risk for children disclosing intra-familial abuse. Research has demonstrated that abuse of this nature may result in disclosure latency and even non-disclosure in child and adolescent victims. Protocols need to be established that ensure those receiving disclosures know how to respond and react in order to minimize the perceived and actual harm to the child's position within the family. That said the complexity and sensitivity of managing these disclosures warrant further thought and research.

Most importantly, the current review has identified that prompting or asking children directly about their experiences of sexual abuse facilitates disclosure by providing them with permission to tell. There appears to be a need to raise awareness of this with possible recipients of disclosures such as family members, and frontline professionals such as teachers and general practitioners. This is in line with the World Health Organization's (2006) publication: 'Prevention Child Maltreatment: a guide to taking

action and generating evidence', which advocates the need for training programmes for (prospective) parents in the prevention of child maltreatment. Interestingly, the guidance argues that training programmes aimed at health care professionals are required only for interventions for adult survivors (aged ≥ 18 years). To extend on this guidance, the current review recommends that training programmes aimed at potential recipients, including healthcare professionals, should educate individuals about how to identify specific behaviours that may indicate the presence of sexual abuse in children across all developmental stages (and not just in adulthood). Prevention programmes should aim to develop skills in recipients explicitly asking children in ways that are developmentally appropriate. In addition, there is also scope for raising awareness amongst the general population with the use of public awareness campaigns aimed at supporting non-professionals, victims' families, friends and peers to know how to ask.

Along similar lines, prevention strategies and training programmes should also educate individuals about what to do if someone tells. Supportive and helpful responses to a disclosure could go some way in reducing potential feelings of guilt and shame. Given that these have been identified as significant barriers of disclosure, recognizing and minimizing feelings of guilt and shame may support child and adolescent victims to disclose more readily and with more confidence. This is of utmost importance given that timely disclosure is key to safeguarding children against (re)-victimisation whilst also increasing the likelihood of better outcomes for child and adolescent survivors of sexual abuse.

5. References

* Indicates studies included in the current systematic review.

- Allnock, D., & Miller, P. (2013). No one noticed, no one heard: a study of disclosures of childhood abuse.
- Arata, C. M. (1998). To tell or not to tell: Current functioning of child sexual abuse survivors who disclosed their victimization. *Child Maltreatment*, 3(1), 63-71.
- Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological bulletin*, 99(1), 66.
- * Crisma, M., Bascelli, E., Paci, D., & Romito, P. (2004). Adolescents who experienced sexual abuse: Fears, needs and impediments to disclosure. *Child abuse & neglect*, 28(10), 1035-1048.
- Centre for Research and Dissemination (CRD) (2009) Systematic Reviews: CRD's guidance for undertaking reviews in health care. Accessed at: https://www.york.ac.uk/media/crd/Systematic_Reviews.pdf on 15th February 2017.
- Critical Skills Appraisal Programme (CASP) (2014). Accessed at: http://media.wix.com/ugd/dded87_a02ff2e3445f4952992d5a96ca562576.pdf on 15th February 2017.
- Edgardh, K., & Ormstad, K. (2000). Prevalence and characteristics of sexual abuse in a national sample of Swedish seventeen-year-old boys and girls. *Acta paediatrica*, 89(3), 310-319.
- Flâm, A. M., & Haugstvedt, E. (2013). Test balloons? Small signs of big events: A qualitative study on circumstances facilitating adults' awareness of children's first signs of sexual abuse. *Child abuse & neglect*, 37(9), 633-642.
- Galdas, P. M., Cheater, F., & Marshall, P. (2005). Men and health help-seeking behaviour: literature review. *Journal of advanced nursing*, 49(6), 616-623.
- Goodman-Brown, T. B., Edelstein, R. S., Goodman, G. S., Jones, D. P., & Gordon, D. S. (2003). Why children tell: A model of children's disclosure of sexual abuse. *Child abuse & neglect*, 27(5), 525-540.
- * Gries, L. T., Goh, D. S., & Cavanaugh, J. (1997). Factors associated with disclosure during child sexual abuse assessment. *Journal of Child Sexual Abuse*, 5(3), 1-19.
- * Hershkowitz, I., Lanes, O., & Lamb, M. E. (2007). Exploring the disclosure of child sexual abuse with alleged victims and their parents. *Child abuse & neglect*, 31(2), 111-123.
- Jeanfreau, S. G., & Jack Jr, L. (2010). Appraising qualitative research in health education: guidelines for public health educators. *Health promotion practice*, 11(5), 612-617.
- * Jensen, T. K., Gulbrandsen, W., Mossige, S., Reichelt, S., & Tjersland, O. A. (2005). Reporting possible sexual abuse: A qualitative study on children's perspectives and the context for disclosure. *Child abuse & neglect*, 29(12), 1395-1413.
- Jonzon, E., & Lindblad, F. (2004). Disclosure, reactions, and social support: Findings from a sample of adult victims of child sexual abuse. *Child maltreatment*, 9(2), 190-200.

- * Kellogg, N. D., & Huston, R. L. (1995). Unwanted Sexual Experiences in Adolescents: Patterns of Disclosure. *Clinical Pediatrics*, 34(6), 306-312.
- Kellogg, N. D., & Hoffman, T. J. (1997). Child sexual revictimization by multiple perpetrators. *Child Abuse & Neglect*, 21(10), 953-964.
- Knight, R. A., & Hatty, S. (1987). Theoretical and methodological perspectives on domestic violence: Implications for social actions. *Australian Journal of Social Issues*, 22, 452-464.
- Kogan, S. M. (2004). Disclosing unwanted sexual experiences: Results from a national sample of adolescent women. *Child abuse & neglect*, 28(2), 147-165.
- Lamb, S., & Edgar-Smith, S. (1994). Aspects of disclosure mediators of outcome of childhood sexual abuse. *Journal of Interpersonal Violence*, 9(3), 307-326.
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., ... & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *PLoS Med*, 6(7), e1000100.
- London, K., Bruck, M., Ceci, S. J., & Shuman, D. W. (2007). Disclosure of child sexual abuse: A review of the contemporary empirical literature. *Child sexual abuse: Disclosure, delay and denial*, 11-39.
- * McElvaney, R., Greene, S., & Hogan, D. (2012). Containing the secret of child sexual abuse. *Journal of interpersonal violence*, 27(6), 1155-1175.
- * McElvaney, R., Greene, S., & Hogan, D. (2014). To tell or not to tell? Factors influencing young people's informal disclosures of child sexual abuse. *Journal of interpersonal violence*, 29(5), 928-947.
- McElvaney, R. (2015). Disclosure of Child Sexual Abuse: Delays, Non-disclosure and Partial Disclosure. What the Research Tells Us and Implications for Practice. *Child Abuse Review*, 24(3), 159-169.
- McGee, H., Garavan, R., de Barra, M., Byrne, J., & Conroy, R. (2002). The SAVI report: sexual abuse and violence in Ireland.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & Prisma Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS med*, 6(7), e1000097.
- * Mont'Ros-Mendoza, T., & Hecht, M. L. (1989). Factors Facilitating the Disclosure of Sexual Abuse by Children and Adolescents.
- Morrison, S. E. (2016). Legal disclosure of childhood sexual abuse: what can professionals tell us? D Clin Psy thesis <http://theses.gla.ac.uk/7582/1/2016morrisonclinpsy.pdf> on 15th February 2017.
- * Münzer, A., Fegert, J. M., Ganser, H. G., Loos, S., Witt, A., & Goldbeck, L. (2016). Please tell! Barriers to disclosing sexual victimization and subsequent social support perceived by children and adolescents. *Journal of interpersonal violence*, 31(2), 355-377.

- Murphy, E., Dingwall, R., Greatbatch, D., et al., 1998. Qualitative research methods in health technology assessment: a review of the literature. DOH, York.
- Olafson, E., & LEDERMAN, J. C. S. (2006). The state of the debate about children's disclosure patterns in child sexual abuse cases. *Juvenile and family court journal*, 57(1), 27-40.
- Paine, M. L., & Hansen, D. J. (2002). Factors influencing children to self-disclose sexual abuse. *Clinical psychology review*, 22(2), 271-295.
- Palmer, S. E., Brown, R. A., Rae-Grant, N. I., & Loughlin, M. J. (1999). Responding to children's disclosure of familial abuse: What survivors tell us. *Child welfare*, 78(2), 259.
- Priebe, G., & Svedin, C. G. (2008). Child sexual abuse is largely hidden from the adult society: An epidemiological study of adolescents' disclosures. *Child abuse & neglect*, 32(12), 1095-1108.
- Reitsema, A. M., & Grietens, H. (2016). Is anybody listening? The literature on the dialogical process of child sexual abuse disclosure reviewed. *Trauma, Violence, & Abuse*, 17(3), 330-340.
- Roesler, T. A., & Wind, T. W. (1994). Telling the secret: Adult women describe their disclosures of incest. *Journal of Interpersonal Violence*, 9(3), 327-338.
- Romero, G. J., Wyatt, G. E., Loeb, T. B., Carmona, J. V., & Solis, B. M. (1999). The prevalence and circumstances of child sexual abuse among Latina women. *Hispanic Journal of Behavioral Sciences*, 21(3), 351-365.
- * Schaeffer, P., Leventhal, J. M., & Asnes, A. G. (2011). Children's disclosures of sexual abuse: Learning from direct inquiry. *Child abuse & neglect*, 35(5), 343-352.
- * Schönbucher, V., Maier, T., Mohler-Kuo, M., Schnyder, U., & Landolt, M. A. (2012). Disclosure of child sexual abuse by adolescents: A qualitative in-depth study. *Journal of Interpersonal Violence*, 27(17), 3486-3513.
- Scottish Intercollegiate Guidelines Network (2008). SIGN 50: A guideline developer's handbook. * Shalhoub-Kevorkian, N. (2005). Disclosure of child abuse in conflict areas. *Violence Against Women*, 11(10), 1263-1291.
- * Shalhoub-Kevorkian, N. (2005). Disclosure of child abuse in conflict areas. *Violence Against Women*, 11(10), 1263-1291.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.
- Smith, D. W., Letourneau, E. J., Saunders, B. E., Kilpatrick, D. G., Resnick, H. S., & Best, C. L. (2000). Delay in disclosure of childhood rape: Results from a national survey. *Child abuse & neglect*, 24(2), 273-287.
- * Søftestad, S., Toverud, R., & Jensen, T. K. (2013). Interactive Regulated Participation: Children's perspectives on child-parent interaction when suspicion of child sexual abuse is raised. *Qualitative Social Work*, 12(5), 603-619.
- Stoltenborgh, M., van IJzendoorn, M. H., Euser, E. M., & Bakermans-Kranenburg, M. J. (2011). A global perspective on child sexual abuse: meta-analysis of prevalence around the world. *Child maltreatment*, 16(2), 79-101.

- Tang, C. S. K. (2002). Childhood experience of sexual abuse among Hong Kong Chinese college students. *Child abuse & neglect*, 26(1), 23-37.
- Tener, D., & Murphy, S. B. (2015). Adult disclosure of child sexual abuse: A literature review. *Trauma, Violence, & Abuse*, 16(4), 391-400.
- Ullman, S. E. (2002). Social reactions to child sexual abuse disclosures: A critical review. *Journal of child sexual abuse*, 12(1), 89-121.
- World Health Organisation (1999). Report of the consultation on child abuse prevention 29-31 March 1999 WHO, Geneva. Website: accessed at: <http://apps.who.int/iris/handle/10665/65900> on 15th February 2017.
- World Health Organisation (2002). Child Abuse and Neglect Factsheet. Accessed at: http://www.who.int/violence_injury_prevention/violence/world_report/factsheets/en/child_abusefacts.pdf?ua=1 on 15th February 2017.
- World Health Organisation (2006). Preventing Child Maltreatment: A guide to taking action and generating evidence. Accessed at: http://apps.who.int/iris/bitstream/10665/43499/1/9241594365_eng.pdf on 21st February 2017.

Appendix 2: Author submission guidelines for *Child Abuse & Neglect*.

“Types of contributions

1. **Research Article:** Child Abuse and Neglect publishes quantitative, qualitative, and mixed-method research. Particular focus will be placed on thorough and appropriate methods, strong data analysis and discussion of implications for the field.

2. **Reviews:** Authors with plans for proposed review articles (systematic, meta-analytic, scoping) are invited to first submit a draft outline to the Editor-in-Chief. Please send proposals to chiabu@elsevier.com. The editors will commission reviews on specific topics. Reviews submitted without invitation or prior approval may be returned.

3. **Discussion Article:** Plans for proposed critical review discussion articles are invited to first submit a draft outline to the Editor-in-Chief. Please send proposals to chiabu@elsevier.com. These articles may discuss a policy or legal / philosophical framework or a brief data report. The article must present a critical analysis of areas of gap in practice or research, current critical or emergent issues, with an expectation of utilizing an integration and discussion of empirical research.

Please note we do not publish case reports or clinical case studies. Contact details for submission

All correspondence, including notification of the Editor-in-Chief's decision and requests for revision, takes place by e-mail and via the Author's homepage, removing the need for a hard-copy paper trail.

For those authors unable to utilize the EES system, or with questions about submissions, please contact the Editorial Office (chiabu@elsevier.com) for assistance.

Ethics in publishing

Please see our information pages on [Ethics in publishing](#) and [Ethical guidelines for journal publication](#).

Human and animal rights

If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with [The Code of Ethics of the World Medical Association \(Declaration of Helsinki\)](#) for experiments involving humans; [Uniform Requirements for manuscripts submitted to Biomedical journals](#). Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

All animal experiments should comply with the [ARRIVE guidelines](#) and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, [EU Directive 2010/63/EU for animal experiments](#), or the National Institutes of Health guide for the care and use of Laboratory animals (NIH Publications No. 8023, revised 1978) and the authors should clearly indicate in the manuscript that such guidelines have been followed.

Declaration of interest

All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the submitted work that could inappropriately influence, or be perceived to influence, their work. [More information](#).

Submission declaration and verification

Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see '[Multiple, redundant or concurrent publication](#)' section of our ethics policy for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service [CrossCheck](#).

Changes to authorship

Authors are expected to consider carefully the list and order of authors **before** submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only **before** the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the **corresponding author**: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors **after** the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

Article transfer service

This journal is part of our Article Transfer Service. This means that if the Editor feels your article is more suitable in one of our other participating journals, then you may be asked to consider transferring the article to one of those. If you agree, your article will be transferred automatically on your behalf with no need to reformat. Please note that your article will be reviewed again by the new journal. [More information](#).

Copyright

Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see [more information](#) on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. [Permission](#) of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain

written permission from the copyright owners and credit the source(s) in the article. Elsevier has [preprinted forms](#) for use by authors in these cases.

For open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' ([more information](#)). Permitted third party reuse of open access articles is determined by the author's choice of [user license](#).

Author rights

As an author you (or your employer or institution) have certain rights to reuse your work. [More information](#).

Elsevier supports responsible sharing

Find out how you can [share your research](#) published in Elsevier journals.

Role of the funding source

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

Funding body agreements and policies

Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the Open Access Publication Fee. Details of [existing agreements](#) are available online.

Open access

This journal offers authors a choice in publishing their research:

Open access

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- An open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Subscription

- Articles are made available to subscribers as well as developing countries and patient groups through our [universal access programs](#).
- No open access publication fee payable by authors.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For open access articles, permitted third party (re)use is defined by the following [Creative Commons user licenses](#):

Creative Commons Attribution (CC BY)

Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)

For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The open access publication fee for this journal is **USD 1800**, excluding taxes. Learn more about Elsevier's pricing policy: <http://www.elsevier.com/openaccesspricing>.

Green open access

Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our [green open access page](#) for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. [Find out more](#).

This journal has an embargo period of 36 months.

Language (usage and editing services)

Please write your text in good English (only American usage is accepted, as dictated by APA style). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's WebShop (<http://webshop.elsevier.com/languageediting/>) or visit our customer support site (<http://support.elsevier.com>) for more information.

Submission

Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

Submit your article

Please submit your article via <http://ees.elsevier.com/chiabuneg/>

Double-blind review

This journal uses double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. [More information](#) is available on our website. To facilitate this, please include the following separately:

Title page (with author details): This should include the title, authors' names and affiliations, and a complete address for the corresponding author including an e-mail address.

Blinded manuscript (no author details): The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

Use of word processing software

It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the [Guide to Publishing with Elsevier](#)). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Length and Style of Manuscripts

Full-length manuscripts should not exceed 35 pages total (including abstract, text, references, tables, and figures), with margins of at least 1 inch on all sides and a standard font (e.g., Times New Roman) of 12 points (no smaller).

Instructions on preparing tables, figures, references, metrics, and abstracts appear in the [Publication Manual of the American Psychological Association](#) (6th edition).

For helpful tips on APA style, [click here](#).

Article structure

Subdivision

Divide your article into clearly defined sections. Three levels of headings are permitted. Level one and level two headings should appear on its own separate line; level three headings should include punctuation and run in with the first line of the paragraph.

Introduction

State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Essential title page information

- ***Title***. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- ***Author names and affiliations***. Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- ***Corresponding author***. Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
- ***Present/permanent address***. If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Abstract

Abstracts should follow APA style (see 6th ed., pages 25-27 for detailed instructions and page 41 for an example). Abstracts should be 150-250 words.

Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Formatting of funding sources

List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Footnotes

The use of footnotes in the text is not permitted. Footnoted material must be incorporated into the text.

Table footnotes Indicate each footnote in a table with a superscript lowercase letter.

Artwork

Electronic artwork

General points

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.

A detailed [guide on electronic artwork](#) is available.

You are urged to visit this site; some excerpts from the detailed information are given here.

Formats

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is

finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

EPS (or PDF): Vector drawings, embed all used fonts.

TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.

TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.

TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

Please do not:

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

Color artwork

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

Figure captions

Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Text graphics

Text graphics may be embedded in the text at the appropriate position. If you are working with LaTeX and have such features embedded in the text, these can be left. See further under Electronic artwork.

Tables

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References

Citation in text

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either

'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Web references

As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Data references

This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

References in a special issue

Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley and Zotero, as well as EndNote. Using the word processor plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:

<http://open.mendeley.com/use-citation-style/child-abuse-and-neglect>

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference style

Text: Citations in the text should follow the referencing style used by the American Psychological Association (view the APA Style Guide). You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 978-1-4338-0561-5.

List: references should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.

[dataset] Oguro, M., Imahiro, S., Saito, S., Nakashizuka, T. (2015). *Mortality data for Japanese oak wilt disease and surrounding forest compositions*. *Mendeley Data*, v1.

<http://dx.doi.org/10.17632/xwj98nb39r.1>.

Examples:

Reference to a journal publication:

Van der Geer, J., Hanraads, J. A. J., & Lupton, R. A. (2010). The art of writing a scientific article. *Journal of Scientific Communications*, 163, 51–59.

Reference to a book:

Strunk, W., Jr., & White, E. B. (2000). *The elements of style*. (4th ed.). New York, NY:

Longman.

Reference to a chapter in an edited book:

Mettam, G. R., & Adams, L. B. (2009). How to prepare an electronic version of your article. In B. S. Jones, & R. Z. Smith (Eds.), *Introduction to the electronic age* (pp. 281–304). New York, NY: E-Publishing.

Video

Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the files in one of our recommended file formats with a preferred maximum size of 150 MB. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including [ScienceDirect](#). Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our [video instruction pages](#). Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

Supplementary material

Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

RESEARCH DATA

This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the [research data](#) page.

Data linking

If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on

ScienceDirect with relevant repositories, giving readers access to underlying data that give them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the [database linking page](#).

For [supported data repositories](#) a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

Data in Brief

You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for *Data in Brief* as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to *Data in Brief* where it will be editorially reviewed and published in the open access data journal, *Data in Brief*. Please note an open access fee is payable for publication in *Data in Brief*. Full details can be found on the [Data in Brief website](#). Please use [this template](#) to write your Data in Brief.

AudioSlides

The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. [More information and examples are available](#). Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

Interactive plots

This journal enables you to show an Interactive Plot with your article by simply submitting a data file. [Full instructions](#).

Submission checklist

The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.

Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:

- E-mail address
- Full postal address
- Phone numbers

All necessary files have been uploaded, and contain:

- Keywords
- All figure captions
- All tables (including title, description, footnotes)

Further considerations

- Manuscript has been 'spell-checked' and 'grammar-checked'
- References are in the correct format for this journal
- All references mentioned in the Reference list are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Web)
- Color figures are clearly marked as being intended for color reproduction on the Web (free of charge) and in print, or to be reproduced in color on the Web (free of charge) and in black-and-white in print
- If only color on the Web is required, black-and-white versions of the figures are also supplied for printing purposes

For any further information please visit our customer support site at <http://support.elsevier.com>.

Authors are responsible for ensuring that manuscripts conform fully to the Publication Manual of the American Psychological Association (6th ed.), including not only reference style but also spelling (see, e.g., the hyphenation rules), word choice, grammar, tables, headings, etc. Spelling and punctuation should be in American English.

Online proof correction

Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.” (“Elsevier, Child Abuse & Neglect Guide for Authors”, 2017).

Appendix 3: Systematic review quality criteria

Barriers and Facilitators to Disclosing Sexual Abuse in Childhood and Adolescence: a Systematic Review

1. Research question or aims

Well covered	The research sets out to answer a relevant, contextually developed question/aim.
Adequately addressed	Research question/aim is stated but it is not contextually developed.
Poorly addressed	Research question/aim is alluded to.
Not addressed	Research question/aim is not developed.
Not reported	
Not applicable	
Notes	

2. Sampling

2.1. Sampling strategy: an unbiased and robust sampling strategy is adopted, which is well defined and appropriate to the research aims.

Well covered	Inclusion and exclusion criteria are clearly articulated. Missing data, attrition rates and reasons for non-participation are reported and accommodated in the analysis.
Adequately addressed	Either the inclusion or the exclusion criteria are articulated. Some information is reported about missing data, attrition rates and reasons for non-participation, which are accommodated in the in the analysis.
Poorly addressed	No reference is made to inclusion or exclusion criteria. Limited information is reported about missing data, attrition rates and reasons for non-participation and these are not accommodated in the analysis.
Not addressed	No reference is made to inclusion or exclusion criteria. No reference is made to any missing data, attrition rates and reasons for non-participation.
Not reported	
Not applicable	
Notes	

2.2. Power: the sample size is adequate for the planned analysis

Well covered	A power analysis has been calculated and achieved (Quantitative) <i>or</i> theoretical saturation has been referenced and achieved (Qualitative).
Adequately addressed	Either a power analysis <i>or</i> theoretical saturation has been referenced but not achieved.
Poorly addressed	A power analysis <i>or</i> theoretical saturation has not been referenced and has not been achieved. The study's sample size is referenced.
Not addressed	A power analysis <i>or</i> theoretical saturation has not been referenced and has not been achieved. No reference is made to the study's sample size.
Not reported	
Not applicable	
Notes	

2.3. Sample characteristics

Well covered	All of the following criteria are met: <ol style="list-style-type: none"> 1. Characteristics of participants (e.g. sample size, age, gender, nationality) are clearly articulated. 2. Characteristics are compared to national demographics for the target population. 3. If appropriate, missing demographic information is outlined and explained.
Adequately addressed	Two of the three above criteria are met.
Poorly addressed	One of the three above criteria is met.
Not addressed	None of the above criteria are met.
Not reported	
Not applicable	
Notes	

3. Methodology

3.1. Study design and method

Well covered	5 or 6 of the following criteria are met: <ol style="list-style-type: none"> 1. Study design is appropriate and justified for the stated research question(s)/aims. 2. If a qualitative approach is adopted, it is explicitly stated. 3. A planned recruitment method is clearly articulated. 4. Methods for collecting data (e.g. the use of interview schedules, protocols and research reflective diaries) are described in detail. 5. Research interviews are transcribed <i>verbatim</i> in full. 6. Ethical issues (e.g. consent and confidentiality) are taken into consideration.
Adequately addressed	Three or four of the six above criteria are met.
Poorly addressed	One or two of the six above criteria are met.
Not addressed	None of the above criteria are met.
Not reported	
Not applicable	
Notes	

3.1.1. Measures

Well covered	Reliable measures (including standardised interviews) that have been validated in the target population have been included. The measures are applied with fidelity.
Adequately addressed	Valid and reliable measures (including standardised interviews) have been included.
Poorly addressed	Measures (including standardised interviews) that have not been validated or found to be reliable have been included <i>or</i> measures have not been applied with fidelity.
Not addressed	No measures (including standardised interviews) have been included.
Not reported	
Not applicable	
Notes	

3.2. Operationalisation of variables

3.2.1. Abuse Characteristics

Well covered	5 or 6 abuse characteristics are clearly articulated (for example): <ul style="list-style-type: none"> • Frequency • Duration (including previous abuse history)
--------------	--

	<ul style="list-style-type: none"> • Severity • Type of abuse (e.g. sexual, physical, emotional, psychological, domestic, neglect) • Intra/extra-familial • Non-/penetrative
Adequately addressed	Three or four abuse characteristics are articulated.
Poorly addressed	One or two abuse characteristics are articulated.
Not addressed	No abuse characteristics are articulated.
Not reported	
Not applicable	
Notes	

3.2.2. Disclosure Characteristics

Well covered	5 to 7 disclosure characteristics are clearly articulated (for example): <ul style="list-style-type: none"> • Direct / indirect • Accidental / purposeful / prompted • Verbal / behavioural • Formal / informal • Initial / linked • Latency to disclose • Recipient of disclosure
Adequately addressed	Three or four disclosure characteristics are articulated
Poorly addressed	One or two disclosure characteristics are articulated.
Not addressed	No disclosure characteristics are articulated.
Not reported	
Not applicable	
Notes	

3.3. Confounding variables

Well covered	Comprehensive description of potential confounders (e.g. any previous disclosures made) were considered and allowed for in the analysis.
Adequately addressed	Some information regarding potential confounders are considered.
Poorly addressed	Limited information about potential confounders is considered.
Not addressed	No reference is made to potential confounders.
Not reported	
Not applicable	
Notes	

4. Data analysis

Well covered	If qualitative, an appropriate theoretical framework justifying the data analysis approach chosen is well articulated. An appropriate data analysis strategy is employed. All individual stages of data analysis are clearly defined
Adequately addressed	A theoretical framework is made reference to. An appropriate data analysis is employed. Most stages of data analysis are defined.
Poorly addressed	Limited reference is made to a theoretical framework. Inappropriate data analysis strategy is employed. Limited stages of data analysis are made reference to.
Not addressed	
Not reported	
Not applicable	
Notes	

5. Findings

Well covered	Findings are anchored in the data. Findings accurately reflect the data.
Adequately addressed	Data appears anchored in the data but there is evidence of over-analysis (findings over-reach) or under-analysis (inadequate synthesis).
Poorly addressed	Findings are not anchored in the data. Findings do not accurately reflect the data.
Not addressed	
Not reported	
Not applicable	
Notes	

5.1. Credibility (Validity) – research findings are credible from the perspective of the participant; research findings are well founded and accurately represent the real world.

Well covered	Some procedures aimed to increase credibility are employed (for example): <ul style="list-style-type: none"> • Respondent validation • Triangulation • Peer debriefing • Negative case analysis • Referential adequacy The relationship between researcher and participants is explicitly stated and adequately considered. Researcher accounts for personal and sampling biases, which may influence findings.
Adequately addressed	Some procedures aimed to increase credibility are employed (as listed above). Some information about the relationship between researcher and participants is given <i>or</i> the researcher alludes to personal and sampling biases, which may influence findings.
Poorly addressed	No procedures aimed to increase credibility are employed (as listed above). No reference is made to the relationship between researcher and participants. Limited information about personal and sampling biases is given.
Not addressed	No procedures aimed to increase credibility are employed. No reference is made to the relationship between research and participants. No information about personal and sampling biases is given.
Not reported	
Not applicable	
Notes	

5.2. Dependability (Reliability) – research findings are consistent.

Well covered	Both of the following criteria have been met: <ol style="list-style-type: none"> 1. A research diary or reflexive journal documenting cohesion between research question(s)/aims, design and methods is employed. 2. An inquiry audit and/or stepwise replication may be employed. Sufficient detail of each process is reported in detail to allow for study replication.
Adequately addressed	An appropriate procedure aimed to increase dependability was employed (e.g. 1 criteria of the 2 described above). There is adequate detail of these processes to allow for study replication.
Poorly addressed	Limited procedures aimed to increase dependability are employed (e.g. 0 of the 2 criteria described above). There is a lack of sufficient detail to judge reliability.
Not addressed	

Not reported	
Not applicable	
Notes	

5.3. Confirmability (Objectivity) – research findings are not based on biases and assumptions of the researchers.

Well covered	Three or all of the following criteria are met: 1. Data analysis is thoroughly documented. 2. Researchers actively search for negative instances that contradict prior observations. 3. An external researcher is included as part of data analysis. 4. A data audit is completed to illustrate decision-making processes.
Adequately addressed	Two of the above four criteria are met.
Poorly addressed	One of the above four criteria is met.
Not addressed	None of the above criteria aimed to increase confirmability are met.
Not reported	
Not applicable	
Notes	

5.4. Transferability (Generalisability)

Well covered	Research findings are deemed to fit beyond the contexts of the study. A detailed description of the phenomenon under study is provided. The researcher assigns high similarity between research findings and his/her own experiences.
Adequately addressed	Adequate information is provided to assess transferability. Research findings are somewhat transferable. The reader is able to draw some similarities between research findings and his/her own experiences.
Poorly addressed	Inadequate information is provided to assess transferability. Research findings are not transferable to the reader's own experiences.
Not addressed	
Not reported	
Not applicable	
Notes	

Appendix 4: Empirical study proposal



Doctorate in Clinical Psychology

Thesis Research Proposal

(For Methodological Review Only)

This form is for methodological review of projects that are **not** being submitted as assessed work for Research 1. (e.g. where a trainee has already received a pass mark for Research 1, but subsequently changed the intended thesis project, or for trainees who started training in 2009 or earlier and thus did not need to complete Research 1 and have not previously had university approval for their study).

In such circumstances the form will be reviewed by a member of the academic team and will receive detailed feedback, but will not be graded. The feedback will include an evaluation of the viability of the project and any recommendations. If there are significant concerns about viability, the project will be flagged to the research director and the research committee will decide whether the project can proceed in its current form.

Trainee Name
Charlotte Lemaigre

Provisional Thesis Title
Do emotion regulation and interpersonal difficulties mediate the relationship between trauma and suicidal behaviour in help-seeking men?

Proposed Setting
University of Edinburgh Health in Mind's Men's SHARE (Suicide, Harm, Awareness, Recovery and Empathy) Project

Allocated Thesis Project Supervisors	
<i>Clinical</i>	-
<i>Academic 1</i>	Dr. Emily Taylor
<i>Academic 2</i>	-
<i>Others Involved</i>	John Murphy (Men's SHARE) Julie Podet (Citizen Advice Bureau)

Anticipated Month / Year of Submission
--

Must be May of final year. Trainees from 2011 intake onwards must submit in May. Trainees who started in 2010 or earlier are advised to submit in May to reduce potential for HCPC registration difficulties.

1st May 2017.

Date Form Submitted / Version

27th September 2016. Version 1.

Please Note: Whilst this is not an ethics review process, where questions have some similarities to questions contained in the NHS IRAS Research Ethics form, the corresponding IRAS question numbers are given in parentheses. This is intended to facilitate completion of NHS ethics where such approval is needed.

Section 1: Introduction

1.1 Provide a brief critical review of relevant literature, which should clearly demonstrate the rationale and scientific justification for the research

1000 – 1500 words

Relevant to IRAS A12

The Scottish Government's Suicide Prevention Strategy (2013-2016) defines suicidal behaviour as '[compromising] both death by suicide and acts of self-harm that do not have a fatal outcome, but which have suicidal intent' (Scottish Government, 2013). Recent prevalence data indicate Scotland's suicide rate to be 14.0 deaths per 100,000. Figures from 2011-2012 revealed that 72.5% of those who completed suicide were male (Suicide Prevention Strategy, 2013). This gender imbalance is consistently found in suicide data; the Samaritans Suicide Statistics Report 2016, for example, revealed that the highest suicide rate in the UK in 2014 was for men aged 45-49 at 26.5 deaths per 100,000. The highest rate for females in the same year was for women aged 50-54 at 8.0 deaths per 100,000. Due to differences in the definition and reporting of suicidal behaviour and given that these figures report completed suicide rates and not rates of self-harm or suicidal behaviour not resulting in death, it can be argued that the true prevalence of suicidal behaviour as per the Scottish Government's definition above is much greater than is postulated in official statistics.

Tackling suicide is currently a high priority on the World Health Organization's global public health agenda and this is reflected in local Government policy. For example, Commitment 9 of the Scottish Government's current Suicide Prevention Strategy aims to 'contribute to developing the national and international evidence base' (Suicide Prevention Strategy p.14). Over the past decades, researchers have started investigating suicidal behaviour more extensively. Some research has attempted to identify particular risk and predictive factors, for example, the role of childhood trauma in suicidal behaviour in clinical and non-clinical populations.

Trauma and Suicidal Behaviour

There is a wealth of research investigating the role of adverse childhood experiences such as physical, emotion and sexual abuse as possible predictive factors in subsequent suicidal behaviour. Bebbington *et al* (2009), for example, utilised data from a total of 8,580 participants in the randomized, cross-sectional British Psychiatric Morbidity Survey in the year 2000 to test the hypothesis that suicidal behaviours are significantly associated with childhood abuse. Researchers

found a strong effect of sexual abuse on attempted suicide in that participants who had experienced sexual abuse were 10 times more likely to have attempted suicide either over the course of their lifetime or in the past year. Similar statistics were found in a study investigating 147 Australian men who were abused in childhood (O'Leary & Gould, 2009). Other types of trauma have also been associated with suicidal behaviour in clinical and non-clinical populations. Akyuz *et al* (2005), for example, investigated self-reported childhood trauma and suicidal behaviour among 628 women in an eastern cultural population. Regression analyses resulted in statistically significant relations between all types of abuse (physical, emotion, sexual and psychological neglect) and suicidal behaviour such as self-mutilation. Many other studies have also identified associations between various types of child abuse and suicidal behaviour (see, for example Romans *et al*, 1995; Milnes *et al*, 2002; Molner *et al*, 2001; Meltzer *et al*, 2002; Ystgaard *et al*, 2004 and Affifi *et al*, 2008). Unfortunately, due to their correlational nature, these studies do not explain how adverse childhood experiences such as sexual abuse lead to greater risk of subsequent suicidal behaviour in adulthood.

More recently, research has aimed to investigate the possible mediating factors in the direct effect of trauma on suicidal behaviour. For example, Bedi *et al* (2011) examined the possible mediating effects of depression and post-traumatic stress disorder (PTSD) on this relationship. Researchers utilised data from an Australian study of childhood maltreatment in 1,594 females and 965 males for whom CSA data was available. CSA associated risk was observed for suicidal ideation and suicide attempt. When depression and PTSD were entered into the Cox proportional hazards regression model, the CSA-associated risk decreased yet remained statistically significant. Authors concluded that the disorders partially mediated the relationship between trauma (CSA) and suicidal behaviour. Spokas *et al* (2009) explored several hypothesized mediating factors between CSA and suicide risk in 166 recent suicide attempters. Researchers investigated depression, PTSD, borderline personality disorder (BPD), substance abuse and hopelessness as possible mediators. Among men, researchers found CSA history to be a predictor of suicide ideation. Using a bootstrapping macro for multiple mediation analysis (Preacher & Hayes, 2008), Spokas *et al* (2009) found only hopelessness to be a significant mediator. However, after controlling for the variables, the direct effect of CSA on suicidal behaviour remained significant. This finding in both studies suggests that either trauma (CSA) may have a direct effect on suicidal behaviour or, other factors such as emotion regulation or interpersonal difficulties may also explain the relation (Joiner, 2005). Extant research has therefore been unable to identify the psychological mechanisms through which adverse childlike experiences such as physical; emotion and sexual abuse are associated with suicidal behaviour. As such, further investigation of potential mediators is necessary.

Emotion Regulation

Emotion or affect regulation refers to an individual's ability to gain control over their emotions and the ways in which these may be expressed. Conceptually, it is argued that the ability to regulate ones emotions is developed within the context of early infant-caregiver relationships and the availability and responsiveness of one's caregiver (Cicchetti & Valentine, 2006). It is unsurprising therefore, that early relational trauma (e.g. physical, emotion and sexual abuse) may disrupt a child's ability to develop the processes for successful emotion regulation such as recognising and expression emotion (Kim-spoon *et al*, 2013). Empirically, extant research has implicated childhood trauma in emotion regulation difficulties. In a recent study investigating the association between childhood trauma and emotion regulation in Borderline Personality Disorder (BPD), Carvalho-

Fernando and colleagues (2014) found emotion abuse and emotion neglect to be significantly associated with emotion dysregulation. Moreover, Kim and Cicchetti (2010) conducted structural equation modelling on longitudinal data exploring child maltreatment, emotion regulation and psychopathology. Researchers found that neglect, physical and/or sexual abuse was related to difficulties in emotion regulation, which in turn was related to higher symptoms of psychopathology. Emotion regulation has also been implicated in suicidal behaviour. Pisana *et al* (2013), for example, investigated emotion regulation difficulties and suicide attempts in high school students. They found a medium effect of emotion dysregulation (e.g. lack of emotion clarity) on recent suicidal behaviour. Although much of the extant research is specific to understanding emotion regulation difficulties in the context of psychological disorders such as depression, anxiety and BPD it can be hypothesized that emotion regulation may also play an important mediating role between childhood trauma and adverse outcomes in adulthood that are not pathological, such as suicidal behaviour. There is a paucity of research investigating emotional regulation difficulties in men who engage in suicidal behaviour.

Interpersonal Difficulties

Research has suggested that adult interpersonal difficulties can arise following childhood trauma. Sampling 325 outpatients diagnosed with depression and anxiety disorders, Huh *et al* (2014) investigated the nature of relationship problems in adults who had experienced adverse childhood experiences such as abuse and neglect. In their final regression model, researchers found emotional abuse, emotional neglect and sexual abuse to be significantly associated with general interpersonal distress and more specific areas of interpersonal problems, such as being domineering/controlling and intrusive/needy. Research has also implicated interpersonal difficulties in suicidal behaviour. For example, in a study of 150 patients admitted to hospital following deliberate self-harm Milnes *et al* (2002) found that 66% of their sample reported interpersonal and relationship problems upon admission. These individuals also reported higher levels suicidal intent. In addition, Bancroft *et al* (1977) found 70% of self-harm episodes to have been precipitated by interpersonal problems. Research has found that suicidal behaviour appears to be common in those who are single, divorced, those who live alone or have a lack of social support (Meltzer *et al*, 2002). In addition, social problems appear to also play a part in self-harming behaviour (Hawton *et al*, 2012). As such, it may be hypothesized that suicidal behaviour is associated with distress in unresolved interpersonal problems (Milnes *et al*, 2002).

Rationale for Proposed Study

As described above, there is preliminary evidence to suggest that both emotion regulation and interpersonal difficulties are effected by adverse childhood experiences such as trauma. Moreover, there is some evidence to suggest that they are also associated with suicidal behaviour. There is currently no research; however, investigating emotion regulation and interpersonal difficulties as possible mediators in the relationship between trauma and suicidal behaviour, particularly in a male population. This is surprising given that official statistics indicate that males are at higher risk of engaging in suicidal behaviour and completing suicide. Moreover, there is a paucity of research investigating suicidal behaviour in non-clinical populations. The proposed study aims to determine whether emotion regulation and interpersonal difficulties mediate the relationship between childhood trauma and subsequent suicidal behaviour in help-seeking men. With the aim of reducing suicide rates in line with current Governmental policies, it is imperative to further the evidence base

into suicide in order to better understand the factors that may contribute to suicidal behaviour. The clinical implications of developing our knowledge in this way is such that with further insight, we may be able to develop effective prevention and intervention strategies that may contribute to the reduction of national male suicide rates.

Section 2: Research Questions / Objectives

2.1 What is the principal research question / objective?

IRAS A10

Do emotion regulation and interpersonal difficulties mediate the relationship between childhood trauma and suicidal behaviour?

2.2 What are the secondary research questions / objectives, if applicable?

Keep these focused and concise, with a maximum of 5 research questions

IRAS A11

Not applicable.

Section 3: Methodology

3.1 Give a full summary of your design and methodology

It should be clear exactly what will happen at each stage of the project

IRAS A13

Study Design. This study will employ a quantitative cohort design. Participants will be invited to complete a set of four paper or online questionnaires measuring a range of variables.

Ethics. Ethical approval will be sought from the University of Edinburgh, School of Health in Social Science. The proposed study involves participants whom are out-with of the National Health Service (NHS), so there is no policy guided or legal requirement for NHS ethical review. All participants will receive a participant information sheet explaining the purpose of the study. Participants will be told that their anonymity and confidentiality will be maintained throughout and that they have the right to withdraw from the study at any time. Written informed consent will be sought prior to their participation in the study.

Participants. A non-clinical sample of adult males (aged 18 and above) will be drawn from a community project (the Men's Suicide, Harm, Awareness, Recovery and Empathy (SHARE) Project) in Scotland. This age range and gender was selected as recent national statistics indicate that this population is the most at 'high-risk' of suicide (Samaritans Suicide Statistics Report 2016). A non-clinical sample was chosen as this study aims to gain a greater understanding of suicidal behaviour amongst the general population, particularly given the paucity in specific research carried out regarding childhood trauma and suicidal behaviour in adult men in the United Kingdom.

Recruitment. Participants will be recruited to the study using non-probabilistic, purposive sampling strategy (Patton, 2005). This sampling strategy selects participants based on specific characteristics and experiences in order to obtain rich data on the subject that is being researched. Participants will be recruited from the Men's SHARE Project; a project that supports men at risk of suicidal behaviour.

Informed Consent. Eligible participants will be approached by the principal research, the Men's SHARE project worker (John Murphy) or a citizen's advice worker (Julie Podet). Participants will be provided with verbal information and a participant information sheet. This will detail the aims and rationale for the study, details about their involvement, details about anonymity and confidentiality, how the results will be disseminated and steps that participants should take should significant distress arise as part of their participation. It will also highlight that their involvement in the study will not affect the routine support they receive within the project. Once a participant consents to being contacted with regards to the study, contact by the principal researcher will be made after at least 24 hours. At this stage, participants will be given the opportunity to ask questions and be provided with further information about the study before providing informed written consent and completing the study's questionnaires.

Confidentiality. Participation in the study will be anonymous and strictly confidential. However, confidentiality may be breached should a participant disclose abuse that had not been previously disclosed and where there are on-going concerns of risk to self or to others. Confidentiality may also be breached should participants disclose imminent suicidal risk. This will be fully articulated on the participant information sheet. As such, participants will be made aware of these potential limits to confidentiality before providing informed consent and participating in the study.

Data management. The length, method and storage of data will be managed in accordance with recommendations made in the University of Edinburgh's Research and Data Management Policy (2011) the Data Protection Act (1998). Measures will be collected, coded and anonymised. Access to questionnaires will be limited to the immediate supervisory team and no identifiable data will be collected or stored e.g. names/addresses. Raw data and a key for identifying the coded data will be stored in a secure keypad locked office at the University of Edinburgh, to which only the investigators will have access. The primary responsibility for this data remains with the principal researcher. Anonymised data used for analysis will be stored on a University of Edinburgh password protected computer. Data will be analysed by the principal researcher on a University of Edinburgh password protected computer in a secure locked office within a university building. Raw data will be disposed in confidential waste within 12 months of its collection. Following completion of the study, anonymised data will be stored within the University of Edinburgh repository for 10 years, following which its storage will be reviewed.

Procedure. Participants who have provided informed consent to take part in the study will be given four questionnaires by the principal researcher, the Men's SHARE project worker or by the citizen's advice worker. It is estimated that participants will spend up to 45 minutes completing the battery of measures. Participants will have the opportunity for a break if fatigue is deemed to be affecting their performance. Following completion of the measures, participants will be provided with written and verbal debriefing.

3.2 List the principal inclusion and exclusion criteria

IRAS A17-1 and IRAS A17-2

Inclusion criteria:

- Adult males aged over 18
- Have experienced suicidal behaviour in the past.
- Have a good understanding of the English language.
- Provided informed consent to participate.

Exclusion criteria:

- Participants who are deemed to be too emotionally or physically frail to participate as determined by the principal researcher, the project or citizens advice worker.
- Participants deemed to lack capacity to consent due to mental or physical ill health as determined by the principal researcher, the project or citizens advice worker.
- Participants who have a known learning disability.
- Unable to understand written or verbal English.

3.3 How will data be collected?

If quantitative, list proposed measures and justify the use of these measures. If qualitative, explain how data will be collected, giving reasonable detail (don't just say "by interviews".)

Data will be collected through four measures as outlined below. Questionnaires will be available on both paper and online formats (via the Boston Online Survey platform).

1. Childhood Trauma Questionnaire (Bernstein & Fink, 1997)

The Childhood Trauma Questionnaire (CTQ) is a standardised 28-item, retrospective self-report measure of five different types of childhood maltreatment: emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect. The relevance of statements to one's childhood experiences are scored on a five-point Likert scale. Items are summed to generate a total score for each trauma domain. Score ranges are categorized as follows: none or minimal, low to moderate, moderate to severe and severe to extreme.

2. The Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2014)

The Difficulties in Emotion Regulation Scale (DERS) is a standardised 36-item self-report, multidimensional measure of difficulties in emotion regulation. Respondents score how often each item applies to them according to a five-point Likert. An overall total score is obtained from summing each subscale score, with higher scores indicating greater problems with emotion regulation.

3. The Inventory of Interpersonal Problems – 32 Item Version (IIP-32; Horowitz *et al*, 2000)

The Inventory of Interpersonal Problems (IIP-32; Horowitz *et al*, 2000) is a 32-item, standardised, self-report measure of an individual's most salient interpersonal difficulties. The measure is split into two sections. The first section asks respondents to score how hard they find doing certain things with people. The second section asks respondents to answer items related to things that they may do too much. Both sections are scored according to a five-point Likert scale. Items are summed to generate a score on eight interpersonal domains.

4. Suicide Behaviours Questionnaire-Revised (SBQ-R):

The Suicide Behaviours Questionnaire-Revised (SBQ-R; Osman *et al*, 2001) is a brief 4-item self-report questionnaire assessing four different dimensions of suicidality. The first assesses lifetime

suicide ideation; the second assesses the frequency of suicidal ideation over the past year; the third assesses threat of suicide attempt; the fourth assesses the likelihood of future suicidality. Scores, in points, are given for each response along each Likert scale, resulting in a total score ranging from 3-18 with higher scores indicating greater levels of suicidality.

In addition, demographic data will be collected. This will include the following information for each participant: age, marital status, educational status, and employment history and employment status.

Section 4: Sample Size

4.1 What sample size is needed for the research and how did you determine this?

For quantitative projects, outline the relevant Power calculations and the rationale for assuming given effect sizes. For qualitative projects, outline your reasoning for assuming that this sample size will be sufficient to address the study's aims

IRAS A59 and IRAS A60

Figure 1 depicts the proposed mediation model for the current study (adapted from Fritz & Hayes, 2007):

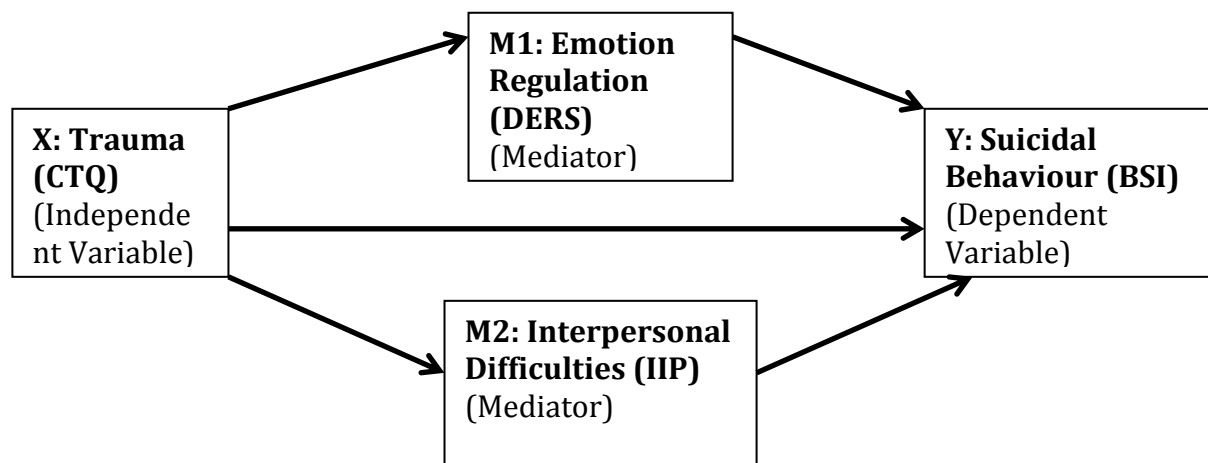


Figure 1: hypothesized mediation model: the relationship between trauma (IV) and suicidal behaviour (DV) via emotion regulation (M1) and interpersonal difficulties (M2) as possible mediating factors.

Although there is paucity in the research investigating the effects of trauma, emotion regulation and interpersonal difficulties on suicidal behaviour, some research has looked at the possible direct effects between these variables. As such, the effect size selected for an a-priori sample size calculation was based on studies, which reported effect sizes for investigations of correlations between similar variables. Cohen's (1992) values for small (0.02), medium (0.15) and large (0.35) effect sizes were applied and reported:

MEDIATION ANALYSIS 1: Trauma and suicidal behaviour via emotion regulation:

Carvalho et al (2014):

Association between emotion abuse and emotion dysregulation: $r=0.33$ (medium)

Association between emotion neglect and emotion dysregulation: $r=-0.45$ (large)

Kim & Cicchetti (2010):

Neglect and emotion regulation: $r=-0.20$ (medium)

Physical abuse and emotion regulation: $r=-0.17$ (medium)

Sexual abuse and emotion regulation: $r=-0.12$ (small)

Bradley et al (2011):

Childhood trauma and emotion dysregulation: $r=0.25$ (medium)

Emotion dysregulation and suicidal behaviour: $r=0.16$ (medium)

Spokas et al (2009):

Sexual abuse and suicidal behaviour (males): $r=0.14$ (small)

Sexual abuse and suicidal behaviour (females): $r=0.13$ (small)

Pisani et al (2013):

Lack of emotion clarity and suicide attempt: $r=0.26$ (medium)

MEDIATION ANALYSIS 2: Trauma and suicidal behaviour via interpersonal difficulties:

Maguire et al (2008):

Trauma and interpersonal difficulties: $r=0.18$ (medium)

Huh et al (2014):

Emotion abuse and interpersonal difficulties: $r=0.10$ (small)

Emotion neglect and interpersonal difficulties: $r=0.18$ (medium)

Sexual abuse and interpersonal difficulties: $r=0.13$ (small)

Stain et al (2014):

Interpersonal trauma and social functioning: $r=0.13$ (small)

Stepp et al (2008):

Lack of sociability and suicidal behaviour: $r=0.58$ (large).

As noted above, previous research appears to suggest a medium effect size for the effect of X on M1 and a medium effect size for the direct effect of M1 on Y. Adopting a medium-medium effect size for the first proposed mediation model (trauma and suicidal behaviour via emotion regulation), Fritz and MacKinnon (2007) postulate that a minimum of 71 participants is needed to achieve 0.8 power when using a bias-corrected bootstrapping statistical test for the first mediation analysis (M1). Previous research appears to suggest a small to medium effect size for the direct effect of X on M2 and a large effect size for the direct effect of M2 on Y. Adopting a medium-large effect size for the second proposed mediation model (trauma and suicidal behaviour via interpersonal difficulties), Fritz and MacKinnon (2007) postulate that a minimum of 53 participants is needed to achieve 0.8 power when using a bias-corrected bootstrapping statistical test for the second mediation analysis (M2). It must be noted that the majority of extant research using the variables of trauma, emotion regulation and interpersonal difficulties are specific to psychopathology e.g. depression, psychosis, borderline personality. As such, estimated effect sizes postulated above may not be generalisable to the current study. It may be more helpful to adopt a small-medium effect size for M2 mediation analysis, as this may be more conservative. With this in mind, Fritz and MacKinnon (2007) estimates that a minimum sample size of 71 participants is needed to achieve 0.8 power with bootstrapping methods.

In another vein, to identify the effects of trauma, emotion regulation and interpersonal difficulties

on suicidal behaviour in a population of help-seeking men, an estimated effect size of 0.3 (considered medium with multiple regression analysis; Cohen, 1992) could also be selected. A medium effect size is considered conservative in investigating the relationship between trauma and suicidal behaviour via emotion regulation and interpersonal difficulties as mediating factors. A sample size for three predictors (trauma, emotion dysregulation and interpersonal difficulties) with a medium effect size using a multivariate regression analysis was calculated with an alpha level of 0.05 (Cohen, 1992) and statistical power of 0.8 (Cohen, 1992; Tabachnick & Fidell, 2001) was calculated. An online calculator (Soper, 2012) using the above parameters resulted in a minimum of 76 participants needed to achieve power for the proposed study.

With these two power calculations in mind, it is decided that a minimum of 76 participants will be required for this study in order to ensure that power is met for both methods of sample size calculation as described above. The bias-corrected bootstrap test of mediation will be used to analyze the relationship between trauma, suicidal behaviour and the two proposed mediators; emotion regulation and interpersonal difficulties.

4.2 Outline reasons for your confidence in being able to achieve a sample of at least this size

Give details of size of known available sample(s), percentage of this type of sample that typically participate in such studies, opinions of relevant individuals working in that area

The principal researcher is on the steering group committee for the project and has a good professional relationship with the Men's SHARE Project Worker (John Murphy). Based on his reflections on having worked with the target population over several years, John Murphy has anecdotally confirmed that the majority of the men who use the service meet the study's inclusion criteria. Of note, a total of 248 men have thus far participated in the project. More objectively, John Murphy also monitors monthly referral data. Over the period 1st April 2015 to 31st March 2016, the project received 67 new referrals, a 26.41% increase on the previous year (6 new referrals a month). The regular support groups continue to be well attended and over the same time period as above, an increase of 18.4% on the previous year was found in the total number of contacts through group work. These figures demonstrate that there are, thus far, 248 men who may be eligible to take part. As per the referral data above, between time of writing and the end of data collection (i.e. September 2016 – March 2017) a further estimated 42 men might be referred into the project (therefore equalling a total of 290 men who may be eligible to participate). As such, it is anticipated that any difficulties in recruiting the anticipated sample size of 76 participants (as posited in section 4.1 above) will be minimal.

Section 5: Analysis

5.1 Describe the methods of analysis (statistical or other appropriate methods, e.g. for qualitative methods) by which the data will be evaluated to meet the study objectives

IRAS A62

Descriptive statistics will be employed to describe the demographics of the sample in relation to each of the main variables (trauma, emotion regulation, interpersonal difficulties and suicidal behaviour). To assess the relationships between variables, Pearson's correlation coefficient will be used. The relationship between (childhood) trauma and suicidal behaviour will be of particular

interest.

To address the primary research question (do emotion regulation and interpersonal difficulties mediate the relationship between trauma and suicidal behaviour) bias-corrected bootstrapping methods (Preacher & Hayes, 2008) for multiple mediation analysis will be used. This method was selected as it does not assume data to be normally distributed and therefore controls for skews in the data. In addition, the method controls well for Type 1 error (Hayes, 2009). Specific indirect effects of X on Y through M1 and X on Y through M2 will be analysed – pair-wise comparisons will be examined.

Section 6: Project Management / Timetable

6.1 Outline a timetable for completion of key stages of the project

E.g. ethics submission, start and end of data collection, data analysis, completion of systematic review

Project Management Deadlines:

30th September 2016: submit draft thesis proposal to Dr. Taylor

7th October 2016: receive feedback from Dr. Taylor

14th October 2016: submit thesis proposal to the University of Edinburgh for review

27th October 2016: submit Small Scale Research Project (SSRP)

4th November 2016: receive feedback and approval of thesis proposal from the University of Edinburgh.

11th November 2016: submit ethics application to the University of Edinburgh.

30th November 2016: completion of systematic review

9th December 2016: receive feedback (and approval) from the Department of Clinical and Health Psychology Ethics Research Panel.

16th December 2016: if required, re-submit amended ethics application to the University of Edinburgh.

30th December 2016: receive approval from the Department of Clinical and Health Psychology Ethics Research Panel.

2nd January 2017: start of data collection

31st March 2017: end of data collection

January-March 2017: thesis write up, preliminary data analysis and submit draft chapters to Dr. Taylor

March-April 2017: completion of data analysis and thesis write-up.

1st May 2017: submit completed thesis.

Section 7: Management of Risks to Project

7.1 Summarise the main potential risks to your study, the perceived likelihood of occurrence of these risks and any steps you will or have taken to reduce these risks. Outline how you will respond to identified risks if they should occur

1. Completing the CTQ causes potential distress

When completing questionnaires pertaining to historical traumatic experiences, there is the potential of causing distress to participants. The perceived likelihood of the risk of this is low, as the CTQ has routinely been used in research and clinical practice. To safeguard against this potential risk, participants will receive a participant information sheet outlining the rationale for the study and

study procedures. Participants will therefore be primed about their requirement to answer questions pertaining to their trauma histories before even participating in the study. Informed consent will be required and participants will be told that they have the right to withdraw from the study at any time. In advance of their participation, individuals will be discussed with the project worker and any deemed too emotionally or physically frail to take part would be excluded. The principal researcher, project and citizen advice workers will sign-post distressed participants to voluntary agencies such as Health in Mind and the Scottish Association for Mental Health (SAMH). All participants will be provided with the contact details for local crisis teams. In addition, participants will be given the contact details for a person independent from the study that they will be able to contact should they be unhappy with any aspect of the study. These contact details will be fully outlined in the debrief sheet.

2. Completing the SBQ-R increases risk of suicidal behaviour

It is possible that completing questionnaires pertaining to past and current suicidal behaviour increases participants' level of risk to themselves by increasing subsequent suicidal behaviour. Research, however, states the opposite and to date, there is no evidence to support the claim that asking participants to complete questionnaires pertaining to past or current suicidal behaviour increases the likelihood of them becoming suicidal. No adverse effects were noted in previous research using the SBQ-R. Completion of the questionnaire would be conducted in a private room with either the principal researcher or the project or citizen's advice workers. The principal researcher has received training for managing distress and suicidal risk (STORM – Suicide Prevention and Self-harm Mitigation Training). As such, in the unlikely event of immediate risk arising, experienced professionals will be present who will be able to manage risk and safeguard participants accordingly. Having completed the questionnaires, participants will receive both verbal and written debriefing, which will act as an opportunity for participants to discuss any adverse effects that may have arisen through their participation in the study. As noted above, all participants will be provided with the contact details for local crisis teams at the end of their participation.

3. Disclosure of trauma

It is possible that participants will disclose abuse experiences for the first time. To address this risk, the principal researcher will clearly state, both as part of participant information sheet and verbally prior to interviews that if there are concerns relating to this which arise during the course of their participation (such as any on-going risk concerns to self/others), she would be under obligation to pass these details onto relevant parties (i.e. social work and police). The limits to confidentiality in this respect will be detailed in the participant information sheet. The debriefing sheet will outline the steps to take and available supports in the event that a participant discloses traumatic experiences, should they wish to discuss these further.

4. Sample Size

There is the potential that there will be difficulty recruiting an adequate number of participants to achieve power. The perceived likelihood of this risk is low. Recruitment plans are in place such that existing Men's SHARE service users who are eligible to take part will be offered participation in the study. In addition, any new referrals to the Men's SHARE project, as identified by the Citizen's Advice Bureau (the largest referrer), will be offered the opportunity to participate in the study. Section 4.2

contains detailed information pertaining to monthly referrals. Recruitment will be monitored on a weekly basis to forestall any difficulties with obtaining sufficient power.

Section 8: Knowledge Exchange

8.1 How do you intend to report and disseminate the results of the study?

IRAS A51

The research project will be submitted in full as part of course requirements for the Doctorate in Clinical Psychology at the University of Edinburgh. It is hoped that both the systematic review and the journal article (which combine to form the completed thesis) will be published in relevant peer reviewed journals e.g. 'Journal of Traumatic Stress' or 'Crisis: the Journal of Crisis Intervention and Suicide Prevention' in order to add to the evidence base. In developing the field's knowledge about the possible mediators of suicidal behaviour, research findings may inform Scottish Government policy documents regarding suicidal behaviour in men. It is also hoped that upon thesis completion, research findings will be disseminated (e.g. by poster presentation) across Psychology conference platforms e.g. UK Psychological Trauma Service (UKPTS) conferences. The final report and/or accessible research summaries will be made available to all individuals who participated in the study. Moreover, the principal researcher will provide a summary of findings to the Men's SHARE steering group. There is the potential for findings to inform the future support and the psychosocial interventions delivered through the project.

8.2 What are the anticipated benefits or implications of the project?

E.g. If this is an NHS project, in what way(s) is the project intended to benefit the NHS?

The Mental Health Strategy for Scotland 2012-2015 notes that the links between trauma and psychological difficulties are complex. Despite its prevalence, the effects of childhood trauma are under researched, particularly in males. This research project will add to the understanding of the relationship between childhood trauma and suicidal behaviour in help-seeking males.

8.3 Are there any potential costs for the project?

Outline any potential financial costs to the project, including the justification for the costs (why are these necessary for the research project?) and how funding will be obtained for these costs (how will they be met?) Please separate these into potential costs for the University and potential costs for your NHS Board and note that you should ask your NHS Board to meet stationery, printing, postage and travel costs.

The University of Edinburgh has a license for the CTQ so an application will be made for the University to cover the cost of this questionnaire. The School of Health in Social Science will cover printing costs (e.g. photocopies of questionnaires). The principal researcher will cover travel costs.

Section 9: Any Other Relevant Information

Not applicable.

Section 10: Key References

Afifi, T. O., Enns, M. W., Cox, B. J., Asmundson, G. J., Stein, M. B., & Sareen, J. (2008). Population attributable fractions of psychiatric disorders and suicide ideation and attempts associated with adverse childhood

experiences. *American journal of public health*, 98(5), 946-952.

Bebbington, P. E., Cooper, C., Psych, M. R. C., Minot, S., Psych, M. R. C., Brugha, T. S., ... & Psych, M. R. C. (2009). Suicide attempts, gender, and sexual abuse: data from the 2000 British Psychiatric Morbidity Survey. *American Journal of Psychiatry*.

Brown, G. K. (2001). *A review of suicide assessment measures for intervention research with adults and older adults*. GK Brown.

Carvalho Fernando, S., Beblo, T., Schlosser, N., Terfehr, K., Otte, C., Löwe, B., ... & Wingenfeld, K. (2014). The impact of self-reported childhood trauma on emotion regulation in borderline personality disorder and major depression. *Journal of Trauma & Dissociation*, 15(4), 384-401.

Cohen, J. (1992). A power primer. *Psychological bulletin*, 112(1), 155.

Hawton, K., Rodham, K., Evans, E., & Weatherall, R. (2002). Deliberate self harm in adolescents: self report survey in schools in England. *Bmj*, 325(7374), 1207-1211.

Hooper, L. M., Stockton, P., Krupnick, J., & Green, B. L. (2011). The development, use, and psychometric properties of the Trauma History Questionnaire. *Journal of Loss and Trauma*, 16, 258-283.

Huh, H. J., Kim, S. Y., Yu, J. J., & Chae, J. H. (2014). Childhood trauma and adult interpersonal relationship problems in patients with depression and anxiety disorders. *Annals of general psychiatry*, 13(1), 1.

Joiner, T. (2007). *Why people die by suicide*. Harvard University Press.

Kim, J., & Cicchetti, D. (2010). Longitudinal pathways linking child maltreatment, emotion regulation, peer relations, and psychopathology. *Journal of Child Psychology and Psychiatry*, 51(6), 706-716.

Kim-Spoon, J., Cicchetti, D., & Rogosch, F. A. (2013). A longitudinal study of emotion regulation, emotion lability-negativity, and internalizing symptomatology in maltreated and nonmaltreated children. *Child development*, 84(2), 512-527.

Meltzer, H; Ladar, D; Corbin, T; Singleton, N.; Jenkins, R & Burgha, T (2002) Non fatal suicide among adults aged 16-74 in Great Britain, ONS

Milnes, Owens, D. Blenkiron, P. (2002) Problems reported by self-harming patients: perceptions, hopelessness and suicidal intent. *Journal of Psychosomatic Research* 53, 819- 822

Molnar, B. E., Berkman, L. F., & Buka, S. L. (2001). Psychopathology, childhood sexual abuse and other childhood adversities: relative links to subsequent suicidal behaviour in the US. *Psychological medicine*, 31(06), 965-977.

NSPCC: <https://www.nspcc.org.uk/globalassets/documents/research-reports/relationship-between-child-maltreatment-sexual-abuse-suicide-attempts-report.pdf>

Section 11: Confirmation of Supervisors' Approval

"I confirm that both my Academic and Clinical Supervisors have seen and approved this research proposal and have both completed the supervisors' appraisal forms below."
Delete as appropriate

Yes	
-----	--

Appendix 1

Main Academic Supervisor's Appraisal of Project Risk

Supervisor's Name
Emily Taylor

Date
26/9/16

Do you consider that the project should proceed in broadly its current form? <i>Delete as appropriate</i>		
<u>Yes</u>	Yes, subject to the revisions outlined below	No

Outline the reasons for the above response
Highlight any areas of risk to the completion of the project that have not been fully addressed within the proposal and any steps that could be taken to reduce risks
The theoretical basis for the research project is sound and the project is politically and socially relevant. The methodology is straightforward and the principal risk identified was the recruitment. The student has tested the recruitment pathway thoroughly and is confident that the project managers, who have previously expressed a desire to collaborate on further research, are confident of being able to reach the required sample size as an absolute minimum. The student's pre-existing relationship means she can judge the likelihood of the service managers delivering on this commitment.

Appendix 2

Clinical Thesis Supervisor's Appraisal of Project Risk

Supervisor's Name

--

Position

--

Date

--

Do you consider that the project should proceed in broadly its current form?

Delete as appropriate

Yes	Yes, subject to the revisions outlined below	No
-----	--	----

Outline the reasons for the above response

Highlight any areas of risk to the completion of the project that have not been fully addressed within the proposal and any steps that could be taken to reduce risks

--

Appendix 5: University of Edinburgh ethical approval



SCHOOL of HEALTH IN SOCIAL SCIENCE
CLINICAL AND HEALTH PSYCHOLOGY

The University of Edinburgh
Medical School
Doorway 6, Teviot Place
Edinburgh EH8 9AG

Telephone 0131 651 3969
Fax 0131 650 3891

Charlotte Lemaigre
Trainee Clinical Psychologist
School of Health in Social Science
University of Edinburgh

24 November 2016

Dear Charlotte,

Application for Level 2 Approval

Reference: CLIN327

Project Title: Do emotional regulation and interpersonal difficulties mediate the relationship between childhood trauma and suicidal behaviour in help-seeking men?

Academic Supervisor: Emily Taylor

Thank you for submitting the above research project for review by the Department of Clinical and Health Psychology Ethics Research Panel. I can confirm that the submission has been independently reviewed and was approved on the 11th November 2016.

Should there be any change to the research protocol it is important that you alert us to this as this may necessitate further review.

Yours sincerely,

Kirsty Gardner
Administrative Secretary
Clinical Psychology

Appendix 6: Participant Information Sheet



Study Title: Suicidality and Trauma in Men.

We are inviting you to take part in a research project being conducted by The University of Edinburgh. Before you decide if you would like to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. If you are interested in taking part there will be an opportunity to discuss the research further before you make your final decision.

What is the purpose of the study?

We are investigating the childhood experiences of adult men who have experienced suicidal thoughts or behaviours. The study explores how childhood trauma (e.g. physical abuse) might relate to suicidal behaviour in adulthood. Increasing our understanding of what influences male suicidal behaviour will help us improve the mental health of men with suicidal behaviour in Scotland.

Why have I been asked to take part?

We are inviting all men who have experienced suicidal feelings to participate in this study. Sharing your experience will help us provide better support in the future.

Do I have to take part?

No, it is up to you to decide whether or not to take part. If you decide to take part will be asked to sign a consent form. If you decide to take part you are still free to withdraw at any point up the end of your participation and without giving a reason.

What do I have to do?

If you decide you are interested in taking part, please contact the researcher, Charlotte Lemaigre, John Murphy or Julie Podet. Charlotte will arrange a time to meet with you. At this meeting you will be able to ask further questions about the study and make your final decision as to whether to be involved. If you choose to be involved, you will be asked to provide consent, complete a questionnaire about yourself and complete four questionnaires. If you would like support in completing these, Charlotte Lemaigre, John Murphy and Julie Podet can offer you assistance. Altogether the questionnaires will take no more than 45 minutes to complete.

What are the possible disadvantages of taking part?

The questionnaires will ask about experiences that may have been distressing. If you need help, the research team will be on hand to talk to and they may signpost you to the appropriate supports that are available.

Will my taking part in the study be kept confidential?

Yes. Your participation in this study will be kept anonymous. This means that no identifying personal details will be collected. Those who read the final report will not

have any way of identifying that you took part. Only the principal researcher will have access to your questionnaires.

The information that is collected throughout the study will be kept confidential and there are strict laws that safeguard your privacy and anonymity. The only exception to this would be if you told the research team that you were at significant and imminent risk of suicide. In this case, the research team would have a duty of care to share this information with other professionals, such as with your GP or with the Police. We would tell you before doing this if possible.

How will my data be stored?

Your consent forms and questionnaires will be kept in a locked cabinet at the University of Edinburgh, to which only the researchers will have access. At the end of the study, the University of Edinburgh will store anonymous data electronically. It will not be possible to link you to this data in any way. Personal data will be shredded and disposed of within 12 months of its collection. At the end of the study, anonymous data will be stored for 10 years, after which its use will be reviewed.



What will happen to the results of the research study?

The study will be written up as a Clinical Psychology doctoral thesis and will be available electronically and manually through the University of Edinburgh library. The final results may also be shared through conferences and peer reviewed scientific journals. Your identity will not be included in any publication. We are happy to provide you with a summary of the results of the study.

Who has reviewed the study?

Before it is given permission to go ahead, every research study is looked at by an independent group of people, called a Research Ethics Committee. A favorable ethical opinion has been obtained from The University of Edinburgh. In addition, the researcher's academic supervisor (Dr. Emily Taylor) has reviewed the study proposal.

Contact Details

	<p>Charlotte Lemaigre Trainee Clinical Psychologist & Principal Researcher</p> <p>Telephone: 0131 663 1616 Email: c.lemaigre@sms.ed.ac.uk</p>		<p>Dr. Emily Taylor Lecturer in Clinical Psychology & Academic Supervisor</p> <p>Telephone: 0131 650 3892 E-mail: Emily.Taylor@ed.ac.uk</p>
<p>John Murphy Project Worker</p> <p>Telephone: 0131 663 1616 Email: john.murphy@orchardcentreservices.org.uk</p>		<p>Julie Podet Citizen's Advice Worker</p> <p>Telephone: 0131 660 1636 Email: Julie.podet@dalkeithcab.casonline.org.uk</p>	

I would like to take part!

If you have any further questions about the study or if you would like to express interest in taking part, please get in touch with Charlotte using the contact details above.

If you have any concerns about any aspect of this study, please contact Charlotte or Emily. If you would like to discuss this study with someone independent of the interview process please contact Dr. Helen Griffiths, Senior Teaching Fellow at the University of Edinburgh by email: helen.griffiths@ed.ac.uk

If you need to make a complaint, please contact Professor Charlotte Clarke by email: charlotte.clark@ed.ac.uk

Appendix 8: Participant Debrief Sheet



Study Title: Suicidality and Trauma in Men.

Thank you very much for spending the time to help with this research project. The information gathered from this study will help us better understand the factors that influence suicidal behaviour. This may help shape new ways of supporting recovery and promoting better mental health for suicidal men in Scotland.

The topics covered by this study can be difficult to talk or think about. If taking part in this study causes you distress, either now or in the future, we encourage you to access the supports that are available to you such as your GP.

Here are some telephone numbers you may find helpful:

Emergency Services – 999

NHS 24 - 111

Samaritans - 116 123 (www.samaritans.org)

Breathing Space Helpline - 0800 83 85 87 (www.breathingspace.scot)

Midlothian Early Intervention Crisis Response Service - 0131 663 5533

If you answered yes to any of the questions asking about current suicidal or self-harm intentions, please speak to a member of staff as soon as possible so that you can get the right kind of support. This questionnaire is anonymous so we cannot let staff know if you are currently suicidal.

If you have any questions about the study, please contact:

The principal researcher: Charlotte Lemaigre - c.lemaigre@sms.ed.ac.uk

The study supervisors: Dr. Emily Taylor (Lecturer in Clinical Psychology)

emily.taylor@ed.ac.uk

Dr. Claire Fyvie (Clinical Psychologist)

claire.fyvie@nhsllothian.scot.nhs.uk

If you have any concerns or complaints about the study and would like to speak to someone independently of the project please contact in the following order:

Dr. Helen Griffiths (Lecturer in Clinical Psychology): helen.griffiths@ed.ac.uk

Head of School of Health in Social Science: charlotte.clarke@ed.ac.uk

In order to develop ways of supporting men who experience suicidal behaviour, it is important to firstly understand how this process is experienced. It is also important to understand the factors that may contribute to males developing thoughts of suicide.

Your participation is helping us develop our knowledge of male suicidal behaviour in Scotland.

Thank you very much for your involvement in the study.

Appendix 9: Author submission guidelines for *Archives of Suicide Research*.

“Instructions for authors

Thank you for choosing to submit your paper to us. These instructions will ensure we have everything required so your paper can move through peer review, production and publication smoothly. Please take the time to read and follow them as closely as possible, as doing so will ensure your paper matches the journal’s requirements. For general guidance on the publication process at Taylor & Francis please visit our [Author Services website](#).

This journal uses ScholarOne Manuscripts (previously Manuscript Central) to peer review manuscript submissions. Please read the [guide for ScholarOne authors](#) before making a submission. Complete guidelines for preparing and submitting your manuscript to this journal are provided below.

Please note that *Archives of Suicide Research* uses CrossCheck™ software to screen papers for unoriginal material. By submitting your paper to *Archives of Suicide Research* you are agreeing to any necessary originality checks your paper may have to undergo during the peer review and production processes.

Archives of Suicide Research, the official journal of the International Academy for Suicide Research, is an international journal in the field devoted to suicide research. The contributions in Archives represent the breadth of suicide erudition in the scientific community featuring original research from diverse disciplines including biology, psychiatry, psychology, and sociology. The journal has become renowned for reporting on the most current and relevant aspects of suicide research, as well as defining the foundations of the field.

Archives of Suicide Research receives all manuscript submissions electronically via its ScholarOne Manuscripts site located at: <http://mc.manuscriptcentral.com/usui>. ScholarOne Manuscripts allows for rapid submission of original and revised manuscripts, as well as facilitating the review process and internal communication between authors, editors and reviewers via a web-based platform. ScholarOne Manuscripts technical support can be accessed via <http://scholarone.com/services/support/>. If you have any other requests please contact the journal’s editorial office at archives@nyspi.columbia.edu

Review Process. The Journal Editor and Editorial Staff determine whether the subject matter and content of the manuscripts submitted are pertinent to ASR. The manuscript will be sent out for peer review if it is found to be relevant and important. All reviewers remain anonymous. Authors will be informed of the Editor’s decision regarding their manuscript’s status of publication when the review process ends.

Publishing Ethics. The International Academy for Suicide Research and Taylor & Francis Group are committed to the highest academic, professional, legal, and ethical standards in publishing work in this journal. To this end, we have adopted a [set of guidelines](#), to which all submitting authors are expected to adhere, to assure integrity and ethical publishing for authors, reviewers, and editors.

Taylor & Francis is a member of the Committee of Publications Ethics (COPE). COPE aims to provide a forum for publishers and editors of scientific journals to discuss issues relating to the integrity of their work, including conflicts of interest,

falsification and fabrication of data, plagiarism, unethical experimentation, inadequate subject consent, and authorship disputes. For more information on COPE please visit <http://publicationethics.org>.

Manuscript Organization. *Cover Letter.* A cover letter must be included indicating that the material is intended for publication and that all the authors have agreed to the content and submission of the manuscript. *Title page:* The title page should include the following:

- Title of the manuscript: Authors should also supply a shortened version of the title suitable for the running head, not exceeding 50 characters and spaces.
- Total word count
- Up to 6 keywords (Please consult our guidance on keywords [here](#).)
- Complete contact information: this includes the corresponding author's full name, title, telephone number, fax number, and e-mail address.

Disclosures and Acknowledgments: authors are required to disclose of all forms of support, including financial support or involvement in their cover letter. Pharmaceutical company and grant support, as well as any other supportive agency, grant number or contract, and acknowledgments of individuals should all be included here.

Abstract: Each article should be summarized in an abstract of no more than 120 words. Abstract should be separated into Objectives, Methods, Results, Conclusion. Avoid abbreviations, diagrams, and reference to the text.

Text: The contents of the text should adhere to the general structure of scientific papers: introduction, method, results, and discussion. If applicable, it should be made clear in the methods section that informed consent was obtained from subjects who participated in the study.

Tables and Figures: Tables and figures should be numbered and included as separate sheets or files. Tables and figures should not be embedded in the text. A short descriptive title should appear above each table with a clear legend and any footnotes suitably identified below. All units must be included. Figures should be completely labeled, taking into account necessary size reduction. Captions should be typed, double-spaced, on a separate sheet.

References: References should be listed on separate pages following the text. They should be listed alphabetically by first author and should not be numbered. Be sure all references have been cited in the text. Provide the last names and first initials of maximum three authors; "et al." should be used for articles containing more than three authors. Journal names should not be abbreviated. Italicize journal names and book titles. Article references should include the author names, year of publication, title of the article, complete name of the journal, the volume and the page numbers in which the article appears.

Proofs: One set of page proofs is sent to the designated author. Proofs should be checked and returned within 48 hours.

Off prints and Complimentary Copies: The corresponding author of each article will receive up to 3 complimentary issues. Off prints of the article and additional issues may be ordered from Taylor & Francis by using the link to the order form included with the page proofs. Authors for whom we receive a valid e-mail address will be provided an opportunity to purchase reprints of individual articles, or copies of

the complete print issue. These authors will also be given complimentary access to their final article on *Taylor & Francis Online*.

Permissions: Authors are responsible for obtaining permission to reproduce copyrighted material from other sources.

Open Access: Taylor & Francis Open Select provides authors or their research sponsors and funders with the option of paying a publishing fee and thereby making an article fully and permanently available for free online access – *open access* – immediately on publication to anyone, anywhere, at any time. This option is made available once an article has been accepted in peer review. [Full details of our Open Access program.](#) (“Taylor & Francis Online; Archives of Suicide Research, Instructions for authors”, 2017).