Student No: 14302955

Forensic Psychology Academic Thesis:

Understanding the Intergenerational Transmission of Child Maltreatment in Fathers

Amy Lawson, BSc., MSc.

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Abstract

Causes and consequences of child maltreatment have long been researched, with scholars particularly exploring the notion that experiences of child maltreatment increases the risk of perpetrating child maltreatment towards their own children, hence continuing the cycle of abuse. This is also known as the intergenerational transmission of child maltreatment (ITCM). However, this concept has mainly been explored in mothers because they are often seen as the primary caregivers, the children often remain in the mother's care and fathers are viewed as uninvolved and 'abusive'. More recently studies have examined the ITCM in both parents, but few studies explore gender differences and how this transmission might be unique for males. This research thesis aimed to provide a unique contribution to the field by exploring the ITCM in fathers.

Following an introduction to the concept of child maltreatment, the ITCM and risk and protective factors that might break or maintain the cycle in Chapter One, Chapter Two provides a systematic review and meta-analysis of the studies that have included fathers or both parents, where they analysed the findings for parents separately. Despite the size of the literature on the ITCM, only 16 studies were included in the final systematic review, with 75% providing some evidence for the transmission. The meta-analysis revealed that the odds of experiencing physical abuse and/or corporal punishment was 2.34 greater at predicting the perpetration of physical abuse than those who did not experience physical abuse and/or corporal punishment in five studies. The review highlighted the importance for further research to be conducted into this under researched population.

Chapter Three and Four offer two unique contributions to the literature by exploring the role of personality and intellectual functioning in the ITCM in a

sample of fathers involved in care proceedings. Chapter Three found limited associations between experiences of maltreatment and perpetrating maltreatment against their children. Fathers who experienced maltreatment were clustered into three groups based on their personality styles. These findings are discussed using an attachment theory approach. Chapter Four found no significant differences between the intellectual functioning in fathers who experienced maltreatment and those who did not. Fathers who experienced neglect in childhood had significantly lower verbal comprehension as well as fathers whose children were neglected. Lower intellectual functioning was found to be correlated with elevated personality styles associated with trauma, depression and avoidance.

Chapter Five critiqued a retrospective self-report measure of childhood trauma, the Childhood Trauma Questionnaire-Short Form (CTQ-SF, Bernstein & Fink, 1998), assessing its reliability and validity specifically for use in fathers involved in care proceedings. Whilst this measure appeared to be well regarded in the literature, more research is needed to use the CTQ-SF on fathers as well as parents involved in care proceedings to assess the measure's clinical utility for this unique sample. This thesis is concluded by a discussion chapter which considers learning throughout the four individual chapters. Consideration for how this knowledge might aid the prevention and intervention of the ITCM to try to break the cycle is discussed.

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Undertaking research into child maltreatment has enabled me to reflect on the fortunate position I am in having such loving and supportive parents, who have provided me with nothing but a secure upbringing which has continued into my adulthood. Thank you for always being there.

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Chapter One: Introduction to Thesis

1.1. Introduction

1.1.1. Definitions of child maltreatment

Butchart, Putney, Furniss and Kahane (2006) define child maltreatment as "*all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power*" (p.6, Butchart et al, 2006). The National Society for the Prevention of Cruelty to Children (NSPCC) report that severe child maltreatment generally includes "*severe physical and emotional abuse by any adults, severe neglect by parents or guardians and contact sexual abuse by any adult or peer"* (p.8, Radford et al, 2011). See Table 1 for descriptions of the different types of child maltreatment.

Historically, children and an individual's childhood have not always been "*valued and protected*" or seen as an important period in life (Empey, Stafford, and Hay, 1999, cited by Miller-Perrin & Perrn, 2012, p.13). In the UK, violence toward children that is now condemned, such as using corporal punishment in education settings, was once viewed as appropriate (Radford, 2017). Within the past 100 years, perceptions have shifted to a view that children should be loved, nurtured, and protected (Miller-Perrin & Perrn, 2012) and children are now much less likely to be "*beaten by adults 'for their own good' than they were*" (Radford, 2017, p.15).

There is a perception that child abuse and neglect are "*socially constructed phenomena*" (Charlesworth, 2007, p.105) and that values and beliefs have been shaped over time and through different cultures regarding

children's needs and rights which affect parenting (Charlesworth, 2007). Whilst the World Health Organisation (WHO, Krug, Mercy, Dahlberg & Zwi, 2002) reported that there is some level of agreement across cultures that sexual and severe physical abuse of children causes harm, diversity appears in the extent to which parents and/or caregivers physically punish, shout at or threaten their children (Krug et al, 2002). These cultural differences between what classes as a form of punishment or severe child abuse results in variations between reporting incidences across countries (Krug et al, 2002). Disparities continue around the acceptability of child discipline and punishment within one culture which is viewed as an unacceptable act of child maltreatment in other cultures (Hamilton-Giachritsis & Pellai, 2017). Extreme examples of these discrepancies are female genital mutilation and forced marriage however, less severe examples such as smacking and physical chastisement are still debated between cultures.

The United Nations Convention on the Rights of the Child (UNCRC, United Nations General Assembly, 1989; Hamilton-Giachritsis & Pellai, 2017) provided a framework of civil, political, economic, social and cultural rights of every child, regardless of their race, religion or abilities. Through this agreement, the United Nations "*has essentially rejected cultural relativism as a defense*" (Miller-Perrin, & Perrin, 2012, p.10) indicating that countries must ban any cultural practices that could cause abuse or harm to children. Despite this agreement, there continues to be limited estimates of the extent of child abuse and neglect across cultures because available research is based on known cases. They must have been reported to agencies such as the police, child welfare or health services and depend on what law and policy specify should be recorded (Radford, 2017). It also relies on individuals recognising and being able to self-report being the

victim of abuse and neglect. These are barriers that can continue to prevent child victims reporting their experiences to anyone, let alone authorities, and this will vary greatly across cultures, races, and religions (Radford, 2017).

Table 1: Definitions of the types of maltreatment (DfE, 2018)

Types of maltreatment	**Definitions**
Sexual abuse	"*Forcing or enticing a child or young person to take part in sexual activities". "The activities may involve physical contact, including assault by penetration (for example, rape or oral sex) or non-penetrative acts such as masturbation, kissing, rubbing and touching outside of clothing. They may also include non-contact activities, such as involving children in looking at, or in the production of, sexual images, watching sexual activities, encouraging children to behave in sexually inappropriate ways, or grooming a child in preparation for abuse*" p.103.
Physical abuse	"*May involve hitting, shaking, throwing, poisoning, burning or scalding, drowning, suffocating or otherwise causing physical harm to a child. Physical harm may also be caused when a parent or carer fabricates the symptoms of, or deliberately induces, illness in a child*" p.102.
Emotional abuse	"*Persistent emotional maltreatment of a child such as to cause severe and persistent adverse effects on the child's emotional development." "Some level of emotional abuse is involved in all types of maltreatment of a child, though it may occur alone*" p.103.
Neglect	"*Persistent failure to meet a child's basic physical and/or psychological needs, likely to result in the serious impairment of the child's health or development. Neglect may occur during pregnancy as a result of maternal substance abuse*." "*It may also include neglect of, or unresponsiveness to, a child's basic emotional needs*" p.104.

Working Together to Safeguard Children (DfE, 2018, p.102-104).

1.1.2. The conceptualisation of child maltreatment, adverse childhood experiences and trauma

Throughout the thesis, child maltreatment is used as an overarching term for the main four types of child abuse and neglect described in Table 1 above. Adverse childhood experiences (ACEs) are also used as a term in this thesis to describe any potential traumatic event that occurred during childhood and can have a significant impact on an individuals physical, emotional, and mental health throughout their life (Felitti et al, 1998; Boullier & Blair, 2018; Whitefield, 1998). The ACEs have been defined as psychological, physical or sexual abuse, emotional and physical neglect, witnessing violence perpetrated against the mother, living with substance abusers, those who are mentally ill, parental separation or divorce and living with a criminal household member (Felitti et al, 1998, Whitefield, 1998; Dube et al, 2001; Boullier & Blair, 2018). Bullying, death of a family member, war, poverty, gang involvement, being in the care system, and having a serious injury, illness or accident are also examples of ACEs (Whitfield, 1998; Levenson, 2017; Johnstone & Boyle, 2018). Johnstone and Boyle (2018) also describe another category of 'everyday' adversity (p.101) as practices which cause social pressure for children including media, advertising, and schools. This includes perception of body image, unwanted sexual harassment, and high levels of schoolwork. Whilst many of these adversities can occur during adulthood, the significance of occurring during childhood is the lack of power and resources that children have to deal with their distress as well as the risk of not being believed (Johnstone & Boyle, 2018; Whitefield, 1998).

The term 'trauma' is defined as "*an exposure to an extraordinary experience that presents a physical or psychological threat to oneself or others and generates a reaction of helplessness and fear"* (American Psychiatric

Association, 2013, cited by Levenson, 2017, p.105) and is often a term used to convey how severe and harmful the effects of an event can be across a lifespan (Johnstone & Boyle, 2018). The exposure may have occurred in the distant or recent past but can lead to persistent symptoms such as intrusive thoughts of the event (nightmares or flashbacks), hyperarousal to stimuli in the environment (feeling 'on edge' or jumpy), negative moods, and avoidance of cues (smells, people, places) related to the event (Levenson, 2017).

Child maltreatment and ACEs can cause the child victim to develop these trauma symptoms which continue into adulthood. However, the term 'trauma' is viewed as having "*medical overtones*" and has a "*potentially misleading impression of discrete, possibly very unusual, extreme or life-threatening events*" (Johnstone & Boyle, 2018, p.98). For these reasons, child maltreatment and ACEs will be used as the primary terms throughout this thesis. Trauma, trauma symptoms and trauma-informed approaches will be used to assist professionals to understand and provide a service to individuals with emotional and behavioural difficulties (Johnstone & Boyle, 2018). It could also offer professionals tools to recognise to impact of early adversity experienced by their clients and understand how early trauma shapes their core beliefs about themselves, others and the world (Levenson, 2017).

1.1.3. Child maltreatment prevalence in the UK

A 2011 report published by the NSPCC (Radford et al, 2011) records findings on the prevalence of child maltreatment gathered from a random sample of parents and children, young people and young adults in the UK interviewed in 2009. They found reported rates of severe maltreatment by a parent or guardian were reported by 5% of under 11s (5.1% females and 4.9% males) and 13.4% of

those aged 11-17 (13.3% females and 13.5% males). The highest form of familial maltreatment was neglect.

Fellitti et al (1998) found that out of nearly ten thousand respondents, over 50% reported experiencing at least one ACE. The association between these ACEs and adult risk behaviour, health status, and disease were examined, and a graded relationship was found between the number of ACEs an individual experienced and each of the health risk behaviours and diseases. In addition, those who experienced four or more ACEs as opposed to those who experienced no ACEs, had a 4- to 12-fold increase in risk of alcoholism, drug abuse, depression and suicide attempts and a 2- to 4-fold increase in smoking and poor self-rated health.

The Office for National Statistics (ONS, 2020) found that 20% of adults aged between 18 to 74 years reported to have experienced at least one form of child abuse (including emotional, physical or sexual abuse, or witnessing domestic violence or abuse). 52% of adults who experienced abuse in childhood (before aged 16) also experienced domestic abuse later in life, compared to 13% of those who did not experience child abuse. For each type of abuse, rates were higher in females than males, except for physical abuse where there was no difference. Department for Education (DfE, 2018) reported that the number of children under a Child Protection Plan (CPP) in England was increasing with the total number in 2018 being 53,790 compared to 48,300 in 2014. These findings might not necessarily reflect an increasing problem but rather improvements in responding and recognising child maltreatment (Degli Esposti et al, 2019). Neglect was found to be the most common category of abuse children were placed on the register for, followed by emotional abuse. Sexual abuse was the least.

Degli Esposti et al (2019) investigated the long-term trends in child maltreatment in England and Wales and found that child mortality by homicide or assault had decreased by 90% between 1858 and 2016. The prevalence of individuals found guilty of child cruelty or neglect also reduced by 83% (between 1893 and 2016). However, the number of child protection registrations increased by 182% (between 1988 and 2016) and between 2000 and 2016 crimes against children and children entering the care system both increased. This indicated that child maltreatment remains a major public health problem in England and Wales. Concerningly, rates of individuals found guilty of sexual offences against children under 13 and children aged between 13 and 16, appeared to fall around 1975 but has since been on the increase. Again, this could be due to an increase in crime reporting and detection. However, the ONS (2020) report that many cases of child abuse remain hidden and adults reported not telling anyone about their abusive experiences up until they informed the National Association for People Abused in Childhood (NAPAC) years later.

1.1.4. Causes and consequences of child maltreatment

There are numerous hypotheses for what causes child maltreatment and which factors might increase the risk of child maltreatment in families. Individual characteristics, family characteristics and environmental factors influence the occurrence of child maltreatment (Schelbe & Geiger, 2017). Individual characteristics include having a disability, development delay, cognitive impairments or failure to thrive (Dubowitz et al, 2011; Hibbard & Desch, 2007; Skuse et al, 1995). Family characteristics have been found to be parental mental illness and depression, substance abuse, lack of educational attainment, lack of social development, having children at a young age, lack of parental empathy and life stressors such as financial problems or intimate partner violence (IPV,

Bavolek, 2000; Sidebotham et al, 2001; Budd et al, 2000; Afifi, 2007). Environmental factors include socioeconomic factors, social isolation and lack of personal support (Kotchick & Forehand, 2002; Egeland et al, 1988). Paternal risk factors for child maltreatment have been identified as fatherhood prior to 20 years of age, lower educational achievement, being in LA care as a child, and a history of psychiatric illness such as depression or substance misuse (Sidebotham et al, 2001).

Poverty can cause a range of challenges to individual's and families well-being (Charlesworth, 2007). Sedlak and Broadhurst (1996) found that children from lower class families were more likely to be seriously injured from maltreatment than those from middle- and upper-class families. Children in the lowest-income families were over 50 times more likely to be educationally neglected and 18 times more likely to be sexually abused than children from higher-income families. Other factors such as levels of inequality and violence could also be related to increased rates of child maltreatment in lower socioeconomic areas (Charlesworth, 2007).

Individuals who experience child maltreatment are likely to suffer both short- and long-term consequences (Jones, 2014). Some long-term consequences of abuse in childhood include Posttraumatic Stress Disorder (PTSD), self-harm, substance misuse, depression, anxiety, personality disorders, developmental delays, poor academic performance, unemployment, crime, aggression, violence and even early mortality (Jones, 2014; Briere & Elliott, 2003; English, 1998; Gilbert et al, 2009; Afifi & MacMillan, 2011). The type, chronicity, severity and frequencies of the maltreatment experienced are also important features to consider and can be detrimental to a child's development.

The economic impacts of non-fatal child maltreatment by a primary caregiver are estimated to be an average lifetime cost of £89,390 (with 95% confidence intervals between £44,896 and £145,508). This is due to social care costs, short-term health-related costs and the costs resulting from a lower probability of employment and education in the individual (Currie & Widom, 2010; The NSPCC, Conti, Morris, Melnychuk & Pizzo, 2017).

Bailey et al (2012) report that child maltreatment is associated with subsequent parenting difficulties. They found that witnessing domestic violence and experiencing neglect and emotional abuse, were associated with mothers' perceived hostility towards their children, even after controlling for traumatic experiences in adulthood. In contrast, childhood sexual abuse history was associated with self-reported concerns regarding parenting competence. A parent's history of maltreatment has been found to elevate the risk of their children being abused or neglected; whether this is perpetrated by the abused parent or another caregiver (Dixon, Browne, & Hamilton-Giachritsis, 2005; Egeland et al, 2002; Pears & Capaldi, 2001). When it is perpetrated by the same caregiver who experienced child maltreatment themselves, this is known as the 'cycle of abuse' or the 'intergenerational transmission of child maltreatment' (ITCM, Schelbe & Geiger, 2017).

1.1.5. The intergenerational transmission of child maltreatment

It is important to recognise that whilst the ITCM is a concept supported by many professionals (Schelbe & Geiger, 2017), the existing evidence supporting the notion is mixed (Ertem et al, 2000; Thornberry et al, 2012; Widom, 1989). A history of child maltreatment in parents is not necessarily a prerequisite or cause of further child maltreatment (Dixon et al, 2009). There is research to suggest

that parents who experienced abuse and neglect in their childhood, do not go on to abuse or neglect their own children (Pears & Capaldi, 2001; Sidebotham et al, 2006; Widom & Widom, 2015).

Experiencing childhood physical abuse has been found to directly predict perpetration of physical abuse, whereas experiences of childhood neglect was not found to predict neglect caused to their children (Berlin, Appleyard and Dodge, 2011). Jones (2014) found contradictory evidence for these findings in her study. She found 100% of adults who experienced childhood neglect had children who were also neglected and 37.5% of adults who experienced childhood physical abuse went on to physically maltreat their children. In those who witnessed IPV during childhood, 55% went on to become a victim of IPV and 27% became a perpetrator of IPV. Significant relationships were found between having spent time in Local Authority (LA) care as a child and their children being neglected.

Dixon, Browne, & Hamilton-Giachritsis (2005a) explored the risk factors implicated in the ITCM. Within 13 months after birth, 6.7% of parents who experienced child maltreatment were referred for maltreating their own child, compared to 0.4% of families with neither parent who experienced child maltreatment. Mediational analyses indicated three significant risk factors (parenting under 21 years, history of mental illness or depression, living with a violent adult) which explained 53% of the total variance, and provided partial mediation for the ITCM.

Ball (2009) conducted one of the few studies examining the ITCM in fathers only. He found that physical abuse experienced in childhood directly predicted physically abusing their children. Interestingly, he found no

associations between race, age, economic or social stress and physically abusing their children. However, Ball (2009) only examined childhood physical abuse and he used a sample of incarcerated fathers therefore, the results cannot be generalised to a sample of fathers in the community.

1.1.6. Theoretical models to explain the ITCM

1.1.6.1. Attachment Theory

Attachment theory is "*a model for understanding how human beings survive danger, form protective relationships and promote the survival of their children*" (Bowlbly, 1969, cited by Crittenden and Baim, 2017, p. 385). This theory describes how individuals who experienced child maltreatment might encounter difficulties relating to interpersonal relationships, parenting and social functioning in adulthood (Schelbe & Geiger, 2017). Children who are abused or neglected tend to have insecure attachment styles so when they become parents, they might display similar attachment patterns with their children or neglect or abuse them (Robboy & Anderson, 2011; Zuravin et al, 1996). Parents who have secure attachments have provided care and affection to their children, allowing them to make secure attachments in relationships throughout their life (van Ijzendoorn, 1995). Even in children who were abused and neglected, if they were able to securely attach to another caregiver through the receipt of emotional support, then the cycle of abuse could be broken (Egeland, et al, 1988). Most research into attachment is conducted solely on mothers and does not include fathers or other caregivers (Schelbe & Geiger, 2017). Fathers who are present in the family home and have better mental wellbeing were found to safeguard against mother's poorer mental health on their child's behavioural and emotional problems (Kahn, Brandt & Whitaker, 2004). This could indicate that a

healthy attachment to the father can be protective for a child's development if their attachment to the mother is poorer. Further research is needed to empirically explore the role of attachment to fathers and how this can be applied to the ITCM.

1.1.6.2. Social Learning Theory

Social Learning Theory (SLT) is "*primarily concerned with an individual's learning through cognitive processes, modelling, and social observation*" (Bandura, 1977, cited by Schelbe & Geiger, 2017, p.16). This theory can help explain how maltreatment can transmit across generations (Schelbe & Geiger, 2017). For example, a child might learn how to behave and conduct themselves through observing parents. They may imitate or display similar behaviours as their parents in similar circumstances. The child's behaviours are then reinforced through parent giving rewards or punishments. Although aggressive and violent behaviours have negative consequences, children observe the actions of abusive parents as gaining control or rewards and therefore they are perceived as effective tools (Jennings, Park, Tomsich, Gover & Akers, 2011). The abusive parent becomes a negative role model for the child, and learnt behaviour can continue into adulthood and subsequent parenting styles. The SLT is a useful theory for explaining how children learn adaptive and maladaptive behaviours from their parents however, a limitation of the theory is its failure to account for external environment factors that may shape parenting attitudes which also contribute to child maltreatment and the ITCM (Schelbe & Geiger, 2017).

1.1.6.3. The theory of intergenerational transmission of trauma

This theory hypothesises that trauma and its impact can be passed on through generations (Schwerdtfeger & Nelson Goff, 2007) and can affect an individuals'

ability to form meaningful relationships with family members. The theory proposes that traumatised adults may become unavailable to meet their needs physically and emotionally, increasing the risk of a child developing difficulties in later life (Walker, 1999). Parents who have experienced trauma or adversity might cause their child to develop trauma symptoms either through direct exposure of their parents' symptoms or through the parents' potential abusive behaviour. Violence, abuse or abandonment could hinder a parent's ability to recognise distress and respond sensitively to their child, resulting in a repeat of their own childhood adversities (Fraiberg, Adelson & Shapiro, 1975). The trauma-informed perspective proposes that most individuals accessing services for mental health, substance misuse, criminal justice and social services have experienced some form of adversity and threat in their past and possibly current lives (Johnstone & Boyle, 2018). The symptoms that might follow these experiences can lead to increased emotional arousal, potential irritability or outbursts of anger due to their increased 'threat system' and sense of danger (Gilbert, 2009). This may increase their risk of impulsive aggression towards their children.

Many theories of trauma define incidents more broadly than child maltreatment and focus more on PTSD such as accidents, witnessing a natural disaster or other unusual or extreme situations (Sullivan, Fehon, Andres-Hyman et al, 2006; Johnstone & Boyle, 2018). More research is needed into parents experiencing symptoms following a traumatic or adverse event which might have developed following child maltreatment and the impact this has on the parent-child relationship and insecure attachments (Hamilton-Giachritsis & Pellai, 2017). This theory helps to describe how parents' symptoms of trauma can directly or indirectly impact their children. In addition, parents' hyperarousal and intrusion

as a result of traumatic experiences could lead to the perpetration of child maltreatment, particularly physical and emotional abuse through their heightened sense of threat (Gilbert, 2009).

1.1.6.4. Parents who break the cycle of abuse

Egeland et al (1988) found that abused mothers were able to break the cycle of abuse if they received more emotional support from a nonabusive adult as a child, if they participated in therapy, or had a nonabusive, more stable and supportive relationship with an intimate partner during adulthood. Abusive mothers were found to have experienced significantly more life stressors and were more anxious, dependent, immature and depressed. They concluded that despite the strong impact of early maltreatment, change is possible with intervention, and the formation of supportive intimate relationships. These findings are supported by Jaffe et al's (2013) study which found that "*safe, stable, nurturing relationships between intimate partners and between mothers and children are associated with breaking the cycle of abuse in families*" (p.S4).

Thornberry et al (2013) defines a protective factor as a "*variable that decreases the likelihood or level of a problematic outcome among those at risk*" (p.S28). Parental resilience is the ability to manage stress and everyday challenges despite their past experiences (Schelbe & Geiger, 2017). Factors such as an individual's personality, parenting techniques and the ability to learn from their own experiences are all seen as ways to 'interrupt' the ITCM. Knowledge about child development and having realistic expectations of children are important to understand and manage children's behaviours and emotions. Competence as well as appropriate discipline, warmth, empathy and care are core features of healthy parenting (Schaffer et al, 2009). Financial security has

also shown a reduction in the effects of parents' experience of maltreatment (Dixon et al, 2009). Interestingly, the notion of experiencing child maltreatment in itself can act as a protective factor. Parents who have been exposed to violence often show an incredible amount of resilience through emotional intelligence, empathy, initiative and motivation (Klika & Herrenkohl, 2013). Social support and positive relationships, insight, independence, initiative, creativity, humour, morality and spirituality have all been identified as key factors that contribute to individual and family resilience (Leitz, 2006).

Woods-Jaeger et al (2018) indicated that parents who aspired to improve their children's lives as well as nurture and support them, were at a greater chance of breaking the cycle of abuse. They found these protective factors and strengths were key when developing and implementing interventions to promote resilience among abused parents. Parenting interventions which aimed to foster parent-child attachments and teach positive discipline approaches were not found to be as effective in traumatised parents (Ammerman et al, 2012; Silverstein et al, 2011).

1.1.7. Why fathers are neglected in this field

Despite the vast literature base into the ITCM in parents, many scholars overlook the need to include fathers in the equation (Stone, 2014; Laulik, Chou, Browne & Allam, 2013; Smith, Duggan, Bair-Merritt & Cox, 2012). Research has been found to be "*almost exclusively focussed on mothers*" (DeHay, 2008, p.19) despite fathers being more likely to perpetrate severe maltreatment especially sexual abuse and IPV (Radford et al, 2011).

Haskett, Marziano and Dover (1996) conducted a systematic review between 1989 and 1994 into studies of child maltreatment. They found that

abusive fathers comprised only 23% of all perpetrators studied and were rarely compared empirically to abusive mothers. This underrepresentation appears to still be the case over 20 years later, with scholars recognising that studies are continuing to focus on the ITCM in mothers (Schelbe & Geiger, 2017; Stone, 2014; Laulik, Chou, Browne & Allam, 2013; Smith, Duggan, Bair-Merritt & Cox, 2012). When fathers are included in studies, the authors do not disaggregate their findings from mothers to determine gender differences (Schaeffer et al, 2005; Afifi & MacMillan, 2011). Assink et al (2018) found that out of 84 included studies into their review of ITCM, only 11 studies reported results for father samples (13.1%). Smith, Duggan, Bair-Merritt and Cox (2012) found that few fathers are included in child maltreatment prevention programmes and their Systematic Review only found two studies with above 50% paternal participation so they could not evaluate the programme's effectiveness for fathers.

Fathers are likely to be under researched because mothers are viewed as the primary caregiver and abusive fathers can be frightening for professionals and prevent them engaging in a meaningful way (Schourfield, 2006; Langeland & Dijkstra, 1995). Child protection workers often focus on mothers and avoid fathers due to fear of approaching "*drunken, abusive men*" (p.28, O'Hagan, 1997). These fathers are often being negatively stereotyped by child welfare workers who assume them to be uncommitted and uninvolved parents (Zanoni et al, 2014). Zanoni et al (2014) found evidence to the contrary in their study identifying fathers to be committed and involved in their children's care. The fathers in their sample experienced considerable amounts of psychological distress when their children were removed from their care.

Dubowitz et al (2001) highlight the importance of a father's involvement in their children's lives suggesting that it can be associated with enhanced child

functioning. The presence of fathers was found to be associated with greater cognitive development, social competence and fewer depressive symptoms in children. This was despite the quality of the relationship to their father. Simply having a father in the home can be a strong protective factor for children as opposed to some views that they are a risk factor for child maltreatment (Wilcox, 2006). Research and practice that is aimed at the prevention of child maltreatment should recognise the important role of fathers (Lee, Bellamy & Guterman, 2009).

1.2. Aims and unique contribution of this research thesis

As mentioned above, there is a dearth of research conducted into the ITCM in fathers and research into the impact that trauma has on fathers and the risk factors that increase the chances of fathers maltreating their children. This thesis aims to explore some of these unanswered questions. Given the large amount of literature examining the ITCM and cycle of abuse in parents, no specific review was found which complied all available research on this transmission of maltreatment in fathers. Consequently, Chapter Two of this thesis provides a systematic review and meta-analysis of the intergenerational transmission of child maltreatment in fathers, providing a unique contribution to knowledge. The aim of this review was to explore the impact that child maltreatment had on biological father's directly maltreating their own children and what the literature suggests might be reasons why this occurs. The review examined how child maltreatment had been assessed in fathers and how the maltreatment of their own children was assessed in the research studies captured. It is hoped that the findings will aid scholars and practitioners to gain greater understanding of the role that child maltreatment plays as a risk factor for father's maltreating their children and how this cycle can potentially be

broken through professional's support and intervention. Directions for further research from this review are discussed.

Chapter Two highlights the lack of stand-alone research exploring the ITCM in fathers and how most research is conducted into mothers alone, or both parents, without separating the findings. As a result, Chapter Three presents a primary empirical research study exploring the ITCM in fathers and whether their personality styles increase the risk. This study used retrospective data from psychological assessments for care proceedings which included self-reported measures and official records collected during my first and second placements of the Doctorate. In addition, personality styles were assessed using the Millon Clinical Multiaxial Inventory, Third Edition (MCMI-III, Millon, 1997). The sample of fathers who experienced childhood adversity and those who did not were examined with the aim to advance the lack of research conducted into the impact of childhood abuse found within the systematic review in the previous chapter. Limitations and directions for future research in this field are presented.

Chapter Four consists of a secondary empirical research study examining the impact of intellectual functioning on the ITCM. Using the same retrospective data from the primary empirical research study, participants who completed the Wechsler Adult Intelligence Scale – Fourth Edition (WAIS-IV, Wechsler, 2008) or the Wechsler Abbreviated Scale of Intelligence-Second Edition (WASI-II, Wechsler, 2011) were included in the analysis to determine whether childhood adversity impacts intellectual functioning and whether that plays a role in the maltreatment of their own children. Again, limitations of this research and directions for further research are considered.

Chapter Five presents a psychometric critique of the Childhood Trauma Questionnaire-Short Form (CTQ-SF, Bernstein & Fink, 1998). This chapter provides a critique of the psychometric properties of the CTQ-SF in terms of its development, scientific properties, and its clinical and research uses in the context of its use with fathers to determine its effectiveness in future research into the ITCM in fathers.

This thesis is concluded by Chapter Six; a discussion detailing how the individual chapters have advanced the literature around ITCM by examining how knowledge about fathers might assist the development of more effective management, prevention and intervention against further maltreatment of children.

Chapter Two: Understanding the Intergenerational Transmission of Child Maltreatment in Fathers: A Systematic Review and Meta-analysis

2.1. Abstract

This review systematically examined the intergenerational transmission of child maltreatment (ITCM) in fathers. Following PRISMA guidelines, this review aimed to explore whether experiencing maltreatment in childhood impacts the perpetration of maltreatment towards their own children in fathers, and whether one type of maltreatment experienced can predict the same type of maltreatment being perpetrated. This review incorporated 16 studies, including 17373 fathers. The Childhood Trauma Questionnaire (CTQ, Bernstein et al, 1994) was the most commonly used psychometric tool for measuring childhood experiences of maltreatment and the Conflicts Tactics Scale (CTS, Straus, 1979) was the most commonly used psychometric tool to examine the perpetration of abuse. The included studies provided support for the ITCM in fathers, with 75% of included studies providing significant associations between fathers' experiences of childhood maltreatment and the perpetration of maltreatment on their own children. In addition, the meta-analysis revealed that experiencing physical abuse and/or corporal punishment was found to be a predictor of perpetrating physical abuse in five studies. However, the findings of this review are potentially limited due to publication bias. This review showed a lack of existing literature on the ITCM in biological fathers being analysed separately to determine whether their experiences impact their behaviour in different ways to mothers or other caregivers. Directions for future research and recommendations for how to improve the methodological quality are discussed.

2.2. Introduction

The principle that a cycle of maltreatment can be processed across generations has appeared in the literature on child maltreatment as early as the 1940s (Curtis, 1963; Schelbe & Geiger, 2017). Kempe, Silverman, Steele, Droegemueller & Silver's (1962) research into the "*battered child syndrome*" suggested that there was "*some suggestion that the attacking parent was subject to similar abuse in childhood*" (p.145). They highlighted that these patterns of parenting are learned behaviours that have been passed among generations and remain largely unchanged. Whilst this notion has been supported by a large evidence base, there is a caveat to suggest that not every child who is maltreated will go onto abuse their child (Hunter & Kilstrom, 1979). In addition, a vast majority of the research into child maltreatment in parents is conducted using a sample of mothers (Schelbe & Geiger, 2017; Laulik, Chou, Browne & Allam, 2013; Smith, Duggan, Bair-Merritt & Cox, 2012).

2.2.1. Defining Child Maltreatment

The term 'child maltreatment' encompasses various forms of neglect and abuse of a child including physical, emotional and sexual abuse and neglect (which includes physical and emotional neglect, Schelbe & Geiger, 2017). It can have serious impacts on both the victims and society (Assink et al, 2018). The estimated prevalence rates based on self-report studies have been cited as 12.7% for sexual abuse, 22.6% for physical abuse, 36.3% for emotional abuse, 16.3% for physical neglect and 18.4% for emotional neglect (Stoltenborgh, Bakermans-Kranenburg, Alink & Van IJzendoorn, 2015). Child maltreatment can have short- and long-lasting effects on the victims into adulthood including trauma symptoms, mental disorders, substance misuse problems and violence

and crime (Briere & Elliott, 2003; English, 1998; Gilbert et al, 2009; Afifi & MacMillan, 2011). Child maltreatment has often been found to be associated in the literature with the perpetration of maltreatment against children by their parents (Thornberry, Knight & Lovegrove, 2012; Ertem, Leventhal & Dobbs, 2000). However, adverse childhood experiences do not necessarily suggest that the victim will develop into a maltreating parent (Dixon et al, 2005; Pears & Capaldi, 2001) and there are a number of risk and protective factors in both the child and parent that might alter this transmission rate.

2.2.2. Theoretical models of the intergenerational transmission of child maltreatment

There are many theoretical models which attempt to explain why a parent who experienced child maltreatment might go onto perpetrate maltreatment towards their own children (Schelbe & Geiger, 2017). The Social Learning Theory (SLT, Bandura, 1977) is used throughout this review to help describe how children might imitate or display similar behaviours through observing their parents. These behaviours are reinforced by parents through rewards and encouragements or punishments. Even negative behaviours that might not be encouraged might be observed by children as effective tools for gaining control or rewards (Jennings et al, 2011). Therefore, the abusive parent becomes a role model for the child, particularly if they are the same gender as the child (Stone, 2014). If unchecked, these behaviours might then continue into adulthood and subsequently, parenthood.

2.2.3. Current review

This review attempted to provide some understanding of the prevalence of the intergenerational transmission of child maltreatment (ITCM) in fathers, as well

as whether the type of maltreatment experienced results in perpetrating the same type of maltreatment. This review only explored the literature including biological fathers because there is a lack of research into the ITCM in fathers and the focus is mainly on mothers or both parents (Stone, 2014; Ertem et al, 2000; Assink et al, 2018; Thornberry et al, 2012). The vast majority of violent and sexually violent offenders are male with only 15% of all individuals arrested being female (Ministry of Justice, 2017). This is in comparison to female children being more likely to be victims of sexual abuse (Alter-Reid, Gibbs, Lachenmeyer, Sigal & Massoth, 1986; Wellman, 1993; Felitti et al, 1998). Gender differences are well established in the perpetration and victimisation of crime yet the differences between maternal and paternal experiences and perpetration of maltreatment are less known. By reviewing all available data systematically, this review aimed to reduce limitations acknowledged in previous studies and increase the possibility of generalising the findings to fathers specifically rather than parents or mothers only.

Previous systematic reviews and meta-analyses were searched for during December 2018 and again during November 2019 using the Cochrane Library, the Campbell Collaboration, Google Scholar, PsycINFO, ASSIA and University e-Theses archive. Systematic reviews were found which explored the association between parents' child maltreatment and later perpetration of maltreatment (Ertem et al, 2000; Thornberry, Knight & Lovegrove, 2012; Malvaso, Delfabbro & Day, 2015; Assink et al, 2018) or the ITCM in mothers (Stone, 2014). Ertem et al (2000) established eight methodological criteria that studies should meet in order to provide valid evidence of the continuity of physical abuse. They found that evidence for the intergenerational transmission of physical abuse was found when studies met their methodological criteria, but otherwise no association was

found. They suggested that future research needs to increase the methodological validity of their study to conclude whether the ITCM exists. However, their 10 included studies included a population of solely females in five of the studies and both males and females in the remaining five studies.

Thornberry et al (2012) extended Ertem et al's (2000) systematic review by including more methodological criteria (11 in total) and using multiple types of child maltreatment. They found a small and methodologically weak body of literature into the cycle of maltreatment. They suggested that future studies should adhere to their methodological criteria if the literature is to have "*robust scientific evidence about the cycle of maltreatment hypothesis*" (p. 21). Thornberry et al (2012) do not explicitly state the gender of the populations included in all of their 47 included studies but some studies included used only a population of mothers (Egeland et al, 1988; Renner & Slack, 2006; Berlin et al, 2011). Malvaso et al (2015) reported that researchers need to explore more than direct relationships between maltreatment and offending to identify mediating factors that could mitigate or exacerbate the risks.

Assink et al (2018) conducted a 3-level random-effects meta-analysis on 84 studies and found a medium summary effect for the ITCM. This suggested that parents who experienced childhood maltreatment are almost three times more likely to maltreat their children than parents without childhood experiences of maltreatment. They found the smallest transmission rate in children who experienced physical abuse. Assink et al (2018) included 54 studies of mothers only, 11 on fathers only and 27 on both mothers and fathers. Whilst these reviews have expanded the evidence for the ITCM and have attempted to increase the validity of future studies, few have examined possible gender differences in this concept. Stone (2014) conducted a systematic review on the

ITCM in mothers and found that only 30% of included studies found a direct link between a maternal history of childhood abuse and the perpetration of abuse against their own children.

The findings from previous systematic reviews and empirical research into the ITCM is mixed. This review aimed to expand on previous research by exploring what available literature exists for the ITCM in fathers who have generally been underrepresented in this area (Schelbe & Geiger, 2017; Afifi & MacMillan, 2011). Schaeffer et al (2005) found that research into the ITCM and child maltreatment either excludes fathers from the data or does not disaggregate their findings from mothers. This review only included studies where the analyses include outcomes for biological fathers separately from mothers or non-biological fathers.

This review only explored the cycle of maltreatment; the cycle of violence is outside the remit of this review. Therefore, studies including delinquent behaviours, violent crimes, and intimate partner violence were excluded, other than how it connects to child maltreatment as stated in Schelbe and Geiger's (2017) book. In addition, this review did not explore the mediating and/or moderating factors that might weaken or strengthen the ITCM in fathers.

2.2.4. Rationale and Review Questions

First, this review attempted to provide an overview of how the ITCM has been assessed in fathers and whether there is an association between experiencing maltreatment in childhood and perpetrating maltreatment as a father. The implication of these findings may allow practitioners working with these families to make judgements on the most suitable treatment targets for fathers who have abused, or are at risk of abusing, their children. This review focussed on

biological fathers because existing research is conducted mainly on mothers, step-fathers or parents and there are few studies which separate biological mothers and fathers to establish if they are impacted by child maltreatment in different ways and how practitioners can protect their children from any potential, or further, harm.

This review also aimed to determine whether the type of maltreatment experienced in fathers can predict the type of maltreatment that their children might experience. This will assist professionals assessing the risk to children and ensure they are able to establish prevention and intervention techniques to reduce the risk of further maltreatment and help to break the cycle in at risk families.

In summary, this review aimed to answer the following questions:

1. Does the intergenerational transmission of child maltreatment exist in fathers?
2. Do fathers who were maltreated in childhood perpetrate the same maltreatment type with their own children?

2.3. Method

2.3.1. Search Strategy: Sources of Literature

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines (PRISMA, Moher, Liberati, Tetzlaff, & Altman, 2009) was following throughout this review. Although PRISMA focuses on randomized trials, it can also be used as a basis for reporting systematic reviews of other types of research, particularly evaluations of interventions (Moher et al, 2009). There were no exclusions based on publication date to allow a breadth of research studies to be included. Various methods were adopted to source appropriate

literature, to obtain both published and unpublished material from psychology, social sciences and biomedical disciplines. Literature sources included electronic bibliographic databases:

1) OVID: PsycINFO (Completed on 26th July 2019)
2) OVID: PsycARTICLES (Completed on 26th July 2019)
3) OVID: EMBASE (Completed on 26th July 2019)
4) OVID: MEDLINE 1946 to present (Completed on 26th July 2019)
5) PROQUEST: Applied Social Sciences Index & Abstracts (ASSIA, Completed on 26th July 2019)

Contact with four experts in the field was attempted. Only one expert responded and confirmed that they could not provide any additional published or unpublished research in the field. Forward and backward hand searching from the reference list and citations of Thornberry et al (2012) was completed which resulted in an additional 240 articles being obtained and exported to Mendeley, however not all of these met the inclusion criteria.

2.3.2. Search Strategy: Search Terms

An initial scoping search provided an overview of literature of relevant studies and identified key search terms used. The search strategy was developed from these terms. Medical Subject Headings (MeSH) were used to find related terms, and truncations were used to identify differences in spelling and grammar. The final search terms were modified for each database due to differences. The search syntax used in each database is described below however the full search syntax is in Appendix A (page 213).

{child abuse} or {child* maltreatment} or {adolescen* maltreatment} or {maltreated child*} or {abused child*} or {physical abuse} or {sexual abuse} or {emotional abuse} or {neglect} or {child welfare} or {child custody} or {looked after child*} or {child protection} or {child* trauma} or {child* adversity}*

AND

Parenting or parent or father* or caregiver* or {male parent} or paternal*

AND

Transgeneration or intergeneration* or {transition pattern$} or {family relation$} or {intergenerational cycle of abuse} or {cycle of abuse} or {cycle of maltreatment} or {perpetration of abuse} or {perpetration of maltreatment*

2.3.3. Study Selection

The results of the searches from each database were exported to Mendeley, a reference management software, where duplicates could easily be removed. Existing systematic reviews and meta-analyses were excluded, then titles were screened and excluded if they clearly did not meet the inclusion criteria. Abstracts were reviewed to exclude further irrelevant references. The full texts of the remaining studies were reviewed and either excluded or sorted into folders using an inclusion/exclusion form (See Appendix B, Page 217). See Table 2 for the Population, Exposure, Comparator, Outcome (PECO) inclusion and exclusion criteria used. See Appendix D (Page 221) for some examples of excluded studies and reasons for exclusion. See Figure 1 for a flowchart of studies excluded by eligibility screening.

Table 2: Inclusion and Exclusion Definitions

Population	Include: Males over the age of 18, who have had at least one child. This can be from studies looking at both parents if they report separate analysis of fathers. Exclude: Studies that include mothers only or where the data only includes parental abuse cannot be separated. In addition, studies where abuse was perpetrated by another caregiver (e.g. step-father, mother's boyfriend/partner, sibling, extended family member) will be excluded.
Exposure	Include: Measurement of fathers having experienced some form of childhood adversity including physical abuse, emotional abuse, sexual abuse, and/or neglect. Maltreatment is limited to that which occurred in childhood or adolescence e.g. before the age of 18 years old. This can be self-reported abuse or official file data. Exclude: Other traumatic experiences during childhood such as bullying and witnessing war or domestic violence, abuse experienced as an adult such as experiencing domestic violence/abuse, harsh parenting.
Comparator	Not Applicable.

Outcome	Reports of subsequent perpetration of abuse to their children. This can include studies examining the perpetration of physical abuse, emotional abuse, sexual abuse, and/or neglect to their own children. This is not limited to any measurement method, and both self-report measures and official records of maltreatment against their children. Exclude: Perpetration towards any other child (including non-biological), measures of child abuse potential rather than actual child abuse, harsh parenting, intimate partner violence unless categorised into a form of child abuse.
Study type	Include: Cohort, cross-sectional, longitudinal, case-control and case series design studies. Exclude: Review, evidence synthesis, opinion papers (e.g., editorials, commentaries, etc.) qualitative studies, and single-case experimental designs were excluded.
Language	Include: English language papers. Exclude: Any articles that were not translated in English.
Date of publication	Any.

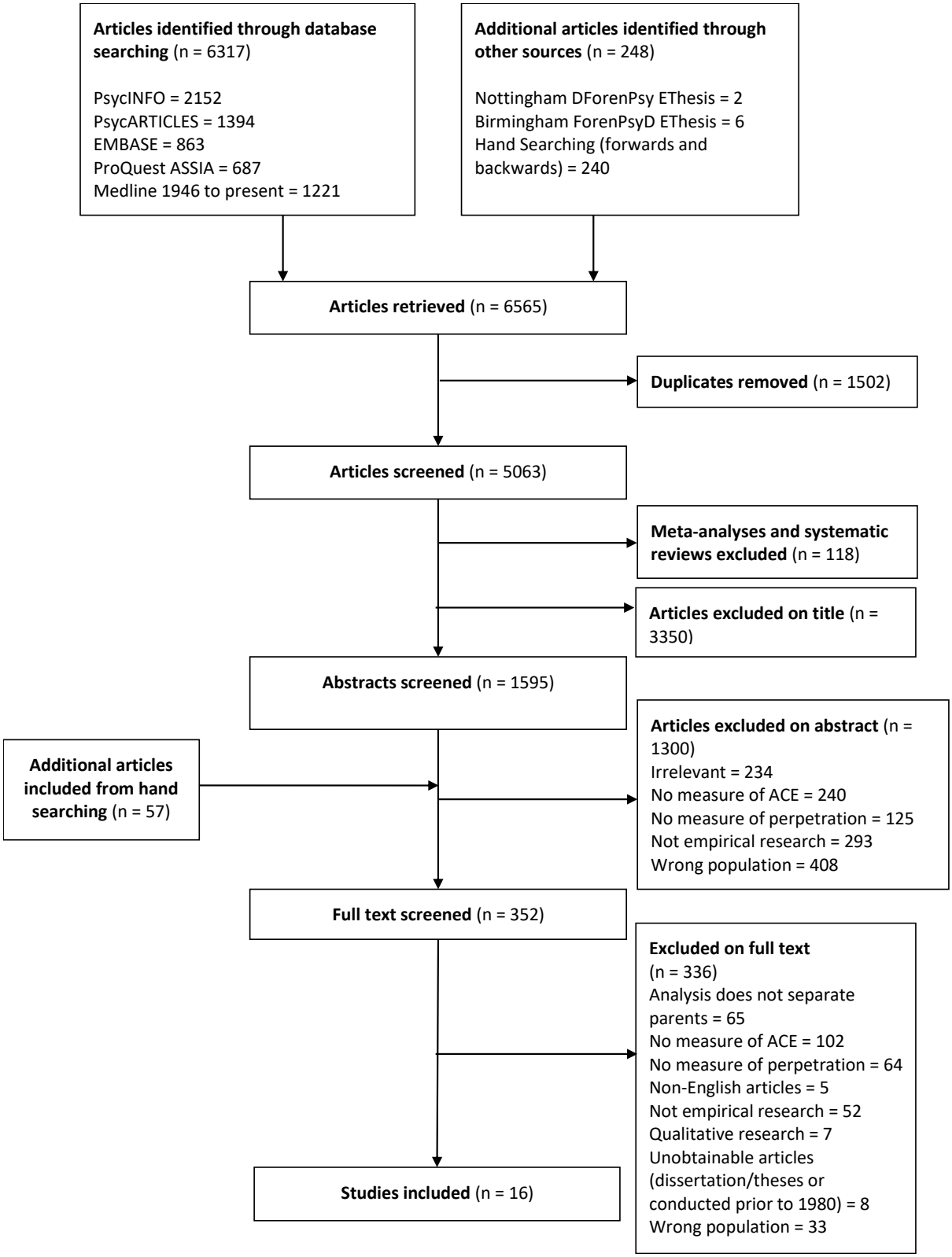


Figure 1: Flowchart of studies excluded by eligibility screening

2.3.4. Quality Assessment

During the quality assessment stage, an adapted form from the Critical Skills Appraisal Programme (CASP, 2013; See Appendix C, Page 218) was used to gauge the quality of the included articles. In addition, the 11 methodological criteria adopted by Thornberry et al (2012) were included in the quality assessment. See Table 3 below for the criteria that were applied to establish whether a study offers a valid assessment of the ITCM.

Table 3: Thornberry et al (2012) 11 methodological criteria

1.	A sample that is representative of a general population
2.	A satisfactory participation rate and low levels of attrition
3.	Maltreated and non-maltreated sample members in the focal generation
4.	Assessment of the maltreatment status for the comparison group
5.	Controls for the antecedent factors that may affect spurious relationships
6.	Prospective data
7.	Different reporters of maltreatment for each generation
8.	The same exposure period for treatment and comparison groups
9.	Follow-up over an extended portion of the life course
10.	Measures of maltreatment with proven validity and reliability
11.	A clear definition of maltreatment.

The author assessed the quality of all included studies and then cross-checked the rating by Thornberry et al (2012) on any studies that were included in both reviews to increase the inter-rater reliability of these studies. The author reached 100% agreement with the ratings of Thornberry et al (2012) in their review. Following this, a second reviewer (a trainee forensic psychologist from the University of Nottingham) assessed a random sample of 31% (n=5) of

included studies independently, to ensure reliability and transparency to the process. An intra-class correlation of .90 was achieved, which falls in the excellent range (Fleiss, 1986). Any differences were discussed, and an agreement was reached between the two reviewers.

2.3.5. Data Extraction

A data extraction form was used to obtain data on study characteristics such as sample size, country, study population, childhood maltreatment measures and measures of perpetration, as well as participant characteristics, including type of caregiver, age and age ranges (See Appendix E, Page 223). The reported scores for the childhood maltreatment measures were also reported (where possible). The data extraction process was reviewed by the same second reviewer who assisted with the quality assessment to reduce the likelihood of human error. Authors were contacted to obtain or clarify missing data where required. If unsuccessful, this was left blank to denote its absence.

2.4. Results

As can be seen in Figure 1, the remaining 16 studies were included in the final review. Six out of a possible 47 (12.8%) studies in Thornberry et al's (2012) systematic review were included in this review (Hunter & Kilstrom, 1979; Sidebotham et al, 2001; Smith & Adler, 1991; Heyman & Smith Slep, 2002; Straus, 1979; Ball, 2009). However, 26 studies (55.3%) in Thornberry et al's (2012) review were conducted on mother's only and therefore excluded. 13 (27.7%) studies from Thornberry et al's (2012) review could not be included in this review because the analysis did separate the analysis on parents. The remaining two studies included in Thornberry et al's (2012) review were excluded on full text for having no measure of adverse childhood experiences

and for being unobtainable. Four of the included studies in this review (25%) were published after Thornberry et al's (2012) paper was published.

2.4.1. Quality Assessment

All included studies were assessed for quality. Most studies used a cross-sectional study design (n=10), three used case control and three used cohort study designs. Only three (18.8%) of the studies used prospective data, which is seen as a methodological strength of studies examining the ITCM (Thornberry et al, 2012). Each question was scored as 'yes' (2 points), 'partial' (1 point) or 'no' (0 points). Questions were scored as 'unclear' (?) if not enough information was provided to effectively rate the question. Quality scores ranged from 27-51 out of possible 64 (mean = 38.3, SD = 7.14, maximum score = 51). The overall quality score was 59.9%. See Table 4 for a summary of quality assessment scores. See Appendix F (Page 225) for a detailed table of quality assessment outcomes per study. Measurement bias was the most common form of bias indicated from the quality assessment, followed by sampling and selection bias and attrition bias. The least common bias was statistical bias. These will each be discussed in turn.

2.4.2. Sampling and Selection Bias

Sampling and selection bias ascertains how far the participants included in the study represent the target population, and how generalisable the results of the study are. Almost half of the included studies (7 studies, 43.8%) sourced data from an adequate number of participants who were identified as biological fathers (n = ≥200). Unfortunately, one study (Straus, 1979) did not separate the sample size for parents so the number of fathers could not be reported in this review.

13 studies (81.3%) recruited parents from community settings and 9 of these (56.3%) collected data from a nationally representative sample within the general population. In the remaining four studies, data were collected as part of home visiting and/or parenting programmes due to the families involved in Child Protection Services (CPS, e.g. Duffy et al, 2015; Gordon et al, 2011), as part of a Court-mandated CPS involvement (Dixon et al, 2007) and from an elementary school (Wang et al, 2018). One study collected data from prison (6.3%, Ball, 2009) and the remaining two studies collected data from general hospitals where the child had been admitted due to non-accidental injuries (12.5%, Hunter & Kilstrom, 1979; Smith & Adler, 1991). Just over half of the included studies (n=9) obtained data from a nationally representative sample of parents in the community which suggests that they can be generalised to the wider population of fathers. The results of the other seven studies (43.75%) only represent aspects of the cohort and may not be able to be generalised to the wider population of fathers.

The quality assessment demonstrated that, generally, studies using a cohort design exhibited a lower risk of sampling bias compared to cross-sectional and case control studies. The included studies could be improved by clearly reporting their use of power calculations to determine whether the findings have achieved the correct power to detect the desired outcomes. Only one study (Gordon et al, 2011) reported power calculations in their paper, the remaining papers either did not complete power calculations, or it was unknown whether they did because it was not clearly reported in the article.

2.4.3. Exposure Measurement Bias

Exposure measurement bias ascertains whether the tools used to assess experiences of maltreatment were objective and reliable. Only six studies (37.5%) used validated psychometric measures of maltreatment which were clearly described. Five studies used self-report data collected as part of demographic data, three studies used semi-structured interviews collected from trained professionals (social workers, child psychiatrists, researchers), one study used substantiated and unsubstantiated observations from social workers and one study used a combination of CPS reports and semi-structured interviews with the family by a trained professional (Duffy et al, 2015). Studies which used psychometric measures of maltreatment (as recommended by Thornberry et al, 2012) obtained higher scores on the exposure measurement quality assessment for their reliability and validity and their clear descriptions of the measure. In addition, Duffy et al's (2015) study demonstrated stronger objectivity in measuring maltreatment due to their dual method of obtaining CPS reports and self-report information from the fathers. Future studies should give explicit definitions regarding the type of maltreatment experienced that they are measuring and should strive to use validated and reliable psychometric measures of maltreatment and, as far as possible, also official records of fathers' history of maltreatment from CPS records to confirm self-reported information.

2.4.4. Attrition Bias

Attrition bias occurs when participants choose to no longer take part in a research study or a research study does not report drop-out rate or reasons for participants dropping out. 10 studies (62.5%) reported drop-out rates, and seven (43.8%) reported reasons for participant drop-out. This indicates that

future research would benefit from clearer reporting of drop-out rates to ensure that the sample is representative rather than biased to participants who are more motivated to engage in research.

2.4.5. Statistical Bias

All but one study (Hunter & Kilstrom, 1979) clearly reported their analyses and results and they were deemed appropriate to the study design. Only six studies (37.5%) reported that they had accounted for confounding variables. It would be beneficial if future research identified whether they have accounted for confounding variables to control for further statistical bias. This is particularly important in research into the ITCM due to numerous confounding variables being found in previous research such as early parenting (Dixon et al, 2005; Sidebotham et al, 2001; Valentino et al, 2012), parental mental health (Pears & Capaldi, 2001; Thompson 2006; Berlin et al, 2011) and parental substance misuse (Chaffin, Kelleher & Hollenberg, 1996; Appleyard, Berlin, Rosanbalm & Dodge, 2011; Dixon, Browne & Hamilton-Giachritis, 2009).

2.4.6. Study and Participant Characteristics

This review of 16 studies combines data from 17373 known biological fathers out of 28837 parents (60.2%). Four studies (25%) used only biological fathers in their sample (Ball, 2009; Duffy et al, 2015; Schluter et al, 2011; Gorden et al, 2011) and the rest included mothers and non-biological fathers. Only eight studies (50%) separated fathers who were maltreated and those who were reportedly not maltreated. Of these studies, data from 1908 maltreated fathers and 867 non-maltreated fathers were included. 1839 fathers who perpetrated maltreatment were obtained from eight studies but only 667 fathers in the control group (no maltreatment perpetrated) were obtained from six studies. It

is possible that participants overlapped in the Newcomb and Locke (2001) and Locke and Newcomb (2004) studies, hence the above figures do not include sample sizes from either study. Data available on fathers ages ranged from 15 to 65 but this information was only available for seven studies (43.8%). Considering the diversity amongst ages of participants, it may be challenging to generalise the results of the included studies to a specific population of fathers with experiences of child maltreatment. Furthermore, it was not possible to determine the age ranges for fathers based on whether they experienced maltreatment as children (exposure) or whether they perpetrated maltreatment (outcome) because there was very limited data on this.

The studies were carried out between 1975 and 2017 and publication dates ranged from 1979 to 2018. Fathers were recruited from eight different countries: USA (nine studies), UK (two studies), Canada (one study), China (one study), Australia (one study), Finland and Sweden (one study) and New Zealand (one study). Therefore, there was an over-representation of a North American population. Data on study and participant characteristics are presented in Table 5 below.

Table 4: Study and Participant Characteristics

Reference	Country	Year study was conducted	Setting	Study Type	Sample (N)	Age M(SD) Range
Ellonen, Peltonen, Pösö & Janson (2017)	Finland and Sweden	2011	Community	Cross-sectional	4504 parents 679 fathers	5 >29 40 = 30-39 44 = 40-49 10 <50
Wang, Wang & Xing (2018)	China	2009	Community	Cross-sectional	1596 parents 785 fathers	39.14 (3.73). No range
Hunter & Kilstrom (1979)	USA	1975	General hospital	Cohort	255 parents 26 fathers known to have experienced maltreatment	Not reported (unable to contact authors for age ranges)
Duffy, Hughes, Asnes & Leventhal (2015)	USA	2008	Community	Case Control	131 fathers	Not reported (no response from contacting authors)
Sidebotham, Golding & the ALPAC Study Team (2001)	UK	1998	Community	Case Control	14138 parents 11684 fathers (author confirmed total sample of fathers via email)	139 = 15-19 1208 = 20-24 3921 = 25-29 2537 = 35-65 (author confirmed partner's age at birth of

						child)
Locke & Newham (2004)	USA	1997	Community	Cross-sectional	318 parents 81 fathers	34.9, no SD, Range = 33-37
Smith & Adler (1991)	Australia	1988	General hospital	Case Control	180 parents Abused families: 45 fathers Control families: 45 fathers	Abused families: 28.1, 8, No range Control families: 32.2, 9, No range
Heyman & Smith Slep (2002)	USA	1985	Community	Cross-sectional	2704 parents 1201 fathers	37.3, 8.8, No range
Schulter, Tautolo & Paterson (2011)	New Zealand	2002	Community	Cohort	825 fathers	91 <25 199 = 25-29 233 = 30-34 149 = 35-39 112 >40.

Straus (1979)	USA	Unknown	Community	Cross-sectional	1146 parents Reported half were fathers (approximately 573)	Not reported (no response from contacting the University)
Capaldi, Tiberio, Pears, Kerr & Owen (2018)	USA	2017	Community	Cohort	278 fathers	20.8, no SD Range = 20.0-23.0
Newcomb & Locke (2001)	USA	1997	Community	Cross-sectional	383 parents 100 fathers	34.9, no SD Range = 33-37
Ball (2009)	USA	Unknown	Prison	Cross-sectional	414 fathers	Approx. 30 years. 1.4% under 18.
Gordon, Iwamoto, Watkins, Kershaw, Mason & Judkins (2011)	USA	Unknown	Community	Cross-sectional	164 fathers	33.75, 7.87 Range = 17-59
Dixon, Hamilton-Giachritis, Browne & Ostapuik (2007)	UK	2003	Community (Court mandated assessments)	Cross-sectional	164 parents 75 fathers	For parents: 30, 8.14, Range = 17-56 Not reported for fathers

Dufour, Lavergne, Larriveé & Trocmé (2008)	Canada	2003	Community	Cross-sectional	1595 parents 402 biological fathers	For parents: Range = 31–40 2% of fathers were 'young' – otherwise not reported (author responded but was unable to provide demographic data for fathers)

2.4.7. Assessment method

2.4.7.1. Exposure measures:

Of the total studies, five measured childhood physical abuse (including corporal punishment), one measured traumatic sexual experiences, seven measured multiple types of maltreatment and three did not state the type of maltreatment measured or simply stated that a history of abuse or neglect in fathers was measured. Due to different types of maltreatment, a variety of psychometric and behavioural measures were utilised to explore fathers' experiences of maltreatment as children. Six studies used self-report psychometric measures, with the most commonly used being the Childhood Trauma Questionnaire (CTQ, Bernstein et al, 1994). The remaining studies gathered information on child maltreatment from semi-structured interviews by trained professionals (n=4), observational data from trained professionals (n=1), or from self-reported demographic data (n=5).

2.4.7.2. Outcome measures:

In terms of perpetration of maltreatment by fathers, different types of maltreatment were measured. Six studies explored the perpetration of physical abuse (including corporal punishment and non-accidental injuries), one explored neglect in their children, two explored poor parenting as a perpetration of maltreatment, three explored multiple types of perpetration of maltreatment, two did not specify and simply reported child abuse and neglect as the type of perpetration and two studies used CPS involvement as an outcome for the fathers' perpetration of abuse. Ten studies used psychometric measures, with the most commonly used being the Conflicts Tactics Scale (CTS, Straus, 1979) which was used in five studies as well as modified versions being in further three

studies. The only other psychometric measure used to measure perpetration was the Parental Acceptance and Rejection Questionnaire (PARQ, Rohner, Saavedra & Grunum, 1991). The remaining six studies measured perpetration of maltreatment using CPS records.

Data on study outcome and results are presented in Table 6 below.

Table 5: Study Outcome and Results

Reference	Exposure/ Measures Used	Outcome/ Measures Used	Main Findings
*Ellonen, Peltonen, Pösö & Janson (2017)	Corporal Punishment (CP) Self-report information gathered from demographic data	CP and severe physical violence Swedish modification of the CTS (Janson et al, 2011) Self-report psychometric	Fathers with childhood experiences of CP were at a higher risk of using severe physical violence towards their own children. OR=2.35 (95% CI: 1.03-5.34), p=.041
*Wang, Wang & Xing (2018)	CP Parent-Child CTS (Straus et al, 1998) Self-report psychometric	CP Parent-Child CTS and the ATPP Self-report psychometric	Strong evidence for the intergenerational transmission of CP in fathers as fathers who were subjected to CP in childhood were more likely to use it with their children than fathers who experienced no CP in childhood ($\chi2(1)=82.63$, $p<.001$). Attitudes towards physical punishment played a mediating role in the continuity of CP. The direct effect of childhood CP experiences on the current use of CP was significant for fathers after controlling for child gender ($\beta=0.47$, $p<.001$). After controlling for child's age and gender, attitudes towards physical punishment were positively related to CP experiences in childhood ($\beta=0.23$, $p<.001$).
Hunter & Kilstrom (1979)	History of abuse and neglect 24-item inventory of interviewer's questions (social worker or child psychiatrist) Self-report and	Multiple (Severe physical abuse or neglect) CPS (Child abuse and neglect reporting law for North Carolina)	44% of fathers who experienced childhood mistreatment (history of abuse or neglect) went onto abuse or neglect their children (severe physical abuse or neglect) but 55% of fathers who experienced childhood mistreatment did not abuse or neglect their children. No statistical analysis conducted.

	observational	Official records	
Duffy, Hughes, Asnes & Leventhal (2015)	Multiple (CPS history, DV history, MH history, criminal history) CPS reports or semi-structured interviews with parents Self-report and official records	Abuse and neglect – not stated CPS Official records	18% of included fathers had CPS history in childhood, 39% DV history, 13% CSA history, 19.5% had CPS involvement as a child. Paternal risk group OR=4.16** CI(1.57-11.01) Paternal DV history OR=5.71*** CI(2.06-15.8) Adjusted paternal risk OR=6.13** CI(1.89-20) DV history OR=11.23*** CI(3.33-38.46)
Sidebotham, Golding & the ALPAC Study Team (2001)	Multiple Questionnaire in the 'About Yourself' section and parental bonding instrument Self-report information gathered from demographic data	Registered and investigated children on the CPS register CPS Official records	A history of abuse in childhood was not a significant risk factor for fathers perpetrating child maltreatment. Significant factors in the father's background were age<20, lower educational achievement, having been in care during childhood and a history of psychiatric illness. Father sexually abused: OR=0.78, CI(0.09–6.51), p=0.82. Fathers' parents physically cruel: OR=1.37 CI(0.44–4.26), p=0.59 Fathers' parents emotionally cruel: OR=1.26, CI(0.44–3.67), p=0.67
Locke & Newham (2004)	Multiple CTQ Self-report psychometric	Poor parenting PARQ Self-report psychometric	Having experienced emotional neglect as a child predicted lack of parental warmth (β=-.24, p<.03). Experiencing emotional neglect predicted a parenting style characterised as indifferent neglect (β=.24, p<.03) and experiencing CSA predicted a greater rejecting style of parenting (β=.27, p<.02). Childhood maltreatment was not associated with substance-related

			problems.
Smith & Adler (1991)	Unknown Semi-structured interviews Self-report	Physical abuse (Non-accidental injuries) CPS Official records	Fathers in the abused sample were more likely to have been abused in childhood. 33.33% of the abused fathers reporting abuse as a child compared to 13.33% of the fathers in the control group reporting abuse as a child (p=.03).
Heyman & Smith Slep (2002)	Multiple (Exposure to violence in the family of origin: IPV, child victimisation and physical abuse) Self-report information gathered from demographic data.	Multiple (Child abuse, partner abuse and partner abuse) victimisation CTS Self-report psychometric	Violence in the family of origin was significantly associated with father-child abuse in the past year ($\chi 2(3, n=1244) = 10.07$, $p < .05$). NSD between one versus two forms of violence.
*Schulter, Tautolo & Paterson (2011)	Physical abuse EASE-PI Self-report psychometric	Physical abuse CTS Self-report psychometric	Fathers subjected to higher levels of physical abuse in childhood were significantly more likely to physically discipline their child with smacking than those with lower levels of abuse, after adjusting for confounding variables (OR=1.85, 95% CI: 1.38-2.47). Higher paternal and lower maternal levels of abuse were more likely to smack (OR = 1.53, 95% CI: 0.57-4.16). Lower paternal and higher maternal levels of abuse were more likely to smack their child even after adjusting for confounding variables (OR = 1.41, 95% CI: 0.73-2.75).
Straus (1979)	Multiple (Physical abuse and witnessing IPV)	Child abuse – type unknown	Fathers who were punished by their mothers have a child abuse rate that is double that of other men (14.2 vs 7.4). For fathers punished by their fathers, the rate was only 31% greater for

	Semi-structured interviews Self-report	CTS Self-report psychometric	other men (11.8 vs 9.0). Being a child of a father who hit his wife was associated with a 39% greater rate of child abuse than others (13.3 vs 9.7).
*Capaldi, Tiberio, Pears, Kerr & Owen (2018)	Physical abuse Abbreviated AE-III Self-report psychometric	Physical abuse Parent-Child CTS Self-report psychometric	NSD for physical abuse perpetration in fathers who experienced moderate maltreatment compared to no maltreatment. Fathers who experienced severe maltreatment perpetrated more physical abuse than those who experienced moderate maltreatment ($\chi 2=4.06$, $p=0.044$) but not fathers who experienced no maltreatment ($\chi 2=0.72$, $p=0.4$).
Newcomb & Locke (2001)	Multiple CTQ Self-report psychometric	Poor parenting PARQ Self-report psychometric	Child maltreatment predicted poor parenting ($p<.05$) Experiencing sexual abuse predicted rejecting parenting practices (particularly undifferentiated rejection, $p<.001$). Fathers childhood experience of physical abuse had a significant association with the perpetration of physical neglect on their children ($p<.05$).
*Ball (2009)	Physical abuse Modified version of the CTS Self-report psychometric	Physical abuse CTS Self-report psychometric	Incidences and severity of physical abuse experienced were significant in predicting perpetration of physical abuse even after controlling for confounding variables. Those who experienced mild physical abuse were more likely to perpetrate physical abuse than those who experienced severe physical abuse. Incidence: OR=5.565, b=1.717(SE=.553), $p<.05$ Mild severity: OR=6.90, b=1.931(SE=.566), $p<.05$ Severe severity: OR=4.748, b=1.558(SE=.560), $p<.05$
Gordon, Iwamoto, Watkins, Kershaw, Mason & Judkins	Traumatic sexual experiences Self-report information	CPS involvement CTS	Sexually traumatic experiences were associated with IPV ($r = .18$, $p<.05$), CPS involvement ($r=.24$, $p<.05$), and court restricted access to children ($r=.28$, $p<.01$). Fathers who

(2011)	gathered from demographic data.	Self-report psychometric	reported having a traumatic sexual experience were more likely to be involved with CPS (OR=9.97, p<.01).
Dixon, Hamilton-Giachritis, Browne & Ostapuik (2007)	Multiple (Physical and sexual abuse) Self-report information gathered from demographic data.	Multiple (Child maltreatment and witnessing IPV) CPS Official records	Fathers who perpetrated family abuse (paternal family, PF) were significantly more likely than fathers who perpetrated child maltreatment only (paternal child, PC) to experience childhood abuse (physical or sexual, $\chi 21=7.07$, p=0.008).
Dufour, Lavergne, Larriveé & Trocmé (2008)	Unknown (author was unable to confirm type of maltreatment) Observational data collected by social workers	Neglect CPS Official records	Mothers were significantly more likely to be maltreated as a child than fathers (X2=31.567, p=.0001). 11% (n=45) biological fathers were maltreated as children. NSD between surrogate and biological fathers and their experience of being maltreated as a child.

* = Studies included in the meta-analysis below.

*** = p<0.001, ** = p <0.01, NSD = no significant difference.

ATPP = Attitudes Towards Physical Punishment (Chang et al, 2008), DV = Domestic Violence, CSA = Child Sexual Abuse, IPV = Intimate Partner Violence, CPS = Child Protection Services, NAI = non-accidental injury, CTS = Conflicts Tactics Scale (Straus, 1979), LA = Local Authority, CTQ = Childhood Trauma Questionnaire (Bernstein et al, 1994), EASE-PI = Exposure to Abusive and Supportive Environment Parenting Inventory (Nicholas & Bieber, 1997), PARQ = Parenting Acceptance and Rejection Questionnaire (Rohner, 1991), AE-III = Abbreviated version of the Assessing Environments-III Questionnaire (Berger et al, 1988).

2.4.8. Narrative Synthesis

A narrative summary of the data is presented in this review and, for most types of maltreatment, this was the only method of analysis that was possible. This was due to differences across the studies, including variability in type of maltreatment in the exposure and outcome measures as well as different study designs, recruitment settings and analyses, which prevented statistical synthesis of those results. This meant a meta-analysis could not be performed on the entire data set or for subgroups due to heterogeneity of the studies to be combined into one pooled estimate (Blettner, Sauerbrei, Schlehofer, Scheuchenpflug & Friedenreich, 1999). However, a meta-analysis for the cycle of physical abuse is provided below.

Thornberry et al (2012) reported a clear definition of maltreatment was important in studies exploring the ITCM to ensure the readers can effectively interpret the study's findings and understand which type of maltreatment or abuse the study is investigating. Seven studies included a definition of maltreatment appropriate for their research aims (43.75%), either in the introduction or methods section. The remaining studies employed different definitions of maltreatment as well as using different types of maltreatment both in the exposure and outcome measures.

Twelve studies (75%) found significant associations between father's experiences of child maltreatment and the perpetration of maltreatment against their children finding evidence to support the ITCM. Two studies found partial associations between experiences and perpetration of maltreatment (Sidebotham et al, 2001; Dixon et al, 2007), indicating that there was evidence for this relationship in some factors and types of maltreatment but not others.

Two studies found no significant associations between experiences and perpetration of maltreatment (Hunter & Kilstrom, 1979; Dufour et al, 2008).

2.4.9. Meta-analysis

To increase homogeneity of reporting, only studies which included data on fathers who experienced physical abuse and/or corporal punishment and perpetrated physical abuse and/or corporal punishment against their children were considered in the meta-analysis. The two concepts have been included because corporal punishment is seen as a less serious but more commonly used form of physical abuse (Wang et al, 2018), however, it has led to similar negative child outcomes including the continuation of physical abuse. Corporal punishment is defined as the use of physical force to inflict pain but not injury when disciplining a child or controlling undesirable behaviours (Straus et al, 1998). This resulted in five studies being included in the meta-analysis (Ellonen et al, 2017; Wang et al, 2018; Schluter et al, 2011; Capaldi et al, 2018; Ball, 2009).

The meta-analysis was conducted using random effects model to account for the level of heterogeneity in the included studies. The five studies were entered into Review Manager (Cochrane Collaboration, 2014). An overall analysis of the effect of childhood physical abuse on the perpetration of physical abuse in the included studies found a significant overall model (K=5, N=2898, Z=3.71, p=.0002) with a pooled Odds Ratio (OR) of 2.34 (95% CI [1.49, 3.66]). However, there was statistical heterogeneity between effect sizes (t=0.19, $\chi 2$=30.52, df=4, p<.00001, I^2 = 87%). This indicates that fathers who experienced physical abuse in their childhood had a 2.34 times higher risk of using physical abuse towards their own children than fathers who did not report

experiencing any childhood physical abuse in the five included studies. A forest plot of the main effects is presented in Figure 2 below.

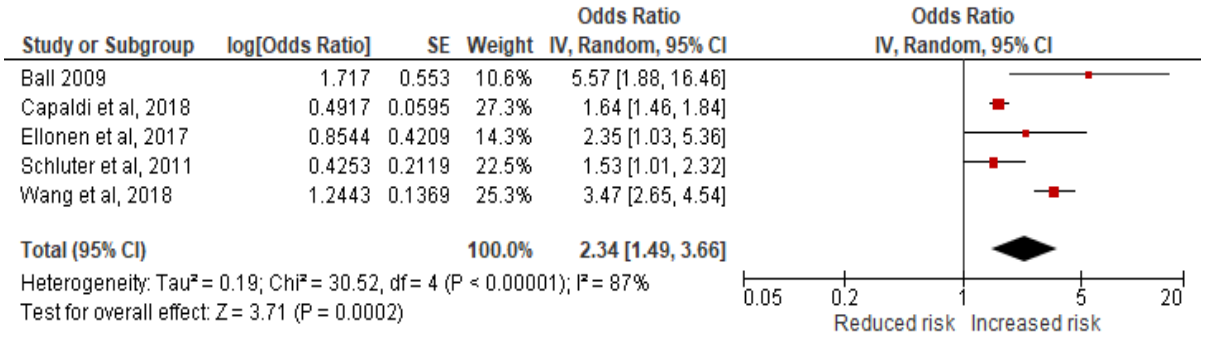


Figure 2: Forest plot of influence of physical abuse experiences on the perpetration of physical abuse

A funnel plot of effect sizes and the standard error of the log OR to examine publication bias was not conducted because it is not recommended to test for asymmetry with less than 10 studies. This is because the power is too low with fewer studies, reducing the ability to distinguish chance from real asymmetry (Debray, Moons & Riley, 2018).

2.5. Discussion

2.5.1. General Discussion

This review included sixteen studies examining the ITCM in parents based on their analysis of fathers alone or separate analyses of mothers and fathers. A wealth of literature was initially identified through comprehensive search terms. The restricted inclusion/exclusion criteria reduced the number from 6565 to 16 final included studies. The author attempted to source all available published and unpublished literature, from a variety of countries, reference lists were hand searched and professionals in the field were contacted.

This systematic review sought to answer two questions. First, does the intergenerational transmission of child maltreatment exist in fathers? Second, do

fathers who were maltreated in childhood perpetrate the same maltreatment type with their own children?

The review found evidence to support to first questions, with three quarters of the studies providing evidence to support the ITCM existing in fathers. In two of the studies, partial evidence was found to support the ITCM. Sidebotham et al (2001) found that fathers growing up in Local Authority care was a predictor for having their children registered on the CPS register but there were no further findings found for the fathers experiencing maltreatment being a predictor for their child's CPS involvement. In addition, Dixon et al (2007) found that fathers who perpetrated child maltreatment and violence towards their partner were more likely to have experienced maltreatment in their childhood than fathers who only maltreated their children. Whilst this finding does not support the ITCM, it does suggest that childhood maltreatment can result in more familial violence and abuse from fathers.

The systematic review found partial evidence for the second question, as three studies found an association between experiencing physical abuse and perpetrating physical abuse and two studies found that experiences of corporal punishment predicted the perpetration of corporal punishment as well as severe physical violence. As a result of this finding, a meta-analysis was conducted on the five studies which found evidence to support the intergenerational transmission of child maltreatment in both physical abuse and corporal punishment. The meta-analysis found that fathers who experienced either physical abuse or corporal punishment in their childhood had a 2.34 higher risk of using the same type of abuse that they experienced (physical or corporal punishment) towards their children than fathers who did not report experiencing these types of maltreatment in their childhood. It is important to note that

confounding variables such as early parenting, parental mental health and substance misuse might play a role in the ITCM (Dixon et al, 2005; Sidebotham et al, 2001; Pears & Capaldi, 2001; Appleyard, Berlin, Rosanbalm & Dodge, 2011; Dixon, Browne & Hamilton-Giachritis, 2009). Six studies (37.5%) in the systematic review clearly reported that they had adjusted their results for confounding variables, three of these were included in the meta-analysis (60%).

The finding above provided support for the social learning theory to explain the reasons why the ITCM continues in some families. Physical abuse is a behaviour that can be observed and is more objective than other forms of abuse. A child who experiences physical abuse or corporal punishment might grow up believing that this is an effective method of ensuring an individual complies with their requests and therefore may continue this behaviour into adulthood towards their intimate partners and also to their children when they become parents. The existing research on mothers and the ITCM is that the abuse both experienced and perpetrated is indirect. For example, mothers who have experienced abuse in childhood are more likely to expose their children to abuse and neglect due to insecure attachments resulting in them forming unhealthy relationships with peers, abusive men and their own children (Morton & Browne, 1998). This hypothesis suggests that fathers might be more likely to directly abuse their children physically based on their previous experiences in childhood. This theory links to previous research on gender differences within the cycle of abuse (Hartley, 2004).

With the remaining 11 studies not included in the meta-analysis it was harder to determine the type of maltreatment experienced and whether this was associated with the same type of maltreatment being perpetrated. This was because most of the studies examined multiple types of maltreatment and did

not specify whether the maltreatment experienced was the same as the maltreatment perpetrated. Whilst it is viewed as a benefit to incorporate multiple types of maltreatment experienced into research studies (Schelbe & Geiger, 2017; Thornberry et al, 2012), future research should aim to report whether the same type of maltreatment experienced will have a direct effect on the type of maltreatment perpetrated. This finding will be particularly important for professionals working with families to prevent maltreatment of children occurring in the first place but also to signpost fathers to access psychological intervention to reduce their trauma symptoms which might be attributed to their adverse childhood experiences.

The average methodological quality of included studies demonstrated acceptable quality at nearly 60%. The strengths of the included studies were conducting analyses appropriate to the study design, and clearly reporting their results. Most of the studies received a satisfactory response rate and reported drop-out rates. Most studies explained the exposure and outcome measures clearly. Areas for improvement found within the quality assessment process were sampling and measurement bias. In addition, few studies used prospective data and less than half of the studies gave a clear definition of maltreatment. Future research would benefit from sourcing larger samples of fathers (ideally using a cohort design), from across various recruitment settings, which includes a control group of fathers who did not experience maltreatment. These recommendations will increase the generalisability of results. Using valid and reliable measures of childhood maltreatment as well as collaborative information from CPS records to verify father's self-report is also recommended for future research.

This review had several strengths including a variety of bibliographic databases being searched and then the articles obtained being systematically reviewed. Both published and unpublished studies were sought in the searches as well as hand-searching and contacting professionals in the field. The quality assessment and data extraction were completed by the author and a second reviewer, producing an excellent inter-rater reliability score.

2.5.2. Limitations

With any research study, it is imperative to acknowledge the limitations. Whilst PRISMA guidelines were used as the preferring reporting items for reviews, the Meta-analysis of Observational Studies in Epidemiology (MOOSE, Stroup et al, 2000) checklist would have been a more useful method to rate each observational study within the meta-analysis. Future research into this field should utilise the MOOSE guidelines if reviewing observational studies. The systematic search sought references from unpublished theses, it did not include non-English papers and there were eight unobtainable studies. These were either student dissertations or theses or articles written prior to 1980 and therefore unavailable online or via the University library services. All unpublished studies that were sought during searching were excluded during the PECO stage. This could indicate that the systematic review is biased based on published, English language articles. Whilst extracted data were cross-checked by the author and second reviewer, the risk remains of human error occurring. This review was not able to conduct a meta-analysis on all included articles due to lack of homogeneity of the data, different settings, types of childhood maltreatment and types of perpetration.

It is important to also report the limitations of the meta-analysis. It was not possible to measure the potential for publication bias of the included studies because there were less than 10 studies therefore the power of the funnel test would be too low to determine chance from real asymmetry. Only including five studies in the meta-analysis is a limitation in itself and therefore should be interpreted with caution. However, it was not possible to include more studies because a review of all available studies was conducted. Therefore, further research should include more data on fathers so further meta-analysis with larger numbers of studies can be included, with different types of maltreatment. This review only included fathers aged 18 and above. It would be beneficial for further research to include data on young fathers under the age of 18 as early parenting has been found to be a potential risk factor for child maltreatment (Dixon et al, 2005; Bartlett & Easterbrooks, 2012; Valentino et al, 2012).

A recent study by Danese and Widom (2020) found that subjective experiences of child maltreatment reported via retrospective accounts as adults resulted in high levels of psychopathology including depression, PTSD, anxiety and substance misuse, regardless of whether these reports could be accounted for in objective experiences of child maltreatment via prospective data on the same individuals. These results applied across genders and ethnicities. This indicates that accounts of maltreatment experienced in childhood may differ between retrospective and prospective data based on levels of psychopathology in later life. This is possibly due to recall bias in those experiencing psychopathology, legal action being taken to prevent further maltreatment in the objective accounts or other, unmeasured, variables that influence this association (Danese & Widom, 2020). This should be noted as a potential limitation to this systematic review which only included three prospective studies

out of 16 included studies and therefore the analysis could not be separated to assess differences in reporting of child maltreatment between prospective and retrospective studies, yet these distinctions might have occurred, nonetheless.

2.5.3. Implications for Practice and Conclusions

Despite this review establishing 16 studies examining the ITCM in fathers, only 25% of these studies (n=4) used a sample of fathers only, the remaining studies recruited a sample of parents where data on fathers could be extracted. This highlights the lack of research conducted into this field in fathers. Approximately one third of the articles screened on abstracts were removed due to being conducted on the wrong population (i.e. mothers) or the analysis did not separate fathers from mothers or non-biological fathers. In addition, the demographic data on fathers was scarce and there was little to no information on the moderating/mediating factors that might increase or decrease the ITCM in these fathers. This review has established a clear gap in the literature for further research to be conducted into fathers to determine whether the ITCM exists for this population, how the risk of this transmission differs from mothers, and what specific risk and protective factors are evident in fathers to assist practitioners working with families on how to support the fathers and protect the child from further harm.

Chapter Three: The role of personality in the intergenerational transmission of child maltreatment in fathers

3.1. Abstract

There is a breadth of research into the causes of child maltreatment due to its long- and short-term impacts on the individual. One cause commonly cited in the literature is a parental history of child maltreatment elevating the risk of their child being maltreated. This is known as the intergenerational transmission of child maltreatment (ITCM) and there is varied evidence to support this hypothesis. However, much of the research has been conducted on mothers or both parents without analysing them separately. This study examined the ITCM in fathers involved in care proceedings. 222 fathers were included in the final sample, of which 148 (67%) had a history of maltreatment and 204 (91.9%) had perpetrated maltreatment on their children. However, there was no direct association found between a history of maltreatment and perpetrating maltreatment on their children. Evidence for cyclical abuse was found for sexual abuse. Elevations on personality traits and disorders were found in those who experienced child maltreatment as well as those whose children were neglected. These included Avoidant, Depressive, PTSD and Drug and Alcohol Dependency personality styles. Fathers who experienced child maltreatment were then categorised into three distinct groups with differing needs. These results are discussed within the context of attachment theory and recommendations for how professionals can consistently include fathers in child protection work, child abuse prevention and reduction with the aim to break the cycle. Limitations of the study are discussed, along with recommendations for future research.

3.2. Introduction

3.2.1. Child maltreatment

The maltreatment of children by a parent and/or caregiver is a long-standing and well-identified problem (DeHay, 2008). The National Society for the Prevention of Cruelty to Children (NSPCC) report that severe child maltreatment consists of "*severe physical and emotional abuse by any adult, severe neglect by parents or guardians and contact sexual abuse by any adult or peer*." (p.8, Radford et al, 2011). Significant childhood maltreatment can lead to developmental deficits and impairments in an individual's social, physical, behavioural and emotional functioning (Afifi & MacMillan, 2011). The Department for Education (DfE, 2018) have indicated that the number of children under a Child Protection Plan (CPP) in England is increasing, with the total number in 2018 being 53,790 compared to 48,300 in 2014. However, it is possible that these findings are not reflecting an increasing problem but rather improvements responding and recognising child maltreatment (Degli Esposti et al, 2019).

Child maltreatment generally occurs as a result of adverse situations in relation to the child, the family, the community or cultural factors (Milner & Dopke, 1997; Stone, 2014). Parent-related factors associated with child maltreatment has been found to include early childbearing and adolescent parenting; developmental disabilities and lack of education achievement; mental illness, depression and personality disorder; level of anger, stress and self-esteem; substance misuse; intimate partner violence (IPV); socioeconomic state and own history of childhood abuse (Dubowitz et al, 2011; Bartlett & Easterbrooks, 2012; Campbell, Cook, LaFleur & Keenan, 2010; Stitch et al, 2009; Mersky, Berger, Reynolds & Gromoske, 2009; Thornberry et al, 2014;

Sidebotham et al, 2006). Child-related variables associated with an increased risk of child maltreatment include age; a physical, mental or developmental disability; cognitive impairments; failure to thrive and temperament (Dubowitz et al, 2011; Putnam, Sanson & Rothbart, 2002; Hibbard & Desch, 2007).

Whilst child maltreatment has been characterised by the main four types of child abuse and neglect defined by Radford et al (2011), adverse childhood experiences (ACEs) is a term to describe potentially traumatic events that can have a significant impact on an individual's physical, emotional, and mental health throughout their life (Felitti et al, 1998; Boullier & Blair, 2018; Whitefield, 1998). This includes the four types of child maltreatment as well as witnessing violence perpetrated against the mother, living with substance abusers, those who were mentally ill, parental separation or divorce and having a criminal household member (Felitti et al, 1998, Whitefield, 1998; Dube et al, 2001; Boullier & Blair, 2018). Bullying and other 'everyday' adversity such as pressure from social media, schoolwork and advertising have also been found to be a significant events in a child's upbringing that can have negative consequences for their mental well-being (Johnstone & Boyle, 2018, p.101).

3.2.2. Intergenerational transmission of child maltreatment (ITCM)

It has been well researched in the literature that there is an association between parents experiencing child maltreatment and subsequently maltreating their own children (Thornberry, Knight & Lovegrove, 2012). This is often termed the 'cycle of abuse' or the 'intergenerational transmission of child maltreatment' (ITCM, Schelbe & Geiger, 2017). There are varying levels of support for the ITCM with studies exploring the link to try and establish protective factors which might break the cycle (Hunter & Kilstrom, 1979; Dixon, Browne, & Hamilton-

Giachritsis, 2005; Egeland, Jocabvitz & Sroufe, 1988; Pears & Capaldi, 2001). There are studies with moderate transmission rates (Bartlett & Easterbrooks, 2012; Cort, Toth, Cerulli & Rogosch, 2011; Jaffee et al, 2013; Valentino et al, 2012; Oates et al, 1998), whereas others only found small transmission rates to support the concept (Hunter & Kilstrom, 1979; Dixon et al, 2005; Ben-David et al, 2015; Sidebotham et al, 2001; Thornberry et al, 2013). This suggests that the concept is more "*complex and challenging than expected*" (Widom, Czaja & DuMont, 2015, p. 1484). Another challenge is the methodological consistency in the research on ITCM around the cyclical process (Ertem, Leventhal & Dobbs, 2000; Thornberry et al, 2012). Cyclical abuse occurs when a parent perpetrates the same maltreatment that they experienced in childhood (Jones, 2014). An example of this is in Berlin, Appleyard, Dodge's (2011) study when they found 17% of mothers who experienced physical abuse maltreated their own child. Pianto, Egeland and Erickson (1989) also found 17% of mothers with childhood physical abuse perpetrated physical abuse and neglect against their children and among those who experienced childhood neglect, 33% perpetrated physical abuse and 44% of their children were neglected. Jones (2014) found stronger findings with 100% of parents who experienced neglect also neglected their children. However, this was with a small sample size (n=9) and even smaller numbers for the 37.5% who experienced physical abuse and went on to perpetrate physical abuse (n=3). It is important to note that many parents who experience maltreatment do not abuse their own offspring. Whilst it is important to consider the concept of cyclical abuse, it is by no means a direct cause (Dixon et al, 2005).

Researchers have begun to examine some of the moderating and mediating factors which may decrease or increase the risk of the ITCM. Risk

factors that might perpetuate the ITCM include type of maltreatment (Berlin et al, 2011), early parenting (Dixon et al, 2005; Sidebotham et al, 2001; Valentino et al, 2012), parental mental health (Pears & Capaldi, 2001; Thompson 2006; Berlin et al, 2011) and parental substance misuse (Chaffin, Kelleher & Hollenberg, 1996; Appleyard, Berlin, Rosanbalm & Dodge, 2011; Dixon, Browne & Hamilton-Giachritis, 2009). Protective factors that might support individuals breaking the cycle can be internal or external (Schelbe & Geiger, 2017). Internal resources can include an individual's personality and temperament, cognitive abilities and coping skills (Garmezy, 1985). External resources involve having safe, stable and nurturing relationships (SSNR, Conger, Schofield, Neppl & Merrick, 2013, Jaffee et al, 2013; Thornberry et al, 2013), community programmes and other social support (Daro & Dodge, 2009) and financial stability (Dixon et al, 2009).

3.2.3. Attachment Theory

The attachment between a parent and child is paramount to the psychosocial functioning across the lifespan (Crittenden & Baim, 2017). It begins at birth when the child is completely dependent on the caregiver for survival (Schelbe & Geiger, 2017). Bowlby (1982) reports that the attachments made within the first year of a child's life will shape future relationships and interactions with the social world and allow them to develop a sense of self, trust and security. If a secure attachment is not formed, the child may develop an internal working model of attachment figures as unresponsive and inconsistent. They may then develop unrealistic expectations of others (Fraley et al, 1998) or of the self as unlovable or unworthy of care and affection (Bowlby, 1988; Wright, Crawford & Del Castillo, 2009).

Attachment Theory is *"a model for understanding how human beings survive danger, form protective relationships and promote the survival of their children"* (Bowlbly, 1969, cited by Crittenden and Baim, 2017, p. 385). This theory describes how individuals who experienced child maltreatment might encounter difficulties relating to interpersonal relationships, parenting and social functioning in adulthood (Schelbe & Geiger, 2017). Children who are abused or neglected tend to have insecure attachment styles so when they become parents, they might display similar attachment patterns with their children or neglect or abuse them (Robboy & Anderson, 2011; Zuravin et al, 1996). Parents who have secure attachments have provided care and affection to their children, allowing them to make secure attachment relationships throughout their life (van Ijzendoorn, 1995). Even in children who were abused and neglected, if they were able to securely attach to another caregiver through the receipt of emotional support, then the cycle of abuse can be broken (Egeland, et al, 1988). Most research into attachment is conducted solely on mothers and does not include fathers or other caregivers (Schelbe & Geiger, 2017). Fathers who are present in the family home and have better mental wellbeing were found to safeguard against mother's poorer mental health on their child's behavioural and emotional problems (Kahn, Brandt & Whitaker, 2004). This could indicate that a healthy attachment to the father can be protective for a child's development if their attachment to the mother is poorer. Further research is needed to empirically explore the role of attachment to fathers and how this can be applied to the ITCM. This study will apply the attachment theory to explore the ITCM and the role personality plays in this concept.

3.2.4. The Role of Personality

There is no universal definition of personality (Jones, 2014). However, it is generally accepted that personality is defined as the "*dynamic organisation within the individual of those psychophysical systems that determine his [or her] characteristic behaviour and thought"* (Allport, 1961, p.28). Personality disorders (PD) represent the extreme end of maladaptive personality traits. Features of PDs include impairments in personality functioning (self and interpersonal). The Diagnostic and Statistical Manual of Mental Disorders (5th Edition, DSM-5, American Psychiatric Association, 2013) groups PDs into three clusters:

- Cluster A: Odd and eccentric (schizoid, paranoid, schizotypal)
- Cluster B: Flamboyant and dramatic (antisocial, borderline, histrionic, narcissistic)
- Cluster C: Fearful and anxious (avoidant, dependent, obsessive-compulsive).

3.2.5. Child maltreatment and the development of personality disorders

The higher prevalence of personality disorders in adults with a history of child maltreatment has been well researched over the years (Lobbestael, Arntz & Bernstein, 2010; Waxman et al, 2014; Johnson et al, 1999; Afifi et al, 2011; Perepletchikova, Ansell, & Axelrod, 2012; Ruggiero, Bernstein & Handelsman, 1999; Zweig-Frank & Paris, 1991). Early experiences of maltreatment and trauma begin to negatively shape a child's understanding of the self, other people and the world (Stone, 2014). It can cause long-term impacts on an individual's personality style for example, a secure sense of identity, ability to form and maintain stable relationships and tolerate stress and anxiety

(Perepletchikova et al, 2012). It can also evoke feelings of worthlessness, anger and shame (Roemmele & Messman-Moore, 2011).

Different types of maltreatment have been associated with the development of specific personality traits and disorders (Waxman et al, 2014; Cohen et al, 2013; Afifi et al, 2011). Afifi et al (2011) found that child maltreatment was most consistently associated with schizotypal, antisocial, borderline and narcissistic traits than other personality traits. Jones (2014) examined the personality styles of parents involved in care proceedings and found those who experienced polyabuse during their childhood had significantly higher avoidant, depressive, masochistic and borderline personality styles than those who experienced no maltreatment or a single type of abuse. Waxman et al (2014) found borderline and schizotypal personality styles were strongly associated with experiencing childhood sexual abuse, an antisocial personality style was associated with physical abuse and avoidant and schizoid personality styles was associated with emotional neglect. Ruggiero et al (1999) discovered patients who were subjected to severe neglect displayed significantly greater symptoms of schizoid. They also found that patients with severe physical and emotional abuse showed symptoms of antisocial in adulthood. This supports Bernstein, Stein and Handelsman's (1998) conclusions on physical abuse and neglect being related to antisocial and sadistic personality traits. Interestingly, sexual abuse was not linked to any specific personality traits in Bernstein et al's (1998) study whereas other studies have found childhood sexual abuse to be associated with more borderline, histrionic, depressive, paranoid, schizoid and avoidant styles (Johnson et al, 1999; Lobbestael et al, 2010). Bernstein et al (1998) also found childhood neglect was associated with increased symptoms of antisocial, avoidant, borderline, dependent, narcissistic, paranoid, passive-

aggressive and schizotypal traits. Lobbestael et al (2010) found emotional neglect to be associated with symptoms of histrionic and borderline traits. Emotional abuse has been found to be significantly associated with adult personality pathology including paranoid, schizotypal, borderline traits (Grilo & Masheb, 2002; Lobbestael et al, 2010).

Specific vulnerabilities as a result of child maltreatment differ by gender and the possibility of sex biases within personality diagnoses have been explored (Waxman et al, 2014; Widiger, 1998). Horwitz, Widom, McLaughlin and White (2001) found males who were abused and neglected as children have more dysthymia and antisocial traits than matched controls but did not report more problems with alcohol. In the same study, females who had experienced abuse and neglect reported more symptoms of dysthymia, antisocial and alcohol problems than a matched control group. Waxman et al (2014) found that males were at significantly higher risk of antisocial, narcissistic and schizotypal traits whereas females were at greater risk of developing avoidant, borderline, dependent or paranoid traits. They suggested that males may respond to trauma and abuse by attention seeking and females may become more socially withdrawn. This could be due to males being more likely to externalise their trauma symptoms and experiences of abuse than females who are more likely to internalise their experiences and therefore develop mental health problems. Males might be more likely to develop these antisocial personality traits and as a result come into contact with the criminal justice system (as opposed to mental health services).

3.2.6. The impact of parental personality on child maltreatment

Parenting is reported to be "*the hardest job in the world*" (Royal College of Psychiatrists, RCPsych, 2011, p. 13) because there needs to be a balance between appropriate limits and boundaries with the utmost affection and attuned nurturing. Parents do not need to be "*perfect carers, but they do need to provide generally 'good enough' care*" (Adshead, 2015, p.15). Everyday life events (e.g. bereavement, unemployment, relationship breakdowns, illnesses) may temporarily impact parenting skills even in the most resilient individuals. However, the presence of personality difficulties can compromise parenting abilities to the same extent, if not more, than severe mental illnesses (Johnson, Cohen, Kasen & Brook, 2006). Jones (2014) reports that individuals who experienced maltreatment by their parent, might discover becoming a parent daunting and unfamiliar. Their personality styles might be triggered by parenthood itself due to feeling that their sense of self and interpersonal skills is defined by their connection to their child. This can cause difficulties in the parent-child bond due to internal pressures to succeed (Stone, 2014). This might also result in parents self-medicating with illicit substances, engaging in avoidance-coping strategies and leading chaotic lifestyles (Jones, 2014). Adshead (2015) suggests that a combination of personality difficulties in parents increases the risk of engaging in intimate partner violence (IPV), thus increasing the risk of all types of maltreatment being perpetrated. Parental personality difficulties are often identified when families come to the attention of social services or care proceedings because of IPV or child maltreatment (Adshead, 2015).

Antisocial and narcissistic personality traits are more likely than other personality traits to be associated with risk of harm to vulnerable or dependent

others (Adshead, 2015) particularly the perpetration of physical abuse (Fontaine & Nolin, 2012; Fukushima, Iwasaki, Aoki & Kikuchi, 2006; Walsh et al, 2002; Bogacki & Weiss, 2007). Empathy in parenting is critical to ensure they are attuned and attentive to the child's needs (De Paul & Gilbert, 2008; Wiehe, 1997). Abusive parents have been found to have lower displays of empathy compared to non-abusive parents. Maltreatment tends to occur when a parent cannot understand the needs of their children accurately or react in an appropriate way (Bavolek, 2000, De Paul & Gilbert, 2008; Wiehe, 1997; Jones, 2014). Wiehe (2003) concluded that abusive parents were more narcissistic than foster parents and lacked impulse control and self-confidence. Physical abuse occurs when the parents placed 'blame' on their children and therefore, punish them and act more aggressively towards them due to impulsiveness and lack of remorse (Fontaine & Nolin, 2012).

Further evidence for Cluster B personality traits being associated with physical abuse is the literature around borderline and histrionic PD (Perepletchikova et al, 2012; Jones, 2014; Hiaroka et al, 2016; Trupe, Macfie, Skadberg & Kurdziel, 2018). However, borderline PD (BPD) has also been associated with neglectful parenting (Lyons-Ruth, Melnick, Patrick & Hobson, 2007; Perepletchikova et al, 2012; Jones, 2014; Eyden et al, 2016; Trupe et al, 2018). Lyons-Ruth (2007) report that parents with BPD have poor affect and arousal regulation resulting in an increased risk of getting into hostile and helpless states of mind which have negative impacts on their children. Laulik et al's (2013) systematic review concluded that 81% (9/11) of studies found positive associations between PD and incidents of child maltreatment and 36% focussed exclusively on BPD. In terms of Cluster A PDs; parents with schizoid, paranoid and schizotypal PDs tend to neglect their children rather than physically

abuse them (Fontaine & Nolin, 2012; Ezzo Pinsoneault & Evans, 2007). Finally, parents with Cluster C personality styles (dependent, avoidant and obsessive-compulsive), are likely to physically abuse and neglect their children (Bogachi & Weiss, 2007; Fontaine & Nolin, 2012; Jones, 2014).

A limitation of the majority of these studies is that many have been conducted solely on mothers and have excluded fathers (Stein et al, 2014; Bools et al, 1994; Laulik et al, 2013; Stone, 2014; Perepletchikova, Ansell & Axelrod, 2012) which is why it is important to consider gender differences within parental PD. It is suggested that fathers have more antisocial personality traits whereas mothers experience more symptoms of BPD (Bools, Neale & Meadow 1994; Adshead, 2015; Jones, 2014; Klahr et al, 2017; Laulik et al, 2013). Jones (2014) found that mothers scored higher Cluster A and 2 out of 3 Cluster C (avoidant and dependent) as well as depressive, masochistic and debasement personality styles. Fathers scored higher on Cluster B except for BPD and they scored higher on compulsive and desirability. After controlling for response style, Jones (2014) found differences in genders only for antisocial (in fathers) and masochistic (in mothers). She also found a higher percentage of fathers than mothers perpetrated physical abuse whereas failure to protect was exclusively perpetrated by mothers. Smith and Saunders (1995) found no significant differences between father/perpetrators of incest and non-offending mothers and their personality traits. The participants were inclined to associate with partners who have similar personality traits. They suggest that there are no distinct personality disorder traits that must be present in parents in incestuous families and they tend to be more socially isolated and anxious.

3.2.7. The absence of fathers in the literature

There is a vast literature base on abusive parents that is "*almost exclusively focussed on mothers*" (DeHay, 2008, p.19). This is despite fathers being more likely to perpetrate severe maltreatment especially sexual abuse and IPV (Radford et al, 2011). Haskett, Marziano & Dover (1996) conducted a systematic review between 1989 and 1994 into studies of child maltreatment. They found that abusive fathers comprised only 23% of all perpetrators studied and were rarely compared empirically to abusive mothers. This underrepresentation appears to still be the case over 20 years later, with scholars recognising that studies are still examining the ITCM in mothers (Schelbe & Geiger, 2017; Laulik, Chou, Browne & Allam, 2013; Smith, Duggan, Bair-Merritt & Cox, 2012). When fathers are included in studies, the authors do not disaggregate their findings from mothers to determine gender differences (Schaeffer et al, 2005; Afifi & MacMillan, 2011). It is possible that fathers are under researched because mothers are seen as the primary caregiver and abusive fathers can be frightening for professionals and prevent them engaging in a meaningful way (Schourfield, 2006; Langeland & Dijkstra, 1995). Child protection workers often focus on mothers and avoid fathers due to fear of approaching "*drunken, abusive men*" (p.28, O'Hagan, 1997). Ball (2009) conducted one of the few studies examining the ITCM in fathers only. He found that physical abuse experienced in childhood directly predicted physically abusing their children. Interestingly, he found no associations between race, age, economic or social stress and physically abusing their children. However, Ball (2009) only examined childhood physical abuse and he used a sample of incarcerated fathers which cannot be generalised to a sample of fathers in the community.

3.2.8. Aims

The proposed study will advance on the literature exploring the ITCM and determine whether it is present in fathers. The study will explore whether significant associations exist between personality styles and fathers with a history of child maltreatment. It will examine whether personality difficulties exist in those who perpetrate specific types of abuse. This will help increase the knowledge base on the ITCM and help understand potential risk factors in paternal parenting. It will assist in the development of treatment approaches for this under researched and neglected population.

3.2.9. Hypotheses

1. There will be a difference between the perpetration of maltreatment in fathers who experienced child maltreatment and those who did not.
2. Fathers who experience a specific type of maltreatment will maltreat their own children differently to those who experienced other types of maltreatment.
3. Fathers who experienced child maltreatment will have different scores on personality traits than those who did not.
4. Personality traits in fathers will differ based on the type of maltreatment they perpetrate.

3.3. Method

3.3.1. Design

The study was a quasi-experimental design using a known group from archival files. Data were collected retrospectively from files. The study aimed to compare personal histories of fathers involved in care proceedings who experienced childhood adversity with those who did not.

3.3.2. Participants

The sample consisted of males who completed a psychological assessment conducted by a Consultant Forensic Psychologist at a private medico-legal company specialising in providing reports for the Family Courts. All participants were assessed between 2010 and 2018. Participants were randomly selected according to the pre-defined inclusion criteria. Participants must have had at least one child, completed a full psychological assessment within the time period and their case needed to be part of care proceedings or pre-proceedings. Participants were excluded if they were stepfathers without a biological child of their own, if their case was part of criminal proceedings, if they only completed a cognitive assessment which did not involve a full clinical interview or personality assessment or if their case was still open to the company for an addendum assessment.

The sample was collected via secondary data and therefore no consent form or information sheet was provided to participants. All participants verbally consent to take part in the psychological assessment as part of the proceedings and their participation was voluntary. Access to the data was via the company's online archive system which was accessible through a weblink. The reports were

all archived in a manner which complied with the Data Protection Act 1998. The data was owned by the company and not in the public domain.

3.3.3. Ethics

The study was granted full ethical approval by the Faculty of Medicine & Health Sciences Research Ethics Committee at the University of Nottingham on the 29th January 2018 (ethics reference no. 192-1801, See Appendix G, Page 226). Ethical approval was also sought from the board of directors at the company (See Appendix H, Page 227) under the proviso that no personally identifiable information would be used, and participants would be randomly given a unique code during data collection.

3.3.4. Procedure

Data were extracted from the full psychological report, the Court bundle of documents provided prior to the assessment and the Millon Clinical Multiaxial Inventory, Third Edition (MCMI-III, Millon, 1997). Test administration procedures were followed and conducted under the supervision of a Consultant Forensic Psychologist. The English version of the MCMI-III was administered, and scored using the Q-Local software produced by Pearson Assessments using the 'profile' reports[1]. Basic demographic data were collected using a detailed proforma (See Appendix I, Page 229) by four forensic psychologists in training along with relevant information from individual's history from the clinical interview and the Court bundle. A database on SPSS was created with the collected data and all identifiable information was anonymised.

[1] https://www.pearsonclinical.co.uk/Psychology/AdultMentalHealth/AdultForensic/MillonClinicalMultiaxialInventory-III(MCMI-III)/MillonClinicalMultiaxialInventory-III(MCMI-III).aspx

Childhood adversity was categorised from the Court bundle (e.g. if they had been under the Local Authority (LA) care or been subject to a CPP as a child) and self-report data. Self-report data increases the risk of bias, but it is important in identifying how the individual viewed their childhood. Therefore, it was determined whether the self-report data could be verified within the Court bundle. Where child maltreatment was based on self-report alone, this was coded as 'alleged' abuse. The father's perpetration of maltreatment data was coded according to the information in the Court bundle and was not subject to interpretation. However, whether the fathers accepted the reasons for referral and therefore the maltreatment they allegedly perpetrated was categorised.

3.3.5. Measures

3.3.5.1. The Millon Clinical Multiaxial Inventory, Third Edition (MCMI-III, Millon, 1997)

The MCMI-III is a self-report inventory, which provides information on personality functioning, more severe personality disorders and a range of indicators of mental health difficulties. It contains validity indices designed to detect response patterns such as denial, minimisation or exaggeration of psychological difficulties. Millon (1997) reported that the MCMI-III is among the most popular self-report instrument for the assessment of personality disorders. The third manual was revised to include a more expanded and detailed validity study to support its use in forensic assessments (McCann et al, 2001). The 175 true/false items correspond closely with criteria from the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; American Psychiatric Association, APA, 1994). The MCMI-III uses bate rate (BR) scores (range = 0-115; median = 60), which are obtained through transforming raw

scores, to determine the probability that an individual presents with a clinical elevation on either the presence of a pattern or trait (BR = 75–84) or a disorder (BR ≥ 85). The MCMI-III manual reports internal consistency results range between .66 and .90 with 20 of the scales exceeding alphas of .80 (Millon, 1997). The Cronbach's alpha for this study was .94 which indicates an excellent internal consistency (George & Mallery, 2003). The MCMI-III was normed on a clinical, psychiatric population (Millon, 1997) however, it is widely used in the field of forensic psychology (Lenny & Dear, 2009; Loinaz, Ortiz, & Ferragut, 2012) and has been used in some research into parents involved in care proceedings (Blood, 2008; Lenny & Dear, 2009). The MCMI-III was used to assist in understanding the context within which the maltreatment took place (Nurse & Sperry, 2012), how parents' interpersonal styles have evolved as a result and to help inform treatment and intervention for individuals subject to care proceedings.

3.3.6. Power

Power analysis were conducted for Pearson's Chi-square test using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2013). This suggested a minimum sample size of 71 participants with a power of 0.9, a medium to large effect size and 3 degrees of freedom. Principle Component Analysis (PCA) was the other method of data analysis used in this study. In this analysis the concept of power is not based upon effect size, but whether the factor analysis itself has enough participants for it to be meaningful. The suggestion of 51 more cases than the number of variables present (Maxwell, 1972) was followed. The MCMI-III has 24 variables so, the current study required a minimum of 75 participants to be meaningful.

3.3.7. Data Analysis

Several statistical analyses were employed within the study using SPSS version 24. This included descriptive statistics, percentage distributions as well as frequencies to describe demographic information. Chi-square analyses were administered to determine any significant associations between child maltreatment experienced and types of maltreatment perpetrated as well as personality traits and disorders. These analyses used Phi (for two categorical variables) and Cramer's V (when one variable contains more than two categories) as indices of effect sizes measured using Cohen's (1988) suggestion of 'small' (≤0.1), 'medium' (≤0.3) and 'large' (≤0.5) effect sizes.

Further analysis of the data was based on a factor analysis method to investigate underlying structures within a subsection of data to determine whether personality styles (currently in discrete variables) related to each other in the sample of fathers who experienced child maltreatment. Factor analysis aims to identify and classify groups of variables to generate hypotheses (Child, 1990). This will be important for case-management and identifying appropriate intervention recommendations for practice in the setting from which the participants have been selected. The Principal Component Analysis (PCA) was performed on SPSS to extract factors using a correlation matrix. The variance accounted for by a factor is represented by an Eigenvalue. Eigenvalues were plotted against factors on a graph to determine how many factors were retained (Kim & Mueller, 1978). It is important to note that factors are orthogonal (i.e. independent of each other). A significance level of 0.3 was adopted to determine factor loadings. However, considerable weight was given to the value of the loading coefficient particularly at levels greater than 0.6. Kim and Mueller (1978)

suggest three variables should load onto each factor to ensure validity unless one value on the loading is very high (over 0.9).

3.4. Results

3.4.1. Demographic information

Data on 258 participants were initially collected. However, 36 participants were excluded based on the exclusion criteria, leaving a total sample size of 222 fathers. Fathers who undertook their psychological assessment between 2010 and 2015 underwent the MCMI-III personality assessment. The mean age for the sample was 35.8 years (SD=9.51; range 18–64). Participants had between one and 11 children (M=2.65; SD=1.82) and self-reported having between one and 10 sexual relationships (M=2.66; SD=1.51). 44.6% (n=99) were in a relationship with the mother of their child(ren) at the time of their assessment, 9.9% (n=22) were in a relationship with someone other than the mother of their child(ren), and 45.5% (n=101) were single at the time of the assessment.

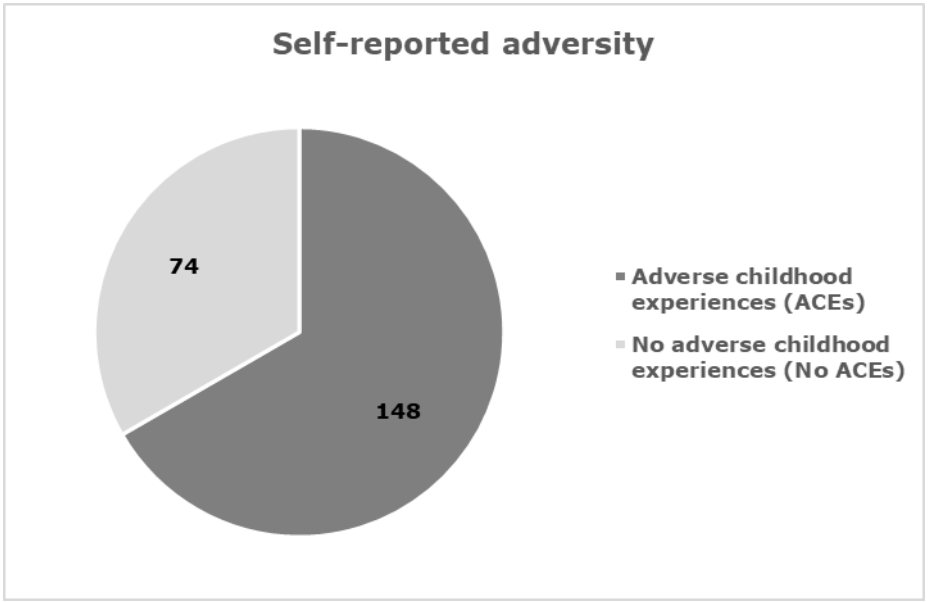


Figure 3: A pie chart to show frequency and percentage of adversity (n=222)

As can be seen in Figure 3 above, 66.7% (n=148) of participants experienced childhood adversity whereas 33.3% (n=74) did not experience any childhood adversity. 28.8% (n=64) of the total sample of fathers experienced physical abuse, 25.2% (n=56) experienced emotional abuse, 6.7% (n=15) experienced sexual abuse, 15.8% (n=35) experienced neglect, 15.8% (n=35) experienced a traumatic event in their childhood (e.g. war, poverty, death in the family) and 22.1% (n=49) experienced 'other' adversity including bullying. 62.2% (n=92) of fathers in the ACEs group experienced multiple types of abuse during childhood. 45.3% (n=67) experienced two types of abuse, 15.5% (n=23) experienced three types of abuse and only 1.4% (n=2) experienced four types of abuse.

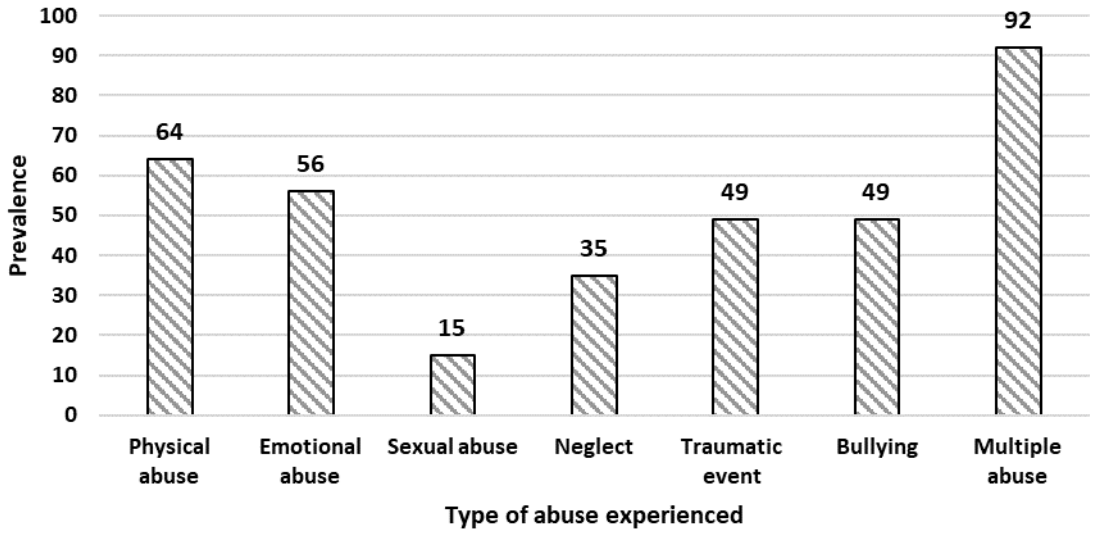


Figure 4: A bar chart to show frequency of types of abuse experienced

Of those in the ACEs group, 14.2% (n=21) spent time in care, with a mean length of time spent in care being 59.47 months (SD=60.36). Only 2.0% (n=3) were adopted and 20.3% (n=30) had social services involvement. 16.9% (n=25) of the ACEs group self-reported that their abuser was their father, 14.2% (n=21) self-reported their mother was their abuser and 31.8% (n=47)

self-reported that both parents were their abusers. 10.8% (n=16) self-reported that a family friend/parent's partner were their abuser and 58.1% (n=86) self-reported that they had more than one abuser. It was possible to confirm self-reported adversity using the Court bundle in 31.1% (n=46) of participants in the ACEs group. 54.7% (n=81) could be confirmed only through their self-report and in 2.7% (n=4) of cases, the abuse was only reported in the case documentation and denied in their self-report.

Regarding perpetrated maltreatment, 91.9% (n=204) of the total sample allegedly perpetrated abuse towards their children. Of those, 21.6% (n=48) perpetrated physical abuse, 14.9% (n=33) perpetrated sexual abuse, 64.9% (n=144) perpetrated emotional abuse, 45.5% (n=101) had children who were neglected. 29.4% (n=60) accepted these allegations, 28.4% (n=58) accepted the allegations but minimised them and 42.2% (n=86) denied any maltreatment perpetrated. 52.5% (n=107) perpetrated multiple abuse. Of those, 82.2% (n=88) perpetrated two types of abuse and 17.8% (n=19) perpetrated three types of abuse.

Table 7 shows that those in the no ACEs group were significantly older than those in the ACEs group. Those in the ACEs group were more likely to have a forensic history and misuse substances. There was no difference between the number of children they had or number of relationships between the two groups.

When considering those who only perpetrated abuse against their children (n=204), 68.1% (n=139) reported experiencing child maltreatment. This is compared with 50% (n=9) of those who did not maltreat their children (n=18) reporting that they experienced child maltreatment. However, this different was not statistically significant ($\chi 2=2.449$, p=.118, Phi=0.105).

Table 6: Participant Demographic Information (n=222)

	Adverse Childhood Experiences (ACEs) Group n=148	**No Adverse Childhood Experiences (No ACEs) Group n=74**	***P***
Age M(SD), Range	34.35(8.78), 18-64	38.78(10.28), 19-61	t=-3.176 **
Number of Children M(SD), Range	2.72(1.95), 1-11	2.5(1.53), 1-8	ns
Number of Sexual Relationships M(SD), Range	2.71(1.52), 1-10	2.57(1.49), 1-7	ns
Relationship Status (at time of assessment), N(%)			
In a relationship with the mother of their child	69(44.6)	30(32.3)	ns
In a relationship (not with the mother)	16(11.5)	6(9.2)	
Single	63(43.9)	38(58.5)	
Forensic History, N(%)			χ^2=9.716 **
Yes	122(82.4)	47(63.5)	Phi=0.209
No	26(17.6)	27(36.5)	
Substance misuse, N(%)			χ^2=3.930 *
Yes	102(68.9)	41(55.4)	Phi=0.133
No	46(31.1)	33(44.6)	
Alcohol use, N(%)			
Yes	108(73.0)	52(70.3)	ns
No	40(27.0)	22(29.7)	

** p≤.01, * p≤.05, ns=non-significant

Table 7: A Chi-square analysis to determine whether there was a difference between childhood maltreatment and types of perpetrated abuse (n=204)

	ACEs Group (n,%) (n=139)	**No ACEs Group (n,%) (n=65)**	**χ2**	**Effect size (Phi)**
Perpetrated physical abuse	32(23.0)	16(24.6)	.063, ns	.018
Perpetrated emotional abuse	98(70.5)	46(70.8)	.002, ns	.003
Perpetrated sexual abuse	23(16.5)	10(15.4)	.044, ns	.015
Had children who were neglected	70(50.4)	31(47.7)	.126, ns	.025
Perpetrated multiple abuse	74(53.2)	33(50.8)	.108, ns	.023

** p≤.01, * p≤.05, ns=non-significant

Table 8 shows there were no significant differences between type of abuse perpetrated between those who were in the ACEs and no ACEs group. This indicated that experiencing childhood adversity did not predict any type of perpetration of abuse in the sample.

3.4.2. Cyclical abuse

Table 9 below highlights that there was a significant association between fathers experiencing sexual abuse and perpetrating sexual abuse. There were no significant differences between the other types of abuse indicating that the type of maltreatment experienced cannot predict the type of maltreatment an individual might perpetrate.

Table 8: Prevalence of cyclical abuse and percentages based on those who experienced abuse and then those who perpetrated the same abuse (n=222)

Perpetrated	**Physical abuse (n=48)**	**Emotional abuse (n=144)**	**Sexual abuse (n=33)**	**Neglect (n=101)**	**Multiple abuse (n=107)**
Experienced	**χ2, Phi**	**χ2, Phi**	**χ2, Phi**	**χ2, Phi**	**χ2, Cramer's V**
Physical abuse (n=64), N(%)	*13(20.3)*	39(60.9)	13(20.3)	27(42.2)	29(45.3)
	.091, ns, -.020	.609, ns, -.052	2.109, ns, .097	.397, ns, -.042	.387, ns, .042
Emotional abuse (n=56), N(%)	13(23.2)	*39(69.6)*	5(8.9)	28(50.0)	26(46.4)
	.112, ns, .022	*.750, ns, .058*	2.085, ns, -.097	.613, ns, .053	2.631, ns, .109
Sexual abuse (n=15), N(%)	3(20.0)	9(60.0)	*6(40.0)*	8(53.3)	9(60.0)
	.025, ns, -.011	.167, ns, -.027	*8.03, **, .190*	.399, ns, .042	1.819, ns, .091
Neglect (n=35), N(%)	4(11.4)	2(5.7)	21(60.0)	*21(60.0)*	15(42.9)
	2.547, ns, -.107	2.749, ns, -.111	.431, ns, -.044	*3.525, ns, .126*	1.109, ns, .071
Traumatic event (n=35)	8(22.9)	3(8.6)	26(74.3)	13(37.1)	17(48.6)
	.037, ns, .013	1.300, ns, -.077	1.618, ns, .085	1.169, ns, -.073	.696, ns, .056
Other (mainly bullying) (n=49)	10(20.4)	11(22.4)	32(65.3)	23(46.9)	26(53.1)
	.055, ns, -.016	2.858, ns, .113	.005, ns, .005	.053, ns, .015	3.184, ns, .120
Multiple abuse (n=85), N(%)	17(20.0)	13(15.3)	54(63.5)	40(47.1)	*40(47.1)*
	.310, ns, .037	.170, ns, .028	.988, ns, .067	.586, ns, .051	*3.324, ns, .087*

** p≤.01, * p≤.05, ns=non-significant, *cyclical abuse*

3.4.3. Personality

58.1% (n=129) of the total sample were administered an MCMI-III. Of these, 85.3% (n = 110) had a valid and reliable profile which could be used for interpretation in the analysis. Correlations between modifying indices and personality scales can be found in Table 10 below.

3.4.4. Childhood adversity and personality

Chi-square analyses were conducted to determine whether there was a difference between personality traits (BR scores between 75-84) in the ACEs and no ACEs group. Participants in the ACEs group were significantly more likely to have Depressive ($\chi2=5.857$, $p=.016$, $Phi=.231$) and PTSD ($\chi2=4.026$, $p=.045$, $Phi=.191$) personality traits. Participants in the no ACEs group were significantly more likely to have Compulsive personality traits ($\chi2=3.933$, $p=.047$, $Phi=-.189$). In terms of PD (BR scores above 85) in the ACEs and no ACEs group, there were no significant differences found.

Participants who experienced physical abuse were significantly more likely to have Avoidant personality traits ($\chi2=5.332$, $p=.021$, $Phi=.220$) and Depressive PD ($\chi2=5.940$, $p=.015$, $Phi=.232$).

Those who experienced emotional abuse were significantly more likely to have PTSD ($\chi2=5.020$, $p=.025$, $Phi=.214$) and Paranoid ($\chi2=9.504$, $p=.002$, $Phi=.294$) personality traits. Fathers who did not experience emotional abuse were significantly more likely to have Histrionic ($\chi2=4.952$, $p=.026$, $Phi=-.212$) personality traits.

The participants who reported experiencing neglect were significantly more likely to have Alcohol Dependency ($\chi2=3.897$, $p=.048$, $Phi=.188$), Dysthymia ($\chi2=4.249$, $p=.039$, $Phi=.197$) and Masochistic ($\chi2=4.249$, $p=.039$, $Phi=.197$) personality traits, and Avoidant ($\chi2=4.249$, $p=.039$, $Phi=.197$) and Major Depression ($\chi2=4.249$, $p=.039$, $Phi=.197$) PD.

Table 9: Correlation between modifying indices and personality scales (n=110)

Modifying Index	Disclosure	Desirability	Debasement
Personality Scale			
Schizoid	.628**	-.555**	.643**
Avoidant	.763**	-.693**	.715**
Depressive	.841**	-.711**	.806**
Dependent	.772**	-.543**	.674**
Histrionic	-.687**	.828**	-.667**
Narcissistic	-.481**	.704**	-.539**
Antisocial	.656**	-.333**	.504**
Sadistic	.714**	-.334**	.567**
Compulsive	-.610**	.728**	-.558**
Negativistic	.795**	-.560**	.726**
Masochistic	.819**	-.602**	.737**
Schizotypal	.773**	-.612**	.721**
Borderline	.782**	-.589**	.745**
Paranoid	.633**	-.339**	.530**
Anxiety	.790**	-.513**	.754**
Somatoform	.551**	-.493**	.805**
Bipolar Manic	.628**	-.341**	.497**
Dysthymia	.785**	-.684**	.873**
Alcohol Dependence	.611**	-.365**	.464**
Drug Dependence	.688**	-.311**	.527**
Posttraumatic Stress	.769**	-.573**	.753**
Thought Disorder	.787**	-.573**	.762**
Major Depression	.627**	-.578**	.841**
Delusional Disorder	.501**	-.297**	.430**

** p≤.01, * p≤.05, ns=non-significant

There were no further associations between personality traits or disorders and experiencing maltreatment including sexual abuse, traumatic event or any 'other' adversity (mainly bullying).

3.4.5. Perpetration of maltreatment and personality

Chi-square analyses were conducted to determine whether there was an association between participant's personality traits (>75) and PDs (>85) and type of maltreatment they perpetrated. There were no significant associations between personality traits or disorders and the perpetration of physical or emotional abuse. Those who had children who were neglected were significantly more likely to have Drug Dependency ($\chi2=13.725$, $p<.001$, Phi=.353), Alcohol Dependency ($\chi2=11.995$, $p=.001$, Phi=.330), Dysthymia ($\chi2=4.854$, $p=.028$, Phi=.210), Anxiety ($\chi2=4.264$, $p=.039$, Phi=.197), Depressive ($\chi2=6.507$, $p=.011$, Phi=.243), Debasement ($\chi2=5.689$, $p=.017$, Phi=.227) and Masochistic ($\chi2=7.329$, $p=.007$, Phi=-.258) personality traits. Participants who had children who were neglected were also significantly more likely to have an Anxiety ($\chi2=5.741$, $p=.017$, Phi=.228) and Drug Dependency ($\chi2=3.903$, $p=.048$, Phi=.188) PD. Those whose children were not neglected were more likely to have a Compulsive ($\chi2=7.329$, $p=.007$, Phi=-.258) PD. Those who perpetrated sexual abuse were significantly more likely to have Histrionic ($\chi2=4.342$, $p=.037$, Phi=.199) personality traits. Participants who did not perpetrate sexual abuse were significantly more likely to have Alcohol Dependency ($\chi2=5.108$, $p=.024$, Phi=-.215) and Compulsive ($\chi2=5.358$, $p=.021$, Phi=-.221) personality traits.

3.4.6. Factor analysis

Using the subsection of the sample who experienced maltreatment and perpetrated abuse against their children (n=75), the PCA yielded three factors based on the Scree-plot Chart (see Figure 5). The Scree-plot was used instead of

Eigenvalues plus-one rule to avoid retaining too many variables to be meaningful in this research (Kim & Mueller, 1975).

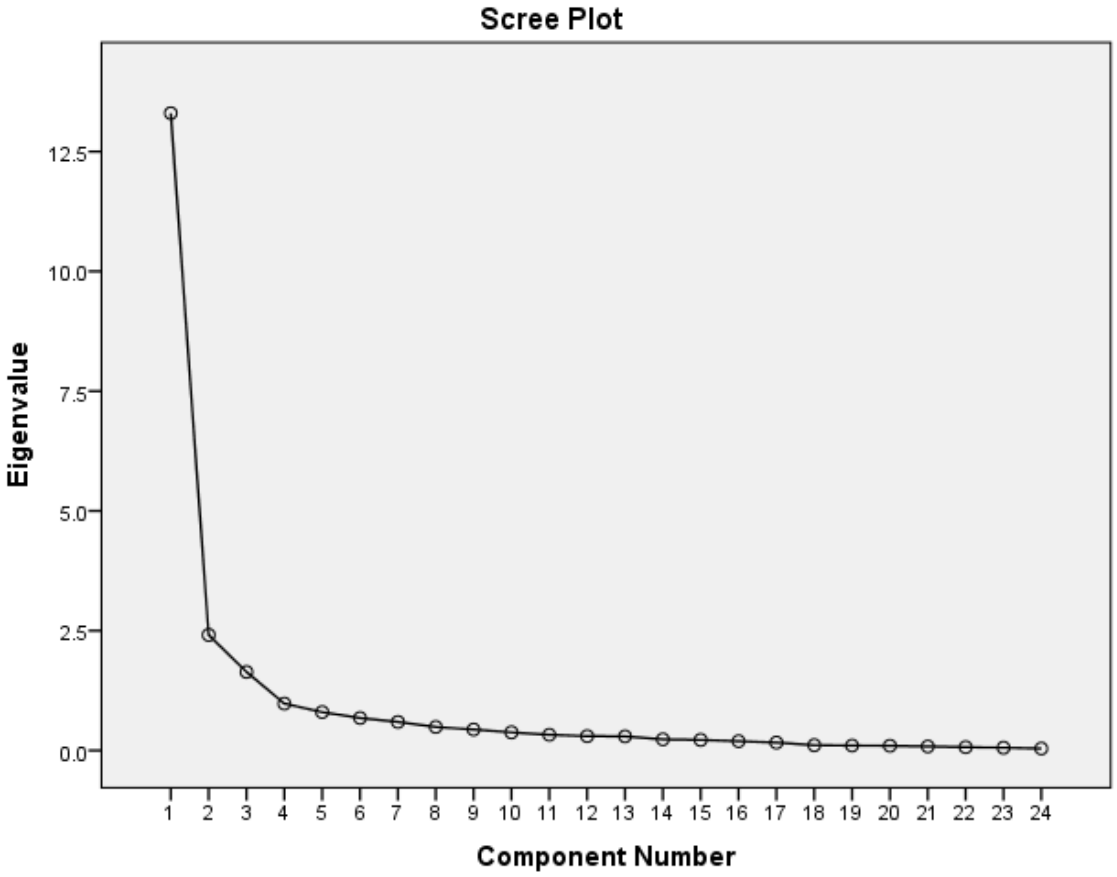


Figure 5: Factor Scree Plot: fathers in the ACEs group who perpetrated abuse against their children (n=75)

An orthogonal Varimax rotation was conducted on the extracted factors which explained 72% of the variance. The first factor was labelled '*Emotionally Unstable and Depressed'* and explained the largest proportion of the variance (55.42%). The second factor which was labelled '*Antisocial and Impulsive'*, explained 10.01% of the variance. The third factor was labelled '*Psychotic and Avoidant'* and explained 6.83% of the variance. See Table 11 below for loadings for the rotated factors.

Table 10: Rotated factor loadings of personality styles of fathers in the ACEs group who perpetrated abuse (n=75)

Variable	Factor 1: Emotionally Unstable and Depressed	Factor 2: Antisocial and Impulsive	Factor 3: Paranoid and Avoidant
Major Depression BR	.869	.270	.017
Somatoform BR	.843	.078	-.027
Dysthymia BR	.779	.311	.375
Depressive BR	.728	.298	.477
Schizoid BR	.625	.285	.368
Posttraumatic Stress BR	.611	.390	.411
Anxiety BR	.600	.510	.319
Thought Disorder BR	.619	.507	.317
Antisocial BR	.169	.926	.087
Alcohol Dependence BR	.182	.882	.125
Sadistic BR	.075	.815	.316
Drug Dependence BR	.155	.810	.183
Borderline BR	.585	.638	.234
Delusional Disorder BR	.083	.008	.781
Paranoid BR	.072	.305	.777
Avoidant BR	.581	.167	.648
Schizotypal BR	.551	.220	.636
Negativistic BR	.472	.460	.589
Masochistic BR	.572	.342	.559
Dependent BR	.525	.233	.550
Bipolar Manic BR	.184	.459	.505
Histrionic BR	-.679	-.168	-.449
Narcissistic BR	-.736	.052	-.190
Compulsive BR	-.504	-.528	-.105
Eigenvalues	13.30	2.41	1.64
% Variance Explained	55.42	10.01	6.83

3.5. Discussion

3.5.1. Summary of research findings

This study explored the impact of child maltreatment on a sample of fathers involved in care proceedings in the UK. The study examined the role that personality plays in the ITCM and how this might impact paternal parenting. In terms of proving the alternative hypotheses, analyses did not provide support for Hypothesis 1. Fathers in the ACEs group were no more likely to maltreat their own children than those in the no ACEs group. There was a higher prevalence of fathers who perpetrated maltreatment in the ACEs group (68.1%) than those who did not perpetrate maltreatment in the ACEs group (50%). Although this difference did not reach statistical significance, it does provide some evidence for the ITCM in this sample. The sample of fathers who did not perpetrate maltreatment was very small so the analysis might have also lacked power. In addition, fathers in the no ACEs group had higher elevations on personality traits on the MCMI-III that might indicate that they were impression managing. They were possibly trying to portray themselves in a more positive light for the purposes of care proceedings to avoid a negative outcome. This has been previously found in parents involved in custody proceedings scoring higher on the impression management scale than controls (Arce, Fariña, Seijo & Novo, 2015).

In the current study, fathers in the no ACEs group were more likely to have Compulsive personality traits than those in the ACEs group. Additionally, Fathers who denied experiencing emotional abuse were more likely to have Histrionic personality traits than those who experienced emotional abuse. As can be seen in Table 10, Compulsive, Histrionic and Narcissistic personality styles

were most highly correlated with Desirability. This is a pattern that has been commonly observed in other studies using the MCMI-III (Blood, 2008; McCann et al, 2001). It has been identified as the 'normal quartet' and deemed to be linked to populations that are "*more emotionally healthy than the majority of the normative population*" (Jones, 2014, p.91). However, this profile is also commonly found in those required to undertake assessments for care proceedings and therefore caution is advised if this 'normal quartet' profile presents itself (Lenny & Dear, 2009). It is possible that, in the current sample, the prevalence of child maltreatment experienced in the sample is higher than reported due to the fathers in the no ACEs group 'faking good' in order to achieve their desired outcomes within the care proceedings (i.e. having contact with their children).

The analyses provided partial support for Hypothesis 2, in that fathers who experienced childhood sexual abuse were more likely to perpetrate sexual abuse than those who did not experience childhood sexual abuse. This finding provided some evidence for cyclical abuse (Jones, 2014; Herzberger, 1990), but only for sexual abuse. Previous research has supported the notion of sexual abuse being cyclical (Glasser et al, 2001; Jesperson, Lalumière & Seto, 2009). Glasser et al (2001) found that 35% of males who were victims of sexual abuse became perpetrators of sexual abuse. There were no further associations between fathers experiencing one type of child maltreatment and subsequently perpetrating the same type of abuse against their children in the current study. This is in contrast with previous research which has found that those who experience physical abuse are more likely to perpetrate physical abuse (Ball, 2009; Jones, 2014; Egeland, 1979; Pianto et al, 1989) and similarly with cyclical neglect (Jones, 2014; Pianto et al, 1989). This difference in findings could be

due to the differences in samples. Most of the cited studies used mothers or a combination of mothers and fathers. Ball (2009) was the only study to examine fathers however, these fathers were all incarcerated and therefore the findings are different for a sample of fathers in the community.

Analyses provided support for Hypothesis 3, that fathers who experienced child maltreatment will have different scores on personality traits than those who did not. The findings revealed that the fathers in the ACEs group had significantly higher scores on Depressive and PTSD traits than those in the no-ACEs group. This could suggest that fathers in the ACEs group are more likely to disclose symptoms of depression and trauma whereas, as stated above, fathers in the no ACEs group might be engaging impression management, although it could also be a true finding. Support for these findings come from previous research around child maltreatment causing individuals to feel worthlessness and shame and they view themselves as unloved and unwanted (Stone, 2014; Perepletchikova et al, 2012). Further support comes from Horowitz et al (2014) who noted that abused and neglected males who experienced more dysthymia traits than controls.

Fathers who experienced physical abuse were more likely to have Avoidant personality traits and Depressive PD. This contradicts previous findings which suggest that males who experienced childhood physical abuse had more antisocial and sadistic personality traits and it was individuals who experienced emotional abuse who had been mostly associated with avoidant personality styles (Waxman et al, 2014; Bernstein et al, 1998). The current study found emotional abuse to be more closely associated with PTSD and paranoid traits (supported by Grilo et al, 2002) and neglect was associated with the Alcohol Dependency, Dysthymia and Masochistic traits, and Avoidant and Major

Depression PD (supported by Bernstein et al, 1998; Horowitz et al, 2001). There were no associations found between childhood sexual abuse and PDs which is supported by previous conclusions (Bernstein et al, 1998).

Further support for Hypothesis 3 was found in the factor analysis. Fathers in the ACEs group could be separated further into 'clusters' based on their elevations on MCMI-III personality scales. The findings revealed three factors labelled '*Emotionally Unstable and Depressed'*, '*Antisocial and Impulsive'* and '*Psychotic and Avoidant'*. Each factor linked with three insecure attachment styles coined by Bifulco et al (2008). The Emotionally Unstable and Depressed factor linked to the enmeshed-withdrawn attachment style. Individuals with an enmeshed attachment style have poor support, high dependency needs and crave attention from others. Those with a withdrawn attachment style have difficulty getting close to others and regard privacy as important (Bifulco et al, 2008). These attachment styles were associated closely with the somatoform (e.g. care seeking behaviours), depressed, PTSD, anxiety, schizoid and thought disorder personality styles that were highly loaded on this first factor.

The Antisocial and Impulsive factor linked to the angry-dismissive attachment style (Bifulco et al, 2008). Individuals with this attachment style have poor support and are high in mistrust with constraints on closeness. They are self-reliant, hostile and angry. This links closely with the antisocial, substance misuse, sadistic and borderline personality styles highly loaded on this second factor. These individuals will be more likely to use substances to self-medicate and cope with their mistrust of others. They might use anger and hostility to prevent others getting close to them.

Finally, the Psychotic and Avoidant factor linked to the fearful attachment style which Bilfulco et al (2008) states is associated with poor support, a lack of trust, constraints on closeness and a fear of being let down by others. This is linked to the personality styles loading on the third factor; delusional disorder, paranoid, avoidant and schizotypal.

The findings from the factor analysis supports the evidence in the literature that individuals with a history of maltreatment can experience various challenges relating to interpersonal relationship, parenting and psychosocial functioning in adulthood (Schelbe & Geiger, 2017) and parents who experience child maltreatment and had poor attachments to their caregivers, were more likely to maltreat their children (Zuravin et al, 1996). This study aimed to incorporate attachment theory into the ITCM in fathers which is a recognised gap in the literature (Schelbe & Geiger, 2017).

Finally, there was partial support for Hypothesis 4, that personality styles in fathers will differ based on the type of maltreatment perpetrated. There were no associations between personality styles of those who perpetrated physical or emotional abuse. Fathers who perpetrated sexual abuse were more likely to have Histrionic personality traits and those who did not perpetrate sexual abuse were more likely to have Alcohol Dependency and Compulsive traits. These findings did not fit with the personality traits found in other samples (Williams & Finkelhor, 1990), providing further evidence to suggest that there are no specific personality profile exists for incest offenders (Smith & Saunders, 1995). There were several personality styles found in those who had children who were neglected including Drug Dependency, Alcohol Dependency, Dysthymia, Anxiety, Depressive, Debasement and Masochistic personality traits as well as Anxiety and Drug Dependency PD. These findings suggest fathers who are abusing

substances, feeling low in mood, depressed and anxious are neglecting their children and failing to provide them with care and support they need to thrive.

3.5.2. Demographic information

There were significant differences found within the demographic characteristics of those in the ACEs and no ACEs group. Fathers in the ACEs group were significantly older than those in the no ACEs group which supported findings that early parenting is associated with ITCM (Dixon et al, 2005; Bartlett & Easterbrooks, 2012; Valentino et al, 2012). Further support for the findings in the literature was that fathers in the ACEs group were significant more likely to have a forensic history and misuse illicit substances than those in the no ACEs group, but not for alcohol misuse (Dixon et al, 2005; Dubowitz et al, 2011; Bartlett & Easterbrooks, 2010).

3.5.3. Implications

The current study has advanced on the current literature mainly focussing on mothers and the ITCM and has conducted one of the first studies to explore a sample of fathers in the community. The study has advanced on the current literature in several ways. It investigated differences between physical, sexual and emotional abuse and neglect which was a recommendation for further research (Berlin et al, 2011; Berzenski et al 2014; Lounds et al, 2006; Neugebauer, 2000). The study was also able to use multiple sources of data (including self-report and case records) which is suggested as a methodological strength by Thornberry et al (2012). The study also examined the prevalence of parent's time in care, LA involvement, and whether they were on a CPP which was also suggested to be included in future research (Etter and Rickert, 2013).

It is worth noting the high prevalence of child maltreatment in this study which displayed much higher rates than in the general UK population. Bellis et al (2014) found that the prevalence of childhood sexual abuse was 4.5%, physical abuse was 13.9% and verbal abuse was 15.8% in an English sample of 2135 adult males. The current study found 6.7% of fathers experienced sexual abuse, 28.8% of fathers experienced physical abuse and 25.2% experienced emotional abuse. This might suggest that fathers involved in care proceedings have experienced more child maltreatment than males in the general population.

The findings of this exploratory study did not find support for the ITCM except for the intergenerational transmission of sexual abuse albeit with a small sample size. It further found support for child maltreatment being associated with personality difficulties and associated perpetration of abuse. This was particularly prevalent in depressive, avoidant and substance dependency personality styles. The study also found that fathers who experienced child maltreatment were categorised into three groups of individuals with associations with three insecure attachment styles.

It is important to note that whilst the antisocial and impulsive fathers who are feared by professionals (O'Hagan, 1997) was one of the groups, the other two group were more fearful, traumatised and depressed. This is important for professionals to understand these distinctions between fathers involved in care proceedings and how they might present. The antisocial, impulsive fathers might use hostility and anger to externalise these trauma symptoms, whereas the other fathers appear to be victims suffering in silence. Whichever way these fathers are portraying, their negative emotions around their trauma is paramount and they need support from clinicians and professionals to recognise

and deal with their symptoms and understand how they are consequently behaving.

More trauma informed interventions are needed that specifically target males as victims of abuse as well as perpetrators (Schelbe and Geiger, 2017). These findings are particularly relevant for practicing clinicians working with families to ensure that they include fathers in interventions and assessments with the aim to prevent the continuity of child maltreatment. Social workers in particular, need to ensure that they include fathers from the beginning and refer them to the recommended agencies for treatment for their personality styles, substance misuse, attachment styles and trauma symptoms to ensure the risk of harm to children is reduced.

3.5.4. Limitations

As with any empirical study, there are several limitations that need to be addressed. First, the nature of the retrospective data meant that there was no control over the development or recording of data. Because of this, some analyses were unable to be undertaken due to the dichotomous nature of the variables. The chronicity and severity of maltreatment are important aspects to record in future research to strengthen the methodology of studies (Berzenski et al, 2014; Jonson-Reid et al, 2014) however, this study was unable to include these variables. This study was also unable to examine ethnic and culture differences, socioeconomic disparities and community factors that might act as risk factors in the ITCM (Schelbe & Geiger, 2017) because of the retrospective nature of the data limited the data that could be collected. Valentino et al (2012) report factors that were protective for African American mothers included authoritarian parenting attitudes because this protected children from danger.

These were not protective for Caucasian mothers which suggests that assumptions cannot be made about what is protective and what is a risk factor. Future research needs to examine these differences in fathers.

However, the retrospective data was able to protect children and parents from re-traumatisation and harm by preventing them from reliving their maltreatment (Widom, 2015). The fathers in this sample only had to recall their experiences for the care proceedings and not again for the purposes of this research. Herzberger (1990) reports that prospective data requires "*extraordinary delicacy in eliciting information*" (p.530) because participants may not believe their information will be kept completely anonymous, so it is difficult to determine whether participants are providing honest answers. This study was able to control for this and limit these ethical issues solely to the psychological assessment which was recommended by the family Court.

A further limitation of this study was the self-reported data on father's history of maltreatment. Self-reported data is prone to flaws due to socially desirable responding, recall bias and misrepresentation. Socially desirable responding is particularly prevalent during psychological assessments within care proceedings and parents will often try and put themselves in a more favourable light known as 'faking good' in order to show that they are capable of providing 'good enough' care to their children (Arce et al, 2015; Lenny & Dear, 2009; McCann et al, 2001). The recall bias and misrepresentation of self-report data is a concern and asking parents to report how their parents treated them is limited, especially when they might consider their child-rearing experiences to be 'normal' (Herzberger, 1990; Pears & Capaldi, 2001). The present study was able to control for this by using some confirmatory data from the Court bundles. Within these, there were some reports of parent's history of maltreatment which

could confirm the self-report data. Unfortunately, this could only be confirmed in 31.1% of fathers in the ACEs group. Due to the nature of impression management that occurs, the results cannot be generalised to the general population due to father's very specific motives which would not be present in other settings (e.g. contact with their children and potentially even criminal proceedings, Arce et al, 2015). Whilst, the MCMI-III validity scales allowed the current study to control for this limitation to a degree, it is still worth highlighting the elevated levels of impression management within this population.

The random sampling method adopted in this study was used to reduce the risk of researcher bias. Due to this, and the nature of the psychological assessment being for care proceedings, there were unequal sample sizes in each group and the majority of fathers had perpetrated abuse against their children (91.9%). This means that the results cannot be generalised outside of this niche population of fathers, all of whom have been mandated to undertake a psychological assessment to determine their fitness to care for their children. In addition to the large number of fathers who were found to have perpetrated maltreatment, the sample is further skewed because they were all undergoing a psychological assessment for the Family Court. This, in itself, is likely to heighten an individual's levels of stress and anxiety during the assessment because of the consequences of losing contact or care of their children. It is possible that fathers involved in care proceedings are face difficulties other than experiences of child maltreatment as the cause of their involvement with social services.

There are limitations of using the MCMI-III as a measure of personality within this study which utilises an attachment theory approach. The MCMI-III

was developed in line with the DSM-IV-R (American Psychiatric Association, APA, 1994) which focuses on psychiatric diagnoses. Therefore, the results of the personality styles of fathers in this study might have been overpathologised based on the ongoing care proceedings which are likely to be raising their level of stress and anxiety (Butcher, 2009). The results of the MCMI-III might be skewed further by other factors associated with the reasons why these fathers were involved in care proceedings such as substance misuse, other mental health difficulties, unemployment, criminal activities, or financial difficulties that are unrelated to experiences of child maltreatment and its association with personality styles. These other factors could not be distinguished within the current study due to being secondary data but it is important to note that confounding variables could have impacted the findings. Although the MCMI-III was administered and interpreted by trained professionals who used clinical judgment to interpret the results as recommended by Sperry (2003), caution should still be exercised based on the skewed sample included in this study.

3.5.5. Conclusions and directions for future research

Increased understanding into the ITCM in fathers will help explain specific risk and protective factors that act as moderators and mediators to help break the cycle. It will support the development of interventions, risk assessments and prevention as well as further evidence for how male and females are unique (Schelbe & Geiger, 2017). In addition, little research has determined whether personality and attachments styles are risk factors for the ITCM. This exploratory study examined these facets in fathers involved in care proceedings. More research is needed to explore this in detail. The results of this study support the need for fathers to be analysed separately from mothers and that professionals need to work closely with them to prevent the continuity of child maltreatment.

The ITCM cannot be fully confirmed by the current literature and this study provides further uncertainty. However, scholars can be sure that a parents' history of maltreatment is one risk factor for future perpetration of child maltreatment (Dixon et al, 2005; Egeland et al, 1988, Pears & Capaldi, 2001). This study has provided evidence for an association between history of child maltreatment and personality difficulties in parents which is a risk factor for the perpetration of abuse. Further research is needed to examine this with equal sample sizes in each group as well as the impact this has on the continuity of insecure attachment styles, personality difficulties and maltreatment.

Chapter Four: Child maltreatment and intellectual functioning on father's risk of maltreating their children

4.1. Abstract

The link between intellectual functioning and child maltreatment has long been examined. There is evidence for childhood maltreatment having an impact on later intellectual functioning and, as a result, impacting the quality of an individual's parenting capacity. However, there is a lack of research into the intergenerational transmission of child maltreatment (ITCM) in fathers in general and therefore much of the research is conducted in child maltreatment and intellectual functioning is conducted on mothers. This study examined the ITCM in fathers and how their intellectual functioning impacts the transmission. 217 fathers were included in the final sample. There were no significant differences between the Full-scale Intelligence Quotient (FSIQ) between fathers who experienced maltreatment and those who did not. No significant differences were found for those who experienced different types of maltreatment except in fathers who experienced neglect in childhood had significantly lower verbal comprehension index (VCI). Additionally, fathers who had children who were neglected were also found to have lower verbal functioning, even after controlling for age. Moreover, lower FSIQ scores were associated with personality styles associated with trauma, depression and avoidance suggesting that these are risk factors for deficits in intellectual functioning in parents and could perpetuate the ITCM in families. Future research is needed to examine this association in fathers in more detail with a larger prospective sample. Limitations and implications for practice are discussed.

4.2. Introduction

4.2.1. Intellectual functioning

Intellectual functioning, also known as Intelligence Quotient (IQ), refers to an individual's ability to learn, reason, make decisions and solve problems. Significant impairments in intellectual functioning along with deficits in social and adaptive functioning, both arising before adulthood, are core components for an intellectual disability (ID, British Psychological Society, BPS, 2015). A significant impairment in intellectual functioning is associated with the lack of ability to adapt to new, novel or complicated information or acquire new skills and knowledge (Department of Health, DofH, 2001). The gold standard assessment for intellectual functioning in adults is the Wechsler Adult Intelligence Scale – Fourth Edition (WAIS-IV, Wechsler, 2008; Hartman, 2009). The mean IQ is 100, with a standard deviation of 15, indicating that 68.2% of individuals fall between 85 and 115, and only 2.2% of individuals have an IQ that falls below 70. Individuals with an IQ below 70 as well as deficits in social and adaptive functioning can be diagnosed by a trained professional as having an ID (BPS, 2015). It is important to only employ measures of intellectual functioning as guides because they cannot be defined with absolute accuracy (Harris, 2006) but the DSM-5 defines the severity of an ID as the degree of impairment to social and adaptive functioning (APA, 2013).

Cognition refers to "*the use or handling of knowledge through mental activities associated with thinking, learning, and memory, which are necessary processes to acquire knowledge*" (Harris, 2006, p. 99). Individuals with an ID have varying levels of cognitive disabilities. Both cognition and intellect are linked to cortical brain functioning (Harris, 2006). There are multiple causes for

deficits in intellect and cognition. These include prenatal causes such as genetic disorders, chromosomal disorders, developmental disorders of brain formation, environmental influences (maternal malnutrition or substance use), perinatal causes including problems during birth and postnatal causes. Postnatal causes include head injuries, infections, degenerative disorders, seizures, malnutrition or environmental deprivation (Harris, 2006). A number of these factors will be discussed below in terms of child maltreatment. Executive functioning is generally defined as more complex cognitive processes that include goal setting behaviour and planning, organising behaviour over time, flexibility and self-regulation (BPS, 2015). However, executive functioning cannot necessarily be predicted by an individual's IQ score (Arffa, 2007). An individual's capacity, skill and level of functioning should only be derived from assessments that include both general intelligence and a measure of executive functioning (BPS, 2015).

4.2.2. Child maltreatment and intellectual and cognitive functioning

There is a high prevalence of child maltreatment in those with developmental disabilities or IDs due to their vulnerability (Vig & Kaminer, 2002). Children with disabilities, developmental delays, cognitive impairments or failure to thrive have been found to be at an elevated risk of experiencing abuse or neglect (Dubowitz et al, 2011; Hibbard & Desch, 2007; Skuse et al, 1995). However, there are few studies conducted into child maltreatment and disabled children in the UK (Miller & Brown, 2014). Causality is difficult to determine because cognitive deficits could have predated maltreatment experienced or be caused by genetic and environmental risks. Socioeconomic status and psychiatric disorders could act as confounding factors that need to be ruled out to determine causal effects (Danese et al, 2016; Hart & Rubia, 2012). This can be a challenge in retrospective samples. Spencer et al (2005) found that being on a

child protection register in the UK was significantly associated with a speech and language disorder and learning difficulties even after controlling for birth weight, gestational age and socioeconomic status. Moderate/severe learning difficulties were associated with registration in each of the four categories of maltreatment (physical, emotional and sexual abuse and neglect). Children with speech and language disabilities and mild learning difficulties were associated with physical and emotional abuse and neglect (Spencer et al, 2005). Jones et al (2012) found that children with disabilities were more likely to be victims of violence than controls, including physical and sexual violence. The evidence for whether the severity of the impairment having greater associations with child maltreatment is mixed (Millller & Brown, 2014).

Some studies have found that children with less severe or milder impairments are at a greater risk of abuse (Fisher et al, 2008), whereas others conclude that the more severe disabilities were associated with increased risk of sexual and physical abuse (Hershkowitz et al, 2007). Either way, it is apparent that cognitive deficits should be viewed as individual risk factors for child maltreatment as well as potential complicating features during treatment (Danese et al, 2016). The perpetrators of child maltreatment in those with disabilities are likely to be known to the children (Miller & Brown, 2014). In four of the 17 studies (23.5%) included in Jones et al's (2012) systematic review, parents, other carers or adults were the perpetrators of violence. Similarly, Sullivan and Knutson (1998) found that 63% of children with disabilities and 60% of children with behavioural disorders were sexually abused by a member of their family compared with 39% for those without a disorder or disability.

Numerous studies have found significant impairments in cognitive functioning including general intelligence, executive functioning, processing

speed, memory, attention, perceptual reasoning, verbal comprehension and deficits in affective functioning including reward processing, processing of social and affective stimuli in adolescents and adults who experienced child maltreatment (Danese et al, 2016; Pechtel & Pizzagalli, 2011; Hart & Rubia, 2012; Beers & De Bellis, 2002; Gould et al, 2012). Child maltreatment has also been associated with lower scores of standardised IQ tests in children with histories of abuse and neglect performing 10 points below average (Zimmerman et al, 1997; Perez & Widom, 1994) as well as reading ability scores being well below average (Perez & Widom, 1994). In one study, maltreated children were twice as likely to repeat a year at school and scored significantly lower in the areas of reading and mathematics than controls (Eckenrode, Laird & Doris, 1993). A systematic review conducted in 2013 found that child maltreatment can have harmful effects on intellectual functioning and individuals who experienced child maltreatment were found to perform poorly on tasks which assessed verbal episodic memory, working memory, attention, and executive functions in the 17 papers included (Irigaray et al, 2013).

Neglect and other child maltreatment have been shown to negatively impact brain development. Children may have lower cognitive (Crozier & Barth, 2005; Jaffee & Maikovich-Fong, 2011) and executive functioning (Beers & De Bellis, 2002; De Bellis, Hooper, Spratt & Woolley, 2009; DePrince, Weinzierl & Combs, 2009; Prasad et al, 2005; Spann et al, 2012) than aged matched peers. Children who have been maltreated are also less likely to have educational and academic success than age matched peers (Crozier & Barth, 2005; Eckenrode et al, 1993; Jaffee & Gallop, 2007; Jonson-Reid et al, 2004). Lower overall academic performance, learning problems, and classroom behaviour problems have been found to be related to childhood physical abuse (Trickett, McBride-

Chang & Putnam, 1994; Trickett, 1993). Children affected by maltreatment and exposure to domestic violence (DV) in the home have been found to underperform at school in areas such as mathematics and reading (Kiesel, Piescher & Edleson, 2016).

4.2.3. The impact of child maltreatment on brain development

The hippocampus is part of the limbic system in the brain, a cortical region that regulates motivation, emotion, learning and memory (Blanco et al, 2015). Larger hippocampal volumes have been found in healthy young males and are associated with better declarative memory (Pohlack et al, 2014). Damage to the hippocampus can be due to the influence of stress hormones or degenerative processes including PTSD, personality disorders or depression (Pohlack et al, 2014; van der Kolk, 2003; Bremmer, Southwick & Charney, 1999; Stein et al, 1997). Cognitive functioning in patients with major depression was found to be associated with the number of traumatic experiences, specifically poorer general knowledge, lower processing speed and impaired executive functioning (Dannehl, Rief & Euteneuer, 2017).

Stress associated with child maltreatment can have adverse effects on the brain maturation, neurobiological stress systems and neuropsychological outcomes in the child. This dysregulation in the neurobiological stress systems have been associated with trauma symptoms (Watts-English et al, 2006). The sympathetic nervous system (SNS) is also activated through exposure to a perceived threat. This can occur during any form of child maltreatment (Watts-English et al, 2006). Serotonin plays an important role in the central nervous system (CNS) as a regulator of emotional and physiological functioning i.e. memory, learning, mood, sexual behaviour, muscle contraction (Watts-English et

al, 2006). Exposure to trauma can cause an increase in the release of serotonin but this can cause long-term downregulation of serotonin production. Kaufman et al (1998) found children with a history of maltreatment and depression had significantly higher levels of the serotonin-dependent hormone, prolactin, compared to controls or children with depression only. This suggests that child maltreatment can cause inefficiency of the serotonin system which can impact a child's cognitive (learning, memory) and behavioural (mood and aggression) functioning (Watts-English et al, 2006). The impact of child maltreatment is great and children have been found to have impairments in brain development from a young age (Teicher et al, 2003; Teicher et al, 2004; Twardosz & Lutzer, 2010; Wilson, Hansen & Li, 2011).

Not all children who are maltreated experience impairments in brain development and many maltreated children are able to reverse the impacts on the SNS (Watts-English et al, 2006). However, early detection of child maltreatment is vital in order to prevent these deficits occurring in the first place and to assist children in school when they need extra support (Watts-English et al, 2006).

4.2.4. Maltreatment type and intellectual functioning

Studies have attempted to examine whether the type of child maltreatment experienced has different consequences on impairments. Males with a history of neglect were found to have lower IQ scores than males with experiences of childhood abuse (Rogeness, Amrung, Macedo, Harris & Fisher, 1985). Physical abuse and neglect were significantly associated with reduced cognitive ability, while neglect was associated with poorer academic achievement, despite accounting for sociodemographic variables (Perez & Widom, 1994). Physical

neglect in depressed patients was found to be associated with poorer verbal learning (Dannehl et al, 2017).

Neurological and cognitive abnormalities have been found in child sexual abuse (CSA) survivors, mainly in reduced hippocampal volumes (Blanco et al, 2015; Stein et al, 1997). Girls who experienced sexual abuse have been found to have lower cognitive abilities and academic achievement (Sadeh, Hayden, McGuire, Sachs, & Civita, 1993; Trickett, McBride-Chang & Putnam, 1994). However, other studies have found no association between CSA and deficits with visual memory, overall cognitive functioning or academic performance (Watts-English et al, 2006; Himelein, 1995). There is also evidence that disabled boys are more likely to be maltreated than disabled girls, except for sexual abuse (Sobsey, Randall & Parilla, 1997; Sullivan & Knutson, 2000; Hershkowitz, Lamb & Horowitz, 2007). Navalta et al (2006) compared female college students who experienced childhood sexual abuse (CSA) with a control group on neurocognitive measures and found a strong association between the duration of abuse and impairments in memory. They also found that the Mathematic Scholastic Aptitude Test (SAT) scores were significantly lower in CSA subjects when matched with a control group.

Individuals with histories of physical abuse have been found to have deficits in verbal, motor and memory skills as well as general cognitive ability (Friedrich, Einbender, & Luecke, 1983; Prasad et al, 2005; Lansford et al, 2002). Pears, Kim and Fisher (2008) found lower cognitive functioning was related to profiles with physical abuse. Dannehl et al (2017) found that depressed patients who experienced childhood physical abuse had diminished executive functioning.

4.2.5. Intellectual functioning and abusive parenting

Royal College of Psychiatrists (RCPsych, 2011) report that parents with an ID have an increased risk of developing mental health problems which can affect their competence. Individuals with IDs have their own challenges in life due to their disability as well as society's view towards them, increasing their vulnerability to abuse and exploitation including DV (RCPsych, 2011). Adults with IDs might feel that they must prove they are competent parents to social services and children are often removed prematurely without parents being given a chance to prove they can be 'good enough'. Often, they merely need support and guidance.

Parents who graduate from school have been found to be less likely to maltreat their children; or possibly less likely to be reported for maltreating their children (Budd, Heilman & Kane, 2000; Kotch, Browne, Dufort, Winsor & Catellier, 1999; Li, Godinet & Arnsberger, 2011; Sidebotham et al, 2001; Ben-David et al, 2015). However, these studies are conducted mainly on mothers (Schelbe & Geiger, 2017). Education levels can influence employment and income levels (Baum, Ma & Payea, 2010) and assist with better housing and quality of life (Schelbe & Geiger, 2017). A potential lack of knowledge and understanding about parenting can also play a role in maltreatment; particularly neglect (Dukewich, Borkowski & Whitman, 1996; Huang, Caughty, Genevro & Miller, 2005), however, again these findings are mainly conducted on mothers.

Early parenting has been associated with child maltreatment (Dixon et al, 2005; Bartlett & Easterbrooks, 2012; Valentino et al, 2012) and there is evidence to suggest that young parents may lack the cognitive functioning that helps to identify and meet the needs of their children. They may lack the

appropriate knowledge around child development or have been unable to complete their education due to teenage pregnancies (Dixon, Browne & Hamilton-Giachritsis, 2005a; Bavolek & Keene, 1999; Afifi, 2007). However, the latter is more likely to be the case for young mothers.

4.2.6. The absence of fathers in this area

As identified above, there is a breadth of research into child maltreatment and intellectual functioning, cognitive difficulties and academic performance and how this can impact an individual in their ability to parent. However, most of these findings in parenting have been conducted solely on mothers (Budd et al, 2000; Kotch et al, 1999; Li et al, 2011). Sidebotham et al (2001) found that fathers' lower educational achievement, young age and having spent time in care during childhood were all risk factors for child maltreatment of their children. Francis and Wolfe (2008) found cognitive and behavioural differences between abusive and non-abusive fathers. They found a higher percentage of abusive fathers did not complete high school and had less years of school than non-abusive fathers. They also had a lower average household income and were more likely to experience child maltreatment. There is a general lack of research into fathers who experienced child maltreatment and subsequently perpetrated maltreatment on their own children (Schelbe & Geiger, 2017; Assink et al, 2018). More research is needed to examine the ITCM in fathers and the mediating factors to maintain this cycle which in turn prevent parents from being able to break the cycle. One possible way in which parents could break the cycle is by receiving parent training and more education. However, at present there is a lack of evidence to conclude that a deficit in intellectual or cognitive functioning or a lack of education is a risk factor in the ITCM for fathers.

4.2.7. Aims

The proposed study will expand on the current literature exploring the link between child maltreatment, intellectual functioning and how these impact parenting. The study will explore this association in fathers involved in care proceedings and whether there are significant associations between intellectual functioning and the experience and perpetration of child maltreatment. This research aims to increase the knowledge base in the ITCM and help understand how intellectual functioning impacts parenting and perpetuates the cycle of abuse. If this can be understood, then clinician and social care professionals can tailor their communication and treatment to fathers to ensure they fully understand parenting practices and skills through parental training (Schelbe & Geiger, 2017).

4.2.8. Hypotheses

1. Fathers who experienced child maltreatment will have differences in intellectual functioning to fathers who self-report not experiencing any maltreatment.
2. Intellectual functioning in fathers will vary based on the type of maltreatment experienced.
3. Fathers who perpetrate child maltreatment will have differences in intellectual functioning to those who self-reported experiencing no maltreatment.
4. Fathers who have elevations on personality scales, particularly trauma and depression, will have differences in intellectual functioning than those within these elevations.

4.3. Method

4.3.1. Design

The study was a quasi-experimental, cross-sectional study design using a known group from archival files. Data were collected retrospectively from case files and reports.

4.3.2. Participants

The participants in this study were all males who completed a psychological assessment conducted by a Consultant Forensic Psychologist at a private medico-legal company specialising in providing reports for the Family Courts. All participants were assessed between 2010 and 2018 and their reports completed, with cases finalised. Participants were randomly selected according to a pre-defined inclusion/exclusion criterion. The inclusion criteria were that participants had at least one child, completed a full psychological assessment within the time periods allocated and their case was part of care proceedings or pre-proceedings. Participants were excluded if they were a stepfather without a biological child of their own, if their case was part of criminal proceedings, if their case was still open for an addendum assessment or if they did not complete a full psychological assessment which included a completed Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV, Wechsler, 2008), Wechsler Abbreviated Scale of Intelligence (WASI, Wechsler, 1999) or Wechsler Abbreviated Scale of Intelligence-Second Edition (WASI-II, Wechsler, 2011).

The sample was collected via secondary data and therefore no consent form or information sheet could be provided to participants. However, all participants gave verbal consent to voluntarily participate in the psychological assessment as part of the care proceedings. Access to participants was via the

company's online archive system accessible through a weblink. The reports were all archived in a manner which complied with the Data Protection Act 1998. The data was owned by the company and not in the public domain.

4.3.3. Ethics

This study was granted the same full ethical approval as the primary research study from the University of Nottingham (ethics reference no.192-1801, See Appendix G, Page 226) and the board of directors at the company (See Appendix H, Page 227).

4.3.4. Procedure

Data were extracted from the full psychological report, the Court bundle of documents provided prior to the assessment and the Millon Clinical Multiaxial Inventory, Third Edition (MCMI-III, Millon, 1997), Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV, Wechsler, 2008), Wechsler Abbreviated Scale of Intelligence (WASI, Wechsler, 1999) or Wechsler Abbreviated Scale of Intelligence-Second Edition (WASI-II, Wechsler, 2011). Test administration procedures were followed and conducted under the supervision of a Consultant Forensic Psychologist. The English version of the MCMI-III was administered and scored using the Q-Local software produced by Pearson Assessments using the 'profile' reports[2]. Basic demographic data were collected using a detailed proforma (See Appendix I, Page 229) by four forensic psychologists in training along with relevant information from individual's history from the clinical interview and the Court bundle. A database on SPSS was created with the collected data and all identifiable information was anonymised.

[2] https://www.pearsonclinical.co.uk/Psychology/AdultMentalHealth/AdultForensic/MillonClinicalMultiaxialInventory-III(MCMI-III)/MillonClinicalMultiaxialInventory-III(MCMI-III).aspx

Childhood adversity was categorised from the Court bundle (e.g. if they had been under the Local Authority (LA) care or been subject to a CPP as a child) and self-report data. Self-report data increases the risk of bias, but it is important in identifying how the individual viewed their childhood. Therefore, it was determined whether the self-report data could be verified within the Court bundle. Where child maltreatment was based on self-report alone, this was coded as 'alleged' abuse. The father's perpetration of maltreatment data was coded according to the information in the Court bundle and was not subject to interpretation. However, whether the fathers accepted the reasons for referral and therefore the maltreatment they allegedly perpetrated was categorised.

4.3.5. Measures

4.3.5.1. The Wechsler Adult Intelligence Scale-Fourth Edition (WAIS-IV, Wechsler, 2008)

The WAIS-IV is the most up to date and a widely used measure of general cognitive ability which provides information on a range of cognitive skills. The Full-Scale Intelligence Quotient (FSIQ) is the aggregate of the scores obtained in the WAIS-IV and is usually considered to be the most representative measure of global intellectual functioning. The WAIS-IV produces five composite scores: Verbal Comprehension, Perceptual Reasoning, Working Memory, Processing Speed and the FSIQ. Wechsler (2008) reports that the WAIS-IV has high internal consistency, and, over a 2-12-week time period, the test-retest reliabilities ranged from 0.70 (7 subscales) to 0.90 (2 subscales). Inter-scores coefficients were very high (all above .90). The WAIS-IV correlated highly with the Stanford-Binet IV test (.88) and had high consistency with measures such as memory,

language, dexterity, motor speed, attention and cognitive ability (Wechsler, 2008).

4.3.5.2. The Wechsler Abbreviated Scale of Intelligence (WASI, Wechsler, 1999).

The WASI is a standardised measure of intelligence that produces three composite scores similar to the WAIS: Verbal Comprehension, Perceptual Reasoning and FSIQ. It is normed for use across an individual's lifespan (ages 6-89). There are four subtests: Block Design, Vocabulary, Matrix Reasoning and Similarities. The WASI is an abbreviated version of the WAIS-III and obtains estimates of IQ scores rapidly and efficiently when administration of a full battery is neither feasible nor necessary. It is used as a screen to determine whether an in-depth assessment of intellectual functioning is needed.

4.3.5.3. The Wechsler Abbreviated Scale of Intelligence–Second Edition (WASI-II, Wechsler, 2011)

The WASI-II is an updated version of the WASI which was developed over a three-year period to improve to user-friendliness and psychometric properties (McCrimmon & Smith, 2013). This allowed further enhanced links between the WASI-II and the WAIS-IV and the Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV). The WASI-II contains additional items based on a review of frequent responses. The manual modified administration rules to be simpler and aligned with the WAIS-IV and WISC-IV. The second edition was designed to ensure subtests can be substituted for the corresponding subtests of the WAIS-IV and WISC-IV to reduce administration time and practice effect when a more comprehensive assessment of intellectual functioning is required (McCrimmon & Smith, 2013). Internal consistency for the adult sample (aged

17-90) were excellent, ranging from .90 to .93. Concurrent validity with the WASI, WISC-IV and WAIS-IV were acceptable (.71) to excellence (.92).

4.3.5.4. The Millon Clinical Multiaxial Inventory, Third Edition (MCMI-III, Millon, 1997)

The MCMI-III is a self-report inventory providing information on personality functioning, more severe personality disorders and a range of indicators of mental health difficulties. It contains validity indices designed to detect response patterns such as denial, minimisation or exaggeration of psychological difficulties. Millon (1997) reported that the MCMI-III is among the most popular self-report instrument for the assessment of personality disorders. The third manual was revised to include a more expanded and detailed validity study to support its use in forensic assessments (McCann et al, 2001). The 175 true/false items correspond closely with criteria from the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; American Psychiatric Association, APA, 1994). The MCMI-III uses bate rate (BR) scores (range = 0-115; median = 60), which are obtained through transforming raw scores, to determine the probability that an individual presents with a clinical elevation on either the presence of a pattern or trait (BR = 75–84) or a disorder (BR ≥ 85). The MCMI-III manual reports internal consistency results range between .66 and .90 with 20 of the scales exceeding alphas of .80 (Millon, 1997). The Cronbach's alpha for this study was .94 indicating excellent internal consistency (George & Mallery, 2003). The MCMI-III was normed on a clinical, psychiatric population (Millon, 1997) however, it is widely used in the field of forensic psychology (Lenny & Dear, 2009) and has been used in some research into parents involved in care proceedings (Blood, 2008; Lenny & Dear, 2009). The MCMI-III was used to assist in understanding the context within which the maltreatment took place

(Nurse & Sperry, 2012), how parents' interpersonal styles have evolved and inform treatment and intervention for individuals subject to care proceedings.

4.3.6. Power

Power analyses were conducted for multiple linear regression using G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2013) which suggested a minimum sample size of 139 participants with a power of 0.8, five predictors, p=.05 and a medium effect size. Green (1991) also indicated that a sample size of 50 + 8k, where k is the number of predictors. Using five predictors, a sample size of 90 participants would be acceptable. Therefore, this study aimed to achieve a sample size of at least 90 participants, but ideally 139.

4.3.7. Data analysis

Several statistical analyses were employed within the study using SPSS version 24. Initially, descriptive statistics were used in order to describe the demographic information of the sample. Percentage distributions were used as well as frequencies when applicable. Independent t-tests and ANCOVAs were administered to determine any significant differences between child maltreatment experienced, type of maltreatment perpetrated and intellectual functioning, whilst also controlling for variables that might affect these associations. Further analyses were conducted to address the fourth hypothesis using bivariate correlations and multiple linear regression to explore the relationships between cognitive functioning and personality traits.

4.4. Results

4.4.1. Data screening

IQ data were tested for normality. Full Scale IQ (FSIQ) was normally distributed (Shapiro-Wilk=.992, p=.375). This was still normally distributed when the FSIQ

was separated by adverse childhood experiences (ACEs); ACEs group (Shapiro-Wilk=.991, p=.611) and no ACEs group (Shapiro-Wilk=.991, p=.635).

4.4.2. Demographic data

Information on 258 participants were collected however, 36 of these were excluded based on the above exclusion criteria, leaving a sample size of 222 fathers. Five participants underwent a Test of Non-Verbal Intelligence-Third Edition (TONI-III, Brown, Sherbenou & Johnsen, 1997) so were excluded to maintain continuity and ease of analysis between Wechsler's measures of intelligence. This left a total sample size of 217 fathers. See Table 12 for full participant demographic information separated by experiences of child maltreatment.

67.7% (n=147) of the total sample self-reported experiencing childhood adversity. Of those who experienced childhood adversity, 43.5% (n=64) self-reported experiencing physical abuse, 38.1% (n=56) self-reported experiencing emotional abuse, 10.2% (n=15) self-reported experiencing sexual abuse, 23.8% (n=35) self-reported experiencing neglect, 34.1% (n=34) self-reported experiencing a traumatic event in their childhood (including war, poverty, a death in the family) and 33.3% (n=49) self-reported experiencing 'other' form of abuse (mainly bullying by their peers in school). Some participants reported experiencing multiple abuse, with 57.8% (n=85) of the childhood adversity participants experiencing multiple types of abuse during childhood. 44.2% (n=65) experienced two different types of abuse, 12.9% (n=19) experienced three different types of abuse and only 0.7% (n=1) experienced four types of abuse. 14.3% (n=21) spent time in care with a mean length of time spent in

care being 59.47 months (SD=60.36) but only 2.0% (n=3) were adopted. 20.4% (n=30) of the total sample had social services involvement as a child.

31.3% (n=46) of participants self-reported adversity was confirmed in the Court bundle. 54.4% (n=80) of participants' adversity was self-reported only and 2.7% (n=4) of participants' adversity was only reported in the Court bundle and denied in their self-report. 11.6% (n=17) of participants' adversity was unclear whether it was confirmed in the Court bundle.

Regarding perpetrated maltreatment, 91.7% (n=199) allegedly perpetrated abuse against their own children. Of those participants, 23.1% (n=46) allegedly perpetrated physical abuse, 16.6% (n=33) perpetrated sexual abuse, 70.9% (n=141) perpetrated emotional abuse (including the child witnessing domestic violence), 49.2% (n=98) had children who were neglected. 52.8% (n=105) of the participants perpetrated multiple abuse towards their children/a child in their care. Of those, 82.9% (n=87) of participants perpetrated two types of abuse and 17.1% (n=18) of participants perpetrated three types of abuse. 30.2% (n=60) of fathers accepted the allegations against them, 28.6% (n=57) accepted the allegations but minimised them and 41.2% (n=82) denied the perpetration of maltreatment against their children/a child in their care.

4.4.3. Intellectual functioning

In terms of intellectual functioning assessments, 38.2% (n=83) of participants were administered a WASI, 30.9% (n=67) of participants were administered a WAIS-IV and 30.9% (n=67) of participants were administered a WASI-II. The mean age for the entire sample was 34.99 years at the time of their assessment (SD=9.55; range 18–64). From these assessments, only 84.8% (n=184) produced FSIQ scores due to participants not being able to complete all subtests

due to engagement or language barriers. The mean FSIQ was 90.69 (SD=14.27, range 56-136) which is in the average range of adult intellectual ability (Wechsler, 2008).

Table 11: Participant Demographic Information (n=217)

	Adverse Childhood Experiences (ACEs) Group n=147	**No Adverse Childhood Experiences (No ACEs) Group n=70**	***P***
Age M(SD), Range	34.30(8.79), 18-64	38.88(10.39), 19-61	t=-3.184 **
Number of Children M(SD), Range	2.70(1.96), 1-11	2.49(1.57), 1-8	ns
Number of Sexual Relationships M(SD), Range	2.71(1.53), 1-10	2.63(1.51), 1-7	ns
Relationship Status (at time of assessment), N(%)			
In a relationship with the mother of their child	68(46.3)	28(40.0)	ns
In a relationship (not with the mother)	16(10.9)	6(8.6)	
Single	63(42.9)	36(51.4)	
Forensic History, N(%)			χ^2=10.694 **
Yes	122(83.0)	44(62.9)	
No	25(17.0)	26(37.1)	Phi=0.222
Substance misuse, N(%)			
Yes	102(69.4)	40(57.1)	ns
No	45(30.6)	30(42.9)	
Alcohol use, N(%)			
Yes	107(72.8)	49(70.0)	ns
No	40(27.2)	21(30.0)	

** p≤.01, * p≤.05, ns=non-significant

4.4.4. Intellectual functioning and child maltreatment

Table 12: A comparison of mean FSIQ scores and adverse childhood experiences (n=184)

FSIQ	**ACEs (n=127)**			**No ACEs (n=57)**			***P***
	Mean	SD	Range	Mean	SD	Range	
	89.55	13.89	56-128	93.23	14.91	56-136	t(182)= -1.623, ns

** p≤.01, * p≤.05, ns=non-significant

As can be seen in Table 13, whilst the FSIQ scores in the ACEs group were lower than those in the no ACEs group, these differences were non-significant using an independent t-test.

When analysing the scores for Verbal Comprehension Index (VCI, n=109) and Perceptual Reasoning Index (PRI, n=134) combined from scores on the WASI, WASI-II and WAIS-IV, the mean VCI was 84.73 (SD=12.99, range 58-124) and the mean PRI was 88.54 (SD=13.46, range 57-119) both of which are in the low average range of adult intellectual ability.

Table 14 shows there was a non-significant difference between Verbal Comprehension Index scores and those in the ACEs and no ACEs group despite the scores in the ACEs group between lower than those in the no ACEs group. There was a non-significant difference between Perceptual Reasoning Index scores and those in the ACEs and no ACEs group.

Table 13: A comparison of those in the ACEs and no ACEs group by combined mean VCI and PRI scores

	ACEs Group			**No ACEs Group**			***P***
	Mean	SD	Range	Mean	SD	Range	
VCI (n=109) ***ACEs (n=77)*** ***No ACEs (n=32)***	83.63	12.56	61-124	87.38	13.83	58-110	t(107)= -1.374, ns
PRI (n=134) ***ACEs (n=91)*** ***No ACEs (n=43)***	89.11	14.27	57-119	87.35	11.62	65-115	t(132)= .706, ns

** p≤.01, * p≤.05, ns=non-significant

4.4.5. Intellectual functioning and types of child maltreatment

Data on FSIQ and types of abuse found non-significant differences; physical abuse (t(182)=0.642, p=.521), sexual abuse (t(182)=-0.138, p=.890), emotional abuse (t(182)=-1.083, p=.280), neglect (t(182)=-1.575, p=.117), experiencing a traumatic event (t(182)=0.119, p=.905), other abuse (t(182)=-1.205, p=.230) and multiple types of abuse (t(125)=0.245, p=.807). This was also the case for the verbal and perceptual IQ scores and experiencing physical abuse, sexual abuse, a traumatic event or other abuse.

However, there was a significant difference between experiencing neglect during childhood and the combined VCI scores (t(42.13)=-2.275, p=.028) indicating that those who did not experience neglect in their childhood had a significantly higher mean VCI score (85.75) than those who did (80.20). However, this significant difference was not found when conducting a one-way ANCOVA to control for age (f(1,106)=1.171, p=.28).

4.4.6. Intellectual functioning and perpetrated maltreatment

Data on FSIQ and whether the fathers had perpetrated any abuse found no significant differences (t(182)=-.257,p=.798). There were also no significant differences between the type of abuse perpetrated and father's FSIQ scores; physical abuse (t(182)=-1.055, p=.293), sexual abuse (t(182)=1.522, p=.130), emotional abuse (t(182)=0.657, p=.512), neglect (t(182)=-1.856, p=.065) or multiple type of abuse perpetrated (t(151)=1.480, p=.141). This was found for the combined verbal and perceptual IQ scores and perpetrating any type of maltreatment, except for neglect. Fathers who had children who were neglected had significantly lower verbal IQ scores (t(107)=-2.332, p=.022). This finding did not remain significant after controlling for age (f(1,106)=2.833, p=.095).

4.4.7. Intellectual functioning and personality styles

Correlation analyses revealed highly significant negative correlations between cognitive functioning and personality styles on the MCMI-III (See Table 15), indicating that lower cognitive functioning was associated with higher elevations on personality difficulties. The strongest negative correlations that were observed between FSIQ and personality styles were disclosure, avoidant, depressive, dependent, paranoid, negativistic, masochistic, schizotypal, bipolar manic, dysthymia and delusional disorder (r<-0.4). This suggests that individuals with higher scores on these personality traits have lower overall FSIQ scores. The combined verbal IQ was highly negatively correlated with PTSD, debasement, masochistic, anxiety, bipolar manic, dysthymia, thought disorder and major depression. The combined perceptual IQ was negatively correlated with schizoid, depressive, paranoid, negativistic, anxiety, bipolar manic and dysthymia.

A multiple linear regression analysis was performed with FSIQ as the criterion outcome and five personality styles from the MCMI-III that have previously been linked to child maltreatment experiences. The personality styles examined were posttraumatic stress disorder, dysthymia, depressive, avoidant and major depression. Age and forensic history were added initially to control for these as confounding variables. The forced entry method was used because this study is exploratory in nature and mainly based on the findings of the previous study in Chapter 3.

Age and forensic history were entered into model 1 and the correlation was moderate (r=.397) and significant, ($F(2,103)=9.659$, $p<.001$, $R_2=.152$, Adjusted $R_2=.142$). This indicated that age and forensic history variables accounted for 14.2% of the variance in FSIQ scores. The five personality styles were then entered, in no particular order, and model 2 resulted in a multiple correlation that was moderate (r=.563) and remained significant, ($F(7,98)=6.501$, $p<.001$, $R_2=.317$, Adjusted $R_2=.268$). This indicated that all of the entered variables accounted for 26.8% of the variance in the FSIQ scores. In the final model, the strongest contributor to impact the FSIQ score were fathers scoring higher on the Avoidant personality style (standardised $\beta=-.358$, $t=-2.453$ $p=.016$). See Table 16 for a summary of the regression model with all included predictors.

Table 14: Correlation between personality scales and cognitive functioning (n=107)

	Cognitive Functioning (IQ)								
Personality Styles (MCMI-III)	**FSIQ**	**Verbal IQ**	**Perceptual IQ**	**WASI VCI**	**WASI PRI**	**WAIS VCI**	**WAIS PRI**	**WAIS WMI**	**WAIS PSI**
Disclosure	-.515**	-.305*	-.325*	-.539*	-.410*	.128	.003	-.227	-.502
Desirability	.265**	.229	.252	.411*	.282	-.170	.071	-.045	.038
Debasement	-.397**	-.231	-.251	-.477**	-.405*	.201	.249	.038	-.178
Schizoid	-.353**	-.219	-.252	-.429*	-.318	.181	.042	-.084	-.239
Avoidant	-.470**	-.273	-.310*	-.390*	-.341	.113	.023	-.180	-.616*
Depressive	-.411**	-.305*	-.401**	-.551*	-.485**	.122	-.111	-.119	-.349
Dependent	-.438**	-.303*	-.352*	-.457*	-.396*	.147	.010	-.068	-.434
Histrionic	.356**	.214	.330*	-.398*	.358	-.271	.071	.008	.112
Narcissistic	.148	.036	.194	-.300	.313	-.355	-.066	-.158	.251
Antisocial	-.304**	-.146	-.124	-.084	-.049	-.243	-.310	-.423	-.292
Sadistic	-.354**	-.117	-.272	-.136	-.262	.008	-.194	-.474	-.428
Compulsive	.229*	.069	.152	-.225	.218	-.147	.014	-.159	-.084
Negativistic	-.455**	-.244	-.384*	-.427*	-.476**	.254	.109	-.197	-.456
Masochistic	-.457**	-.278	-.263	-.530**	-.344	.232	.105	-.100	-.517
Schizotypal	-.464**	-.283	-.404**	-.387*	-.462*	-.039	-.134	-.440	-.566*
Borderline	-.301**	-.206	-.335*	-.380*	-.391*	.056	-.194	-.146	-.217
Paranoid	-.521**	-.290	-.384**	-.335	-.391*	-.069	-.157	-.223	-.135
Anxiety	-.340**	-.378*	-.343*	-.693**	-.476**	.205	.156	-.048	-.413
Somatoform	-.215*	-.121	-.191	-.310	-.387*	.257	.443	.288	-.246
Bipolar Manic	-.455**	-.303*	-.368*	-.528**	-.467**	.086	-.038	-.148	-.215
Dysthymia	-.414**	-.383*	-.384*	-.608**	-.507**	.064	.108	-.091	-.274
Alcohol Dependency	-.333**	-.269	-.223	-.221	-.151	-.371	-.418	-.474	-.118
Drug Dependency	-.251**	-.032	.042	.064	.163	-.151	-.222	-.412	-.393
Posttraumatic Stress	-.390**	-.405**	-.326*	-.697**	-.453*	.120	.142	-.001	-.404
Thought Disorder	-.373**	-.373*	-.272	-.622**	-.313	.017	-.108	-.270	-.156
Major Depression	-.299**	-.311*	-.275	-.562**	-.406*	.130	.171	.127	-.160
Delusional Disorder	-.470**	-.298*	-.211	-.414*	-.271	.021	.188	.027	.233

** = significant at p<.001. * significant at p<.05

Table 15: Results from final regression model including all predictors

Model	Predictors	Standardised β (95% confidence interval)	t	p value
1	**Forensic History**	-.184 (-12.909, -.131)	-2.024	.046*
	Age	.332 (.232, .783)	3.650	<.001**
2	**Forensic History**	-.157 (-11.711, .567)	-1.801	.075
	Age	.239 (.101, .630)	2.741	.007*
	Posttraumatic Stress BR	-.068 (-.163, .102)	-.455	.650
	Avoidant BR	-.358 (-.270, -.029)	-2.453	.016*
	Depressive BR	.072 (-.130, .191)	.377	.707
	Dysthymia BR	-.099 (-.219, .135)	-.472	.638
	Major Depression BR	.027 (-.096, .117)	.192	.848

** = significant at p<.001. * significant at p<.05

4.5. Discussion

4.5.1. Summary of research findings

This study explored whether there was an association between intellectual functioning and experiences of child maltreatment in a sample of fathers involved in care proceedings. The study also examined whether intellectual functioning played a role in the type of abuse these fathers perpetrated. Analyses did not provide support for Hypothesis 1; that fathers who experience child maltreatment will have lower intellectual functioning than fathers who reported experiencing no child maltreatment. There were no significant differences between those in the ACEs and no ACEs group and their FSIQ scores. There were also no significant differences between the combined verbal comprehension or perceptual reasoning indices and experiencing child

maltreatment. This finding contradicts previous literature suggesting that child maltreatment experienced has deleterious effects of cognitive functioning for children in school and adults in later life (Perez & Widom, 1994; Eckenrode, Laird & Doris, 1993; Irigaray et al, 2013; Crozier & Barth, 2005; Jaffee & Maikovich-Fong, 2011). The overall FSIQ of this sample was 90 which, although is in the average range of adult intellectual ability, is 10 points lower than the average within the general population. These fathers are within a forensic population as they are all involved in care proceedings for potential abuse and/or neglect to their children. Forensic populations do have generally lower intellectual functioning than the rest of the population (Flinn, Hassett & Braham, 2018). However, from this finding it is not clear that this is due to experiences of child maltreatment. It is also possible that the differing findings in relation to Hypothesis 1 are due to the unique population of this study compared to other studies. The fathers in this sample were all undergoing a Court case for care proceedings due to the care their children were receiving. The similarities in intellectual functioning between those in the 'ACEs' and 'no ACEs' group could reflect the unique sample used in this study which cannot be generalised outside of the context in which the fathers were being assessed. It is possible that other external factors outside their self-reported experiences of child maltreatment were present for both groups such as substance misuse, mental health, socioeconomic status and stress due to the current circumstances. This prevents this sample from being comparable to previous research in this area and helps to illustrate possible reasons for the difference.

Analyses provided potential support for Hypothesis 2; that intellectual functioning in fathers will differ based on the type of maltreatment experienced. The findings initially revealed that experiencing neglect in childhood was

associated with lower verbal comprehension index. This is linked to previous studies that found an association between experiences of child maltreatment and lower education attainment and success (Crozier & Barth, 2005; Eckenrode et al, 1993; Jaffee & Gallop, 2007; Jonson-Reid et al, 2004). However, this finding did not remain significant after controlling for age. Research has found that parents' age and being a younger parent is associated with increased risk of child maltreatment and these parents are less likely to have had the opportunity to attain higher education levels and therefore potentially have lower verbal functioning (Bartlett & Easterbrooks, 2012; Smith & Adler, 1991; Afifi, 2007; Lee & Goerge, 1999). It is possible that this was the case in this sample however, this contradicts studies which have found a link between experiencing neglect and having lower verbal functioning, even after controlling for confounding variables (Perez & Widom, 1994).

The analyses found no evidence of physical, emotional or sexual abuse having an impact of lower intellectual functioning which does not support previous research Blanco et al, 2015; Stein et al, 1997; Friedrich, Einbender, & Luecke, 1983; Prasad et al, 2005; Lansford et al, 2002). However, a lot of this research was conducted on females and their experiences of childhood sexual abuse (Sadeh, Hayden, McGuire, Sachs, & Civita, 1993; Trickett, McBride-Chang & Putnam, 1994; Navalta et al, 2006) which could explain some of the differences in the findings of this study.

There was partial support for Hypothesis 3; that fathers who perpetrate child maltreatment will have lower intellectual functioning. This was supported by the finding that fathers whose children were neglected had lower verbal comprehension than those whose children were not neglected. This supports the notion that parents who did not finish school might have less knowledge about

how to effectively parent their children and therefore might not understand how to nurture their children and provide them with a safe and supportive upbringing (Dixon et al, 2005a; Bavolek & Keene, 1999; Afifi, 2007). This has previously been suggested to be more prevalent in mothers whose children were neglected (Dukewich et al, 1996; Huang et al, 2005) and therefore the findings in this study suggest that fathers could be impacted in similar ways. However, this finding did not remain after controlling for the father's age providing further evidence for age playing a key role in child maltreatment in this sample of fathers as described above.

Finally, analyses revealed evidence to support Hypothesis 4 by finding that fathers who have elevations on personality scales, particularly for trauma, depression and avoidance, had lower intellectual functioning, even after controlling for age and forensic history as confounding variables. This indicates that the more depression, trauma or avoidant related personality styles that the fathers in this sample had, the lower their overall FSIQ scores were. The findings also revealed that having an avoidant personality style contributed the most to these fathers having lower overall FSIQ scores. Evidence to support these findings comes from previous research examining the damage to the hippocampus due to the influence of the stress hormone or degenerative processes including PTSD, personality disorders and depression (Pohlack et al, 2014; van der Kolk, 2003; Bremmer, Southwick & Charney, 1999; Stein et al, 1997; Dannehl et al, 2017; Watts-English et al, 2006).

4.5.2. Implications

The findings of this study highlight the importance of early intervention and prevention in detecting and responding to child maltreatment especially neglect

in schools and via social services as this may prevent maltreatment, particularly neglect, continuing. In addition, early detection of neglect might ensure teachers can understand why some pupils might be struggling with verbal comprehension so that they can have additional support with their studies, particularly homework which might have been ignored, so they have a better chance of focussing and succeeding at school. Watts-English et al (2006) emphasizes that early detection of child maltreatment is vital in order to prevent deficits occurring and for children to get the extra needed support.

Social services should continue to offer parent training programmes which might reduce the risk of child maltreatment by helping parents build skills and knowledge about child development (Barth & Haskins, 2009; Schelbe & Geiger, 2017). This could include psychoeducation sessions, cognitive behavioural strategies that aim to provide parents with practical skills to manage their child's behaviours and emotions, teach discipline as well as nurturing behaviours. Existing programmes in the UK have found promising findings in decreasing the risk of further perpetration of maltreatment (McConnell, Barnard & Taylor, 2017; Printz et al, 2009). These programmes include the Triple P–Positive Parenting Practices (Saunders, 1999) and Caring Dads; Safer Children (Scott et al, 2006). These programmes can also be important in the ITCM for enhancing the quality of life and reducing the risk of maltreatment at a later stage in the child's life (Dixon et al, 2009).

The findings of this study reveal that these programmes should be tailored to fathers who might have lower intellectual functioning than the general population, particularly their verbal comprehension. When fathers involved in care proceedings have their intellectual functioning measured during a psychological assessment the social worker should inform the facilitators of the

parenting programmes of the father's difficulties. Adaptations can then be made to ensure they benefit from the programme.

Finally, treatment for father's personality styles, depression and previous experiences of trauma should be addressed to try and treat the impact of their childhood, to prevent further abuse or neglect being perpetrated against their children. Social workers and other professionals should understand that these difficulties occur in fathers as well as mothers, even though they might not express them. These deficits in expressing their feelings with the addition of their lower verbal comprehensive skills might convey anger, hostility or impulsivity. Fathers should have access to effective treatment for their difficulties by a trained psychologist with experience in treating those with trauma symptoms and personality difficulties.

Whilst these implications are important for professionals working with fathers involved in care proceedings and social services, it is important to identify the unique sample included in this study which cannot be generalised to all fathers in the community. These findings must only be interpreted within this context.

4.5.3. Limitations

There are several limitations of this research study which will be addressed here. First is the nature of using retrospective data in research into child maltreatment. As mentioned in chapter three, whilst retrospective data is useful for protecting the participants from any further psychological harm by asking them to relive their traumatic experiences, the researcher has limited control over the development and recording of data. This was a challenge within this research project because there was a limited number of variables which could be

examined for potential confounding variables. For example, lower socioeconomic status, ethnicity and mental health problems have been found to be associated with lower intellectual functioning (Danese et al, 2016; Hart & Rubia, 2012) and might have contributed to the neglect of their children instead of their experiences of child maltreatment. It would have been useful to examine these variables and their role in impacting fathers intellectual functioning or perpetration of abuse. As such, this study could only control for age and forensic history due to the limitations in accessing data for other demographic statistics. Further research should examine these risk factors in fathers.

Every research study using self-report data has the potential to be flawed due to participants engaging in socially desirable responses. This is a concern when participants are asked to recall information from their childhood in addition to asked them during care proceedings, an already stress and anxiety provoking time in a parents' life. This opens the data up to biases and misrepresentations (Arce et al, 2015). Parents might consider their childhood as 'normal' or not want to be honest with their difficult upbringing because they want to portray themselves in the best positive light so that they are able to continue caring for their children (Pears & Capaldi, 2001; Lenny & Dear, 2009). Further research should consider using a reliable and valid measure of child maltreatment which includes a minimisation/denial scale which reduces the risk of achieving a false neglect trauma report. The Childhood Trauma Questionnaire-Short Form (CTQ-SF, Bernstein & Fink, 1998) is explored in Chapter five to determine whether this measure would be a suitable psychometric to use in future research.

The use of the MCMI-III results to determine levels of trauma, depression and other psychopathology within this sample also has its limitations. This is because the MCMI-III focusses on psychiatric diagnoses in line with the DSM-IV-

R (APA, 1994) and has the potential to overpathologise individuals distress into personality disorders (Butcher, 2009). This is particularly important to note when thinking about the context within which this sample fits. It is difficult to imagine any population that is experiencing more stress than fathers undergoing psychological assessments for the purpose of Court proceedings (Abidin et al, 2013) especially when the consequences could involve losing care or contact with their child. Therefore, the personality styles found within the MCMI-III results might indicate heightened levels of distress than true personality difficulties. This highlights the importance of containing the findings of this study within the context of fathers undergoing care proceedings. These findings, therefore, cannot be generalised or even interpreted outside of this context and further research needs to explore whether these findings are similar within a sample of fathers in the general population.

Although there were significant differences found between fathers who experienced child maltreatment and those who did not, as well as those who perpetrated maltreatment and their intellectual functioning, causality is difficult to determine. This is because cognitive deficits could have predated maltreatment experienced or be caused by genetic and environmental risks such as socioeconomic status and mental health. Confounding factors are important to rule out to determine causal effects (Danese et al, 2016; Hart & Rubia, 2012). This can be a challenge in retrospective samples and was something which the current study could not control for. More research is needed into this area in males in the UK to determine causality.

4.5.4. Conclusions and directions for future research

Continued research into the field of child maltreatment in fathers, and how their intellectual functioning is impacted as a result, is vital to determine risk factors for potential perpetration of child maltreatment on their own children, particularly neglect. More research is needed into the impact of father's adverse childhood experiences on their mental health, particularly depression, trauma and avoidance behaviours (isolation) and how professionals need to recognise this as a risk of further child maltreatment in families. Treatment and parenting programmes for fathers are needed to treat their mental health but also increase their knowledge and understanding of parenting practice, reduce their risk of abuse and neglect and increase nurturing practices. Facilitators should adapt these programmes to fit the needs of these fathers who might have lower verbal comprehension to ensure they fully understand the concepts taught. Future research is needed into the causality of child maltreatment and intellectual functioning because little is known about whether one concept predates the other in a child's life. More research should control for other factors such as socioeconomic status, mental health and education level to determine this causality.

Chapter Five: Critique of a Psychometric Assessment: Exploring the Psychometric Properties of the Childhood Trauma Questionnaire-Short Form

5.1. Abstract

The Childhood Trauma Questionnaire (CTQ) is one of the most commonly used measures for assessing retrospective self-report accounts of child maltreatment. This critique sought to review the studies that have utilised the CTQ and the short version of the measure (CTQ-SF) and those that have assessed the reliability and validity of the measure. This critique also considered the clinical utility of the measure for parents, particularly fathers, to determine whether it is suitable for future research to assess experiences of child maltreatment in fathers. The findings indicate that the CTQ holds clinical value in terms of its reliability and validity but it is advised that it's utilised as part of a structured professional judgment with a trained mental health professional conducting the CTQ-SF, in addition to a clinical interview to explore the trauma in more detail. Moreover, further research is needed to explore this measure's clinical application to parents who may or may not have experienced childhood trauma. The findings suggest that this is particularly important in fathers because males may be less likely to report trauma experiences or symptoms due to the stigma around the term 'abuse'. It might also be that parents minimise or deny their traumatic experiences to be viewed as a 'good enough' parent. This is particularly prevalent in care proceedings when an additional measure of socially desirable responding might be useful.

5.2. Introduction

Child maltreatment is increasingly being recognised in clinical samples as well as the general population due to the long-term impact it has on the individual's psychological adjustment and the high prevalence of the experiences (Spinhoven et al, 2014). For many years, the literature only examined sexual and physical abuse until the focus moved towards other types of maltreatment such as emotional abuse and neglect as well as accounting for the notion that different types of maltreatment occur simultaneously (Briere & Runtz, 1990). Moreover, studies are still not utilising valid and reliable instruments to retrospectively assess abuse and neglect despite this being suggested as a pitfall in the literature over 20 years ago (Bernstein et al, 2003; Briere, 1992). This is particularly the case in research into parental childhood abuse, as evidenced by the systematic review completed in Chapter Two of this thesis.

One of the most widely used and examined self-report psychometric questionnaires used to assess experiences of child maltreatment is the Childhood Trauma Questionnaire-Short Form (CTQ-SF, Bernstein et al, 2003; Spinhoven et al, 2014). It has been known as the 'gold standard' instrument for the retrospective self-assessment of childhood maltreatment due to its easy, ethical and non-invasive administration (Hernandez et al, 2013). It has been validated and translated into more than 10 different languages (Thombs et al, 2009). This critique aims to assess the psychometric properties of the 28-item CTQ-SF in terms of its development, scientific properties and its clinical and research uses, particularly in the context of its use with fathers being assessed for the purposes of care proceedings.

5.3. Overview of the CTQ

5.3.1. Development

Bernstein et al (1994) initially developed the Childhood Trauma Questionnaire (CTQ) based on previous research into the assessment of traumatic childhood experiences. This included PTSD, dissociation, personality disorders and substance abuse having a range of methodological issues. This was due to the potential for misrepresentation in recall of emotionally painful events, only measuring certain types of abuse (e.g. physical or sexual), and the lack of standardised, appropriately validated and reliable psychometric measures (Bernstein et al, 1994). They reported that there was a need to develop a self-report instrument that was quick and easy to administer, incorporated multiple types of abuse and neglect, was valid and reliable and could also account for those who might underreport their traumatic experiences (Bernstein et al, 1994).

The CTQ was originally assessed on 286 drug- or alcohol-dependent patients in the United States of America (USA). This population was reportedly chosen due to their high expected prevalence of abuse and neglect (Bernstein et al, 1994). It was originally designed to be a 70-item self-report instrument and the administration time was between 10 and 15 minutes. The CTQ factors were derived empirically and validated against the Childhood Trauma Interview (CTI, Fink et al, 1993). Principal Component Analysis (PCA) of responses yielded four rotated orthogonal factors which accounted for 47.6% of the total variance between items; physical and emotional abuse (23 items), emotional neglect (16 items), sexual abuse (6 items) and physical neglect (11 items). These factors closely corresponded to the items initially written for the CTQ (Bernstein et al,

1994). However, this initial study only examined individuals who were referred for misusing substances and therefore, validity and reliability for this measure needed to be examined on those in other psychiatric groups, community samples and on males and females separately to explore gender differences.

Factor analytic results were closely replicated in a study of adolescent psychiatric patients, except for physical and emotional abuse items being loaded separately rather than the same factor (Bernstein, Ahluvalia, Pogge, & Handelsman, 1997), producing a five-factor model. In this study, the authors were able to substantiate self-reported histories obtained from the CTQ with referring professionals, reports and agencies. The authors rated the adolescents' trauma based on the available data and the CTQ showed good sensitivity and specificity, supporting its criterion-related validity (Bernstein et al, 1997).

In 2003, Bernstein and colleagues developed a shorter version of the CTQ using exploratory and confirmatory factor analysis (CFA) of the 70 original items to create the 28-item CTQ-SF which consisted of 25 clinical items and three validity items. Bernstein et al (2003) tested the measure in four samples in the USA: 378 adult substance abusing patients, 396 adolescent psychiatric inpatients, 625 substance abusing individuals, and 579 individuals from a normative community sample (1978 in total). The CTQ-SF was developed to offer a less time-consuming screen for maltreatment histories in clinical and non-referred populations. The way they reduced the number of items was to cut items from the original CTQ that loaded highly on more than one factor, so "*the resulting factors would be as discriminable as possible across multiple populations*" (Bernstein et al, 2003, p. 172).

5.3.2. The instrument

The CTQ-SF is a 28-item questionnaire, which can be administered to adolescents (aged 12 and above) and adults to provide screening for a history of abuse and neglect (Bernstein & Fink, 1998). It assesses trauma history via retrospective self-report and yields scores on five different subscales for emotional neglect, physical neglect, physical abuse, emotional abuse and sexual abuse with five items representing each type (Bernstein et al, 2003). It also includes a three-item Minimisation/Denial Scale for detecting individuals who may be under reporting traumatic events (false-negative trauma reports). Table 17 provides an overview of the CTQ-SF's definitions of maltreatment types as well as sample items from each subscale. Interpretative guidelines allow for identification of three levels of severity of abuse and neglect (i.e. low, moderate and severe). It takes on average five minutes to complete independently and is largely non-invasive (Spinhoven et al, 2014). A 5-point Likert-type scale is used for the response which range from Never True (1), Rarely True (2), Sometimes True (3), Often True (4) to Very Often True (5).

Bernstein and Fink (1998) developed cut-offs from responses of female members of a health maintenance organisation (HMO). Cut-offs for the USA for low severity abuse were emotional neglect: ≥10; emotional abuse: ≥9; sexual abuse: ≥6; physical abuse: ≥8; and physical neglect: ≥8. The CTQ-SF has been translated into numerous different languages to increase its accessibility including German, Norwegian, Turkish, Spanish, French, Haitian Creole, Portuguese, Italian, Dutch and Chinese (Thombs et al, 2009; Jiang et al, 2018).

Table 16: Definitions of Scales/subscales within the CTQ

Scale/Subscale	**Definition of abuse/neglect** ***Sample items***	***n* items (total=28)**
Sexual abuse	Sexual contact or conduct between a child younger than 18 years of age and an adult or older person "*someone tried to make me do sexual things or to watch sexual things*"	5
Physical abuse	Bodily assaults on a child by an adult or older person that posed a risk of or resulted in injury "*people in my family hit me so hard it left me with marks or bruises*"	5
Emotional abuse	Verbal assaults on a child's sense of worth or well-being or any humiliating or demeaning behaviour directed toward a child by an adult or older person "*people in my family said hurtful or insulting things to me*"	5
Physical Neglect	The failure of caretakers to provide for a child's basic physical needs, including food, shelter, clothing, safety, and health care "*I had to wear dirty clothes*"	5
Emotional Neglect	The failure of caretakers to meet children's basic emotional and psychological needs, including love, belonging, nurturance, and support "*my family was a source of strength and support*" ®	5
Minimisation/ Denial Scales	Identifies the possible underreporting of maltreatment (false negatives). "*I had the perfect childhood*"	3

Taken from Bernstein and Fink (1998), Bernstein et al (2003, p. 175) and Newcomb & Locke (2004, p.1224).

® = Item is reverse scored.

5.4. Psychometric Properties of the CTQ

5.4.1. Reliability

5.4.1.1. Internal consistency

Internal consistency measures whether test items within the CTQ that measure the same attribute, produce similar scores. The Cronbach's alphas for the four initial factors found by Bernstein et al (1994) in the original 70-item scale ranged from .79 to .94, with the total scale achieving Cronbach's alpha of .95, indicating high internal consistency (George & Malley, 2003; Nunnally, 1978). For the purposes of this study, an internal consistency lower than .70 is considered poor as advised by Nunnally (1978). Cronbach's alpha coefficients for the development of the CTQ-SF ranged from .84 to .89 for emotional abuse, .83 to .86 for physical abuse, .92 to .95 for sexual abuse, .85 to .91 for emotional neglect and .61 to .78 for physical neglect (Bernstein et al, 2003).

Various studies have shown high internal consistency on the total scale and most subscales have reached a Cronbach Alpha coefficient >.80. However, the Physical Neglect subscale appears to be consistently poor (Spinhoven et al, 2014; Jiang et al, 2018; Thombs et al, 2009; Scher et al, 2001; Grassi-Oliveira et al, 2014; Hernandez et al, 2013; He, Zhong, Gao, Xiong, & Yao, 2019; Rosen & Martin, 1998; Gerdner & Allgulander, 2009; Karos et al, 2014). This could be because of the theoretical vagueness and lack of objectivity of the physical neglect constructs (Spinhoven et al, 2014; He et al, 2019). In addition, Jiang et al (2018) suggested that the low internal consistency might be attributed to cultural differences in the interpretation of physical neglect across countries and that most Chinese people believe in the saying "*spare the rod and spoil the child*" (Jiang et al, 2018, p.6) whereas most western cultures believe physical

punishment is maltreatment. A similar finding was found in Thombs et al (2007) study assessing the differences in responding between Black and Hispanic participants. They found that Black participants were less likely to classify physical punishment as abuse. Despite this, research suggests that it does seem plausible to have included a physical neglect scale into the CTQ as opposed to just having an emotional neglect scale because the two behaviours are distinct (Gerdner & Allgulander, 2009). The poor internal consistency of the physical neglect scale might indicate this subscale needs further adjustments to reduce the level of subjectivity, especially across cultures and languages. See Table 18 for full internal consistency results obtained from studies utilising the measure, including the countries they were conducted in.

5.4.1.2. Test-retest reliability

Test-retest reliability determines the stability of test results over repeated administrations under the same conditions. The 70-item CTQ demonstrated good initial test-retest reliability over a two- to six-month interval, with intraclass correlation coefficient (ICC) ranging from .80 to .83 for the four factors and .88 for the total scale (Bernstein et al, 1994). The CTQ-SF subscales have also been found to have good test-retest reliability over a four-month period with coefficients ranging from .79 to .86 (Bernstein & Fink, 1998). This indicates that the CTQ-SF may be *"resistant to reporting biases because of transient mood states as well as longer term psychopathology"* (Scher et al, 2001, p.845).

Studies have examined the test-retest reliability in other countries and have produced similar encouraging results. Garrusi & Nakhaee (2009) found test-retest reliability coefficient on a sample of 100 Persian individuals with a two-week interval for the total CTQ-SF scale was .90. Jiang et al (2018)

measured the two-week test-retest reliability of the CTQ-SF by assessing Chinese inpatients with diagnoses of schizophrenia and found this to be .81. Four-week test-retest reliability was high (r=.87) on a sample of non-psychiatric outpatients in Korea (Kim et al, 2011) as well as parents diagnosed with schizophrenia (r=.75, Kim et al, 2013). In Canada, an eight to ten-week test retest reliability of the CTQ-SF total scale for undergraduate students was .85 (Paivio & Cramer, 2004).

The test-retest reliability for each subscale ranged from .65–.94 for physical abuse, .70-.96 for emotional abuse, .58-.89 for sexual abuse, .77-.97 for emotional neglect and .55–.95 for physical neglect (Jiang et al, 2018; Paivio & Cramer, 2004; Kim et al, 2011; Kim et al, 2013). These findings indicated mixed results for the test-retest reliability of the CTQ-SF.

Table 17: Internal consistency for CTQ-SF

Author	Country	Sample	Version Length	Reliability Cronbach's Alpha
Adams et al (2011)	USA	105 female adult offenders	28-item	Total Score (.83), Physical Abuse (.86), Emotional Abuse (.86), Sexual abuse (.96), Emotional Neglect (.92), Physical Neglect (.73)
Bernstein et al (1997)	USA	398 adolescent psychiatric patients	70-item	Total Score (.97), Physical Abuse (.90), Emotional Abuse (.95), Sexual abuse (.91), Emotional Neglect (.94), Physical Neglect (.81)
Spinhoven et al (2014)	Netherlands	2981 adults	28-item	Physical Abuse (.88), Emotional Abuse (.87), Sexual abuse (.94), Emotional Neglect (.91), Physical Neglect (.60)
Forde, Baron, Scher & Stein (2012)	USA	397 'street youths'	28-item	Total Score (.92), Physical Abuse (.86), Emotional Abuse (.83), Sexual abuse (.96), Emotional Neglect (.66), Physical Neglect (.81)
Jiang et al (2018)	China	200 inpatient adults	28-item	Total Score (.81), Physical Abuse (.84), Emotional Abuse (.80), Sexual abuse (.83), Emotional Neglect (.82), Physical Neglect (.61)
Thombs et al (2009)	Netherlands	488 adults	28-item	Physical Abuse (.91), Emotional Abuse (.89), Sexual abuse (.95), Emotional Neglect (.91), Physical Neglect (.63)
Krischer & Sevecke (2008)	German	282 delinquent and student adolescents	28-item	Students: Physical Abuse (.89), Emotional Abuse (.83), Sexual abuse (.85), Emotional Neglect (.80), Physical Neglect (.80) Delinquents: Physical Abuse (.91), Emotional Abuse (.85), Sexual abuse (.95), Emotional Neglect (.86), Physical Neglect (.67)
Scher et al (2001)	USA	1007 adults from the community	28-item	Total Scale (.91), Physical Abuse (.69), Emotional Abuse (.83), Sexual abuse (.94), Emotional Neglect (.85), Physical Neglect (.58)
Hyman, Paliwal & Sinha (2007)	USA	91 adults seeking inpatient treatment for	28-item	Total scale (.87)

		cocaine dependence		
Tanaka et al (2011)	Canada	561 adolescents in the community	28-item	Ranged from Sexual abuse (.94) to Physical Neglect (.69)
Grassi-Oliveira et al (2014)	Brazil	1925 adolescents, adults and elders from clinical and non-clinical samples	28-item	Physical Abuse (.80), Emotional Abuse (.80), Sexual abuse (.90), Emotional Neglect (.91), Physical Neglect (.46)
Hernandez et al (2013)	Spain	185 female inpatient and outpatients from mental health centres	28-item	Physical Abuse (.88), Emotional Abuse (.87), Sexual abuse (.94), Emotional Neglect (.83), Physical Neglect (.66)
He, Zhong, Gao, Xiong, & Yao (2019)	China	3431 undergraduate students and 234 depressive patients from psychological clinics	28-item	Students: Total Scale (.79), Physical Abuse (.72), Emotional Abuse (.68), Sexual abuse (.77), Emotional Neglect (.76), Physical Neglect (.52) Patients: Total Scale (.81), Physical Abuse (.86), Emotional Abuse (.80), Sexual abuse (.72), Emotional Neglect (.80), Physical Neglect (.58)
Villano et al (2004)	USA	171 Female street-based sex workers	28-item	Ranged from .58 to .93
Rosen & Martin (1998)	USA	1060 male and 305 female soldiers	30-item	Sexual Abuse (.93), Physical and Emotional Abuse (.91), Emotional Neglect (.92), Physical Neglect (.56)
Sacchi, Vieno & Simonelli (2017)	Italy	446 undergraduate students	28-item	Physical Abuse (.95), Emotional Abuse (.88), Sexual abuse (.96), Emotional Neglect (.91), Physical Neglect (.87)
Goodyear, Newcomb & Allison (2000)	USA	307 Latino fathers	28-item	Physical Abuse (.79), Emotional Abuse (.81), Sexual abuse (.88), Emotional Neglect (.82), Physical Neglect (.88)
Paivio & Cramer (2004)	Canada	470 undergraduate students	70-item	Total Scale (.96), Physical Abuse (.84), Emotional Abuse (.86), Sexual abuse (.92), Emotional Neglect (.97), Physical Neglect (.75)
Gerdner & Allgulander (2009)	Sweden	659 with clinical disorders and	28-item	Total Scale (.92), Physical Abuse (.86), Emotional Abuse (.87), Sexual abuse (.95), Emotional Neglect (.91), Physical

		psychology students		Neglect (.65)
Karos et al (2014)	Switzerland	661 clinical and nonclinical participants	28-item	Physical Abuse (.82), Emotional Abuse (.83), Sexual abuse (.90), Emotional Neglect (.91), Physical Neglect (.53)
Kim et al (2011)	Korea	163 non-psychiatric outpatients	28-item	Total Scale (.92), Physical Abuse (.88), Emotional Abuse (.82), Sexual abuse (.87), Emotional Neglect (.86), Physical Neglect (.68)
Kim et al (2013)	Korea	100 parents diagnosed with schizophrenia	28-item	Total Scale (.89), Physical Abuse (.83), Emotional Abuse (.74), Sexual abuse (.88), Emotional Neglect (.80), Physical Neglect (.58)
Garrusi & Nakhaee (2009)	Iran	194 drug addicts, 197 psychiatric patients and 599 college students	28-item	Nonsexual abuse (.86) sexual abuse (.85), emotional neglect (.84), Physical neglect (.60).

5.4.2. Validity

5.4.2.1. Face validity

Face validity refers to whether the CTQ-SF appears effective in terms of its stated aims. Bernstein et al (1997) reported good sensitivity and specificity for the CTQ's ability to correctly identify maltreated youths. The CTQ-SF evidently measures childhood trauma and multiple types of maltreatment however, high face validity on a measure that is trying to determine someone's true self-report on a sensitive matter, is not always useful. Additionally, depending on the nature of the assessment (i.e. care proceedings) in which the CTQ-SF is being used, participants might be portraying themselves in a positive light so their childhood trauma is not viewed negatively or used against them to remove the child from their care. The CTQ-SF has a minimisation/denial scale to determine whether individuals are underreporting their experiences possibly due to not viewing their childhood experiences of discipline or treatment as problematic. These three additional subscales exhibited a strong association with the Balanced Inventory of Desirable Responding (BIDR, Paulhus, 1991; Bernstein & Fink, 1998) supporting the validity of the Minimisation/Denial Scale.

Nunally and Bernstein (1994) described face validity as the extent to which untrained individuals perceive that the instrument is measuring what it is intended to. Responses from individuals who experienced abuse demonstrated that the wording of the instrument was clear and asking about their abusive expeirences, therefore the face validity was satisfactory (Garrusi & Nakhaee, 2009). Garrusi and Nakhaee (2009) found that 20 individuals with different educational levels with histories of child abuse understood what each item meant

and they judged that the questionnaire appeared to measure child abuse, when asked in an open response format.

The measure assesses an individuals' childhood experiences of trauma, yet the assessment only includes types of child maltreatment often caused by a parent or caregiver. The term 'trauma' is defined as "*an exposure to an extraordinary experience that presents a physical or psychological threat to oneself or others and generates a reaction of helplessness and fear*" (American Psychiatric Association, 2013, cited by Levenson, 2017, p.105) and is often a term used to convey how severe and harmful the effects of an event can be across lifespan (Johnstone & Boyle, 2018). Trauma can include adverse life event that occur in childhood such as death of a family member, poverty, gang involvement, war, witnessing crime, bullying, parental substance misuse, criminal activity or mental illness (Felitti et al, 1998; Boullier & Blair, 2018; Whitefield, 1998; Dube et al, 2001; Levenson, 2017; Johnstone & Boyle, 2018). Therefore, this measure may mislead individuals who believe that the specific 'trauma' experienced during childhood is going to be asked about in this measure, when they are actually being asked about types of child maltreatment. The CTQ-SF only assesses some of the experiences that might lead to emotional and psychological trauma. A true measure of trauma might examine the impact of the individual's traumatic experience and the extent to which this impacts their life in terms of hyperarousal, avoidance and intrusion. A measure such as the Impact of Events Scale-Revised (IES-R, Weiss & Marmar, 1997) measures these symptoms of trauma to determine how much the event (whatever that event may be) impacts the individual's life and causes distress.

5.4.2.2. Content validity

Content validity determines whether the CTQ-SF has considered all aspects of child maltreatment within its subscales. Whilst it is positive that the CTQ-SF includes all types of maltreatment including different types of neglect (physical and emotional) and abuse (physical, sexual, emotional), it does exclude some forms of adversity that can be experienced during childhood. This includes witnessing intimate partner violence (IPV) which is increasingly being recognised as a form of child maltreatment due to the detrimental effects it can have on a child's mental and physical wellbeing (Afifi & MacMillan, 2011; Jones, 2014). It also excludes parental substance abuse, parental mental illness and criminal behaviour in the household. These are reported in Felitti et al's (1998) study on the prevalence of adverse childhood experiences and household dysfunction and they are recognised as risk factors that might increase the risk of child maltreatment becoming cyclical (i.e. a parent perpetrating the same abuse that they experienced, Pears & Capaldi, 2001; Berlin et al, 2011; Dixon, Browne & Hamilton-Giachritis, 2009).

Maltreatment by peers (i.e. bullying) has also been found to increase the risk of poorer adult mental health including anxiety, depression and increased risk of self-harm and suicide (Stapinski et al, 2014; Zwierzynska, Wolke & Lereya, 2013; Winsper, Lereya, Zanarini & Wolke, 2012). This finding has been noted even in the absence of other forms of maltreatment (Lereya, Copeland, Costello & Wolke, 2015) indicating evidence to support the inclusion of other types of adversity experienced in childhood within the CTQ-SF.

5.4.2.3. Convergent validity

Convergent validity implies that test scores having similar or the same constructs should correlate highly with each other. The sexual abuse scale on the 70-item CTQ was found to significantly correlate with rating of severity of sexual abuse on the CTI (Fink et al, 1993) and physical and emotional abuse was significantly correlated with physical abuse on the CTI even after partial correlations were computed to control for the effects of general maltreatment (Bernstein et al, 1994). This indicated good convergent validity as participants were reporting their experiences of neglect and abuse consistently across assessments. Similar results were also found in other studies (Fink et al, 1995; Spinhoven et al, 2014). Spinhoven et al (2014) found Spearman's Rank Order Correlation Coefficients with the scales of the CTI were .60 for emotional neglect, .57 for emotional abuse, .57 for sexual abuse and .61 for physical abuse. Physical Neglect was excluded because this is not a subscale in the CTI.

The CTQ-SF has also been found to have good convergent validity with the Interview for Traumatic Events in Childhood (ITEC, Thombs et al, 2009), the Child Psychological Maltreatment Scale (CPMS), the Chinese version of the impacts of Events Scale-Revised (IES-R) and the Chinese version of the Dissociative Experiences Scale-II (DES-II, Jiang et al, 2018) and the Trauma Assessment Questionnaire (TAQ, Kim et al, 2011), with positive correlations between these measures. In a study of undergraduate students, the CTQ-SF classified more participants as sexually abused than the Computer-Assisted Maltreatment Inventory (CAMI), whereas the reverse pattern occurred for physical abuse (DiLillo et al, 2006). The CTQ-SF exhibited a satisfactory convergent validity with the General Health Questionnaire (GHQ-12, r=.42, Garrusi & Nakhaee, 2009). Liebschutz et al (2018) found that the CTQ-SF

positively correlated with a prospective measure of violence exposure (VEX-R) on the three subscales: physical, emotional and sexual abuse but not physical or emotional neglect. See Table 19 below for full correlations between the CTQ-SF and various other measures for trauma and maltreatment.

The Parenting Bonding Instrument (PBI) has been examined against the CTQ-SF to assess convergent validity and studies have found that the PBI care scales were negatively correlated and the overprotection PBI scales were positively correlated with the measure (Hernandez et al, 2013; Finzi-Dottan & Karu, 2006; Rikhye et al, 2008; Seganfredo et al, 2009). Furthermore, emotional abuse was positively correlated with overprotection in both parents, whereas paternal and maternal care were negatively correlated (Finzi-Dottan & Karu, 2006). These results indicated that the risk of maltreatment, especially emotional abuse and neglect, is lowered with an increase in scores in parental care, whereas overprotectiveness and authoritarianism increased maltreatment risk (Seganfredo et al, 2009).

These findings reveal that the CTQ-SF had good convergent validity with therapists' ratings and other psychometric measures of maltreatment suggesting that the CTQ-SF is an effective screening measure for childhood trauma in a variety of community and psychiatric settings. However, some studies were only conducted on female participants and therefore, might not be generalised to males (Hernandez et al, 2013).

Table 18: Correlations between CTQ-SF subscales and other theoretical constructs

	Total score	PA	EA	SA	EN	PN
CTI	-	.61**	.57**	.57**	.60**	-
ITEC	-	.67**	.54**	.80**	.67**	.46**
CPMS	.61**	.39**	.62**	.36**	.45**	.43**
IES-R (Chinese)	.41**	.26**	.45**	.34**	.30**	.23**
IES-R (Korean)	.39-.30**	.29-.35*** .	.45-.52***	.19-.38***	-.05-.21	.13-.205
DES-II	.51**	.41**	.49**	.33**	.27**	.45**
DES-T	.30-.31**	.22-.47**	.39-.46***	.07-.34***	-.05-.15	.14-.18
VEX-R	.33**	.37**	.28**	.23**	.16	.17
TAQ-Neglect	.36-.56***	.41-.42***	.43-.49***	.10-.23	.24-.42***	.26-.43***
TAQ-PA	.39-.60***	.47-.69***	.44-.51***	.16-.17	.17-.43***	.27-.78***
TAQ-SA	.43-.42***	.37-.40***	.42-.43***	.54-.60***	.04-.37**	.23-.93***
TAQ-EA	.45-.72***	.50-.54***	.50-.79***	.26-.28*	.25-.56***	.24-.36**

* p <.05, ** p <.001, *** p<.001, CTI = Childhood Trauma Interview, ITEC = Interview for Traumatic Events in Childhood, CAMI = Computer-Assisted Maltreatment Inventory, CPMS = Child Psychological Maltreatment Scale, IES-R = Impact of Events Scale-Revised, DES-II = Dissociative Experiences Scale-II, VEX-R = Violence Exposure Scale and Children-Revised, PBI = Parenting Bonding Instrument, GHQ-12 = General Health Questionnaire, TAQ = Trauma Assessment Questionnaire.

5.5. Clinical utility for fathers

When considering the CTQ-SF's clinical and research uses in fathers, there has been some research that focussed more specifically on the use of the CTQ-SF in parents (Kim et al, 2013; Goodyear, Newcomb & Allison, 2000; McGraw et al, 2007) and other studies looked at the gender differences between scores (Bernstein et al, 1994; Thombs et al 2007; He et al, 2018; Petry & Steinberg,

2005). This helps to build an image of the validity and reliability of the CTQ-SF for fathers however, only one study has specifically examined teenage Latino fathers' outcomes on the CTQ-SF (Goodyear et al, 2000).

In terms of gender differences, Bernstein et al (1994) found that female patients exhibited a significantly higher mean level of sexual abuse than male patients. Males have been found to be less likely than females to endorse two items that refer to having been 'abused' potentially due to the different degrees in which they view their experience as abusive but also the stigmatisation that might be associated with males admitting to experiencing abuse and neglect (Thombs et al, 2007; Fricker et al, 2003).

Wright et al (2001) found different factor structures between males and females who completed the CTQ-SF. They suggested that tailoring the scores of the measure to accommodate these gender differences may produce more accurate assessment information and might allow further exploration of specific childhood maltreatment factors. The creation of physical abuse items applicable to the experiences for different genders could be considered.

Females in the community were found to be more likely to report abuse across all subscales than males (Thombs et al, 2006). Krischer & Sevecke (2008) found that girls reported significantly more experiences of emotional, sexual and physical abuse than boys in detained juveniles. Males physical and emotional neglect has been found to be significantly higher than that of females, whereas females emotional abuse was significantly higher than males (Pruessner et al, 2019). In addition, boys have been found to be less likely than girls to disclose the abuse when it occurred and took longer to discuss their experiences in adulthood (Heim et al, 2008). Research suggests that females are at an

increased risk of being a victim of childhood sexual abuse (Alter-Reid, Gibbs, Lachenmeyer, Sigal & Massoth, 1986) as well as being more likely to have actually experienced child sexual abuse than males (Wellman, 1993; Felitti et al, 1998; Bernstein et al, 1994; Bernstein & Fink, 1998). However, these findings could also indicate that males are underreporting their experiences of trauma and it may take them more time than females to fully disclose their traumatic experiences. It is possible that they will disclose neglect, which is possibly less stigmatising for them to admit to and slightly more subjective than 'hands on' abuse. This indicates that a strong, supportive therapeutic relationship might need to be established before fathers can truly discuss their childhood experiences.

In terms of parents, Goodyear, Newcomb and Allison (2000) conducted one of the only studies to examine the validity and reliability of the CTQ-SF in Latino teenager fathers and found good internal consistency. Incidences of children on the Child Protection Register for maltreatment (mainly sexual and emotional abuse) was associated with parents who reported childhood trauma (McGraw, Shaw & Beckley, 2007). Emotional abuse was associated with parents' self-reported experiences of childhood emotional abuse, indicating a cycle of abuse occurring. The findings concluded vast differences from those identified in children of parents without reported child maltreatment (McGraw et al, 2007).

As with any measure of traumatic experiences, there is a risk of re-traumatisation of participants when completing the measures. Walker, Newman, Koss and Bernstein (1997) examined the impact of female members of an HMO completing the CTQ. They found that only 12.8% reported being more upset than expected by completing the survey and less than 3% felt strongly that they would not have agreed to participate in the assessment, if they knew the

contents beforehand. In addition, despite the sensitive content of the measure, the females generally found the experience to be a positive one. This study indicated that females completing the CTQ seem to tolerate the exposure to prior trauma well, and adverse reactions may be less common than originally assumed. It is unclear whether the same impact would occur in males. Further research should examine the impact of males completing the CTQ-SF because it is possible that males internalise their feelings more than females and therefore might not report being as distressed but might well be distressed and even re-traumatised from filling in this questionnaire.

5.6. Conclusion

This critique examined the development of the CTQ-SF as well as scientific properties and its clinical and research uses particularly its use on fathers. Overall, the CTQ-SF has good internal consistency. However, it is worth mentioning that the internal consistency for the subscale Physical Neglect is poor especially when the CTQ-SF has been translated across countries (Thombs et al, 2007; Jiang et al, 2018). It is possible that the lack of homogeneity and objectivity in which physical neglect is viewed as punishment or chastisement in some cultures is causing the lack of consistency in participants' answers (Gerdner & Allgulander, 2009). However, the internal consistency for the Physical Neglect subscales is still low in western cultures (Spinhoven et al, 2014; Thombs et al, 2009; Scher et al, 2001; Tanaka et al, 2011; Grassi-Oliveira et al, 2014; Rosen & Martin, 1998; Karos et al, 2014). It is argued that there is still a need for the physical neglect subscale because it is distinct from emotional neglect, but the subscale might require further adjustments (Gerdner & Allgulander, 2009).

Krischer & Sevecke (2008) reported that the CTQ-SF uses a narrow definition of abuse, which only includes the exposure to, but not the observation of, abusive acts or other forms of maltreatment such as peer bullying. However, the measure is still seen as the "*gold standard*" for retrospective assessments of childhood trauma due to its easy to administer, ethical and non-intrusive questionnaire (Hernandez et al, 2013). It covers multiple types of maltreatment whilst also having good internal consistency, test-retest reliability and validity. The CTQ-SF has shown good convergent validity with various measures of trauma and child maltreatment including therapists' ratings and the CTI (Fink et al, 1995; Spinhoven et al, 2014). However, as with any actuarial assessment, it is important to combine these measures with professional judgment via a comprehensive clinical interview by a trained professional as well as a review of official records of child maltreatment to increase the reliability of the assessment of the individual's trauma (Holland, 2016). Holland (2016) highlighted that self-report inventories provide valuable data which cannot always be obtained through other means when assessing parents involved in custody proceedings. Bernstein and Fink (1998) advise that clinical judgment should always be exercised when using this measure along with all available information about the respondent (e.g. full clinical interview, official records of abuse and neglect, medical records, other psychological assessment measures). They advise that an inspection of the responses to items could help "*flesh out*" a more detailed picture of maltreatment history (Bernstein & Fink, 1998, p.16).

There is a lack of research conducted into fathers using the CTQ-SF and the impact that their experiences of maltreatment might have on their risk of harm to their children. Some research is conducted on both parents using of the CTQ but rarely on fathers alone (Locke & Newcomb, 2004; Newcomb & Locke,

2004; McGraw et al, 2007). Future research should explore the impact of father's experiences of child maltreatment and the risk this has on their children using the CTQ-SF to have a valid and reliable measure of maltreatment. This would be particularly important for using the CTQ-SF in care proceedings that include completing a psychological assessment. Parents are likely to give socially desirable answers because of the potential negative outcome of the assessment on their future contact with their children.

In terms of face validity participants who completed the CTQ-SF appeared to understand what the assessment was measuring (Garrusi & Nakhaee, 2009). However, this becomes more problematic when parents, particularly fathers, are completing the measure for the purposes of care proceedings where they fear that they will have little to no contact with their children if they disclose childhood adversity or they fear that they will be heavily stigmatised or 'judged' by the past experiences (Thombs et al, 2007; Fricker et al, 2003). In addition, they might expect to be asked about 'trauma' and adversity experienced in childhood whereas the measure only asked about types of child maltreatment that they might have experienced. This might lead participants to feel that their experiences are not severe or adverse enough if they do not classify as one of the maltreatment types.

The minimisation/denial subscales aim to detect under- and over-reporting of experiences, however, this might still be high because it is hard to imagine any population that is experiencing more stress than families involved in care proceedings where they are in fear that they will lose contact with their children (Abidin et al, 2013). It might be worth including a further measure of impression management when conducting the CTQ-SF in these types of settings where parents' anxieties will be increased, such as the Paulhus Deception Scale

(PDS, Paulhus, 1998), a more recent version of the BIDR which Bernstein and Fink (1998) originally assessed the minimisation/denial subscales against.

The CTQ was originally validated in psychiatric and community samples. Since then it has been validated in community samples, at risk samples and clinical samples and the large majority of these studies support the validity of the measure (Scher et al, 2001; Spinhoven et al, 2014; Villano et al, 2004). It has since become to most widely used self-report questionnaire for the investigation of different forms of abuse and neglect during childhood (Viola et al, 2016; Bernstein et al, 1994). However, more research is needed to determine its effectiveness on fathers involved in care proceedings.

Chapter Six: Discussion

6.1. General discussion

This thesis aimed to explore the intergenerational transmission of child maltreatment (ITCM) in fathers and understand some of the risk factors associated with this concept. Firstly, a systematic review and meta-analysis were conducted of existing research including fathers. Then, two empirical research studies were undertaken exploring the role of personality and intellectual functioning within the ITCM in a sample of fathers involved in care proceedings. Finally, a psychometric critique of a measure of childhood trauma in adults was completed with suggestions for how it could be used in future research into the ITCM in fathers.

As described in Chapter One, the construct of ITCM is present in many theories and models including Attachment Theory (Bowlby, 1982), Social Learning Theory (Bandura, 1977) and the Intergenerational Transmission of Trauma (Schwerdtfeger & Nelson Goff, 2007; Walker, 1999; Fraiberg et al, 1975). The systematic review and meta-analysis in Chapter Two provided evidence supporting the intergenerational transmission of physical abuse in fathers which linked to the social learning theory approach to the ITCM in that children become socialised to abusive behaviour. Although aggressive and violent behaviour has negative outcomes, children observe and internalise this behaviour to be an effective tool of control, continuing the familial cycle of abuse (Jennings et al, 2011). The systematic review found approximately 75% of the 16 included studies provided evidence to the support the ITCM more generally in fathers. The meta-analysis found that the odds of fathers who experienced either physical abuse or corporal punishment in their childhood was 2.34 higher

than fathers who did not report experiencing maltreatment in childhood of using physical abuse towards their children. The meta-analysis was limited due to their only being five studies exploring physical abuse in fathers, therefore publication bias could not be determined but was possibly present.

The primary empirical research study presented in Chapter Three found limited evidence for the direct transmission of abuse (except for sexual abuse) in a sample of fathers undergoing psychological assessments for the purposes of care proceedings. However, the levels of self-reported childhood abuse were high in the sample, higher than those reported in the general population (Bellis et al, 2014). These experiences of childhood abuse were associated with an increased risk of developing personality traits such as depressive, PTSD and avoidant and certain personality difficulties were found to be associated with an increased risk of perpetrating maltreatment (particularly neglect) towards their children. Fathers who reported experiencing no child maltreatment were more likely to have elevations on the compulsive and histrionic personality traits which are often linked with impression management and 'faking good'. Fathers personality styles were grouped into three distinct attachment styles which might help to explain father's behaviour towards their children which will be important for further prevention and intervention in child maltreatment.

Similarly, high rates of childhood abuse were found in the secondary empirical research study. Although deficits in intellectual functioning were not found, the sample had generally lower functioning than that of the general population. This is a finding commonly found in forensic populations (Flinn et al, 2018). Poorer intellectual functioning was associated with personality styles indicative of PTSD, depression and avoidance. Both experiencing and causing children to be neglected appeared to be associated with poorer verbal

comprehension in fathers. When viewed together, these three chapters provided some supporting evidence for direct and indirect intergenerational transmission of child maltreatment in fathers, with specific risk factors identified.

6.2. Gender differences in parents

This thesis is focussed solely on the ITCM in fathers due to the paucity of research into this population. As a result, it is important to acknowledge key gender differences found throughout to highlight the need to analyse and explore mothers and fathers separately. The systematic review and meta-analysis in Chapter Two found evidence for fathers continuing the cycle of physical abuse which has not been clearly found in mothers within the existing literature (Jones, 2014). Fathers have continually been viewed as the perpetrator of physical abuse (Hartley, 2004). Sidebotham, Bailey, Belderson and Brandon (2011) found the father or father figure was the only perpetrator in 56% of cases where a child had died because of severe physical assault. This was in comparison to 4% of cases where the mother was the only perpetrator. However, child deaths caused by neglect were more likely to be perpetrated by mothers than fathers (Klevens & Leeb, 2010).

Mothers have been found to be more likely to experience childhood sexual abuse than fathers (Wellman, 1993; Felitti et al, 1998; Bernstein et al, 1994; Bernstein & Fink, 1998). This thesis supports this finding as the prevalence of childhood sexual abuse in the sample of fathers in Chapter Three was extremely low, despite there being evidence of cyclical sexual abuse. In addition, mothers were found to unintentionally expose their children to abusive men by remaining in intimate relationships due to their own insecure attachments (Morton & Browne, 1998). The findings from Chapter Two revealed that fathers might be

more likely to directly abuse their children physically based on their previous experiences in childhood linking in with the social learning theory and previous research on gender differences within the cycle of abuse (Hartley, 2004). However, the findings from Chapter Three and Four are consistent with Morton and Browne's (1998) theory around insecure attachment styles which revealed that fathers maltreat their children indirectly mainly via neglect and there were no findings to support those found in Chapter Two.

Response styles between genders have been found with mothers being more likely to seek help and support and voice their thoughts and feelings to professionals whereas males are more likely to externalise negative feelings which build up into violence and aggression (Jones, 2014). These findings have been partially found in this thesis with males being less likely to report their trauma symptoms, engage in more physical abuse (a finding only found in the systematic review, not the empirical research studies) and display some antisocial and impulsive personality styles. However, what was also found was that fathers who experienced maltreatment were also displaying personality and attachment styles indicative of seeking support, highlighting that they feel depressed, traumatised but also avoidant and paranoid. It is important to highlight that fathers might have difficulties displaying their true thoughts and feelings due to their lower verbal comprehension found in Chapter Four, resulting in an increase in distress, low mood and as though they cannot reach out for support.

Future research should focus on the differences between parenting styles within genders and move away from focussing on the biological sex of the parent and their differences. This thesis has highlighted distinct differences between fathers' interpersonal styles and how they might respond to distress which,

historically might have been perceived as in keeping with female attributes. This is also important to note in relation to the interpretation of the MCMI-III personality styles which are sensitive to gender bias within item wording and misdiagnoses (Stone, 2014; Widiger & Chaynes, 2003). For example, borderline, dependent and histrionic personality styles were more commonly found in females due to items that may resonate specifically with females (Widiger & Chaynes, 2003). Feminine females are more likely to respond differently to masculine males, which could lead to a misconstruction of personality profiles. However, little is known about the responses of individuals who did not identify in these binary categories. Further research needs to explore these differences and similarities between parents, both in mothers, fathers and those who might identify as non-binary.

6.3. Implications

Based on the results presented in the systematic review in Chapter Two, there is evidence to indicate the ITCM exists in fathers, particularly cyclical physical abuse. When reviewing all included studies, a number of psychometric and behavioural measures of childhood abuse were found along with official records of abuse and neglect and comprehensive clinical interviews conducted by trained professionals. This review highlighted the importance of researchers and clinicians to carefully consider the best way to measure child maltreatment in parents, considering what type of maltreatment they want to assess. Clinically, this thesis deemed the CTQ-SF as a feasible option for assessing childhood trauma for fathers within forensic populations.

As discussed in Chapter Five, a strength of the CTQ-SF when discussing other psychometric measures to assess child maltreatment is that it

encompasses multiple types of maltreatment, has good reliability and validity across countries and cultures as well as a built in measure of minimisation and denial which is particularly important for fathers who might be underreporting their symptoms. The self-report measure allows researchers and clinicians to understand the meaning of these experiences for fathers as it includes a measure of severity. It is seen as the 'gold standard' for retrospective assessments of childhood trauma due to its easy to administer, ethical and non-intrusive questionnaire (Hernandez et al, 2013). The CTQ-SF can provide valuable data on childhood trauma that might not always be obtained through other means (Holland, 2016). However, clinical judgment via a semi-structured interview such as the Childhood Trauma Interview (CTI, Fink et al, 1995) is always advised alongside any psychometric measure as well as a review of official records. In addition, the use of a further measure of socially desirable responding is recommended to capture fathers who might be 'faking good' during care proceedings for fear that they will be stigmatised or 'judged' by their past experiences. They might be increasingly concerned that they will be viewed as not providing 'good enough' care to their children and therefore mask their symptoms (Thombs et al, 2007; Fricker et al, 2003). Caution is also advised when interpreting the physical neglect subscale of the CTQ-SF because it does not appear to translate well in some cultures where physical punishment and chastisement might be viewed as effective parenting strategies (Gerdner & Allgulander, 2009). The use of this measure in fathers in forensic populations still requires further research to confirm the psychometric properties of the measure in these unique circumstances.

The findings from the empirical studies presented in Chapter Three and Four carry important clinical significance and are two of the only research studies

exploring the ITCM in fathers in the UK. Firstly, there is a lack of research generally into the risk and protective factors for fathers who continue the cycle (Schelbe & Geiger, 2017). Secondly, there is a general lack of research into care proceedings within the UK and many clinicians and researchers rely heavily on American custody proceedings. The two concepts are not comparable because it is hard to imagine any population that is experiencing more stress than families involved in care proceedings where they are in fear that they will lose contact with their children for not being competent parents (Abidin et al, 2013). As a result, several clinical implications of this thesis are discussed.

The results of the primary empirical research support the need for clinicians to be aware of the three 'types' of fathers that were identified in the sample which linked to different insecure attachment styles coined by Bifulco et al (2008). These factors were labelled '*Emotionally Unstable and Depressed'*, '*Antisocial and Impulsive'* and '*Psychotic and Avoidant'*. The Emotionally Unstable and Depressed factor linked to the enmeshed-withdrawn attachment style, the Antisocial and Impulsive factor linked to the angry-dismissive attachment style and the Psychotic and Avoidant factor linked to the fearful attachment style. These findings support the attachment theory explaining the ITCM. Attachment based therapy is difficult to obtain in the UK but treatment into trauma symptoms, personality styles, depression and anxiety would be useful interventions for these fathers. These findings highlight the importance of no longer ignoring fathers in research as well as prevention and intervention of child maltreatment. It is important for professionals to understand these distinct types of fathers they engage with and how they might present. One previous opinion in the literature is that fathers all fall into the antisocial and impulsive type and are therefore feared by professionals (O'Hagan, 1997; Schourfield, 2006). This is

only one of three types of fathers in the sample, with the others being more fearful, traumatised and depressed. It is possible that the antisocial, impulsive fathers use hostility and anger to externalise their trauma symptoms through violence and aggression, whereas the other fathers might be more likely to 'suffer in silence'. Whichever 'type' of father they are might determine how they behave but ultimately their ongoing negative emotions and experiences are similar and just as paramount. They need support from clinicians and professionals to recognise and deal with their symptoms and understand how they are consequently parenting. More trauma-informed interventions are needed that specifically target males as victims of abuse as well as perpetrators (Schelbe and Geiger, 2017). This could involve trauma-focussed Cognitive Behavioural Therapy (TF-CBT, Cohen, Mannarino, Berliner & Deblinger, 2000) or Eye Movement Desensitisation and Reprocessing Therapy (EMDR, Shapiro, 2001). These are the NICE recommended treatment guidelines for trauma symptoms (NICE Guidelines, 2018). Social workers in particular, need to ensure that they make every effort to include fathers from the beginning of their involvement and refer them to the recommended agencies for treatment for their trauma symptoms to ensure the risk of harm to children is reduced. Fathers who might have deficits in expressing their feelings, with the addition of lower verbal comprehension found in Chapter Four, might be more likely to convey anger, hostility or impulsivity. This could deter professionals from working effectively with them which is why it is so important to acknowledge that these characteristics might be related to intellectual functioning and/or trauma and personality difficulties.

Chapter Four highlights some important clinical implications for fathers who might have lower intellectual functioning due to the trauma they

experienced as a child but also could be a reason why they are neglecting their own children as parents. Parenting programmes such as the Triple P–Positive Parenting Practices (Saunders, 1999) and Caring Dads; Safer Children (Scott et al, 2006) in the UK have found promising findings in decreasing the risk of further perpetration of maltreatment (McConnell, Barnard & Taylor, 2017; Printz et al, 2009). However, professionals referring fathers to these programmes need to be aware of their potential lower levels of intellectual functioning, particularly verbal functioning and lack of educational attainment. Fathers will routinely have their intellectual functioning measured during a psychological assessment if they are involved in care proceedings. Therefore, the social worker should inform the facilitators of these programmes of any deficits found. Adaptations can then be made to ensure the participants benefit from, and meaningfully engage in, the programme.

Whilst the implications of this thesis are important to recognise, the context in which they can be generalised is limited. The fathers in the two empirical studies in Chapter Three and Four were taken from psychological assessments for the purposes of care proceedings before the case went to the Family Court. These fathers are likely to be experiencing high levels of stress before, during and after undergoing these psychological assessments (Abidin et al, 2013) especially when the potential consequences are losing care or contact with their child or children. Therefore, the psychopathology, personality styles, levels of self-reported adversity and intellectual functioning are all likely to be impacted by the unique situation the participants are likely to find themselves in when undergoing the assessments. There is a risk of under- and over-reporting incidences of childhood abuse and neglect as well as the validity of MCMI-III in terms of the fathers trying to portray themselves in a more or less favourable

light or seeking support. Fathers cognitive assessments which assess their adult intellectual functioning is also likely to be skewed due to their anxiety, concentration and motivation on the day of the assessment (Wechsler, 2008).

6.4. Limitations

Limitations were discussed at the end of each chapter. However, in order to interpret the findings of this thesis in the correct context, an overview will be presented below. For the systematic review, it is important to reiterate that the conclusions could be subject to publication bias because although unpublished research was sought during searches, all unpublished research was excluded in the PECO stage. Some dissertations, theses and research conducted prior to 1980 could not be obtained and therefore were excluded from the final review. Furthermore, studies that had not been translated into English language were also excluded. This means that the review could be biased towards published, English-language research which may not be generalisable to all studies conducted into the ITCM in fathers.

Throughout this review there is an over reliance on self-reported information from fathers often being investigated for allegations of perpetration of abuse and neglect. These are discussed throughout the thesis in terms of fathers engaging in socially desirable responding, recall bias and misrepresentation. Underreporting symptoms in the context of care proceedings could be due to fear of losing contact with or care of their children and they want to prove that they are 'good enough' parents (Arce et al, 2015; Lenny & Dear, 2009; McCann et al, 2001). In the primary empirical research study, the MCMI-III validity scales allowed the study to control for this limitation to an extent. However, the levels of impression management would remain high and were

identified through the personality styles of fathers who did not report experiencing any maltreatment in childhood. For future research, the CTQ-SF with an additional measure to control for socially desirable responding, would be an appropriate measure to use.

Due to the skewed data on the number of fathers who perpetrated child maltreatment, there was a lack of control group. Therefore, it was not possible to compare personality traits, intellectual functioning, or experiences of child maltreatment in those who perpetrated maltreatment with those who did not. This means that causal links could not be made so the limits to the generalisability of the findings are questioned further. As a result, the findings of the empirical studies in Chapter Three and Four can, and must, only be applied to the current sample. Further research needs to explore whether the findings within this thesis can be expanded out into fathers in the general population outside of the environment created by care proceedings (Abidin et al, 2013).

The MCMI-III measure was used in Chapter Three and Four to explore parents' interpersonal difficulties. It is widely used in forensic settings and the results have been ruled as admissible in Court proceedings for a variety of clinical and forensic issues including child protection hearings (Craig, 1999; Bow, Flens, & Gould, 2010). This is largely due to the MCMI-III being "*extremely useful in arriving at hypotheses about the personality structure and interactive pattern of underlying immediate conflicts*" (Nurse & Sperry, 2012, p.61) which could be useful in deconstructing parent-child and intimate partner relationships (Stone, 2014). However, there are also limitations of using this measure, especially when using it for the purposes of care proceedings and assessing child maltreatment and trauma in later life. These are discussed below.

The MCMI-III was established to closely mirror the psychiatric diagnostic criteria of the DSM-IV-R (APA, 1994; Millon, 2006). The purpose of this thesis was to explore patterns within parents who experienced maltreatment in childhood using an attachment, trauma-informed theoretical approach. The MCMI-III therefore, has the potential to pathologise individuals who are undergoing a high level of stress during care proceedings. Blood (2008) found that the MCMI-III does not necessarily overpathologise individuals being assessed within child custody proceedings however, there is still a risk of the measure being misused as a diagnostic tool for personality disorder (Butcher, 2009). There remains an underrepresentation of ethnic minority groups in the MCMI-III's normative sampling, with few validation studies concerning interpretation into other languages and formats (Stone, 2014; Lloyd, 2011). The MCMI-III questions are largely applicable to western cultures therefore, there needs to be further exploration into the validity of the measure on other cultures. Whilst the use of the MCMI-III is showing promising results for its use in care proceedings, there is a question about whether this sample can be viewed as a normative sample (Craig, 2012). For the purposes of this thesis, the measure was used to assist with understanding the emotional and personality functioning of individuals whose ability to parent is the main concern (Stredny, Archer & Mason, 2006), however, it is important to address these limitations due to the potential for their personality styles to be taken out of the context they were intended for within this thesis.

Recall bias is a particular concern when trying to obtain information on histories of childhood, especially traumatic ones which the fathers might either view as 'normal' because they do not know any different (Herzberger, 1990) or have repressed or dissociated from the events. The empirical research studies in

Chapter Three and Four were able to control for some of the limitations of self-report data by using confirmatory data from the Court bundles received prior to the psychological assessments which were occasionally able to confirm or deny histories of maltreatment as well as allegations of perpetration of maltreatment. Furthermore, adults who do recall their childhood experiences have been found to have higher levels of psychopathology including depression, PTSD, anxiety and substance misuse, regardless of whether these reports could be accounted for in objective experiences of child maltreatment via prospective data on the same individuals (Danese & Widom, 2020).

There are several limitations to using retrospective data in research into child maltreatment. Firstly, there is no control over the development or recording of data therefore important aspects such as the chronicity, severity and frequency of maltreatment cannot be reported (Berzenski et al, 2014; Jonson-Reid et al, 2014). Further confounding variables could also not be included due to retrospective data such as mental health difficulties, socioeconomic factors and cultural differences (Schelbe & Geiger, 2017; Valentino et al, 2012). Prospective data is the preferred method of assessing child maltreatment to increase the accuracy of data and reduce the risk of re-traumatising parents by reporting it, hence re-living their experiences, later in life when collating retrospective data. However, the primary and secondary empirical research study prevented fathers having to relive their maltreatment by using data from previous completed psychological assessments which is one advantage of using retrospective data (Widom, 2015).

6.5. Future Directions

Future research is needed to continue to examine the risk and protective factors associated within the cycle of abuse in fathers. As mentioned above, the recommended method of data collection is prospective longitudinal designs because they minimise the risk of recall bias years later (Widom, 2015). Nevertheless, these study designs are rare because they are time-consuming, expensive and difficult to retain participants throughout the years. For these reasons, many researchers still rely on retrospective data as can be seen in the systematic review in Chapter Two when only 18.8% (n=3) studies used prospective data. The CTQ-SF is regarded as the 'gold standard' for retrospective assessments of childhood trauma (Hernandez et al, 2013) and there are promising results for its uses with fathers in forensic populations. However, more research is needed into its clinical utility in care proceedings before any further conclusions can be drawn about the measure's effectiveness in retrospective studies. There is always a risk of re-traumatising individuals when they are asked to relive their traumatic experiences but Walker et al (1997) did not find that mothers were re-traumatised after completing the CTQ-SF. This impact is still unknown for fathers who might internalise their feelings more than mothers. Consequently, the CTQ-SF should still be used with caution in future research.

Further research needs to include more evidence to support the need for fathers to receive effective psychological treatment for the trauma symptoms, personality styles and attachment styles. More research is needed into intellectual functioning deficits in fathers who have experienced and are perpetrating maltreatment to develop further effective parent training for those who might be lower functioning than the general population. This is important to ensure that fathers understand the training they receive in order to be able to

put it into practice. Research should also begin to explore specific protective factors for fathers to help break the cycle in families.

This thesis highlights the need for further research into this population and challenge the stereotype of fathers being uncommitted and uninvolved parents who are to be feared by professionals, a view that has remained unchanged for the past 20 years (Zanoni et al, 2014; Laulik et al, 2013; Smith et al, 2012). More findings are needed to highlight the psychological distress that fathers have experienced in their childhood and are continuing to experience whilst also trying to be 'good enough' parents.

Other risk factors and potential causes of the ITCM need to be explored in further research. These include socioeconomic factors, mental health difficulties, substance misuse, the neighbourhood and community including the risk of gang associations, bullying, witnessing intimate partner violence and other adverse experiences during childhood that might cause trauma symptoms in later life such as death of a family member or witnessing violence as part of a war (Felitti et al, 1998; Boullier & Blair, 2018; Whitefield, 1998; Dube et al, 2001; Levenson, 2017; Johnstone & Boyle, 2018). Many of these risk factors were unable to be fully explored throughout this thesis due to the nature of the retrospective data and skewed sample of fathers involved in care proceedings impacting the generalisability of the finding in the two empirical studies.

Cultural differences within families and how child maltreatment and other potential risk factors are viewed also needs to be factored into future research into the ICTM in parents. It is possible that reporting incidences of child maltreatment differs across cultures due to ongoing discrepancies between what constitutes as abuse or punishment (Krug et al, 2002; Hamilton-Giachritsis &

Pellai, 2017; Radford, 2017). Despite the UNCRC (United Nations General Assembly, 1989) attempting to control for these differences, further research should continue to explore whether cultural differences are present in the ITCM in fathers. There is evidence to suggest that children growing up in poverty are more likely to experience child maltreatment (Berger, 2004; Slack et al, 2004). It is possible that the quality of parenting can be negatively influenced by socioeconomic disadvantage (Conger et al, 2009). Further research should examine the links between the ICTM and the cycle of poverty.

There is a growing body of research exploring the impact of Benevolent Childhood Experiences (BCEs) and how these differ to ACEs in parents, particularly pregnant and new mothers (Narayan, Ghosh Ippen, Rivera & Lieberman, 2015; Narayan, Rivera, Bernstein, Harris & Lieberman, 2018). The findings of these studies indicate that the higher BCEs a pregnant mother had the lower their PTSD symptoms were, and the less exposure they had to stressful life events (Narayan et al, 2018). This allowed them to create more positive, loving memories during and after pregnancy (Narayan, Atzl, Merrick, Harris & Lieberman, 2020). Narayan et al (2018) concluded that BCEs might counteract some of the long-term negative effects of childhood adversity. Further research should explore these BCEs in new and expectant fathers to determine how positive and nurturing childhood experiences might mitigate or even counteract negative memories and trauma symptoms which have occurred due to ACEs. This could assist professionals in working with fathers to build protective factors and bring BCEs into psychological interventions for trauma rather than focussing solely on processing negative, trauma-related memories (Karatzias et al, 2020).

6.6. Conclusions

This research thesis aimed to explore the ITCM in fathers. Throughout the thesis, there was some evidence to support the notion that fathers who experience maltreatment in childhood are at an elevated risk of perpetrating abuse towards their children as parents. However, other risk factors that play a role as well as limitations and implications of these research findings were discussed throughout. The CTQ-SF was concluded to be a reliable and valid assessment for the ITCM in fathers, although caution was advised about the potential for socially desirable responding in forensic populations, and the need for comprehensive clinical interviews to be conducted alongside any assessment of childhood trauma. This thesis highlighted the need for further research into this topic, focussing on gender differences in parents and the need for continued prevention and intervention to break the cycle.

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Widom, C. S., Czaja, S. J., & DuMont, K. A. (2015). Intergenerational transmission of child abuse and neglect: Real or detection bias?. *Science*, 347(6229), pp. 1480-1485.

Wiehe, V. R. (1992). Abusive and nonabusive parents: How they were parented. *Journal of Social Service Research*, 15(3–4), 81–93. DOI: 10.1300/J079v15n03_05.

Wiehe, V. R. (1997). Approaching child abuse treatment from the perspective of empathy. *Child Abuse & Neglect*, 21(12), pp. 1191-1204.

Wiehe, V. R. (2003). Empathy and narcissism in a sample of child abuse perpetrators and a comparison sample of foster parents. *Child Abuse & Neglect*, 27(5), pp. 541-555.

Williams, L. M., & Finkelhor, D. (1990). The characteristics of incestuous fathers. In *Handbook of sexual assault* (pp. 231-255). Boston, MA: Springer.

Wilson, K. R., Hansen, D. J., & Li, M. (2011). The traumatic stress response in child maltreatment and resultant neuropsychological effects. *Aggression and Violent Behavior,* 16(2), pp. 87-97.

Winsper, C., Lereya, T., Zanarini, M., & Wolke, D. (2012). Involvement in bullying and suicide-related behavior at 11 years: a prospective birth cohort study. *Journal of the American Academy of Child & Adolescent Psychiatry,* 51(3), pp. 271-282.

Woods-Jaeger, B. A., Cho, B., Sexton, C. C., Slagel, L., & Goggin, K. (2018). Promoting resilience: Breaking the intergenerational cycle of adverse childhood experiences. *Health Education & Behavior*, 45(5), pp.772-780.

Wright, K. D., Asmundson, G. J., McCreary, D. R., Scher, C., Hami, S., & Stein, M. B. (2001). Factorial validity of the Childhood Trauma Questionnaire in men and women. *Depression and Anxiety,* 13(4), pp. 179-183.

Wright, M. O. D., Crawford, E., & Del Castillo, D. (2009). Childhood emotional maltreatment and later psychological distress among college students: The mediating role of maladaptive schemas. *Child Abuse & Neglect*, 33, 59-68. DOI: 10.1016/j.chiabu.2008.12.007.

Zanoni, L., Warburton, W., Bussey, K., & McMaugh, A. (2014). Are all fathers in child protection families uncommitted, uninvolved and unable to change?. *Children and Youth Services Review*, 41, pp. 83-94.

Zimmerman, D. P., Pugh, R. H., Tepper, F. L., Halpern-Felsher, B. L., Howe, T. R., Tomlinson-Keasey, C., & Parke, R. D. (1997). Changes in abused children's social and cognitive skills from intake to discharge in a residential treatment center. *Residential Treatment for Children & Youth*, 14(3), pp. 65-83.

Zuravin, S., McMillen, C., DePanfilis, D., & Risley-Curtiss, C. (1996). The intergenerational cycle of child maltreatment: Continuity versus discontinuity. *Journal of interpersonal violence*, 11(3), pp. 315-334.

Zweig-Frank, H., & Paris, J. (1991). Parents' emotional neglect and overprotection according to the recollections of patients with borderline personality disorder. *American Journal of Psychiatry*, 148(5), pp. 648-651.

Zwierzynska, K., Wolke, D., & Lereya, T. S. (2013). Peer victimization in childhood and internalizing problems in adolescence: a prospective longitudinal study. *Journal of Abnormal Child Psychology*, 41(2), pp. 309-323.

*Final 16 articles included in final review.

Appendices

Appendix A. Search Syntax

Database	Date	Search terms	Hits
PsycINFO	26.07.19	1. ({child* abuse} or {child* maltreatment} or {adolescen* maltreatment} or {maltreated child*} or {abused child*} or {physical abuse} or {sexual abuse} or {emotional abuse} or {neglect} or {child welfare} or {child custody} or {looked after child*} or {child protection} or {child* trauma} or {child* adversity}).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]	1. 87642
		2. (Parenting or parent* or father* or caregiver* or {male parent} or paternal).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]	2. 350153
		3. (Transgeneration* or intergeneration* or {transition pattern$} or {family relation$} or {intergenerational cycle of abuse} or {cycle of abuse} or {cycle of maltreatment} or {perpetration of abuse} or {perpetration of maltreatment}).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh]	3. 57585
		4. 1 and 2 and 3	4. 2152
PsycARTICLES	26.07.19	1. ({child* abuse} or {child* maltreatment} or {adolescen* maltreatment} or {maltreated child*} or {abused child*} or {physical abuse} or {sexual abuse} or {emotional abuse} or {neglect} or {child welfare} or {child custody} or {looked after child*} or {child protection} or {child* trauma} or {child* adversity}).mp. [mp=title, abstract, full text, caption text]	1. 13740
		2. (Parenting or parent* or father* or caregiver* or {male parent} or paternal).mp. [mp=title, abstract, full	2. 48508

		text, caption text] 3. (Transgeneration* or intergeneration* or {transition pattern$} or {family relation$} or {intergenerational cycle of abuse} or {cycle of abuse} or {cycle of maltreatment} or {perpetration of abuse} or {perpetration of maltreatment}).mp. [mp=title, abstract, full text, caption text] 4. 1 and 2 and 3	3. 5943 4. 1394
EMBASE	26.07.19	1. ({child* abuse} or {child* maltreatment} or {adolescen* maltreatment} or {maltreated child*} or {abused child*} or {physical abuse} or {sexual abuse} or {emotional abuse} or {neglect} or {child welfare} or {child custody} or {looked after child*} or {child protection} or {child* trauma} or {child* adversity}).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] 2. (Parenting or parent* or father* or caregiver* or {male parent} or paternal).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] 3. (Transgeneration* or intergeneration* or {transition pattern$} or {family relation$} or {intergenerational cycle of abuse} or {cycle of abuse} or {cycle of maltreatment} or {perpetration of abuse} or {perpetration of maltreatment}).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] 4. 1 and 2 and 3	1. 90672 2. 692827 3. 25337 4. 863

Medline 1946 to present	26.07.19	1. ({child* abuse} or {child* maltreatment} or {adolescen* maltreatment} or {maltreated child*} or {abused child*} or {physical abuse} or {sexual abuse} or {emotional abuse} or {neglect} or {child welfare} or {child custody} or {looked after child*} or {child protection} or {child* trauma} or {child* adversity}).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] 2. (Parenting or parent* or father* or caregiver* or {male parent} or paternal).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] 3. (Transgeneration* or intergeneration* or {transition pattern$} or {family relation$} or {intergenerational cycle of abuse} or {cycle of abuse} or {cycle of maltreatment} or {perpetration of abuse} or {perpetration of maltreatment}).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] 4. 1 and 2 and 3	1. 77758 2. 551804 3. 39690 4. 1221
ProQuest Applied Social Sciences Index & Abstracts	26.07.19	1. noft("child* abuse" or "child* maltreatment" or "adolescen* maltreatment" or "maltreated child*" or "abused child*" or "physical abuse" or "sexual abuse" or "emotional abuse" or	1. 28466

(ASSIA)		neglect or "child* trauma" or "child* adversity") 2. noft(Parenting OR parent* OR father* OR caregiver* OR "male parent" OR paternal) 3. noft(Transgeneration* OR intergeneration* OR "transition$ patterns" OR "family relation$" OR "intergenerational cycle of abuse" OR "cycle of abuse" OR "cycle of maltreatment" OR "perpetration of abuse" OR "perpetration of maltreatment" OR perpetrat*) 4. 1 and 2 and 3	2. 99270 3. 9806 4. 687

Appendix B. Inclusion/Exclusion Form

Study ID:

Full reference:

Country:

Inclusion Criteria	Criterion met?	Comment
Population Are males included? (Note: Please answer 'Yes' if studies include mixed male/female participants and/or mixed participants aged under/over 18 years, if data can be separated by gender and age). **AND** Are they biological fathers?	**Yes** **Unclear** **Discuss** **No**	
Exposure Was there a measure of fathers having experienced some form of childhood adversity? (Note: this is inclusive of physical abuse, emotional abuse, sexual abuse, and/or neglect. This can be self-reported or official file data and maltreatment is limited to that which occurred in childhood or adolescence e.g. before the age of 18 years).	**Yes** **Unclear** **Discuss** **No**	**Which tool(s)?**
Outcome Has any perpetrated abuse towards their own (biological) children been reported? (Note: this is inclusive of physical abuse, emotional abuse, sexual abuse, and/or neglect. This can be self-reported measures or official records of maltreatment towards their children).	**Yes** **Unclear** **Discuss** **No**	
Study Type Is the research quantitative or qualitative? (Note: exclude if they are opinion papers, editorials, commentaries or reviews).	**Yes** **No**	

If all questions answered with yes, include study.

Decision: **INCLUDE** **UNCLEAR** **EXCLUDE**

Appendix C. Quality Assessment Form

Study ID:

Full reference:

Question	Score				Comments
	Y (2)	P (1)	N (0)	U (?)	
Screening or Threshold					
1.Is the study a cohort/case control/cross-sectional/cases series design?					
2.Were the study objectives clear?					
3.Was there a clear definition of maltreatment?*					
4.Will the study design address the objectives?					
Sampling and selection bias					
5.Was the method of selection/recruitment clearly described and appropriate?					
6.Were the cohort/cases clearly defined?					
7.Were the cohort/cases representative of a general population?*					
8.Were demographics clear?					
9.Did the sample size take into account pre-study considerations for statistical power?					
10.Was the sample size adequate? (e.g. 200+)*					
11.Was a satisfactory response rate achieved?					
12.Was there a control group (non-maltreated sample)?*					
13.Was the method of control selection/recruitment clearly described and					

appropriate?					
14.Were the controls clearly defined?					
15.Were the control demographics clear?					
16.Did the study use prospective data?*					
Measurement/performance bias - exposure					
17.Was the maltreatment measure (exposure) described clearly?					
18.Was there a maltreatment measure for the controls?*					
19.Was the measure of perpetration of maltreatment (outcome) described clearly?					
20.Was the exposure measure objective?					
21.Was there the same exposure period for maltreatment and non-maltreatment group?*					
22.Was the outcome measure objective?					
23.Do the exposure and outcome measurement tools truly reflect what they are meant to (have they been validated)?*					
24.Are the exposure and outcome measurement tools reliable?*					
25.Were there different reporters of maltreatment for each generation?*					
26.Was missing information dealt with appropriately?					
27.Was there a follow-up over an extended period of the life course?					
Statistical bias					
28.Are results reliable? (i.e the design, methods and statistical analyses would					

not cause the study to be sufficiently flawed to make the results unreliable)					
29.Were confounding factors taken into account/discussed in the design and/or analysis?*					
30.Do results fit with other available evidence?					
Attrition bias					
31.Was drop-out/non-completion rate recorded?					
32.Were the reasons for drop-out recorded?					

*Thornberry et al (2012) 11 methodological criteria

Summed Quality Score: _____ (64 maximum)

No. of Unclear: _____

Scoring:

0 = Condition not met

1 = Condition partially met

2 = Condition met

U = Unclear/insufficient information

Above 50%? Yes/No

If yes included in the final articles

Appendix D. Relevant studies excluded (Examples)

Study	Reason for exclusion
Wiehe, V. R. (1992). Abusive and nonabusive parents: How they were parented. *Journal of social service research*, 15(3-4), 81-93.	Included at PECO stage but rejected at the quality assessment stage Population: Analysis does not separate participants by gender
T.S., S., Stirpe, T. S., & Stermac, L. E. (2003). An exploration of childhood victimization and family-of-origin characteristics of sexual offenders against children. *International Journal of Offender Therapy and Comparative Criminology*, 47(5), 542–555.	Included at PECO stage but rejected at the quality assessment stage Outcome: Cannot separate perpetration of abuse against their own children.
Hanson, R. F., Lipovsky, J. A., & Saunders, B. E. (1994). Characteristics of fathers in incest families. *Journal of Interpersonal Violence*, 9(2), 155–169.	Included at PECO stage but rejected at the quality assessment stage Exposure/outcome: no measure of maltreatment or perpetration of maltreatment
Widom, C. S. (1989). Child abuse, neglect, and adult behavior: Research design and findings on criminality, violence, and child abuse. *American Journal of Orthopsychiatry*, 59(3), 355–367.	Included at PECO stage but rejected at the quality assessment stage Population: Cannot separate fathers from the sample
Francis, K. J., & Wolfe, D. A. (2008). Cognitive and emotional differences between abusive and non-abusive fathers. *Child Abuse & Neglect*, 32(12), 1127–1137.	Included at PECO stage but rejected at the quality assessment stage Population/outcome: Cannot separate biological fathers from stepfathers.
Francis, K. J., & Wolfe, D. A. (2008). Cognitive and emotional differences between abusive and non-abusive fathers. *Child Abuse & Neglect,* 32(12), 1127–1137.	Included at PECO stage but rejected at the quality assessment stage Population: Unclear whether the sample included are fathers or other family members perpetrating the incest

Smith, S. M., & Hanson, R. (1975). Interpersonal relationships and child-rearing practices in 214 parents of battered children. *The British Journal of Psychiatry*, 127, 513–525.	Included at PECO stage but rejected at the quality assessment stage Population/exposure: Cannot separate analysis of fathers from the control group
Perry, M. A., Wells, E. A., & Doran, L. D. (1983). Parent characteristics in abusing and nonabusing families. *Journal of Clinical Child Psychology,* 12(3), 329–336.	Included at PECO stage but rejected at the quality assessment stage Population: Cannot separate fathers from the sample
Finkelhor, D., Moore, D., Hamby, S. L., & Straus, M. A. (1997). Sexually abused children in a national survey of parents: methodological issues. *Child Abuse & Neglect,* 21(1), 1–9.	Included at PECO stage but rejected at the quality assessment stage Population/outcome: Cannot separate biological fathers from stepfathers.
Jones, H. (2014). *An exploration of the role of personality in parents who maltreat their children* (Doctoral dissertation, University of Birmingham).	Included at PECO stage but rejected at the quality assessment stage Population/outcome: Cannot separate biological fathers from stepfathers.
Stewart, L. L. (2011). *Maltreatment in the Father-child Relationship: An Exploration of Problematic Relational Dynamics* (Doctoral dissertation).	Included at PECO stage but rejected at the quality assessment stage Population/outcome: Cannot separate biological fathers from stepfathers.
Baldwin, J. A., & Oliver, J. E. (1975). Epidemiology and family characteristics of severely-abused children. *Journal of Epidemiology & Community Health*, 29(4), 205–221.	Included at PECO stage but rejected at the quality assessment stage Population/outcome: Difficult to separate mother and father data and extract sample size for fathers.

Appendix E. Data Extraction Form

Study ID:

Full reference:

General Information	
Date of data extraction	
Country	
Reviewer	
Study type?	
Population	
Sample (e.g. general population, care proceedings, parents, just fathers etc.)	
Total sample size	
Drop rate and reasons for drop out	
Recruitment procedures & setting	
Maltreatment sample characteristics	Maltreatment type: Perpetrator of child maltreatment: Number of participants: Age (M, SD, range):
Non-maltreatment sample characteristics	Maltreatment type: Number of participants: Age (M, SD, range):
Exposure – child maltreatment	
Type (psychometric/ behavioural) & name of maltreatment measure	
Outcome – Perpetration of maltreatment	
Score(s) of the maltreatment measurement?	Who did they maltreat?
Mean, SD, number of participants Effect size/confidence intervals (if reported)	
Who carried out the	

measurement?	
Outcome – no maltreatment perpetrated	
Score(s) of the maltreatment measurement?	
Mean, SD, number of participants Effect size/confidence intervals (if reported)	
Who carried out the measurement?	
Analysis	
Statistics used	
How was missing data dealt with?	
Main Findings & Notes	

Appendix F. Quality assessment table

Study	Screening or Threshold				Sampling and Selection Bias												Measurement Bias											Statistical bias			Attrition bias		Total	No Unclear	% Score
	1	2	3*	4	5	6	7*	8	9	10*	11	12*	13	14	15	16*	17	18*	19	20	21*	22	23*	24*	25*	26	27	28	29*	30	31	32			
Ellonen, Peltonen, Pösö & Janson (2017)	2	2	0	2	2	2	1	2	0	2	2	1	1	1	0	0	0	0	2	2	2	2	1	1	0	?	0	2	1	1	2	1	37	1	57.81%
Wang, Wang & Xing (2018)	2	2	1	2	2	2	1	2	?	2	2	0	0	0	0	0	2	0	2	2	0	2	2	2	0	2	0	2	2	2	2	2	42	1	65.63%
Hunter & Kilstrom (1979)	2	1	0	2	2	1	1	1	0	1	2	2	1	1	1	2	0	0	0	2	2	0	0	0	0	?	0	0	0	1	1	1	27	1	42.19%
Duffy, Hughes, Asnes & Leventhal (2015)	2	2	0	2	2	2	0	2	1	1	2	1	2	2	2	0	2	2	2	2	1	2	0	0	0	2	0	2	2	1	2	2	45	0	70.31%
Sidebotham, Golding & The ALPAC Study Team (2001)	2	2	2	2	2	1	2	0	0	2	2	2	2	1	0	0	2	2	2	0	2	2	0	0	0	2	2	2	2	1	2	2	45	0	70.31%
Locke & Newcomb (2004)	2	2	0	2	2	2	2	2	0	1	2	0	0	0	0	0	2	0	2	2	0	2	2	2	0	?	0	2	0	2	2	2	37	1	57.81%
Smith & Adler (1991)	2	2	0	2	2	0	0	0	0	0	?	2	2	0	0	0	2	2	2	0	2	0	0	0	2	?	0	1	2	2	0	0	27	2	42.19%
Heyman & Smith Slep (2002)	2	2	0	2	2	2	2	1	0	2	2	0	0	0	0	0	2	0	2	0	2	2	1	1	0	2	0	2	1	2	2	2	38	0	59.38%
Schluter, Tautolo & Paterson (2011)	2	2	0	2	2	2	2	2	0	2	2	2	2	0	0	2	2	2	2	2	2	2	2	2	0	1	2	2	2	2	1	1	51	0	79.69%
Straus (1979)	2	1	1	2	1	0	2	0	0	2	2	2	1	0	0	0	1	2	1	1	2	2	1	1	0	?	0	1	1	2	0	0	31	1	48.44%
Capaldi, Tiberio, Pears, Kerr & Owen (2018)	2	2	2	2	2	2	2	2	0	0	0	2	2	2	0	2	2	2	2	2	2	2	2	2	0	?	2	2	0	2	2	0	48	1	75.00%
Newcomb & Locke (2001)	2	2	2	2	2	2	2	2	0	1	2	0	0	0	0	0	2	0	2	2	0	2	2	2	0	?	0	2	0	2	2	2	39	1	60.94%
Ball (2009)	2	2	2	2	2	2	0	2	0	2	2	2	2	1	0	0	2	2	2	2	2	2	1	1	0	?	0	2	2	1	2	0	44	1	68.75%
Gordon et al (2011)	2	2	0	2	2	2	2	2	2	0	2	0	0	0	0	0	2	0	2	2	0	2	1	1	0	?	0	2	1	2	0	0	33	1	51.56%
Dixon, Hamilton-Giachritis, Browne & Ostapuik (2007)	2	2	0	2	2	2	2	2	0	0	2	2	2	2	2	0	2	2	2	0	2	0	0	0	0	?	0	2	0	2	0	0	36	1	56.25%
Dufour, Lavergne, Larriveé & Trocmé (2008)	2	2	1	2	2	2	2	2	?	2	2	2	0	0	0	0	0	0	0	0	2	1	0	0	0	1	0	2	0	2	2	2	33	1	51.56%

*=Thornberry et al (2012) 11 methodological criteria

Appendix G - University of Nottingham Ethical Approval Form

University of Nottingham
UK | CHINA | MALAYSIA

Email: FMHS-ResearchEthics@nottingham.ac.uk

Faculty of Medicine & Health Sciences
Research Ethics Committee
c/o Faculty PVC Office
School of Medicine Education Centre
B Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH

29 January 2018

Amy Lawson
Doctorate Student in Forensic Psychology (Top Up)
c/o Dr Kathleen Green
Assistant Professor
Room B06 Yang Fujia Building
Jubilee Campus
Wollaton Road
Nottingham
NG8 1BBGreen

Dear Ms Lawson

Ethics Reference No:192-1801 – **please always quote**	
Study Title: The Impact of childhood adversity on fathers involved in child care proceedings.	
Chief Investigator/Supervisor: Dr Kathleen Green, Assistant Professor, Division of Psychiatry and Applied Psychology, School of Medicine	
Lead Investigators/student: Amy Lawson, Forensic Psychologist in Training Doctorate Student, Division of Psychiatry & Applied Psychology, School of Medicine.	
Other Key Collaborators: Dr Shaun Parsons, Registered Forensic Psychologist, Chartered Forensic Psychologist, Chartered Scientist, PM Psychology Ltd, London, UK	
Type of Study: Secondary analysis of anonymised dataset analysis with existing ethical or organisation approval.	
Proposed Start Date: 01/02/2018	**Proposed End Date**: 07/01/2019 12 mths

Thank you for submitting this project and the following documents were received:

- FMHS DPAP REC Application form and supporting documents version 1.0: 05.01.2018

On review, these are satisfactory and the study does not require full committee review because this study involves secondary analysis of anonymous datasets. Organisational permission and ethical approval from the data owners to use these data for this research is in place. The study is approved.

Approval is on the understanding that:

1. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely



Professor Ravi Mahajan
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

Appendix H - Parsons Marshall Psychology Ethical Approval Form



Suite 6, 43 Bedford Street
Covent Garden
London
WC2E 9HA

T: 0203 303 3176
F: 0203 303 3167

Amy Lawson
Forensic Psychologist in Training

2nd January 2018

Dear Amy,

Re: The Impact of the Childhood Adversity of Father Involved in Child Care Proceedings

Following the board of directors' meeting of the 22.12.2017 I can confirm that agreement was given for you to access the anonymized file data for the purposes of your research as you have set out.

Yours sincerely



Dr Shaun Parsons
Registered Forensic Psychologist,
Chartered Forensic Psychologist, Chartered Scientist

Parsons Marshall Psychology Limited is a Company Registered in England.
Registered address 4 Lansdowne Terrace , Gosforth , Newcastle upon Tyne , NE3 1HN Company Number 08990307
VAT registration number: 184 7316 86

Suite 6, 43 Bedford Street
Covent Garden
London
WC2E 9HA

T: 0203 303 3176
F: 0203 303 3167

Amy Lawson
Forensic Psychologist in Training

2nd January 2018

Dear Amy,

Re: The Impact of the Childhood Adversity of Father Involved in Child Care Proceedings

The board of directors of PM Psychology Ltd considered your research proposal at a meeting on the 22.12.2017. The board agreed to you undertaking your research using data held by the company as long as these data are anonymized and that you undertake to maintain the confidentiality of the data. You will access the data via the company's secure archive and you must make no local copies of the data. Your access to the data will be supervised and overseen by Dr Shaun Parsons.

Yours sincerely



Dr Shaun Parsons
Registered Forensic Psychologist,
Chartered Forensic Psychologist, Chartered Scientist

On behalf of the board of directors

Parsons Marshall Psychology Limited is a Company Registered in England.
Registered address 4 Lansdowne Terrace , Gosforth , Newcastle upon Tyne , NE3 1HN Company Number 08990307
VAT registration number: 184 7316 86

Appendix I – Data Collection Proforma

Proforma for data collection

Demographics

Client ID (initials + date of report e.g. Amy Lawson report in September 2017 = AL0917):

Date of Report:

DOB:

Ethnicity/nationality? If unknown did they speak via a translator? Any indication that they grew up outside of the UK?:

Type of assessment: Psychological, cognitive or sexual risk (*exclude if it is a cog only ass*)?

Single ass or part of a double, triple, quad?

How many children do they have (*exclude if they have no children*)?

How many sexual partners/significant relationships have they been in?

Were they currently in a relationship at the time of the report? (*note if this is with the mother of their children*)

Is there a case summary for this client?

Childhood adversity

Any form of childhood adversity present or absent?

If present, which category of adversity did they experience (*please tick*):

- Sexual abuse (how have you established this? Were they sexually abused via contact offence or were they exposed to pornographic material?)
- Emotional abuse
- Physical abuse
- Neglect
- Multiple (*if so which*)?
- Traumatic event e.g. war, death in the family, poverty etc?
- Physical chastisement?
- Witnessing IPV
- Other (*i.e. bullying. State what they report*)?

Were they a looked after child (LAC)? Any time in care?

If yes, how much time spent in care, for what reason and what age were they in care to and from?

Did they have social services involvement as a child? For what reason?

Were they put on a CP plan? If yes, under which category?

Length of abuse reported?

Is this self-reported maltreatment? Is there evidence that this abuse occurred in the case papers or case summary?

Relationship to abuser?

Was there more than one abuser?

Did the abuse happen once or more than once?

Personality

MCMI-III (*leave blank if info not provided in report or folder. Tell Amy this will need scoring*):

Report if flat or invalid and then no need to report scores:

Report BR scores on:

Disclosure BR =

Desirability BR =

Debasement BR =

Schizoid BR =

Avoidant BR =

Depressive BR =

Dependent BR =

Histrionic BR =

Narcissistic BR =

Antisocial BR =

Sadistic BR =

Compulsive BR =

Negativistic BR =

Masochistic BR =

Schizotypal BR =

Borderline BR =

Paranoid BR =

Anxiety BR =

Somatoform BR =

Bipolar Manic BR =

Dysthymia BR =

Alcohol dependence BR =

Drug dependence BR =

Posttraumatic stress BR =

Thought Disorder BR =

Major Depression BR =

Delusional Disorder BR =

Conclusion of MCMI-III? *(Will be in the report):*

Clinical judgment *(note here if Shaun has said his clinical assessment of personality and what this is)***:**

Other outcomes

PDS: *(Total):*

Impression Management (IM) = *socially desirable manner*?

Self-Deceptive Enhancement (SDE) = *insight into psych functioning*?

STAXI or STAXI-II outcome? (*please record the trait anger and anger expression indices if recorded)*

NAS-PI?

SASSI-III outcomes?

PSI outcomes?

Other outcomes reported?

Any forensic history? Conviction or caution? Is this self-reported? Can this be confirmed in the documents?

Time in prison?

Any drug use?

Self-reported or confirmed in docs?

Any alcohol use?

Self-reported or confirmed in docs?

HCR-20?

SARA?

Cognitive functioning

Which test WAIS-IV, WASI or WASI-II? (*If WAIS-III discard participant*):

FSIQ score (*Note if they have an LD*):

WASI VCI score:

WASI PRI score:

OR

WAIS VCI:

WAIS PRI:

WAIS WMI:

WAIS PSI:

WAIS GAI: (*might not be reported*)

Perpetrated maltreatment

Is there any allegation of perpetrated abuse by the fathers towards children?

If no, why is the assessment taking place? (*e.g. could be because there partner is deemed a risk or due to cognitive functioning)*

If yes, what type of abuse are they alleged/confirmed to have perpetrated (*please state if it is alleged or confirmed if possible)*?

- IPV to another adult in the home? (*if so, who?)*
- Sexual abuse to child
- Emo abuse to child
- Phy abuse to child
- Neglect to child
- Physical chastisement to child
- Other?

If yes, is this abuse confirmed in their self-report or denied? Or not mentioned?

Is this confirmed in the case papers? *Please go back to the case summary or court bundle and check to see whether this is the case.*