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Which children are the most vulnerable? A descriptive analysis of children exposed to domestic abuse

Submitted in part fulfillment of the requirements for the Master's Degree in Applied Criminology and Police Management

December 2016

Abstract

The harmful consequences caused to children from exposure to domestic abuse are becoming increasingly recognised by practitioners and academics alike. This thesis identified 6,670 individual children who had received one or more referrals during 2012 to Social Services, from Kent Police. Each child had been referred on the basis that they had been exposed to some form of domestic abuse (DA). The objective was to understand the prevalence, and frequency of bad outcomes suffered by those children, over a 3-year exposure period after referral.

Five bad outcomes were considered within the research; (1) children experiencing further incidents (additional referrals), (2) children becoming a suspect(s) of a criminal offence, (3) children suffering some form of victimisation, (4) children going missing from the home, and finally (5) any of these bad outcomes combined. The study found that 48% of the children referred went on to experience one or more of the bad outcome(s). In total, 3,186 children, experienced 8,685 bad outcomes between them. The results further highlighted a concentrated distribution of bad outcomes, where a small number of children experienced the highest frequency of harm.

This thesis then explored which risk factors were related to those children who went on to experience bad outcomes. A combination of 15 factors were split into two groups; factors surrounding the circumstance of the presenting child referrals (referred to in this study as 'trigger factors'), and those factors relating to the prior history of the children (referred to in this study as 'prior factors'). It found prior factors were consistently more reliable at predicting bad outcomes than the trigger factors. In fact, just three factors

were found to be relevant across all tests; they were: any prior history of child abuse, any previous reported incidents, and any prior child referrals. The study also found that age 12 appears to be the tipping point for a child experiencing bad outcomes such as offending, victimisation and missing.

The results of the study revealed a real danger of merely notifying social services of a child exposed to DA, vs. making a direct referral calling for action on their part. It found, any type of previous notification referral was associated to a child being twice as likely to go on and experience a bad outcome. Considering the purpose of a notification is for informative purposes only, the impact of this finding poses the question of the legitimacy in its continued use within child protection.

The research concluded with a critical examination of the current identification methodology in Kent, which has adopted a DA risk assessment tool, known as DASH, and applied it to assess child-vulnerability. It found DASH to be a weak and unreliable predictor of child harm. In fact, it found the individual risk levels ascribed to DASH did not match their labels. For example a standard DASH was related to a higher probability and frequency of bad outcomes than a high and medium DASH score. Consequently, this study suggests that, employing DASH to identify which children will receive intervention may actually be associated with an increase in the level of vulnerability for those children. The journey of this thesis has highlighted flaws with the current methodology used in Kent to identify and protect vulnerable children. Although this thesis does not offer a complete risk assessment tool, it provides some clarity as to which factors police, and protective agencies should be considering. At a minimum, it provides a starting point with which to build an evidence-based, bespoke, identification tool.

Acknowledgements

I am indebted to my colleagues who patiently assisted me undertake this research. In particular Sarah Smith, Sarah O'Keefe, and Alan Bennett.

I am eternally grateful to Kent Police, specifically Mr Ian Drysdale, for providing me with this unique opportunity.

My thanks go to Dr. Geoffrey Barnes for his resilience and tutelage, and to Sir Denis O'Connor for his wisdom.

Finally, I owe the greatest debt of gratitude to my wife Lisa. Without her steadfast belief, continued sacrifice, and unwavering patience throughout, this experience would not have been possible.

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Introduction

Contemporary culture is dominated by the phenomenon of 'child-vulnerability'. In the UK, the NSPCC (National Society for the Prevention of Cruelty to Children) estimate there are two million children at risk of abuse. This is approximately 14% of all children under the age of 18 (NSPCC, 2015), although the exact number is obviously heavily dependent on how one defines 'children', 'risk' and 'abuse'.

Children, by their very nature, are among the most marginalized in society, hidden away from view, and vulnerable to multiple forms of harm. Many of these children go unidentified because the agencies responsible to protect them rely on external reported (such as teachers) or self-reporting (by the children themselves) to identify those in need (WHO, 2006). Success has little chance, many children are unable to speak out, and many living in relative isolation, unaware that what is happening to them is wrong. In many cases, perpetrators are part of the family or community, and are therefore the very people a child is most dependent on for protection (Gilbert et al., 2009).

The prevalence of child harm in modern UK society, such as physical abuse, sexual abuse, emotional abuse and neglect, has shocked the nation to its core. Repeated scandals of historic child abuse allegations, perpetrated by people in prominent positions of trust; involving institutes such as the Catholic Church, the BBC, local councils and most recently the Football Association, have been exposed in the recent past (The Telegraph, 2016). Sequentially, a substantial increase in awareness has brought child-vulnerability out from the shadows, into the light of public scrutiny (HMIC, 2015a).

As a consequence, police forces up and down the country are now inundated with claims stretching back decades. Although police and other protective agencies believe the scale and extent of this endemic suffering is unknown (HMIC, 2015a). The accumulative impact of such circumstance has cultivated an unprecedented demand for public agencies to identify - without error - vulnerable children and protect them from experiencing such harm.

Supported by legislative changes, the Children Act 2004 sets out the provision for child protective services, further clarified by additional statutory guidance that as provided in 2015 statutory guidance, which was titled 'Working together to safeguard children' (HMIC, 2015). It highlighted police as the agency most likely to first encounter vulnerable children whilst discharging their duties. It further placed a responsibility on police to identify children who they believe are at risk from harm, and refer such children to their local authority. Subsequently, responsibility for safeguarding is then transferred to the local authority, who will assess the needs of those children referred and determine what, if any, action is to be taken.

At the foundation of this challenge is the lack of consensus across all organisations to define what 'vulnerability' actually means, what harms these children are thought to be vulnerable to, and which of these harms should become the police's responsibility to prevent. Furthermore, despite a body of evidence establishing some of the life long consequences of harm caused to children, it has largely focused on familial forms of harm, such as, sexual abuse, physical abuse, emotional abuse and neglect (Gilbert et al., 2009).

However, entwined within child harm is a less well-known form, characterised as exposure to domestic abuse (DA). Its recognition as a unique, harmful event has gathered rapid momentum; supported by a view that such exposure is equally as damaging and prevalent as any other form of harm (Leeb, 2008). Despite this view, a systematic review of 157 child abuse studies found no evaluation of the effects of harm caused to children by exposure to DA, particularly whilst they remain in childhood (Gilbert et al., 2009). Exposure to DA may serve as an indicator that a child is particularly vulnerable for further harm, but the absence of evidence to determine 'what works' in identifying and predicting vulnerability amongst children frustrates national policy.

The aforementioned statutory guidance (HMIC, 2015) refers directly to incidents involving DA. It prescribes police should have due regard to the harmful impact exposure to DA can have on a child's welfare when assessing vulnerability (HM Government, 2015). There is, however, a disconnect between these stated priorities and the successful identification, referral and subsequent prevention (HMIC, 2015a) of negative outcomes among vulnerable children. No evidence base, research or guidance currently exists to assist police attending DA incidents to establish exactly which risk factors indicate whether a child is more or less vulnerable to future harm. Instead police officers must rely upon their intuition and experience to spot the signs and symptoms of vulnerability.

Two types of referrals are used in Kent, which produce contrasting outcomes for a child. Officers can make either a 'police referral', or can merely provide a 'notification referral' to Social Services (SS). For example, a police referral informs SS that the situation presents great danger to the child, and immediate intervention from protective services is required. A notification referral meanwhile, indicates a less-critical situation in

which no action is required; a notification acts only as an informative process. In the absence of perceived child-vulnerability by the attending officer(s) at a DA incident; the default methodology in Kent, used to determine which type of child referral will be made to SS, is based upon a DA risk assessment tool (DASH).

Implemented across the UK in 2009, the DASH checklist is a series of 27 questions used by police and professionals for all intimate partner relationships to identify, assess and manage risk for victims of DA (Richards, 2008). Consequently, the risk level ascribed by police, to the DA incident, to which a child has been exposed, becomes the decisive factor on whether a child does or does not receive protective intervention. Designed as a predictive tool for adults, DASH has been shown to be an unreliable predictor of harm (Thornton, 2011; Bland, 2014; Pease, 2014). Moreover, the ideology of adopting a risk assessment tool from a vastly different type of vulnerability (i.e., the risk of re-victimisation for an adult victim of DA), and applying it to the unique, and complex circumstance of child-vulnerability, is logically questionable. Furthermore, there has been no analysis or testing of this practices, and we therefore have no idea whether police are identifying the right children who are in most need of help. An analysis of this assumption would provide both practitioners and policy makers with an evidence base to bound future decision-making.

For the first time in their history, Her Majesty's Inspectorate of Constabulary (HMIC) have graded each force across the UK on their effectiveness at protecting vulnerable people from harm. Thirty-one forces were rated as either cause for concern, in need of improvement or both. The key message from this inspection read, '*The extent to*

which a police force is successful at identifying, protecting and supporting those who are vulnerable is a core indicator of its overall effectiveness.' (HMIC, p5. 2015b).

Such affirmation mounts increasing pressure on forces like Kent to do more at protecting children, such as those exposed to DA. Without an evidence-based strategy, bespoke to child-vulnerability, assisted by relevant quality research and guidance from policy makers, police will continue to grapple with this crisis. This thesis seeks to fill this evidential gap, by offering the following research questions -

1. How often do bad outcomes occur within three years of a DA child referral?
2. Are there descriptive differences between those DA referral cases, which had bad outcomes, and those cases result in no bad outcomes to the child?
3. What relationship, if any, is there between the initial DASH score and subsequent bad outcomes for the child?

The following chapters open with a review of the current theory and literature, which has focused on child harm. It follows with an explanation of the methodology selected to answer each of the proposed research questions. The results are presented by the related research question, with a descriptive analysis. Describing the prevalence of bad outcomes during the exposure period, followed by an explanation of which risk factors are related to bad outcomes, and finally a critical assessment of the application of DASH as a predictive tool for assessing child-vulnerability. It continues with a discussion reflecting on a multitude of issues identified by this research which impact on police policy, proposing additional research. The thesis concludes with its final conclusions and recommendations.

Literature Review

This chapter begins with an overview of the global crisis facing modern society, in the context of child harm. It proceeds with an examination of the current situation in the UK, reflecting on the scale and extent of the problem. A review of the literature, considering the lifelong consequences of such suffering then follows. It pinpoints the harm caused by child exposure to domestic abuse (DA) as an emerging concept, noting the lack of research, which supports protective agencies in safeguarding children. Furthermore, it alludes to the obscurity surrounding 'vulnerability', highlighting the disparate interpretations formed across UK police agencies. It further considers literature, which may support police in establishing a methodology to identify and measure vulnerability. The chapter concludes with a review of the risk assessment tool, which underpins the current child referral process in Kent, known as DASH.

Global overview

Millions of children worldwide are subject to atrocious violations of their rights in the form of violence, sexual exploitation, neglect and numerous other types of abuse, with millions more waiting in the shadows who are yet to become victims (UNICEF, 2011). Contemporary culture, particularly in the UK is dominated by the concept of 'child-vulnerability'. Fuelled by a greater recognition to the exposure, prevalence, frequency and severity of bad things happening to children, society has cultivated an unprecedented demand for public agencies to identify - without error - such vulnerable children and protect them from harm. This thesis research will consider 'harm' in a wider context, incorporating not merely victimisation but also other forms of harm to children, such as:

child offending, exposure to DA and children missing from home.

The current context in the UK

Child harm in the UK has been at the forefront of both political and public scrutiny, receiving prominent daily media coverage, mirrored by a sharp rise in crimes reported to law enforcement agencies (HMIC, 2015a). High profile historic sexual abuse cases, such as Operation Yewtree (a national sexual abuse investigation undertaken in October 2012) and emerging criminality such as grooming and trafficking of children in towns like Rotherham, Rochdale and Oxford have captured public attention. The cumulative effect of these issues is set against the backdrop of arguably the most significant public enquiry in modern times, probing alleged systematic failings by public agencies to protect vulnerable children. Established in 2015 by the Home Secretary, the Goddard enquiry sought to examine the growing evidence of organised child sexual abuse in England and Wales over decades; investigating allegations that prominent institutions failed to protect children from harm. It remains a live investigation, the scale of which is unprecedented (BBC, 2015).

The scale and extent of child harm

The National Society for the Prevention of Cruelty to Children (NSPCC) estimate there are two million children in the UK at elevated risk of harm. This figure is approximately 14% of all children under the age of 18 (NSPCC, 2015). Without guardians and supervision, young children are at risk from many physical dangers both inside and outside the home. Similarly, older children are vulnerable based on their limited life experience and/or emotional maturity. During this period, brain developmental changes are

linked with greater risk taking, which may lead to reckless decisions by young people or the desire to communicate with those people whose motives are to harm them (HMIC, 2015a).

An expanding body of evidence now exists in relation to the frequency of child harm and its long-term effects. A number of studies have researched the more commonly recognised categories of harm - sexual abuse, emotional abuse, physical abuse, and neglect - and its existence in society, such as Gilbert et al., (2009), May-Chahal & Cawson (2005) and Woodman (2008).

Each of these four forms of harm has differing levels of exposure across the UK child population, and precise measures are difficult to produce. The prevalence of sexual abuse is predominantly reliant on retrospective self-reporting, often many years after the event has occurred. Both the UK and the US recently report between 5% and 10% of girls and 1% and 5% of boys are exposed to sexual abuse during childhood (Gilbert et al., 2009). For emotional abuse there have been few studies which have examined its frequency, most likely owing to an almost impossibility to measure emotional abuse among children themselves, since many victims do not recognise it as such until they reach adulthood. However, a recent survey conducted from a large population base in the UK showed 8% of adult women and 4% of adult men report suffering severe psychological abuse in childhood (May-Chahal & Cawson, 2005).

In terms of physical abuse there is a view in the UK that such crimes are significantly under reported, creating a hidden level of vulnerability. This view is reasonably supported by evidence from a UK study, which examined the records for injured children who were

screen tested for physical abuse at Accident & Emergency departments. They found, nationally, only 1 in 20 children physically abused by parents were investigated by Social Services and only 250 children were subject to an ongoing child protection plan (Woodman et al., 2008).

Interestingly child neglect has received the least scientific research and public attention, despite being the most frequently reported category of child harm (May-Chahal & Cawson, 2005). One view further suggests the consequences of childhood neglect can be as damaging, or seemingly even more damaging to a child than sexual or physical abuse; finding 44% of children subject to a protection plan in the UK is due to neglect. (Gilbert et al., 2009).

Lifelong consequences of child harm

Empirical experience by practitioners shows child harm is not homogenous in application. A misguided view, and one of the main disadvantages of the majority of child harm studies, is that children are assessed and categorised based on experiencing only one form of harm. Despite clear evidence from self-reporting studies that some children are exposed to multiple forms of harm simultaneously, which can result in a high frequency of repeated child referrals to protective services (Gilbert et al., 2009). Evidence of such an interrelationship of harm logically suggests the coexistence of multiple triggers of vulnerability to multiple forms of harm

Similarly, an interconnected relationship can be found amongst the long-term effects of harm caused to children. An analytical review conducted by Gilbert et al. (2009)

reported a multitude of consequences from child harm, such as an increased risk of alcohol problems in adolescence and adulthood, and an increase of up to twice the risk of attempted suicide for adolescents compared to children who had not experienced such harm. Obesity and eating disorders in later life have also been correlated with child harm (Johnson et al., 2002; Noll et al., 2007; Thomas et al., 2008; Lissau & Sorensen, 1994). Arrests for prostitution (Merrick et al., 2008), teenage pregnancy (Thornberry et al., 2001; Lansford et al., 2007), and HIV in young adults (Wilson & Widom, 2008), have all been shown to be significantly related to child harm. Furthermore, risk factors such as; child abuse, neglect and parental criminal behavior have strong links with adult recidivist offenders and in particular violent offenders. (Loeber & Farrington, 2001). There is also a view which suggests children who run away from home, are running from problems such as abuse and neglect (Department for Education, 2014). Approximately 100,000 children go missing each year in the UK, exposing them to multiple forms of harm such as sexual exploitation, gang exploitation, drug and alcohol abuse (Department for Education, 2014).

While the direct maltreatment that children experience seems to be clearly related to a wide variety of problems later in life, emerging research shows that indirect exposure to trouble in the home is also associated with detrimental outcomes (Gilbert et al., 2009; White & Widom, 2003).

The collateral damage of DA

Childhood exposure to DA is now widely regarded by both scholars and practitioners alike as a distinct form of child maltreatment, supported by an expanding field of research (Leeb, 2008). A cross sectional study conducted in Hong Kong from a

sample of over 1000 children between the age of 12-17yrs found 54% of families characterised by parental DA also engaged in physical abuse during the child's lifetime (Chan, 2011). Additionally, a national population study of 1,615 couples conducted in the US found men who witnessed parental DA in childhood were twice as likely to become adult DA offenders than children who did not witness such abuse. The same study also found, women exposed to DA in childhood were one and a half times more likely to engage in reciprocal DA as an adult, compared to children with no such history. (McKinney, Caetano, Ramisetty-Mikler & Nelson, 2009). Furthermore, a longitudinal study, which followed participants from birth to age 23, found those children who had witnessed DA in the home by age 13, were consistently predicted to perpetrate DA and suffer victimisation of DA in early adulthood (Linder & Collins, 2005).

One study has sought to examine the risk factors associated with the intergenerational transmission of DA. They found a child exposed to parental DA, was the strongest predictor of adult DA offending, reporting such children were three times more likely to perpetrate DA than children who had not experienced such exposure (Ehrensaft et al., 2003). Ehrensaft, further suggests that children who are exposed to DA during childhood, and who also exhibit behavioral concerns - such as committing criminal offences of their own, or going missing - may present real concerns for DA and perhaps other violent offences in adulthood. Regrettably, it is these inconspicuous forms of harm, which remain unexplored and understood by protective agencies. Consequentially, it logically poses a further question; what other harms experienced by children could be correlated to DA exposure?

The aggregate picture of this research supports the theory the present study seeks to explore, that the diverse and interconnecting types of child-vulnerability, such as exposure to DA may be correlated to a heterogeneous group of 'bad outcomes'. The complexity of such evidence and theory presents a unique challenge to protective agencies, how do they consistently identify the most vulnerable children in society?

Defining Vulnerability

In 2014 Her Majesty's Government set out policy, providing statutory guidance to all organisations and charities on how they should work together to safeguard children. Policy prescribes that all UK police forces have a responsibility to safeguard children, ensuring an effective and efficient methodology for identifying vulnerable children and referring them to Social Services (SS), is in place (HMIC, 2015). A distinct emphasis has been placed on the necessity for operational police practitioners, whilst carrying out their duties, to identify - when a child is at risk from harm. The purpose of which is for police to refer vulnerable children to SS, facilitating an opportunity for local authorities to implement appropriate safety plans. However, it is widely accepted amongst professionals as a complex task; the signs and symptoms of such vulnerability are not always clear, and there are few indicators, which clearly and conclusively point to child harm (Children's Commissioner, 2015).

The terminology and concept of 'child-vulnerability' in the UK has seen a surge of its use in recent years by government ministers, public organisations, and the HMIC. However, there is no consistent definition amongst agencies of what defines 'vulnerability', or even what kinds of negative outcomes the police are supposed to protect

such children from. The 2015 HMIC inspection of all 43 UK Police forces examined the effectiveness of the police in identifying, protecting and supporting vulnerable children (HMIC, 2015b). They discovered that most forces have either used the 'vulnerable adult' definition created by the now dissolved, Association of Chief Police Officers (ACPO), and applied it to children, or the definition within the Code of Practice for Victims (Ministry of Justice, 2015). Moreover, 9 forces have created their own definition, which means an individual could be identified as vulnerable in one jurisdiction but not in another. The consequence of such disparity could lead to an absence of services and protection to factions of society who need it the most.

The HMIC suggest a definition of vulnerability as the, 'condition of a person who is in need of special care, support or protection because of age, disability or risk of abuse or neglect.' (HMIC, 2015b, p.23). Such a wide-ranging all-encompassing criteria provides little clarity to define what constitutes child-vulnerability, which specific children should be considered vulnerable, and what outcomes they are vulnerable to. HMIC further compound confusion in their 2015 report, 'In harm's way', where they state that in fact all children are vulnerable based on that one single defining characteristic; that they are children (HMIC, 2015a, p.28). At one level this is true and acknowledged in the law relating to children, but it doesn't assist in differentiating amongst children. Although it may be generally accepted a whole section of populous such as children are all-vulnerable, it provides no operational value in identifying which children are most in need of proactive intervention and which do not.

Identifying vulnerability

The College of Policing (CoP) is the source of Authorised Professional Practice (APP), providing guidance and standards to officers and staff across the UK on service delivery. Their overarching advice on child maltreatment is that all officers attending incidents where children are present must identify any risk factors in order to determine the actions required to safeguard the child (CoP, 2016a). However, no guidance currently exists to direct which specific factors officers should seek to identify. (CoP, 2016b). Consequently, with no specific, or even suggested methodology for identifying vulnerability and risk factors, it is a police officer's intuition, that society must rely on to identify and protect the most vulnerable.

Despite a lack of direction or bounded decision making to support practitioners as they navigate their way through the intersections of vulnerability, the police complete more child referrals than any other agency. In fact, they account for twice as many as its closest professional partner. In England, there was a milestone peak of 657,800 referrals relating to 570,800 children for the year ending 31 March 2014, increasing by approximately 60,000 more than the previous year (NSPCC, 2015). In Kent that same year, there were 9,358 referrals solely from police. Although the police could seemingly be praised for their effort and commitment, there is no analysis as to the effectiveness of the police to identify the children in most need.

The HMIC highlight a research gap, which has consistently failed to confirm a relationship between the police process of identification, and the outcomes that actually

result in a child, protected from harm (HMIC, 2015b). The HMIC and other governmental reviews have found that unless officers were specifically responding to issues relating to a child, they were poor at identifying their vulnerability and needs (HMIC, 2015a). It further pinpoints poor assessment and insufficient help provided to victims, particularly in cases of DA, child sexual exploitation, missing children and children detained (HMIC, 2015a). With no specific criteria of what a good assessment should look like, the HMIC conclude with recommendations to address these issues, proposing the need for better use of data research to identify risk and prevent offending.

Research limitations

Perhaps of greater concern is the extent to which such unfortunate outcomes occur. The true figure may forever remain unknown, and reported figures are only conservative estimates from agencies such as UNICEF and the NSPCC. One point, which appears to be consistently agreed by all agencies however, is that most harm against children remains hidden and undisclosed (WHO, 2006).

The reliability and measurement of child harm is widely accepted as a deep concern. Most studies are reliant on self-reporting by the victim(s) who are old enough or have an understanding that they were a victim in the first instance. The reliability of perpetrator data is dependent on either criminal detection from law enforcement agencies or self-disclosure by the perpetrator, neither, of which can be consistently reliable modus (Gilbert et al., 2009).

The NSPCC reports there are more children suffering abuse or neglect than those who are known to children's social services. They estimate for every child subject to a child protection plan or on a child protection register, another eight children have suffered harm (NSPCC, 2015). The overwhelming conclusion from the 2015 nationwide HMIC inspection described the vast majority of children at risk of harm are not in the child protection system (HMIC, 2015a). Extensive police resources are currently engaged in the pursuance of vulnerability. However, this does not necessarily translate into a child being protected from bad outcomes, with little evidence of testing their effectiveness (HMIC, 2015a). Despite the evidence for diverse and serious consequences of child maltreatment, a systematic review of 157 studies found no evaluation, which fully examined the quality of life during childhood after maltreatment occurred (Gilbert et al., 2009).

Whilst no model exists to target vulnerability, there is a body of evidence to suggest there is a better way of doing things with existing data. Utilising data to inform decision making over intuition has shown, statistically validated predictions are almost invariably more accurate than intuitive prediction (Kahneman, 2011). This concept could be tested in the context of vulnerability by examining risk factors associated with child harm, to help inform and predict future harm. Furthermore, there is a well-researched view within criminology that a high proportion of crime occurs among a small proportion of people (Sherman, 2007). Also known as the 'power few' this type of crime concentration has been found across a range of crime types including DA. In 2014, Bland completed a study to identify patterns in escalation and severity of DA over a 5-year period, and in doing so found 80% of harm was caused by just 2% of couples (Bland, 2014).

The productivity and value of such research encourages replication in the study of child-vulnerability. The power few would suggest a concentrated group of children exposed to DA go on to experience the greatest amount of bad outcomes. Can such a relationship be found amongst child referrals? If so, it may provide evidence that all children are not equally vulnerable. Additionally, could risk factors accessible to police at the time of a referral, be identified to determine which children are most vulnerable to harm? Analysis of the descriptive differences between referred children who go on to experience bad outcomes, may start to uncover which specific risk factors are related to bad outcomes. Identification of these factors could provide an evidence base with which to build a predictive model for protective services to target child-vulnerability. Furthermore, does the current methodology of using DASH to identify vulnerable children have a valid role to play in building a predictive model?

Summary

The review of the literature is a stark reminder to the magnitude of the challenge facing police in the pursuance of child protection. Harm can be found in many forms, including exposure to DA with consequences often manifesting later in life. Confusion and ambiguity surrounding the concept of vulnerability has exacerbated an already complicated and complex task. What is clear from this review is the intense pressure and necessity to establish an evidenced based, valid and reliable methodology to identifying vulnerable children, like those exposed to DA.

Methodology

Introduction

As discussed in the previous chapter, most of the current evidence available focuses on the long term effects of child exposure to domestic abuse (DA). A prominent research gap exists in exploring the outcomes experienced by children, following DA child referrals to Social Services (SS). Despite public and political scrutiny on public services to protect children from harm, no evidence base currently assists in identifying which vulnerability factors are associated with which bad outcomes. Furthermore, the current practice of DASH (Richards, 2009, Appendix 1) superimposed to risk assess children exposed to DA, as a reliable and valid methodology, further highlights the urgency and necessity to develop research in this field.

The intention of this thesis is to establish if any relationship can be found between the type of child referral ascribed to a cohort of children, and any subsequent bad outcomes experienced by those children. It begins with a cohort of child cases referred to SS during 2012, and examines an exposure period of three-years prior to the trigger referral, and three-years post trigger referral, to test for the prevalence and frequency of bad outcomes. The research questions progress by inspecting a number of factors known at the point of referral, to determine if any are correlated with the 5 bad outcomes selected. It concludes by examining the relevance and efficacy DASH has on predicting bad outcomes for children.

Definitions

Domestic Abuse

The cohort children examined in this study have all been selected from DA incidents, which occurred in 2012. In 2012, DA was defined as, "*Any incident of threatening behaviour, violence or abuse (psychological, physical, sexual, financial or emotional) between adults who are or have been intimate partners or family members, regardless of gender or sexuality*." (Home Office, 2011). This definition only applied to person's aged 18 or over. The current definition of DA came into effect in 2013, introducing an extended definition. Its revision encompasses young people aged 16 and 17, and incorporates the new legislation of controlling and coercive behaviour (Home Office, 2011, Appendix 2). It is this definition, which applies to any DA incident experienced during the post three-year exposure period of this research. As a consequence of this change, a greater number of recorded incidents are expected to have occurred during the post exposure period, compared to the prior exposure period, including the cohort year. Additional crime types such as vehicle crime, burglary and theft can potentially be classified as domestic incidents.

Child Referrals

A child referral is the term used to describe the communication process police conduct when concerns over a child's welfare have been identified during the course of their duties, and/or a mandatory referral is required due to the occurrence of a DA incident. A DA incident referral is required for any child; who was exposed to the incident, or is a

child who resides at the household where the incident took place, or is legally the child to one of the adult parties involved in the incident, whether the child was present or not. For the purposes of a referral a child is defined as, 'any person under the age of 18' (HM Government, 1989). There are two types of child referrals used in Kent: the first is described as a 'Police referral', which indicates to SS an unresolved child protection concern, and which requires immediate intervention; these are generally used for any type of child abuse incident but can also be used for DA in certain circumstances. The second type is a 'Notification referral', which is only used for DA incidents. A notification indicates to SS that no immediate welfare concerns for the child has been identified by police. In fact, the only rationale for making the referral is to satisfy the mandated requirement for police to record the child's connection with a DA incident. In the context of DA, the current methodology used in Kent to determine which of the two referrals is made, is based on the DASH score ascribed to the DA incident to which a child has been exposed (Notwithstanding any other child abuse risk identified).

Research Questions

1. How often do bad outcomes occur within three years of a DA child referral?

The purpose of a child referral is for police to inform SS of a particular concern for a child's welfare, or report a child's exposure to DA. As such, it provides a potential intervention point for SS to safeguard such children from further harm.

The primary data source utilised for this research is the Kent crime recording and intelligence database system known as, 'Genesis'. Genesis was interrogated to identify all the DA cases where a child referral marker had been added. Based on this query, 53,587 referrals were identified between 2006 and 2016. Although this data set presented an opportunity for an elongated exposure period for the test cases, the rules that governed the use of child referrals prior to 2012 had been interpreted in different ways by 13 independent units. On the 1st January 2012, however, Kent Police implemented a Central Referral Unit (CRU) to provide consistent application of child and adult referral policy. To protect this research against selection bias, cases needed to be selected after CRU implementation. Furthermore, any exposure period needed to be long enough to allow for the detection of any subsequent bad outcomes, and to increase the ability to detect relatively rare events such as victimisation and offending. As a result, every child who received a referral in 2012 was selected as the case sample. Children who received more than one referral in 2012 were selected only once, based on their first referral that year. This provided 6,670 unique children.

The dependent variables considered in this study consisted of 5 bad outcomes. Part of the overall rationale for choosing these outcomes was the level of data accuracy, data content and record consistency Genesis provided throughout the exposure period. The following, details each outcome with a summary of their inclusion and relevance within this research.

1. Further child referral incidents

This variable considered any subsequent incident where the child received a further referral during the exposure period. This included referrals for both DA (as was the case during the triggering event in 2012) and child abuse. As discussed in the previous chapter, a strong body of evidence demonstrates an interrelationship between children exposed to child abuse, or DA and the occurrence of multiple types of bad outcomes later in life (Renner & Slack, 2006). Consequently, it is important for this research to consider the frequency of such events during childhood, and explore a relationship with any of the vulnerability factors or additional bad outcomes.

2. Child became an offender

Existing studies suggest a correlation between exposure to DA and adult DA perpetration (Ehrensaft et al., 2003), as well as more generic crime offending (Gilbert et al., 2009; Farrington et al., 2006). The scope of this variable was based on crime events where the child had been classified as the offender or a suspect. A limitation of this data set is it only includes crimes which have occurred or been recorded in Kent's jurisdiction. The only method of ensuring all offending would be captured is to manually probe PNC against each child case; to do so for 6,670 cases was considered unrealistic within the given time frame.

3. Child experienced victimisation

Victimisation is an obvious form of harm to probe when considering bad outcomes for any child. Such philosophy is supported by research, which has demonstrated a strong probability of victimisation in adulthood, when children are exposed to DA (Renner & Slack, 2006; Linder & Collins, 2005). This research seeks to substantiate such findings and further progress the paradigm by testing whether this remains true in the short term period after exposure. The scope of this variable was also based on crime events where the child had been classified as the victim on a crime report. A limitation of this data set is it only includes crimes which have occurred or been recorded in Kent's jurisdiction.

4. Child became a missing person

A missing child presents numerous combinations of harmful scenarios in which a child becomes further vulnerable whilst missing. Increased reporting in recent years of child sexual exploitation, gang recruitment and child abuse experienced by some children whilst missing, are key public concerns highlighted in the previous chapter (Department for Education, 2014). Inversely, research conducted by Vo (2015) found missing people were more likely to perpetrate crime rather than be victimised whilst missing. This elevated situational vulnerability is principally borne from the absence of a guardian to provide safety, coupled with the freedom of a child to make reckless decisions and take divergent risks (HMIC, 2015a). Very little research has examined the association between missing children and DA exposure. To establish such evidence would contribute to a particularly underdeveloped area of harm research.

5. All-bad outcomes combined

The purpose of this outcome was to better understand the prevalence of harm generally amongst the cohort. Although the four specific bad outcomes aim to provide clarity, it could reasonably be argued that any form of bad outcome is important regardless of type. As such this outcome was an accumulative test to detect for all of the bad outcomes combined.

T-tests, which are used to assess the difference between two frequencies, were used to establish the prevalence of these 5 bad outcomes for each child, after the 2012 trigger referral. A rolling three-year period was examined to ensure all children were subject to the same exposure period.

Q2. Is the presence or absence of certain vulnerability factors at the time of a DA referral associated with an increase in either the likelihood or number of bad outcomes experienced by the child?

From the 6,670 referral cases, 3,186 had a bad outcome in the three-year exposure period, which represents 48% of the cohort. The quantity of cases provides enough statistical power to detect an effect should one exist.

The first aspect of this research question was to establish if any correlation exists between a number of vulnerability factors and any subsequent bad outcomes. The second conditional element explored if such a correlation does exist, which factors make a child more or less vulnerable to experiencing bad outcomes. The final element was to determine

the probability and frequency of each of the five bad outcomes occurring against each of the vulnerability factors. To produce such evidence would be a major first step in this research field, providing all agencies with the inaugural foundation with which to build an evidence based proactive strategy, to prescribe what treatment and/or intervention should be taken in which circumstance.

The five bad outcomes, representing the dependent variables, were tested against 15 independent variables. These variables express the vulnerability factors, which would reasonably be known at the time the child referral was made. The following table presents how each variable was defined and measured:

Child gender	This was considered as a basic descriptive piece of information to detect if gender is a significant factor in later bad outcomes.
Child is 12 or over	In an attempt to examine age as an indicator, 17 categories were deemed too many with which to identify patterns, spreading the cases too thin. Consequently, significance would unlikely be found. A threshold for 12 and over was chosen based on social science theory that age 12 is a milestone in a child's biological and environmental development (Giedd et al., 1999). There was also practical implications-especially for offending, which were unlikely to be recorded against a child prior to age 12.

Trigger Incident was a Crime or No Crime	This differentiated between those trigger DA incidents, which were crimes, and those, which were not. Policing culture intuitively ascribes a greater weight of importance to a crime incident than a no crime incident. If an inverse relationship was to be found it would play an important role in challenging police cultural bias.
Trigger Incident was a Police referral	This factor signals to SS that immediate intervention is required to protect the referred child from harm. The importance of examining this factor is to determine if the police are referring the right children in most need of help.
Trigger Incident was a Notification referral	This factor signals to SS there is no intervention required in relation to the child, but the family may benefit from some form of support. Should an association with bad outcomes be found SS and police would be compelled to revaluate the current methodology for child referrals.
Trigger Incident was a High Risk DA	The DASH score applied to the incident is the default driver of determining which type of referral is made to SS for each child. The inclusion of this factor is further explained in the following research question in greater detail.
Trigger Incident was a Medium Risk DA	As above.

Trigger Incident was a Standard Risk	As above.

The next group of factors considered are categorised as 'priors'. Similarly, these vulnerability factors represent information, which would have been accessible, and searchable on Genesis at the time the child referral had been made. A rolling period of exactly three-years prior to the date of the 2012 trigger referral was examined for the presence of each factor. The overarching purpose of their inclusion was to understand the impact, (if any), a history of DA exposure or child maltreatment has on future exposure to DA and/or bad outcomes. The following table presents how each variable was defined and measured:

Child had Prior Incident	This factor considered any type of child referral generated from an incident, which occurred prior to the trigger, incident. This included both DA and child abuse incidents.
Child had Prior Police Referral	This factor signals whether any of those prior incidents were categorised as a 'Police Referral'. Additionally its inclusion seeks to confirm whether the Police are referring the right children in most need of help each time a referral opportunity is presented.
Child had Prior Notification Referral	This factor signals whether any of those prior incidents were a 'Notification Referral'. Should an

	association with bad outcomes in the post-2012 follow-up period be found, SS and Police would be compelled to revaluate the current methodology for child referrals.
Child had Prior High DA Incident	This factor indicates which of those prior incidents received a DASH score of high risk. The inclusion of this factor is further explained in the following research question in greater detail.
Child had Prior Medium DA Incident	As above
Child had Prior Standard DA Incident	As above.
Child had Prior Child Abuse Incident	This factor indicates which of those prior incidents involved child abuse concerns; this includes both crimes where the child was a victim and or suspected to be a victim of neglect, sexual, emotional or physical abuse. This considers the evidence discussed previously, which suggests a child experiencing one type of abuse is likely to be experiencing another type simultaneously (Gilbert et al., 2009).

Cross-tabulated chi-squared tests were used to test for the prevalence of a bad outcome against each of the independent variables. The same methodology was used to

test prevalence for each of the five bad outcomes. Odds ratios were then used for each of the independent variables to quantify how strongly each of the bad outcomes was likely to occur.

A series of means tests were then conducted to examine the frequency of bad outcomes against each of the independent variables and the mean number of bad outcomes for each child. The mean numbers of bad outcomes were used for each of the independent variables to quantify the volume of bad outcomes, which were likely to occur for each child.

Q3. What relationship, if any, is there between the initial DASH score and subsequent bad outcomes for the child?

The purpose of this question was to examine the fundamental criterion of DA child referral policy in Kent; which currently employs DASH as the risk assessment tool to prescribe the type of referral a child exposed to DA should receive. Just prior to 2012 SS in Kent declared they were at saturation point from police child referrals; predominantly due to a force policy change, directing referrals for every child present at or belonging to a household where a DA incident had occurred, regardless of whether they did or did not witness the incident. The response to this demand by SS was an introduction of a second type of child referral, a 'Notification referral'. The major consequential distinction between the two types of referral is; the 'Police referral' communicates the need for immediate intervention from SS, whilst the notification requires none.

The methodology implemented by SS to differentiate referral type is based on the DASH risk assessment score of the DA incident to which the child has been exposed. DASH was used to govern decision making out of convenience, and not due to any kind of analysis or evidence, which suggested higher DASH, scores were associated with an increased risk of negative outcomes. Policy (Appendix 3) states, a police referral is to be used when the DA incident has been graded as high or where the incident has been graded medium and there have been three or more previous incidents during the 12 months' prior. A notification referral is to be used when the DA incident has been graded as medium (with two or less prior incidents) or standard.

DASH was designed in 2009 with the aim of identifying risk to facilitate, intervention and prevention of DA by statutory partners (Richards, 2008). As a risk assessment tool, DASH has received considerable criticism in recent years, with a number of studies challenging its validity and construction. A study by Bland (2014) demonstrated the basic principle of DASH, i.e. severity of harm is linked to frequency of events, is false and therefore is not a reliable tool for predicting harm. Similarly, Thornton (2011) casts doubt over its construction validity, developed from 27 risk factors extrapolated from a sample size of just 30 cases with no comparison control group. Furthermore, research by Pease et al. (2014) proposed DASH has no association with any specific outcomes, and as such cannot fulfil the primary function of prediction.

Amid the precarious reliability and validity of DASH within the conditions of DA, testing its generalisability to risk assess children exposed to DA becomes critical. Despite policy in Kent admirably attempting to predict harm, it appears counter intuitive to apply a methodology which is built for adults in an intimate relationship; and simply transfer it to

predict bad outcomes for children, with no real justification or evidence base. To evaluate this assumption would provide key evidence to what works, compelling both SS and police to revaluate the use of DASH as a predictive mechanism for child referrals. The data and methods used to address this specific question are incorporated in research question 2.

Results

Introduction

This chapter begins with a descriptive analysis of the results found from the t-tests in order to establish the prevalence and frequency of bad outcomes which occur within three-years of a child referral, based on a cohort of 6,670 cases. It continues with an analysis of 15 vulnerability factors to determine whether a relationship can be found between each factor and any subsequent bad outcome. Furthermore, it examines the strength of each factor at predicting bad outcomes. Finally, it presents an analysis on the validity of using the 'DASH risk assessment' for predicting bad outcomes for children, concluding with a summary of findings.

Q1. How often do bad outcomes occur within three years of a DA child referral?

The final cohort of children examined by this research was 6,670 unique child referral cases. Each child was examined over a three-year period to establish the presence of any of the five bad outcomes discussed in the previous chapter. One of the benefits of such a large sample was the statistical power it provided; ensuring if there was any effect to be detected, it would be found from the significance tests. Table 1 presents the results from the frequency tests.

Table 1: Frequency sorted in ascending order by number of outcomes

Frequency of all bad outcomes						
Bad Outcome	Frequency	Cumulative Children	% Children	Product Outcomes	Cumulative Outcomes	% Outcomes
78	1	1	0.0%	78	78	0.9%
62	1	2	0.0%	62	140	1.6%
55	1	3	0.0%	55	195	2.2%
47	1	4	0.1%	47	242	2.8%
44	1	5	0.1%	44	286	3.3%
38	1	6	0.1%	38	324	3.7%
37	1	7	0.1%	37	361	4.2%
33	1	8	0.1%	33	394	4.5%
32	1	9	0.1%	32	426	4.9%
26	2	11	0.2%	52	478	5.5%
24	1	12	0.2%	24	502	5.8%
23	2	14	0.2%	46	548	6.3%
21	5	19	0.3%	105	653	7.5%
20	5	24	0.4%	100	753	8.7%
19	1	25	0.4%	19	772	8.9%
18	3	28	0.4%	54	826	9.5%
17	4	32	0.5%	68	894	10.3%
16	4	36	0.5%	64	958	11.0%
15	6	42	0.6%	90	1048	12.1%
14	3	45	0.7%	42	1090	12.6%
13	9	54	0.8%	117	1207	13.9%
12	11	65	1.0%	132	1339	15.4%
11	8	73	1.1%	88	1427	16.4%
10	18	91	1.4%	180	1607	18.5%
9	16	107	1.6%	144	1751	20.2%
8	25	132	2.0%	200	1951	22.5%
7	45	177	2.7%	315	2266	26.1%
6	76	253	3.8%	456	2722	31.3%
5	137	390	5.8%	685	3407	39.2%
4	267	657	9.9%	1068	4475	51.5%
3	468	1125	16.9%	1404	5879	67.7%
2	745	1870	28.0%	1490	7369	84.8%
1	1316	3186	47.8%	1316	8685	100.0%
0	3484	6670	100.0%	0	8685	100.0%

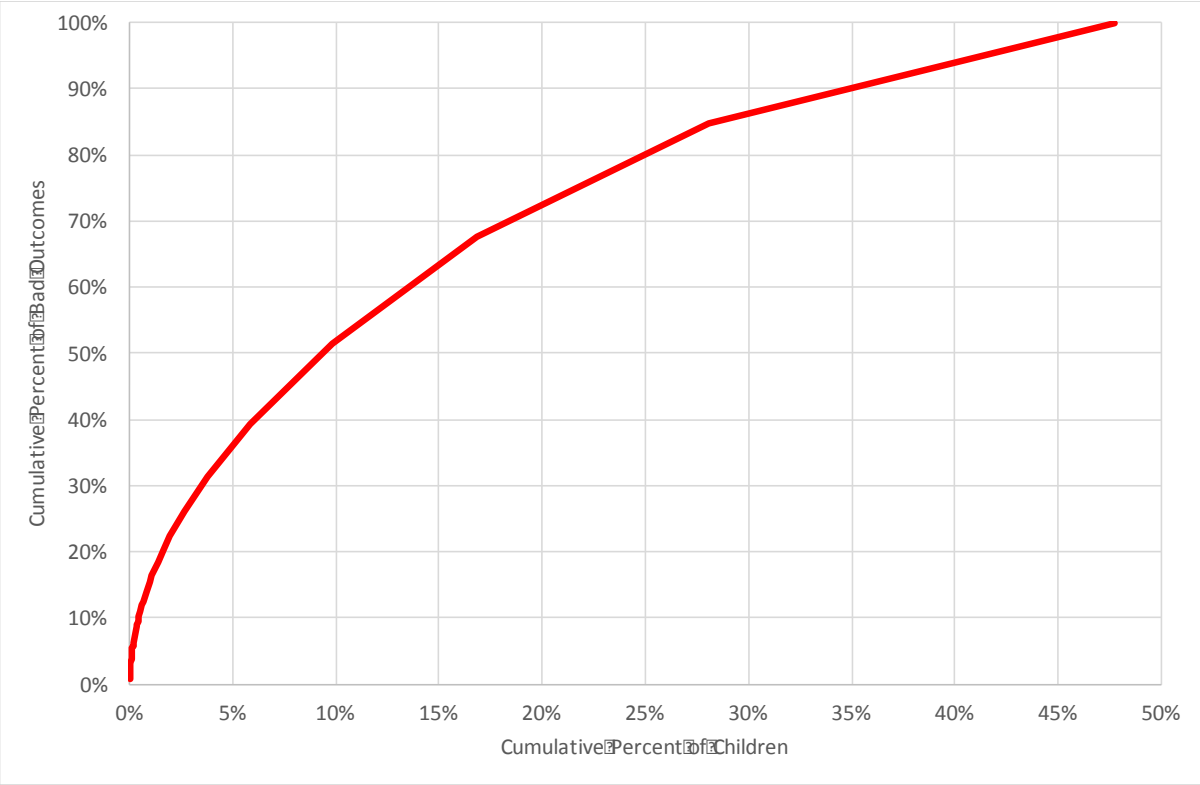
One of the first points to note is that 3,484 children experienced no bad outcomes in the follow up period, representing 52% of the sample; compared to 3,186 children who experienced one or more bad outcome(s) during their three-year exposure period, representing 48% of the original sample. In total, 8,685 bad outcomes were experienced between them.

The first column in the table represents the bad outcome count experienced over the three-years. Column 2 represents the number of children who experienced those bad outcomes. This allows us to see how the 3,186 children are spread across the frequency of bad outcomes.

A clear pattern can be seen between the frequency of bad outcomes and the number of children who receive them, illustrated by the high number of children experiencing a low number of bad outcomes, compared to a low number of children experiencing a high number of bad outcomes. At one end of the scale, 1,316 children experienced just one bad outcome during the exposure period; 745 children experienced 2 bad outcomes and 465 children experienced 3 bad outcomes. Whilst at the other end of the table, 1 child experienced 72 bad outcomes alone, with another experiencing 62. In fact, the top 12 children accounted for over 500 bad outcomes between them.

Examining these results using the cumulative percentile value assists to clarify the frequency of bad outcomes. Column 4 of the table (% of children) represents the child cohort by percentile and column 7 represents the bad outcomes by percentile. The distribution of cases shows that just 28% of the cohort experienced 85% of all-bad outcomes, 17% of children experienced 68% of all-bad outcomes and a concentrated cluster of less than 10% of children account for just over 50% of all-bad outcomes. Figure 2 displays this data in a line graph demonstrating a non-linear positive relationship between the cohort and the bad outcomes.

Figure 1: Cumulative distribution of bad outcomes across cohort



In summary, the results of this research show just over half of children in the cohort experienced no bad outcomes at all. Of those that did, 20% experienced only a single bad outcome. But the vast majority of bad outcomes were experienced by a concentrated small group of children, who were subject to multiple counts of bad outcomes during the exposure period.

Q2. Is the presence or absence of certain vulnerability factors at the time of a DA referral associated with an increase in either the likelihood or number of bad outcomes experienced by the child?

The 3,186 children who experienced bad outcomes were examined against the 15 vulnerability factors discussed in the previous chapter. The first part of this research

question was to determine whether a relationship existed between the 15 factors and the bad outcomes. Bad outcomes were considered as all-bad outcomes combined as well as individual bad outcomes. The second element was to examine if a relationship between the two variables did exist, how strong of a predictor was each factor at predicting a bad outcome occurring.

A series of chi-squared tests were conducted to explore this question, illustrated by the results presented in the following tables. The first column in each table displays the 15 different factors, which were tested. The true column represents, with a percentile value, the proportion of children who experienced the bad outcome where the corresponding factor was present for a child; the false column presents with a percentile value, the proportion of children who experienced the bad outcome but the corresponding factor was not present. The p (chi-squared) column displays the p-value, and an asterix has been placed alongside the column throughout each table to demonstrate where the value is less than 0.05 and thus statistically significant. The final column identifies the odds ratio value which represents how much more likely a bad outcome is to occur should the factor be present (i.e. true).

Prevalence of Subsequent All-Bad Outcomes Combined

Table 2: Subsequent total of all-bad outcomes combined

Percentage of children with any bad outcomes					
Predictors	TRUE	FALSE	Sig.Chi-Sqr.		OR
Child is Male	49.2	46.4	0.02	*	1.12
Child is 12 or over	48.5	47.7	0.62		1.03
Trigger Incident was a Crime	45.0	49.8	0.00	*	0.83
Trigger Incident was Referral	53.9	44.9	0.00	*	1.43
Trigger Incident was Notification	45.0	53.9	0.00	*	0.70
Trigger Incident was High risk DASH	57.8	46.6	0.00	*	1.57
Trigger Incident was Medium risk DASH	51.7	44.8	0.00	*	1.32
Trigger Incident was Standard risk DASH	44.3	53.4	0.00	*	0.69
Child had Prior Incident	58.9	40.8	0.00	*	2.08
Child had Prior Referral	60.8	42.2	0.00	*	2.13
Child had Prior Notification	62.5	44.5	0.00	*	2.07
Child had Prior High risk DASH Incident	69.5	47.2	0.00	*	2.56
Child had Prior Medium risk DASH Incident	66.4	45.0	0.00	*	2.41
Child had Prior Standard risk DASH Incident	60.9	43.6	0.00	*	2.02
Child had Prior Child Abuse Incident	61.0	45.2	0.00	*	1.90

One of the first points of note is that all of the factors, apart from age, produced statistically significant results from the tests, which was understandable due to the high number of cases in the sample. As such, each of the factors can start to be viewed more in the context as a predictor, using the odds ratio to represent its strength as a predictor.

Gender was the first factor examined providing only a minor increased probability if the child was male. The ‘trigger incident’ being a ‘crime or no-crime’ produced some interesting and potentially counter intuitive findings, suggesting a child was more likely to experience bad outcomes when the ‘trigger incident’ was a ‘no crime’; although it is not indicated with a powerful ratio.

‘Trigger Incident Referral’ and Trigger Incident Notification’ appear to follow their intended objective when tested against all-bad outcomes combined, demonstrating a child is more likely to experience bad outcomes following a trigger referral and a child is less likely to experience bad outcomes after a trigger notification.

Similarly, each of the trigger categories of DASH produced results complementary to their ascribed risk level. A ‘Trigger Incident High risk DASH’, signalled a child is 1.6 times more likely to have a bad outcome than if the incident was high risk, a ‘Trigger Incident Medium risk DASH’ was more likely to result in a bad outcome and children from a ’Trigger Incident Standard risk DASH ‘was less likely to experience a bad outcome.

What was strikingly clear from these findings was the difference between just the factors known at the time of the trigger referral in 2012, and the factors pulled from the child’s more comprehensive prior history at predicting bad outcomes. By including prior risk factors, the likelihood of a bad outcome for a child more than doubles. The presence of either a ‘Prior Notification’ or a ‘Prior Referral’ suggest a child is more than twice as likely to have a bad outcome in the wake of the presenting incident. Any history of ‘Prior Incidents’ also found a child more than twice as likely to experience bad outcomes.

All three types of DASH results pulled from the child’s prior history were strong predictors for bad outcomes. If a child had a ‘Prior Incident High risk DASH’ they were just over 2.5 times more likely to experience a bad outcome than a child without such previous. A ‘Prior Incident Medium risk DASH’ was just under at 2.3 times more likely to result in a bad outcome. Interestingly any ‘Prior Incident Standard risk DASH’ also

predicted a child to be twice as likely to experience bad outcomes than a child with no 'Prior Standard risk DASH', which was the inverse to what was found in the trigger group. Similarly, a child was found to be almost twice as likely to experience bad outcomes if they have had a history of 'Prior Child Abuse'.

Overall, it became clear the history of a child carries a more prominent role in predicting bad outcomes than the circumstances surrounding a trigger referral. While the analysis presented above combines all of the possible bad outcomes into a single analysis, it is also possible that certain risk factors may be more specifically associated with specific forms of bad outcomes. A measure that predicts additional social service referrals may not work as well for forecasting future offending. The following tables show the analysis of each of the individual four bad outcomes against each of the predicting vulnerability factors.

Prevalence of Subsequent Incident-Based Referrals to Social Services.

Table 3: Subsequent incident-based referrals to Social Services

Percentage of children with further Incident referrals					
Predictors	TRUE	FALSE	Sig.Chi-Sqr.		OR
Child is Male	44.8	43.5	0.29		1.05
Child is 12 or over	33.4	46.4	0.00	*	0.58
Trigger Incident was a Crime	41.0	46.4	0.00	*	0.82
Trigger Incident was Referral	50.1	41.3	0.00	*	1.43
Trigger Incident was Notification	41.4	50.1	0.00	*	0.70
Trigger Incident was High risk DASH	54.5	42.9	0.00	*	1.56
Trigger Incident was Medium risk DASH	48.1	41.1	0.00	*	1.33
Trigger Incident was Standard risk DASH	40.1	50.6	0.00	*	0.65
Child had Prior Incident	54.9	37.3	0.00	*	2.05
Child had Prior Referral	56.2	38.9	0.00	*	2.02
Child had Prior Notification	60.1	40.6	0.00	*	2.21
Child had Prior High risk DASH Incident	66.1	43.5	0.00	*	2.53
Child had Prior Medium risk DASH Incident	63.3	41.3	0.00	*	2.45
Child had Prior Standard risk DASH Incident	58.3	39.6	0.00	*	2.13
Child had Prior Child Abuse Incident	55.5	41.9	0.00	*	1.73

Children who were subject to further incidents during the three-year exposure period were assessed independently. This type of bad outcome was, by far the most common one experienced in this sample, and accounted for 92% of all of the bad outcomes observed within the data. In total, 2,943 of the children experienced this kind of negative outcome during the follow-up period.

The results for the trigger factors almost exactly followed the results found in table 2. There were however two factors which deviated from that pattern. Results indicate a 'Child 12 or over' at the time of the trigger incident was less likely to experience further incidents; therefore, a child under the age of 12 is nearly twice as likely to experience further incidents. Additionally, gender was found to have no significant relationship, as opposed to the all-bad outcomes combined tests.

In terms of prior factors ‘Prior High risk DASH’ was the strongest predictor across the group followed by ‘Prior Medium risk DASH’. Furthermore ‘Prior Standard risk DASH’ indicated a child was 2.1 times more likely to have further incident referrals, which was the reverse to the result at the point of trigger.

In this test, both types of referrals were associated with having a bad outcome; however, a ‘Prior Notification’ was a stronger predictor than a ‘Prior Referral’ with an odds ratio of 2.21 and 2.02 respectively.

Prevalence of Subsequent Recorded Child Perpetrations

Table 4: Subsequent recorded perpetrations

	Percentage of offending children				
Predictors	TRUE	FALSE	Sig.Chi-Sqr.		OR
Child is Male	7.0	5.0	0.00	*	1.44
Child is 12 or over	24.2	2.3	0.00	*	13.40
Trigger Incident was a Crime	6.7	5.4	0.03	*	1.25
Trigger Incident was Referral	5.7	6.5	1.78		0.86
Trigger Incident was Notification	6.6	5.6	0.10		1.19
Trigger Incident was High risk DASH	7.9	5.7	0.02	*	1.41
Trigger Incident was Medium risk DASH	6.0	5.9	0.83		1.02
Trigger Incident was Standard risk DASH	5.8	6.2	0.48		0.93
Child had Prior Incident	8.2	4.6	0.00	*	1.87
Child had Prior Referral	9.1	4.6	0.00	*	2.09
Child had Prior Notification	6.7	5.8	0.21		1.17
Child had Prior High risk DASH Incident	8.6	5.9	0.13		1.51
Child had Prior Medium risk DASH Incident	7.2	5.8	0.12		1.25
Child had Prior Standard risk DASH Incident	6.5	5.8	0.32		1.01
Child had Prior Child Abuse Incident	11.8	4.8	0.00	*	2.63

The next outcome analysed was the children who went on to offend during the exposure period. There were 398 children who experienced this outcome, representing 8% of the bad outcome cases. One of the disadvantages of analysing outcomes separately is the number of cases for each outcome were reduced. What became noticeable was the reduction in significance, with only 7 of the 15 factors finding a significant relationship.

By far the stand out factor of the 7 significant factors was age; here a 'Child 12 or over' was 13 times more likely to offend than a child under 12. Furthermore, 'Gender' indicated a male child was 1.4 times more likely to offend than a female child.

Again the 'Trigger Incident was a Crime' featured as significant, however on this occasion bucked the trend from the other bad outcome categories. Here an inverse relationship was found, suggesting a crime incident was a stronger predictor of offending than a non-crime incident, although the odds ratio was not particularly strong at 1.2. 'Trigger High risk DASH' was the only DASH factor associated with offending, predicting a child to be 1.4 times more likely to offend when they were referred from a high risk incident.

The stronger predictors in this test which has been true in other analyses appear to be the prior factors. Any type of 'Prior Incident' predicted subsequent offending for a child at an odds ratio of 1.8. Additionally, a 'Prior Referral' indicates a child is twice as likely to go on to become an offender, where as a 'Prior Notification' found no relationship. The strongest prior predictor was 'Prior Child Abuse Incident', increasing a child's probability of offending to more than 2.5 times that of a child with no such history.

It is important to note the size of the values displayed in the true/false column when considering results from this test.

Prevalence of Subsequent Recorded Child Victimisations

Table 5: Subsequent recorded victimisations

	Percentage of child victims				
Predictors	TRUE	FALSE	Sig.Chi-Sqr.		OR
Child is Male	2.7	2.9	0.65		0.93
Child is 12 or over	10.8	1.2	0.00	*	10.10
Trigger Incident was a Crime	3.0	2.6	0.33		1.16
Trigger Incident was Referral	3.3	2.6	0.11		1.28
Trigger Incident was Notification	2.6	3.3	0.85		0.77
Trigger Incident was High risk DASH	3.5	2.7	0.23		1.30
Trigger Incident was Medium risk DASH	3.1	2.5	0.15		1.24
Trigger Incident was Standard risk DASH	2.5	3.4	0.34		0.73
Child had Prior Incident	4.0	2.0	0.00	*	2.00
Child had Prior Referral	4.7	2.0	0.00	*	2.40
Child had Prior Notification	3.4	2.7	0.16		1.29
Child had Prior High risk DASH Incident	6.9	2.7	0.00	*	2.68
Child had Prior Medium risk DASH Incident	3.8	2.7	0.07		1.42
Child had Prior Standard risk DASH Incident	3.1	2.7	0.43		1.14
Child had Prior Child Abuse Incident	5.9	2.2	0.00	*	2.81

Very few children went on to become the recorded victims of crime during their 3-year windows. In total it was 187, representing 6% of the bad outcome cases. For many of the factors, a significant relationship could not be found with only 5 of the 15 associated with victimisation. Age peaks the predictors in this test suggesting a ‘Child 12 or over’ is 10 times more likely to experience victimisation than a child under 12; whilst none of the other trigger incident factors were found to be associated with victimisation.

Prior factors were stronger predictors; both ‘Prior Incident’ and ‘Prior Referral’ show a significant relationship with victimisation, with an odds ratio of 2 for ‘Prior Incident’ and 2.4 for ‘Prior Referral’. A ‘Prior Child Abuse Incident’ was the strongest predictor in this group with a child 2.8 times more likely to suffer victimisation than a child with no such history. The only DASH factor featured in this test was ‘Prior High risk DASH’ indicating a child was 2.7 times more likely to experience future victimisation.

Prevalence of Subsequent Child Missing Reports

Table 6: Subsequent child missing reports

	Perentage of children who went missing				
Predictors	TRUE	FALSE	Sig.Chi-Sqr.		OR
Child is Male	1.6	1.6	0.97		1.01
Child is 12 or over	5.9	0.8	0.00	*	8.10
Trigger Incident was a Crime	1.8	1.5	0.36		0.82
Trigger Incident was Referral	1.8	1.5	0.48		1.16
Trigger Incident was Notification	1.6	1.7	0.62		0.90
Trigger Incident was High risk DASH	1.6	1.6	0.99		0.99
Trigger Incident was Medium risk DASH	1.8	1.5	0.24		1.26
Trigger Incident was Standard risk DASH	1.6	1.7	0.70		0.93
Child had Prior Incident	2.2	1.2	0.02	*	1.80
Child had Prior Referral	2.5	1.2	0.00	*	2.10
Child had Prior Notification	2.2	1.5	0.09		1.45
Child had Prior High risk DASH Incident	2.3	1.6	0.47		1.45
Child had Prior Medium risk DASH Incident	2.1	1.5	0.22		1.37
Child had Prior Standard risk DASH Incident	2.0	1.5	0.19		1.31
Child had Prior Child Abuse Incident	3.6	1.2	0.00	*	3.01

The final outcome analysed were those children who were reported missing during the exposure period. In total, 108 children went missing, accounting for just 3% of the overall bad outcome cases, and was the least experienced bad outcome of all. Again, age is the stand out factor, with an odds ratio far higher than any other predictor, demonstrating

that a ‘Child 12 or over’ was over 8 times more likely than a child under 12. No other trigger factor was associated with missing children.

Three prior factors were significant; the strongest being ‘Prior Child Abuse’ which left a child 3 times more likely to go missing than a child without prior abuse. Any ‘Prior Incident’ found children 1.8 times more likely to go missing and any ‘Prior Referral’ 2.1 times more likely than a child with no such referral.

Summary

When all-bad outcomes combined was examined all but 1 of the 15 factors demonstrate a significant relationship. There does, however, appear to be a clear distinction and pattern between the two sub-groups of factors. Factors established at the point of referral can provide varying degrees of prediction but is wholly dependent on the type of bad outcome examined. It is the prior sub group of factors, which appear to provide the strongest and most consistent level of prediction from these tests.

The outlier across the board has been age. Curiously age does not appear significant when considering all-bad outcomes combined; perhaps because the majority of cases are found in the ‘further incident’ tests. It is in the context of subsequent offending, victimisation and missing where a ‘Child 12 or over’ became an exceptionally strong predictor.

The Final part of this research question looked at the frequency of bad outcomes by analysing the mean number of bad outcomes observed. A series of t-tests were applied

beginning with all-bad outcomes combined followed by each of the individual bad outcomes. The first column in the following tables represent the predicting factor examined, the true column represents the average number of times a child experienced the bad outcome where the factor was present and the false column presents the average number of times the bad outcome occurred when the factor was not present. The Sig. column displays the significance value, with an asterix placed alongside where the value is less than 0.05 to highlight those factors, which were statistically significant. The final column is cohen's d, which is a standardised measure of an effect size. Where a significant effect has been found, (signified in the table by the asterix); cohen's d allows us to interpret the size of the effect each factor had on the subsequent bad outcome count, independent of the scale of measurements used in the study. Cohen has provided guidelines for interpreting results, proposing .20 to be a small effect size, .50 a moderate effect size and .80 is considered a large effect size (Cohen, 1988).

Frequency of Subsequent All-Bad Outcomes Combined

Table 7: Subsequent mean number of all-bad outcomes combined

	Mean number of bad outcomes				
Predictors	TRUE	FALSE	Sig.		Cohen'sd
Child is Male	1.40	1.20	0.00	*	0.07
Child is 12 or over	2.12	1.14	0.00	*	0.24
Trigger Incident was a Crime	1.24	1.35	0.13		0.04
Trigger Incident was Referral	1.65	1.14	0.00	*	0.17
Trigger Incident was Notification	1.15	1.63	0.00	*	0.16
Trigger Incident was High risk DASH	1.85	1.24	0.00	*	0.18
Trigger Incident was Medium risk DASH	1.46	1.18	0.00	*	0.10
Trigger Incident was Standard risk DASH	1.15	1.55	0.00	*	0.14
Child had Prior Incident	1.80	0.99	0.00	*	0.28
Child had Prior Referral	1.90	1.04	0.00	*	0.29
Child had Prior Notification	1.93	1.16	0.00	*	0.25
Child had Prior High risk DASH Incident	2.10	1.28	0.00	*	0.30
Child had Prior Medium risk DASH Incident	2.12	1.18	0.00	*	0.30
Child had Prior Standard risk DASH Incident	1.80	1.14	0.00	*	0.23
Child had Prior Child Abuse Incident	2.04	1.16	0.00	*	0.26

One of the first points of note from Table 7 is that all of the factors, apart from 'Trigger Incident was a Crime', exhibit a significant relationship with all-bad outcomes combined. Although no factor showed any large effect size in this table, according to Cohen's guidelines, which is relatively common in social science. There appears to be a distinction between the two types of factors, with the prior factors producing a larger effect size than the trigger factors. Furthermore, two of the factors 'Prior Medium risk DASH' and 'Prior Child Abuse' are approaching a moderate effect size.

The factor considering gender demonstrates a male child is likely to experience a slightly higher number of bad outcomes than a female, but is not a strong predictor when considering the effect size. Age appears to be a stronger predictor, with a 'Child 12 or over' experiencing almost double the number of bad outcomes than a child under 12.

Unlike the results found in Table 2 the ‘Trigger Incident was a Crime’ was found to have no relationship with all-bad outcomes combined, and was the only factor in this means test not to do so.

The two-referral categories, ‘Trigger was a Referral’ and ‘Trigger was a Notification’ were again consistent with their intended demarcation of risk. A ‘Trigger Referral’ was associated with a higher number of average bad outcomes, occurring at a rate of 1.6 compared to 1.1 for a ‘Trigger Notification’. It is important to consider that both predictors had a small effect size, limiting its value as a strong predictor of bad outcomes.

The trigger DASH score followed a similar pattern, arguably supporting the prescribed risk level each category represents. Both ‘Trigger High risk DASH’ and ‘Trigger Medium risk DASH’ were associated with more bad outcomes for a child at an average rate of 1.8 and 1.4 respectively, whereas a ‘Trigger Standard risk DASH’ led to 0.4 fewer bad outcomes. Again, all three had a small effect size.

It was the prior group of factors, which demonstrated the strongest relationships to bad outcomes, highlighted by an increased level of effect size compared to the trigger group. Any ‘Prior Incident’ found children experienced nearly twice as many bad outcomes than children with no ‘Prior Incident’, at an average rate of 1.8 bad outcomes per child compared to less than one.

Interestingly, any type of ‘Prior Referral’ was a strong indicator of bad outcomes. Children with a ‘Prior Referral’ experienced, on average, twice as many as those children without, and children with a ‘Prior Notification’ experienced 1.5 times as many than those

without a notification. For notifications, this finding is the opposite to the result at the trigger point, with almost twice the effect size, suggesting that a 'Prior Notification' is more relevant than a 'Trigger Notification' at predicting the average amount of bad outcomes for a child.

Similarly, the prior DASH score is at odds with the pattern found from the trigger DASH scores. Any prior DASH result, regardless of score, was associated with experiencing more bad outcomes including 'Prior Standard risk DASH'. Moreover, children with 'Prior Medium risk DASH' experienced a higher number of bad outcomes, with an average of 2.12, than children with 'Prior High DASH' who had an average of 2.10. Of particular interest were the children who had a history of 'Prior Standard risk DASH', who experienced almost exactly the same average number of bad outcomes as those children with a history of 'Prior High risk DASH'. Both prior high and medium had the strongest effect size amongst all the factors within this group, approaching a moderate level on Cohen's scale with standard being slightly weaker. Research question 3 will discuss this aspect in greater detail.

Finally, those children who had any 'Prior Child Abuse' experienced almost twice as many bad outcomes than those without, at an average of 2 per child compared to 1.1 per child. The following tables present the results from the t-tests looking at each of the bad outcomes individually.

Frequency of Subsequent Incident-Based Referrals

Table 8: Subsequent mean number of incident-based referrals to Social Services

	Mean number of further incident referrals				
Predictors	TRUE	FALSE	Sig.		Cohen's d
Child is Male	1.03	0.96	0.09		0.04
Child is 12 or over	0.66	1.07	0.00	*	0.27
Trigger Incident was a Crime	0.91	1.06	0.00	*	0.09
Trigger Incident was Referral	1.25	0.88	0.00	*	0.22
Trigger Incident was Notification	0.88	1.26	0.00	*	0.22
Trigger Incident was High risk DASH	1.41	0.95	0.00	*	0.25
Trigger Incident was Medium risk DASH	1.11	0.91	0.00	*	0.12
Trigger Incident was Standard risk DASH	0.87	1.20	0.00	*	0.20
Child had Prior Incident	1.34	0.78	0.00	*	0.34
Child had Prior Referral	1.41	0.82	0.00	*	0.34
Child had Prior Notification	1.55	0.88	0.00	*	0.38
Child had Prior High risk DASH Incident	1.61	0.98	0.00	*	0.39
Child had Prior Medium risk DASH Incident	1.72	0.89	0.00	*	0.44
Child had Prior Standard risk DASH Incident	1.46	0.85	0.00	*	0.35
Child had Prior Child Abuse Incident	1.31	0.94	0.00	*	0.22

The first bad outcome examined separately was the mean number of further incident referrals (Table 8). All of the factors were found to have a significant relationship apart from gender, indicating both male and female children are likely to experience similar levels of further incidents.

Two particular factors differed from the results presented in the all-bad outcomes combined table 7. On this occasion, a ‘Child 12 or over’ was found to experience fewer further incidents than those under 12, in fact 1.6 times less. This was the only individual bad outcome of all the tests in which a ‘Child 12 or over’ experienced less harm than a child under 12. Another anomaly between the two groups was the ‘Trigger Incident was a Crime’, which became a significant factor in this test, with a non-crime incident predicting a higher number of further incidents than a crime incident, albeit the effect size was small.

A number of factors did remain consistent, a ‘Trigger Referral’ leading to a higher frequency of bad outcomes and a ‘Trigger Notification’ leading to a lower frequency of bad outcomes. Again, the DASH scores followed their intended risk labels, with a ‘Trigger High risk DASH’ and a ‘Trigger Medium Risk DASH’ both leading to higher average rates of bad outcomes for a child, although the frequency difference for medium was narrow. A ‘Trigger Standard risk DASH’ again found a child experiencing fewer bad outcomes, also with a larger effect size than a medium.

The prior group of factors were once again the stronger group of predictors, demonstrating a higher average number of further incidents, and supported by stronger effect sizes than the trigger predictors. Additionally, any ‘Prior Incident’, ‘Prior Referral’ and ‘Prior Notification’ all showed the average child experienced 1.7 times as many further incidents than those children without such prior factors.

The prior DASH scores provided some interesting results. A ‘Prior Medium risk DASH’ was the strongest predictor of all the factors in this table; where children experienced twice as many further incidents at an average of 1.7 in comparison to 0.9, and with an effect size close to moderate. Furthermore, those children who had a history of ‘Prior Standard risk DASH’ went on to have 1.7 times more incidents, which was higher than those children with a history of ‘Prior High risk DASH’ who had 1.6 times as many. ‘Prior Child Abuse’ was also a predictor of higher average levels of further incidents than a child who had no such history.

Frequency of Subsequent Recorded Perpetrations

Table 9: Subsequent mean number of perpetrations

	Mean number of offences				
Predictors	TRUE	FALSE	Sig.		Cohen'sd
Child is Male	0.27	0.10	0.00	*	0.12
Child is 12 or over	0.92	0.04	0.00	*	0.38
Trigger Incident was a Crime	0.20	0.18	0.58		0.01
Trigger Incident was Referral	0.25	0.16	0.03	*	0.06
Trigger Incident was Notification	0.17	0.23	0.14		0.04
Trigger Incident was High risk DASH	0.23	0.18	0.42		0.04
Trigger Incident was Medium risk DASH	0.21	0.17	0.25		0.03
Trigger Incident was Standard risk DASH	0.17	0.22	0.16		0.03
Child had Prior Incident	0.30	0.12	0.00	*	0.12
Child had Prior Referral	0.31	0.13	0.00	*	0.11
Child had Prior Notification	0.24	0.18	0.25		0.04
Child had Prior High risk DASH Incident	0.20	0.19	0.83		0.01
Child had Prior Medium risk DASH Incident	0.26	0.18	0.24		0.05
Child had Prior Standard risk DASH Incident	0.22	0.18	0.30		0.03
Child had Prior Child Abuse Incident	0.47	0.13	0.00	*	0.18

When we start to look at those children who went on to commit crime, only 6 of the factors examined were found to retain a significant relationship. This is undoubtedly connected to the lower number of children in the cohort who went on to become offenders, which was just 8% of cases. Due to such a small number of cases in the group the mean number of offences in the true/false column are low, affecting the statistical power.

One of most intriguing results in this test was the association with gender. It is only in the context of offending as a bad outcome, where gender appears to be significant; with results in this test indicating a male child commits an average of 2.7 times as many crimes compared to girls with SS referrals due to DA, although the effect size would be considered small.

Age was found to be associated with an exceptionally high level of frequency, with a ‘Child 12 or over’ perpetrating on average 23 times more offences than those children under 12. Further supported by the strength of the effect size. A ‘Trigger Referral’ was also significant, with those children committing on average 1.5 times as many crimes as those children who received a ‘Trigger Notification’, which itself was not a significant factor. However, the weak effect size for a referral potentially diminishes its relevance as an influential predictor.

A number of the prior factors were related to a higher frequency of offending than the trigger factors, with any ‘Prior Incident’ resulting in 2.5 times more average offending than no ‘Prior Incident’. ‘Prior referral’ was also a strong factor, with more than double the amount of average offending for a child compared to a child without. However, the strongest prior predictor of perpetration was any history of ‘Prior Child Abuse’. The presence of this factor was associated with a child on average committing 3.5 times more offences than a child with no such history.

Frequency of Subsequent Recorded Victimisations

Table 10: Subsequent mean number of victimisations

	Mean number of victimisations				
Predictors	TRUE	FALSE	Sig.		Cohen'sd
Child is Male	0.04	0.05	0.31		0.03
Child is 12 or over	0.18	0.02	0.00	*	0.29
Trigger Incident was a Crime	0.04	0.04	0.75		0.00
Trigger Incident was Referral	0.05	0.04	0.28		0.03
Trigger Incident was Notification	0.04	0.05	0.24		0.03
Trigger Incident was High risk DASH	0.05	0.04	0.48		0.03
Trigger Incident was Medium risk DASH	0.05	0.04	0.14		0.03
Trigger Incident was Standard risk DASH	0.04	0.05	0.27		0.03
Child had Prior Incident	0.06	0.04	0.02	*	0.06
Child had Prior Referral	0.06	0.03	0.00	*	0.09
Child had Prior Notification	0.06	0.04	0.15		0.05
Child had Prior High risk DASH Incident	0.12	0.04	0.06		0.18
Child had Prior Medium risk DASH Incident	0.06	0.04	0.15		0.05
Child had Prior Standard risk DASH Incident	0.05	0.04	0.62		0.03
Child had Prior Child Abuse Incident	0.08	0.04	0.01	*	0.11

Victimisation was also substantially less frequent as a bad outcome, especially when compared to additional incidents, leaving only 4 of the 15 factors found with a significant relationship. Age was again a stand out feature in this test, with a ‘Child 12 or over’ experiencing on average 9 times as much victimisation as a child under 12. One must also recognize that a crime must first be recordable in order for a victimisation to appear in the data, and that offenders tend to victimise people who are similar to themselves. A theft by a 9-year-old with an 8-year-old victim would not appear in the police data due to the age of criminal responsibility, but the same activity 5 years later most certainly would.

The three remaining significant factors were all from the prior group. Children with a ‘Prior Incident’ went on to endure 1.5 times as much victimisation than those children without such prior exposure. Moreover, any history of a ‘Prior Referral’ led to twice as

many victimisations as those children with no 'Prior Referral'. Any form of 'Prior Child Abuse' also found on average a child victimised twice as much as a child who had no 'Prior Child Abuse'. A point to recognise, when interpreting the results for these four factors is the effect sizes are particularly small, indicating their strength as a predictor is weak.

Frequency of Subsequent Child Missing Reports

Table 11: Subsequent mean number of child missing reports

Mean number of occassions missing					
Predictors	TRUE	FALSE	Sig.		Cohen'sd
Child is Male	0.06	0.09	0.40		0.02
Child is 12 or over	0.35	0.02	0.00	*	0.16
Trigger Incident was a Crime	0.09	0.07	0.52		0.02
Trigger Incident was Referral	0.09	0.07	0.50		0.01
Trigger Incident was Notification	0.07	0.09	0.54		0.01
Trigger Incident was High risk DASH	0.16	0.06	0.39		0.05
Trigger Incident was Medium risk DASH	0.08	0.07	0.68		0.01
Trigger Incident was Standard risk DASH	0.08	0.07	0.90		0.01
Child had Prior Incident	0.10	0.06	0.18		0.03
Child had Prior Referral	0.11	0.06	0.14		0.04
Child had Prior Notification	0.09	0.07	0.63		0.02
Child had Prior High risk DASH Incident	0.17	0.07	0.32		0.08
Child had Prior Medium risk DASH Incident	0.08	0.07	0.90		0.01
Child had Prior Standard risk DASH Incident	0.07	0.08	0.86		0.01
Child had Prior Child Abuse Incident	0.18	0.05	0.02	*	0.09

The final outcome explored was the average number of times a child became a missing person. This was the smallest group of cases examined, with only 108 children going missing on 493 occasions; which is reflected by only 2 of the factors being significant.

Once again, age demonstrates a strong link to frequency, reporting a ‘Child 12 or over’ went missing on average 17 times more than a child under 12. The only other relevant factor within these results found that children with any type of ‘Prior Child Abuse’ went missing on average 3.5 times more than a child without ‘Prior Child Abuse’.

Summary

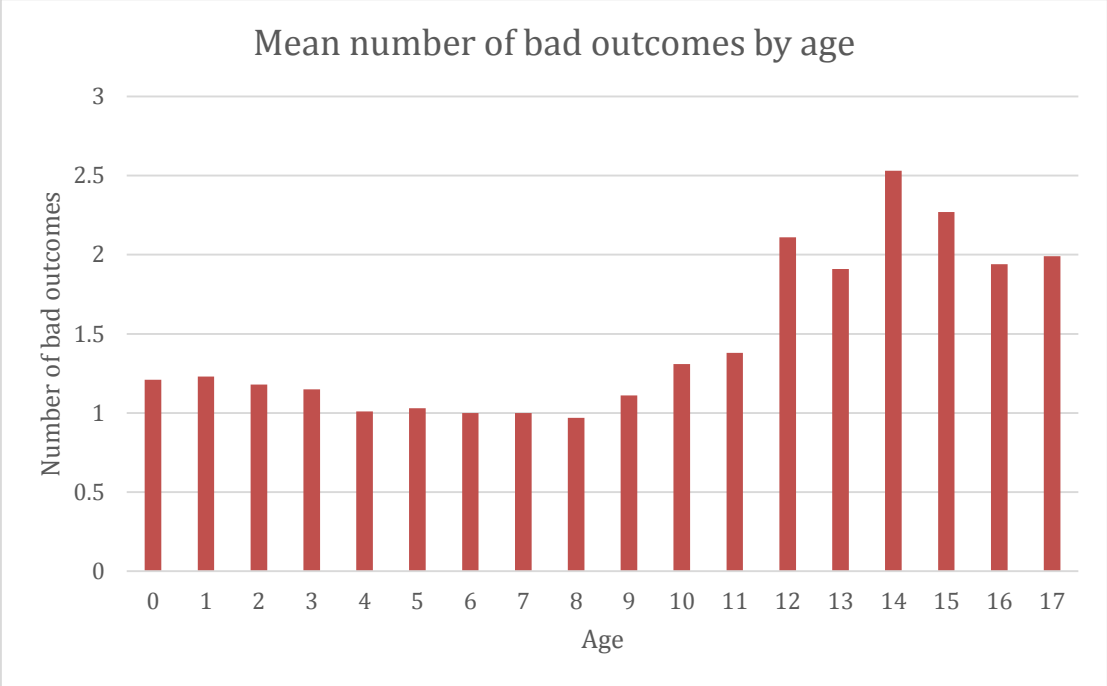
The benefit of considering frequency independently provided clarity to which factors are more influential on predicting the average amount of bad outcomes a child might experience. There were two striking factors amongst the group, ‘Child 12 or over’ and ‘Prior Child Abuse’. Any history of child abuse was the only factor, which consistently found a relationship with experiencing any of the individual bad outcomes.

Although age found a relationship with any type of outcome its direction was not consistent. Any type of further incidents was more likely to occur to a child under 12; whilst the remaining three individual outcomes all discovered a ‘Child 12 or over’ experienced a higher level of bad outcomes than a child under 12. But it was the rate at which these outcomes occur which was so noticeable; results suggesting a ‘Child 12 or over’ are likely to, offend on average 23 times more, be victimised 9 times more and go missing 17 times more than a child under 12.

Age

With such compelling results found in the t-tests it became prudent to check the distribution of bad outcomes by each, age year, to ensure 12 was an appropriate threshold and had not inadvertently influenced the outcomes of the tests. Table 12 represents the distribution of the full cohort who experienced any type of bad outcome. The total was 3,186 children.

Figure 2: Mean number of bad outcomes by age



What becomes clear form figure 2 is that the mean number of bad outcomes remains relatively stable from age 0 up to and including age 11. It is at age 12 a spike can be seen, subsequently sustaining at this level through to adulthood. As such, the decision taken at the outset of this research to use age 12 as the threshold appears to be supported by this data.

Q3. What relationship, if any, is there between the initial DASH score and subsequent bad outcomes for the child?

The aim of this research question was to focus on the value of DASH as the unit of measurement with which to categorise predicted harm to children. The following analysis describes DASH in two different scenarios. The first scenario is the point at which a referral is created, where the DASH score ascribed to a DA incident is used to dictate the type of child referral completed. The second scenario describes the use of DASH in a past context; examining to what extent, if any, a prior history of DASH scores has on any subsequent bad outcome.

Looking first at the trigger scenario the chi-squared results for all-bad outcomes combined (table 2) appear to reflect the purpose of DASH categorisation. A 'Trigger High risk DASH' was 1.5 times more likely to have a bad outcome than if the trigger was not high risk, a 'Trigger Medium risk DASH' was only just, more likely than not to result in a bad outcome and a 'Trigger Standard risk DASH' incident found children were less likely to experience a bad outcome than if the incident was not standard risk. The t-tests replicated these findings. However, it is noteworthy that all three-risk levels had a small effect size.

The next stage was to consider DASH amongst the individual bad outcomes. Examining further incidents mirrored the results in the all-bad outcomes, both in terms of chi-squared tests and t-tests, with again a fairly weak effect size.

However, it was the results from the remaining three bad outcomes, which were particularly intriguing. Although a 'Trigger High risk DASH' was associated with offending, a 'Trigger Medium risk DASH' and a 'Trigger Standard risk DASH' found no such relationship; additionally, the frequency tests found no relationship between any of the initial DASH scores and offending. Furthermore, there was no relationship found between trigger DASH scores, and victimisation or missing when examined independently, in either the chi-squared tests or the t-tests. The overall finding for DASH, at the point of referral reveals the only time DASH is able to provide any value when trying to predict the likelihood of a bad outcome is when attempting to predict further incidents, as opposed to any other form of negative outcome.

DASH was then explored in a past context to understand if a prior DASH score was a reliable predictor of bad outcomes. For all-bad outcomes combined the prior DASH score was a much stronger predictor than the trigger DASH score. All three DASH scores were associated with experiencing bad outcomes in the chi-squared tests with odds ratios of 2.5 for high 2.4 for medium and 2 for standard. Of note the result for the 'Prior Standard risk DASH' is inverse to the result found for the 'Trigger Standard risk DASH'.

The t-tests also show all three prior DASH scores were associated with all-bad outcomes combined; however, in these tests they ranked differently to the chi-squared tests. A child with 'Prior Medium risk DASH' experienced, on average, more bad outcomes than a child with 'Prior High risk DASH'; moreover, children with 'Prior Standard risk DASH', on average, experienced the same number of bad outcomes as children with 'Prior High risk DASH'.

Similar results were found when considering further incidents as an individual outcome. All three prior DASH scores were associated with further incidents, indicating odds ratios of 2.5 for high, 2.4 for medium and 2.1 for standard. In the t-tests, the results were even stronger, 'Prior Medium risk DASH' was the strongest of the three leading to on average 1.9 times as many further incidents than when there was no 'Prior Medium risk DASH'. This was followed by 'Prior Standard risk DASH' which led to 1.7 times as many than no 'Prior Standard risk DASH. Of note, both were stronger predictors than 'Prior High risk DASH', which led to an average 1.3 times as many further incidents than no 'Prior High risk DASH'.

In terms of victimisation, there was only one relationship found across all tests which was a 'Prior High risk DASH' was associated with a child being 2.7 times more likely to be victimised than a child with no 'Prior High risk DASH' but this was not replicated in the t-tests. Further examination of offending and missing found no relationship to any prior DASH category across any of the tests.

The overall finding for prior DASH scores indicate although DASH could be employed to predict bad outcomes to a limited degree of strength, it is the type of bad outcome which would need to be defined from the outset to really add value. It would be imperative to remember when using DASH as a predictor that the three categories of high, medium and standard do not directly translate to a high, medium, and low level of harm, as their intended categorisation would suggest. Furthermore, it suggests picking a single DASH score for a single moment in time – even if it is the most recent incident – does not appear to be as effective as looking at all prior DASH scores.

Discussion

Introduction

The results from the previous chapter present some interesting points for discussion in the context of vulnerability. It will first clarify the purpose behind each question and how the results were obtained. It will go on to summarise the results, focusing on the policy implications for police, Social Services (SS) and other protective agencies. It will conclude with a discussion on both the limitations and strengths of the research.

Q1. How often do bad outcomes occur within three years of a DA child referral?

The focus of this research question was to provide an insight into the prevalence of bad outcomes during the period immediately following a DA child referral to SS. Although a body of research provides evidence to the long term consequences of bad things happening to children, such as neglect, physical abuse, sexual abuse (Gilbert et al., 2009) and more recently exposure to DA (Leeb, 2008), there is a lack of research which examines the short term consequences to a child.

To answer this question, every child in Kent referred to SS in 2012 from a DA incident, was examined over a subsequent 3-year exposure period. The existence of 5 bad outcomes were analysed, including: further incidents which resulted in a referral, a child becoming an offender, a child experiencing any form of victimisation, a child going missing and all of these bad outcomes combined.

The results found nearly half of the children in the cohort experienced one or more of these bad outcomes. In total 8,685 bad outcomes were experienced by 3,186 children. However, these experiences were by no means evenly distributed; in fact, 41 % of all the children who experienced a bad outcome experienced only one. At the opposite end of the distribution, there were just 12 children who experienced over 500 bad outcomes between them. The results between these two points found, as the number of bad outcomes increased, the number of children who experienced them decreased.

Such a large proportion of children experiencing a bad outcome supports the theory presented by Leeb (2008) that child exposure to DA should be recognised as its own unique form of child maltreatment, and is far more prevalent than academics and practitioners may realise. Furthermore, the pattern of frequency supports a long-standing concept in criminology referred to as the 'power few' (Sherman, 2007). In essence, Sherman proposes that high volumes of crime occur amongst a concentrated group of units. This concept is illustrated in this study by the occurrence of high volumes of bad outcomes experienced by a small number of children, and a large number of children experience a low volume of bad outcomes, indicating harm is not equally distributed.

It would therefore be reasonable to suggest these findings infer children exposed to DA should not be treated equal, instead policy and procedure need to differentiate between the varying levels of vulnerability each child presents. Additionally, with almost half of all children referred experiencing a bad outcome, it would be unrealistic to expect the same level of intervention by SS, who themselves are already outstripped by demand. Utilising Sherman's concept and identifying the 'power few' provides a legitimate rationale for prioritising child referrals, ensuring the appropriate level of intervention reflects the level

of vulnerability. Ultimately this would provide the initial foundations of an evidence-based policy.

Although the results evidence the disparity in the distribution of bad outcomes amongst children, it does not provide an insight as to why it is some children suffer more than others. If policymakers and practitioners are to predict the power few and seek to identify the most vulnerable before experiencing the worst of harm, they need to understand what type of factors associated with a child determine the level of vulnerability they present.

Q2. Is the presence or absence of certain vulnerability factors at the time of a DA referral associated with an increase in either the likelihood or number of bad outcomes experienced by the child?

Understanding exactly what makes a child more or less vulnerable than another is fundamental to preventing children from suffering harm. Although research has shown exposure to DA to be a strong predictor of adult DA perpetration (Linder & Collins, 2005), as well as a predictor of adult DA victimisation (Renner & Slack, 2006), there is no current evidence to determine what factors influence the likelihood of a child experiencing bad outcomes prior to reaching adulthood.

The objective of this research question was to establish those factors, and determine the strength to which they are able to predict bad outcomes. Furthermore, it sought to explore the possibility of using these factors to predict the average number of bad outcomes a child would expect to experience following a referral and measure the effect

size each factor had on predicting those average numbers of bad outcomes. Fifteen factors were tested, consisting of two sub groups; those factors which relate to the incident, which triggered the child referral (triggers), and those factors which relate to the prior history of a child (priors).

The results were split into 5 bad outcome categories; first was all-bad outcomes combined, followed by further incidents, offending, victimisation and missing. In the all-bad outcomes combined tests, almost all of the 15 factors were related to experiencing bad outcomes, which was also the case when further incidents were examined separately. When offending, victimisation and missing were considered the number of related factors diminished substantially. A probable explanation connects to low base rate of occurrence of these three outcomes; where the number of children who experienced offending, victimisation and missing was far smaller than the number of children who experienced all-bad outcomes combined or further incidents. Nonetheless the results identified factors, which consistently predicted bad outcomes and the rate at which they were likely to occur. Furthermore, the results were able to establish the factors, which had the greatest effect on children experiencing bad outcomes. These findings can be described from 3 key points.

Trigger factors Vs Prior factors

A distinct pattern was found across the tests between the trigger factors and the prior factors. Although some of the trigger factors offer a level of prediction for all-bad outcomes combined and further incidents, these effects were not at strength with which to build a reliable evidence base and influence policy. The results show it was actually the prior group of factors - measures based on the events that had taken place prior to the

triggering incident which were consistent at predicting bad outcomes and were able to do so to a higher degree than the trigger factors.

At the center of this research has been the type of referral a child receives in the wake of the triggering event and the subsequent activity it prescribes. When examined as a trigger, a police referral was related to a higher probability and a higher frequency of any bad outcome occurring, and a trigger notification was related to a lower probability and lower frequency, albeit both to a weak effect.

However, when considered as priors, this presumption proved incorrect for notifications. Any children who had a prior notification were twice as likely to experience a bad outcome, with a stronger effect size and higher probability rate than was found in the trigger notification result. Given the definition of a notification is built on the premise that no identifiable risk exists and therefore no child protection intervention is then made-this result offers evidence to the contrary. The consequence of which switches the connotation of a notification, from an indicator of no vulnerability to a relevant predictor of vulnerability. Furthermore, of the two types of referral, it was only 'Prior Referrals', which was significant for each of the 5 bad outcomes, indicating referrals are better predictors than notifications.

Apart from the DASH scores and the crime status of the trigger incident, both of which will be discussed in the final section of this chapter, no other trigger factor was found to be relevant.

There were only 3 of the 15 factors, which were consistently related to experiencing the 5 bad outcomes, all of which were prior factors; they were 'Prior Incidents', 'Prior Referrals' and 'Prior Child Abuse'. All 3 factors predicted, on average, that a child was twice as likely to experience any one of the bad outcomes than a child with no such priors. The strength of a prior incident and a prior referral as predictors in this study is commensurate with the evidence found by Gilbert et al. (2009), who reports a sub-group of children receive repeated child referrals as a consequence of their exposure to multiple types of incidents. Replicating such evidence urges police and SS to consider the wider scope when measuring child-vulnerability; each child is not necessarily easily boxed off into a specific category, especially based solely on the facts surrounding the triggering incident alone. Although a child may be referred from one particular type of incident, it is probable they are suffering from multiple forms of bad incidents. Building this concept into the methodology for assessing child-vulnerability is likely to assist in the overarching objective of protecting more children from harm.

Prior child abuse was the strongest predictor of offending, victimisation and missing, further supported by a strong effect size in the frequency tests. This finding is arguably to be expected, given the evidence, which already exists in demonstrating the long-term effects of child abuse (May-Chahal & Cawson, 2005, Woodman, 2008). The evidence from this test supports the current rationale in Kent for an automatic referral from any type of child abuse incident.

These results demonstrate that the most effective and efficient way to establish child-vulnerability is for practitioners to examine the prior history of a child. To understand the past is to understand the future. This seems fairly intuitive in the context of

criminology, where the history of an offender is a decisive factor for charging, sentencing, probation, and also the history of a victim or witness used to categorise competence and reliability. However, mistakenly the methodology currently used by police and SS to identify vulnerable children fail to utilise prior history in their assessment and are driven only by the characteristics of the presenting incident. This research strongly suggests, as a minimum that practitioners and policymakers must incorporate factors relating to the history of a child into their identification process to truly understand and measure the varying levels of vulnerability a child presents in order to protect them from harm.

Age at the time of referral

The age of a child at the point of referral proved to be a particularly interesting factor when each of the bad outcomes was examined individually. For offending, victimisation and missing, a child 12 or over was, by far, the strongest predictor of all 15 factors.

Although this study does not attempt to understand why a child begins to offend, it does try to understand what factors are related to offending within this uniquely vulnerable population of children. The current literature tells us the onset of offending is prevalent at age 13 (Farrington et al., 2006), which is supported by the evidence found in this study. Results reveal a child 12 or over were 13 times more likely to become a perpetrator of crime than a child under 12. Further tests also found the average number of offences a child 12 or over are likely to commit was 23 times as many as a child under 12.

Such strong results prompted further research to validate the use of 12 as a threshold by examining each year of age individually. Results found children from birth up to and including age 11 experienced bad outcomes uniformly, however at age 12 there was a sharp increase in suffering bad outcomes, where it remained consistent up to and including age 17. This is commensurate with the longitudinal study by Linder & Collins, (2005) who found that children who had been exposed to DA by the time they reached age 13 were consistently predicted to become perpetrators of DA by early adulthood.

Whether it is forming policy, delivering operational objectives or assessing child risk, this finding provides a considerable advantage to proactively desist children from crime. Consequently, it suggests any child referred to SS who is 12 or over requires closer scrutiny and bespoke intervention treatments in order to successfully prevent a pathway to perpetration. There is an important point to note however, specifically related to offending; the age of criminal responsibility in the UK is 10 years, and therefore any child in the cohort of who was under 7 years at the time of the referral, would have been illegible to experience this particular outcome.

The results from the victimisation tests were equally as strong; with a child 12 or over predicted to suffer 9 times as many crimes over the subsequent three-year window as a child under 12. This is consistent with existing evidence from Linder & Collins (2005), who also found a strong connection between later DA victimisation and child exposure to DA. A point to consider here is the disclosure of victimisation is reliant on the children themselves or a guardian reporting on their behalf, where often the perpetrators is the guardian (Gilbert et al., 2009). Furthermore, the younger a child is, the less likely they are to comprehend they are experiencing victimisation. Nevertheless, the evidence suggests a

different approach is necessary, implementing enhanced interventions and increased supervision for children 12 or over referred from a DA incident will assist in protecting children from future harm.

Tests relating to children going missing were also significant, indicating a child 12 or over was predicted, on average, to go missing 17 times more than a child under 12. Such a strong result should be particularly concerning for police and SS, given the contemporary anxiety as to the multiple dangers children are vulnerable to whilst missing (Department for Education, 2014). It is worth contemplating a child's capacity when reflecting on this result; in the sense that the younger a child is, the less opportunity or ability they would have to go missing.

These results prompt public agencies and protective services to reconsider their child protection policies and implement age as a prominent factor at the point of referral. It presents an opportunity for bespoke intervention plans and tailored treatment options to target the most vulnerable children and protect them from harm.

It is entirely possible the findings on age are at least partially spurious, and driven by some non-causal relationship. Age may not be causing an increase in risk. Something else – something that is also related to age – may be driving this. For example, physical child abuse may become easier to detect as children get older. It's easy to explain away a bad bruise on a 7-year-old (he/she fell against the goal while we were playing football), but those excuses aren't as useful for a 13-year-old. Age may not cause an uptick in risk, and some definitional issues (such as the age of criminal responsibility for the offending measure) make things hard to discern. But until more detailed research can examine the

causal links between age and these negative outcomes, it seems clear that being older than 12 is associated with a higher risk (even it is not causal).

Crime incident Vs. No crime incident

Results from the further incident bad outcome tests found that a child referred from a non-crime incident was more likely to result in further incidents than a child referred from a crime incident. Although this was not one of the strongest results from the study it is perhaps the result, which presents the most challenges.

It could be argued that, amongst the general public, the intuitive view is a crime incident is more serious than a non-crime incident. It could further be argued this is derived from the very foundation of which the UK judicial system is built; which is an agreement across society, that in a prescribed set of circumstance a criminal offence would have occurred. Consequently, those circumstances, which do not constitute a crime, are perceived as less important and in some cases are questioned as matters in which the police should even have an involvement. On that basis, it would be anticipated to find law enforcement; SS and other public agencies reflect the view of the society to which they serve.

To operationalise this finding would require policymakers confronting occupational bias across all agencies, which defies the culture, beliefs and education society has established over many years on the severity of a non-crime event. Evidence suggests that if such cultures remain unchallenged, this type of bias will increase the vulnerability of a child being exposed to further DA.

Overall, these 3 findings provide us with an understanding that predicting harm is far more complex than current policies and procedures acknowledge. The key factors to consider when assessing the vulnerability of a child are very much dependent on the particular outcome which is required to be forecast. The results show the current methodology of relying only upon factors surrounding the circumstances of a trigger incident to identify vulnerability is comparatively weak. It is the history surrounding a child, which should be focused upon. Age provides a compelling argument for its inclusion and confronting occupational bias over the severity of a non-crime incident is a worthy challenge to uptake. At the very least, this provides a foundation of evidence with which academics and practitioners can build upon and seek to establish any other key predictive factors, or simply attempt to reproduce the results found in this study.

Q3. What relationship, if any, is there between the initial DASH score and subsequent bad outcomes for the child?

The DASH score applied to a DA incident is currently the decisive factor used to ascribe the level of intervention a child exposed to DA in Kent will receive. The effectiveness of DASH within its own spectrum is already in question; largely due to the absence of an evidence base in its creation (Thornton, 2011). To subsequently pervert this tool to drive the decision making process for child referrals appears unscientific and illegitimate. This question sought to test this theory.

Tests examined the three DASH scores of low, medium and high ascribed to a trigger incident, as well as any previous DASH history a child had been exposed to in prior DA incidents. The tests for children experiencing all-bad outcomes combined found the DASH score appeared to follow its descriptive objective. Children who had been referred from a high risk DASH incident were most likely to experience all-bad outcomes combined, medium was slightly less than high and standard was associated with children experiencing less all-bad outcomes combined, although all of the relationships were weak. This pattern was repeated when further incidents were tested separately.

However, when the other 3 outcomes were assessed individually DASH proved to be an unreliable predictor. No relationship at all was found between DASH and child victimisation and missing children. From the offending tests, only trigger incident high risk DASH found a relationship, yet this was a weak association and was not reproduced in the frequency tests. Ultimately the only identifiable benefit of considering the DASH score from a trigger DA referral is to predict a child's exposure to further incidents. However, it

could be argued this is more of a prediction for the adults within the relationship to which the DASH was applied, rather than a meaningful prediction for the child.

The results for prior DASH scores were stronger across all tests compared to the trigger results; however, they did not follow their descriptive objective. It was not just high and medium DASH which were associated with experiencing all-bad outcomes combined, but also standard. In the individual tests, results were inconsistent; prior medium DASH was the strongest predictor of further incidents and moreover prior standard DASH saw a child experience more incidents than a child with prior high DASH. Consequently, children with prior medium and standard DASH were more vulnerable than a child with prior high DASH, which is the inverse of what the DASH scores are intended to represent.

An isolated relationship was found between prior high DASH and experiencing victimisation, but again was not repeated in the frequency tests. All other tests found any type of prior DASH score had no relationship with child offending or missing children.

This study offers some suggestive evidence that DASH has a limited and complex validity in predicting child offending and child victimisation. At best, it could be argued DASH is a weak predictor of children experiencing further incidents. The only time DASH found any strong associations was as a prior history factor, and even then the descriptive risk levels did not reflect the actual outcome experienced, thus proving to be consistently unreliable.

These results are commensurate with current literature from Thornton (2011), Bland (2014) and Chalkley (2015), all of whom provide evidence, which questions the

legitimacy and validity of DASH as a predictive risk assessment tool. For policymakers and practitioners these results reveal the flawed concept and methodology, which relies on a DASH score to identify, prioritise and select vulnerable children. It further indicates the need to overhaul current systems and processes, which seek to protect children from harm and replace it with an evidence base, established from legitimate research bespoke to children.

Limitations of the study

One of limitations of this study was the reliance on a bad outcome occurring within Kent's jurisdiction. Therefore, any child within the cohort who subsequently moved out of the county and/or experienced any of the bad outcomes outside of Kent would not have been detected by the research. As a consequence, it is possible a higher number of bad outcomes may have occurred, or an increased number of children may have experienced a bad outcome during the exposure period.

Additionally, with such a short exposure period of three-years, it introduces a precondition for a child to experience offending as a bad outcome. In the UK the age of criminal responsibility is 10, therefore any child who was under the age of 7 in the cohort would have been illegible to become an offender during the exposure period.

Furthermore, each of the predictive factors was tested individually. Modern forecasting techniques (Barnes & Hyatt, 2012) suggest that predictors often operate in conjunction with one another, and that the effects of one predictive factor may depend on the existence and even degree of some other factor. By testing all of these factors

individually, provides a valuable starting point for more complex predictive work, but cannot capture all of the nuances involved in how these factors may interact with one another.

Strengths of the study

One of the strengths of this research was the sample size of the cohort; 6,670 cases in the data set provided enough statistical power to ensure, if any relationship did exist, it would be detected. Additionally, the distribution of cases which received a bad outcome and those that did not receive a bad outcome was almost exactly equal, negating the need for further case selection.

Furthermore, the use of all DA cases referred to SS in 2012 prevented the inclusion of any selection bias, which was further supported by the use of a rolling 3-year period to ensure each case was exposed to the same period.

Conclusions

The prevalence of child harm in the UK is currently one of the most widely scrutinised areas of public concern. Consequently, agencies such as Kent police are under intense pressure to identify and protect - without error - vulnerable children (HMIC, 2015). A major obstacle to achieving this requirement is the existence of a reliable and tested methodology to do so. Instead, police forces across the UK scramble to implement local definitions, policies and procedures, based on a lack of quality research (HMIC, 2015a).

Simultaneously, an emerging type of harm, in the form of child exposure to domestic abuse (DA), is rapidly rising. Supported by a body of evidence relating to the negative effects of such suffering (Leeb, 2008), forces such as Kent are grappling to manage these demands. This thesis has sought to examine the harm caused to children exposed to DA, and examine the risk factors surrounding children referred to Social Services (SS) on the basis of this exposure. Furthermore, it has examined the current methodology employed in Kent for assessing and identifying children exposed to DA, which is underpinned by DASH.

This research began by examining the prevalence and frequency of bad outcomes experienced by a cohort of 6,670 unique children, all of whom had been exposed to DA and subsequently referred to SS by Kent Police. It found almost half of all children referred suffered a bad outcome within 3-years of their referral. In total 8,685 bad outcomes were experienced by those children, indicating harm caused from problems in the home is potentially more prevalent than police and other protective agencies may realise. This evidence found that harm was not distributed equally, reporting a high number

of bad outcomes were experienced by a concentrated group of children. As such, it supports a concept replicated elsewhere in criminology known as the 'power few' (Sherman, 2007). With such an intense, growing concern to protect children, coupled with a sharp increase in reported DA, this evidence provides police with a legitimate rationale for implementing a targeted approach to varying levels of child-vulnerability.

Having identified the complexities and lack of available research to identify which risk factors are associated with child harm; this thesis then explored the possibility of using factors known about a child at the time a referral is made to predict their likelihood of experiencing future harm. Considering 15 factors, it found 'prior factors' (factors relating to the history of a child), consistently out-performed 'trigger factors' (factors surrounding only the referral incident). The prior history of a child provided a higher level of probability, stronger relationships and more associations to bad outcomes than the trigger factors. It found any prior child abuse, previous reported incidents and any history of police referrals, were consistently linked to all of the 5 bad outcomes. In doing so, this research suggests, the most reliable and valid method to any assess and identifying child-vulnerability from DA incorporate the history of a child, and in particular the three aforementioned prior factors.

Evidence further suggests that the critical age to target interventions is at age 12, particularly in terms of preventing; child offending, suffering victimisation and going missing from the home. Therefore, any child 12 or over, subject of referral, should receive an increased level of scrutiny and bespoke intervention strategy. Perhaps a more controversial finding from this research, found a child was more likely to experience future harm having been after referred from a triggering non-crime DA incident, compared to a

crime incident. This is perhaps a challenge not just for police, but also, for wider society given the cultural severity attached to non-crime incidents. However, this could be the finding most likely to be overlooked, as its fruition is reliant on a substantial cultural shift. Nevertheless, not to attempt such a challenge would leave police themselves vulnerable to contributing to child-vulnerability.

The results of the study further revealed a real danger of using a notification as a form of child referral. It found that any type of previous notification referral was associated to a child being twice as likely to go on and experience a bad outcome. Considering the purpose of a notification is for informative purposes only, the impact of this finding poses the question of the legitimacy in its continued use within child protection. Conversely, results showed a prior police referral was consistently linked to each of the 5 bad outcomes, supporting its use as a legitimate risk assessment tool.

The use of DASH as a predictive tool was highlighted as a specific concern at the start of the thesis (Thornton, 2011; Bland, 2014; Chalkley, 2015). These results appear to justify such concerns, providing a valuable insight into its reliability and validity as a predictor of child-vulnerability. As a trigger factor, DASH was found to be a weak and unreliable predictor. The strongest results for DASH were found from the prior DASH scores; yet, perversely, the findings contravened the descriptive risk levels defined by DASH. In fact, in some cases, 'Prior Standard DASH' was associated with more bad outcomes than both medium and high. Furthermore, other outcomes, such as victimisation and having gone missing found no relationship with DASH at all. Accumulatively, this research suggests that any methodology, which uses DASH as a predictor, is likely to provide a false interpretation of the actual risk. It suggests that DASH may be far from an

ideal predictor, and that it certainly does not deserve to serve as a primary determinant of the referral vs. notification decision, especially when there are better predictors available.

Overall, this thesis offers an insight, which can provide us with an understanding that predicting harm is far more complex than current policies and procedures acknowledge. The key factors for police to consider when assessing the vulnerability of a child are intrinsically linked to the bad outcomes they seek to predict. At the very least, it assists in establishing an evidence base to build upon in identifying any other key predictive factors that might predict further harm to vulnerable children.

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Appendices

Appendix 1

DASH Risk Assessment questions (DASH, 2009)

1. Has the current incident resulted in injury?

2. Are you very frightened?

3. What are you afraid of? Is it further injury or violence?

4. Do you feel isolated from family / friends?

5. Are you feeling depressed or having suicidal thoughts?

6. Have you separated or tried to separate from (name of abuser(s)….) within the past year? 7. Is there conflict over child contact?

8. Does (…..) constantly text, call, contact, follow, stalk or harass you?

9. Are you currently pregnant or have you recently had a baby in the past 18 months?

10.Are there any children, step-children that aren't (…..) in the household? Or are there other dependants in the household (i.e. older relative)?

11.Has (…..) ever hurt the children/dependants?

12.Has (…..) ever threatened to hurt or kill the children/dependants?

13.Is the abuse happening more often?

14.Is the abuse getting worse?

15.Does (…….) try to control everything you do and/or are they excessively jealous?

16.Has (…..) ever used weapons or objects to hurt you?

17.Has (…..) ever threatened to kill you or someone else and you believed them?

18.Has (…..) ever attempted to strangle/choke/suffocate/drown you?

19.Does (….) do or say things of a sexual nature that makes you feel bad or that physically hurt you or someone else?

20.Is there any other person that has threatened you or that you are afraid of?

21.Do you know if (…..) has hurt anyone else?

22.Has (…..) ever mistreated an animal or the family pet?

23.Are there any financial issues? For example, are you dependent on (…..) for money/have they recently lost their job/other financial issues?

24.Has (…..) had problems in the past year with drugs (prescription or other), alcohol or mental health leading to problems in leading a normal life?

25.Has (…..) ever threatened or attempted suicide?

26.Has (…..) ever breached bail/an injunction and/or any agreement for when they can see you and/or the children?

27.Do you know if (……..) has ever been in trouble with the police or has a criminal history?

Appendix 2

2013 Domestic Abuse definition

"*Any incident or pattern of incidents of controlling, coercive or threatening behavior, violence or abuse between those aged 16 or over who are or have been intimate partners or family members regardless of gender or sexuality*."

Appendix 3

Matrix for child referrals

Kent Domestic Abuse Matrix

POLICE MANAGE INFORMATION	NOTIFICATION TO SOCIAL CARE (STANDARD RISK + OTHER FACTORS)	Referral To Social Care (s.17/s.47) (Medium/High Risk)
Where the DA adult victim is standard risk (DASH) and there is a child living in the household.	**1.** Where information indicates that the case meets **standard or medium** risk, but the child is open to Children's Social Care, e.g:- • Child in Need • Subject to CP Plan • Child Looked After (including subject to Proceedings). **(1) DS's grading**	**High Risk** - Where the child is normally resident & the D.A adult victim is identified as high risk (DASH) or child is assaulted or injured during the incident.
(Where the risk is standard but there are **wider factors** that impact on the risk to children then a referral Chin/Sec 47 should be made)	**4.** Where it is the first DA report but the victim details historic abuse with children normally resident, that indicates **medium** level of risk. **(2) DS's grading**	**Medium Risk –** fourth incident Where the latest incident is Medium risk and there has been 3 or more previous incidents occurring within the last 12 month period.
	6. Where risk is deemed as **standard** but a child is under 1yr or unborn regardless of whether present or not, even if a single incident. **(3) DS's grading**	
	6. Medium Risk - Where incident is assessed as Medium risk but wider factors surrounding the circumstances indicate increased risk for children e.g:- **Wider Factors** • Significant drug/alcohol misuse, mental health • Serious threats against the victim or child. **(4) DS's grading**	

CMVer3 / 24.05.12