

Risk Factors associated with Children who Runaway or are Reported Missing

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ABSTRACT

The overarching aim of this thesis is to further understanding and knowledge of risk factors relevant to children who runaway. More specifically to; identify risk factors most relevant to children running away; establish whether risk factors can be used to distinguish between those children reported missing once versus those reported on multiple occasions; and evaluate assessment methods currently being used with this group.

The systematic review explores risk factors associated with children who runaway. Successful identification of risk factors can be used to inform risk assessment which in turn inform intervention strategies. Through an electronic search 573 references were identified since 2002. However, only 15 references were included in the final review once inclusion and exclusion criteria were applied. Through this review it was identified that runaways are a heterogeneous group. Risk factors most consistently identified to be associated with running away spanned multiple levels including; gender, socioeconomic status, family structure, history of abuse/neglect, substance use and school attachment/engagement. Implications for intervention are discussed.

The empirical study utilised data collected by the Gwent Missing Children's Team collected over a one year period (N= 523) to explore risk factors associated with repeat missing reports. The aim

of this study was to develop a model that could be utilised in practice to identify those most at risk of repeat missing incidences in order to direct resources effectively. Through logistic regression analyses it was found that five risk factors can be used to distinguish between those children reported missing once (low risk, N= 275) versus those reported missing on multiple occasions (high risk, N= 248). This provided a simple summation checklist that can correctly classify 70.4% of missing cases. This checklist can be used to inform resource allocation with those children identified as high risk warranting more comprehensive intervention and support.

The case study presented the assessment and intervention of an adolescent reported missing to Gwent Police. The aim of this study was to provide an in-depth analysis of a missing child case making links to relevant psychological theory and highlighting implications on practice. This case study demonstrated the cross over between running away and sexual exploitation and highlighted the importance in providing specialist intervention services in order to reduce risk of harm through repeat running away.

Finally, a critique of a risk assessment tool widely used in Wales with runaways who are suspected to be at risk of sexual exploitation is presented. Within this critique it was found that the Sexual Exploitation Risk Assessment Framework (SERAF) combines consistency in approach with ease and efficiency of identification and intervention for children at risk of, or abused through, sexual

exploitation. However, the tool requires empirical validation and reliability analyses before it can be considered a scientific assessment of risk.

Overall, this thesis provides evidence for the use of risk factors in identifying children who are likely to be reported missing or runaway. It suggests that this group is heterogeneous and that risk factors relevant to predicting running away span multiple levels. This suggests that intervention should be holistic and target identified risk factors. Risk assessments currently utilised in respect of this group require validation. Further research to inform such risk assessments is also recommended.

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CHAPTER ONE

INTRODUCTION

INTRODUCTION

Missing Children

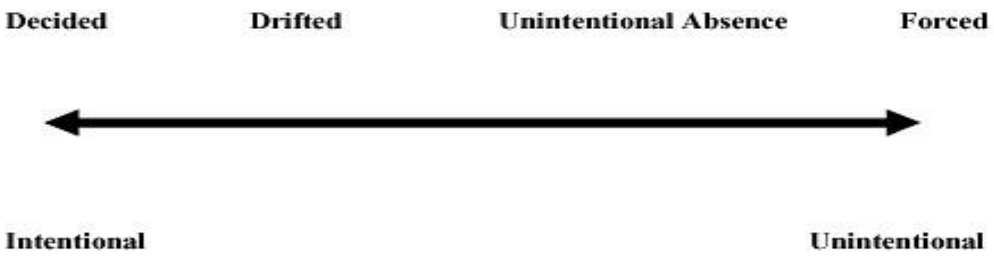
Police received approximately 306,000 reports of missing persons in the UK from 2012-2013 (Bureau, 2014). This equates to approximately one every two minutes. Sixty four percent of these reports involved children (N= 195,840) which equates to approximately one report every three minutes. In the UK, ACPO defines missing as: "*Anyone whose whereabouts cannot be established and where the circumstances are out of character or the context suggests the person may be subject of crime or at risk of harm to themselves or another*." (ACPO, 2013). For the purpose of this thesis, ACPO's definition will be utilised to define missing and a child is any individual under the age of 18.

When a child goes missing it causes great concern. Research suggests that this concern is not unfounded and that while children are missing they are at risk of harm (CEOP 2011; Smeaton, 2009). When children go missing there is often something quite seriously wrong in that child's life.

Children go missing for a variety of reasons. Biehal, Mitchell and Wade (2003) reported that individuals go missing on a scale that ranges from intentional to unintentional (Figure 1). This is in line with evidence that some children have 'decided' to leave home or

runaway, others have become increasingly detached, while some children are forcefully removed or abducted (CEOP, 2011; Finkelhor, Hotaling, and Sedlak, 1990; Hammer, Finkelhor and Sedlak, 2002; Newiss, 2013; Newiss & Meyer, 2005). Therefore, within the missing children population there are specific types of cases, presenting with differing causes, consequences and remedies (Newiss & Meyer, 2005).

Figure 1: Missing Continuum



Runaways

Research suggests that runaways are the most common type of missing child in the United Kingdom (UK), United States (US) and Australia (Bureau, 2013; James, Anderson & Putt, 2008; CEOP, 2011; Sedlak, Finkelhor, Hammer & Schultz, 2002). Runaways refer to children who have made the decision to leave home without the permission of parents or carers. The decision to run away from home is often pre-ceded by; conflict with parents or carers, experiences of abuse or neglect, or school related difficulties (Biehal, Mitchell & Wade, 2003; Biehal & Wade 2004; Robertson & Demosthenous

2004; Sedlak, Finkelhor, Hammer & Schultz, 2002; Newiss & Meyer, 2005; Posner 1992; Baker, McKay, Lynn, Schlange, & Auville, 2003). Although the child may have left home wilfully, often the circumstances that led them to make the decision to leave suggests that the child felt that they had no alternative (Kurtz, Kurtz & Jarvis, 1991; Wade, 2003).

Most children (77%) missing as a result of running away return within 48 hours (Abrahams & Mungall, 1992). However, a smaller proportion of these children chose to spend increasing amounts of time away from home. Data collected by the Metropolitan Police from 1992-2001 found that approximately two percent of missing cases, up to age 18, remained open (unsolved) for more than a year (Newiss, 2005). These children are more likely to become detached from their home life. Detached children are at greater risk of sexual exploitation, crime and homelessness (Smeaton, 2009).

Repeat missing incidents account for approximately 38% of reported missing incidences in the UK (Bureau, 2014). Within a large scale survey study in England of children aged 14 to 16 (N=7,349), it was found that 42% of runaways had run more than once, with 22% on more than 3 occasions (Rees, 2011). It is agreed that repeat running away is likely due to a lack of support or intervention in resolving the reasons why the child went missing (Biehal, Mitchell, & Wade, 2003; Mervyn, 2004; Rees & Lee, 2005; Social Exclusion Unit,

2002). Research suggests that there is heavy demand on public services in responding to children who regularly runaway.

Risk factors of Running Away

To understand why children go run away, it is important to identify risk factors involved. Mrazek & Haggerty (1994) define risk factors as "those characteristics, variables or hazards that, if present for a given individual, rather than someone selected from the general population, will develop a disorder". Therefore, in the case of runaway children, a risk factor is anything that increases the probability that a child will run away. Knowledge and understanding of risk factors is paramount in designing and implementing prevention and intervention strategies (Offord & Kraemer, 2000).

Where research relevant to running away began by focusing on individual factors (i.e. the child was seen as a problem child, with anti-social personality or mental health difficulties), more recently attention has turned to other aspects of a child's life or environment (Stinton, 2007).

Within the CEOP (2011) scoping report, it is cited that, risk factors most commonly identified in relation to running away are problems at home. Indeed, research in the UK has identified poor quality family relationships, conflict and family disruption as potential triggers to runaway behaviour (Rees, 2011; Wade, 2002; Newiss & Meyer, 2005). Further, in some instances children report that they

have runaway in order to flee abusive situations within their home (Wade, Mitchell & Rees, 2002). In the US, 21% of children identified to be runaways reported a history of abuse (Hammer, Finkelhor, & Sedlak, 2002). Parental abuse also increases the likelihood of repeat running away (Simons & Whitbeck, 1991).

Research in the UK has shown a disproportionately large amount of missing reports relating to children in care (Rees & Lee, 2005; Wade & Biehal, 1998). Children generally enter into the care system having come from families who are deemed unable or unwilling to provide adequate care or subject children to abusive experiences as discussed above. Many of these children have an established patterns of running away which began within the family environment (Rees, 2011; Biehal & Wade, 2000). Children from substitute care are more likely to run away repeatedly than children who ran away from home (Biehal & Wade, 2004). It has been suggested that children in the looked-after care system often do not have strong emotional ties to their caregivers and thus find it easier to leave (Dedel, 2006). Therefore, evidence suggests that being a looked-after child is a risk factor relevant to running away.

Problems at school have also been identified as a potential risk factor in causing children to run away. Evidence suggests that children who runaway are more likely to be disengaged or detached from school than those children who do not runaway (Rees, 2011; Biehal & Wade, 2004; Posner, 1992). For example, Rees & Lee (2005) found

that children who had been excluded from school were three times more likely to run away then those that had not. Further, in a study of detached children in the UK, it was found that, of the 103 children who participated in the research, only three regularly attended school and completed their compulsory education (Smeaton, 2009).

Sexual exploitation can be both a cause and consequence of children going missing. In recent years, there has been growing concern over the grooming of children into sexual exploitation. Exploiters groom vulnerable children by gaining their trust and isolating them from protective adult relationships. They then encourage these children to run away from home to spend time with them and attend parties where they are sexually exploited (Smeaton, 2009). Children may go missing overnight or over a number of days while their abusers provide them with drugs and alcohol (CEOP, 2011). They may then become part of the recruiting process introducing peers to so-called 'boyfriends'. Missing incidents may begin with or are further exacerbated by relationships with groomers. Indeed, within a scoping exercise into 100 missing child incidents reported to the Thames Valley Police sexual exploitation was identified in 67% of the sample (unpublished presentation provided by Barnardo's). This figure was higher than gang or drug exploitation (63%), child protection or safeguarding issues (58%), mental health or self-harm (53%), anti-social behaviour (42%) and being known for other criminality (32%). Therefore, it is suggested that children who are

groomed for the purpose of sexual exploitation are likely to be at higher risk of running away than those who are not.

In an international review (US, UK, Australia and Canada) of the literature on young people who runaway a broad range of risk factors were identified as relevant (James, Anderson & Putt, 2008). For example; being female, aged 13-17 years, coming from lower income families, blended families/families who had experienced a change in structure, history of abuse (sexual and physical), family conflict or violence, problems at school, mental health difficulties, alcohol or drug problems, peer pressure, poor coping skills and emotional or behavioural difficulties.

Brofenbrenner's ecological theory of development suggests that multiple levels of a child's environment including individual, family, peers, school, and neighbourhood level factors impact a child's development (Brofenbrenner, 1979). Within this theory it was highlighted that factors across levels are not independent of each other. This suggests that risk factors specific to running away are likely to span multiple levels and that this behaviour may be best explained via the simultaneous and cumulative impact of multiple level risk factors.

Consequences of Running Away

The consequences to a child from going missing can be severe and long lasting. High profile cases such as that of April Jones in 2012

or Mikaeel Kular in 2014 highlight tragic outcomes. However, runaway cases do not receive the same attention. This is particularly true when the child has been found and returned within a fairly short period. However, even in these cases the child is likely to have suffered some harm. Research suggests that exploited children go missing from home or care for short periods on a regular basis (Berelowitz, Firmin, Edmwards & Gulyurtlu, 2012; Cusick, 2002). The risks faced by these children include sexual abuse and exploitation, violence, substance use and involvement in crime (CEOP, 2011).

Research has linked childhood running away with adult homelessness (Simons & Whitbeck, 1991). Children who runaway regularly are more likely to become detached from society. These children are unlikely to seek formal support which leaves them vulnerable to the influences of 'the streets' (Smeaton, 2005). Offending behaviours or so-called survival crimes serve to further marginalise this group of children, making them even less likely to seek support and thus leaving them vulnerable to the influence of anti-social or predatory others.

The consequences of running away are not just limited to that of the child. The families who are left behind have to deal with the devastating impacts including the emotional, social, legal and practical difficulties (Holmes, 2008). Further, when a child runs away this may prevent them from meeting their potential and their

ability to develop into productive members of society which has economic and social costs for society (CEOP, 2011).

Services Involved

Upon receiving a report of a missing child, the Police are immediately responsible for investigating and safeguarding the child (alongside the Local Authority). The circumstances surrounding a missing incident report may not always be clear; Police may be unaware that the child has runaway or reasons why. The investigation procedure for children reported as missing to Police includes; conducting a risk assessment; providing the family with support; investigating the evidence and searching for the child. Investigating missing person's cases is labour-intensive and therefore can be expensive. In a costing's analysis Shalev-Greene & Pakes (2013) found that there are potential costs upwards of £700 million per year to Police in investigating missing persons in the UK. If a child has been a victim whilst missing or has themselves become involved in criminal activity further Police resources are required and further costs are incurred.

Police responses focus on mitigating the harm that comes to, or is caused by, children reported missing while they are absent from home or care. Research has highlighted that social problems, such as family dysfunction and child abuse issues underlie children running away and add to the complexity of such cases (Dedel 2006).

Therefore, other services are needed to address and manage the child's needs in these complex cases. In particular, the Local Authority (Children's Services) are involved in implementing safeguarding once the child has returned and resolving ongoing problems that may result in further runaway episodes. This is particularly true in looked-after child cases.

Health services deal with the impact of harm, both physical and emotional, caused to the child whilst missing. For example, in instances where the child has been sexually exploited sexual health services and counselling services may be required. Further, education authorities will need to manage the impact of running away on engagement and attendance at school. Truancy has been associated with running away (Rees & Lee, 2005).

The circumstances surrounding a missing episode may not always be clear. Many factors other than the child's actual circumstances can impact whether the child is reported missing to the Police, for example, the caretaker's psychological state. Therefore, costs incurred across services involved in dealing with impact of harm caused to the child whilst missing is unknown.

More recently in the UK, Multi-Agency Safeguarding Hubs (MASH) have gained in popularity. MASH involves the collaboration of services for safeguarding issues where information sharing and coordinated actions are required to prevent individuals slipping

through the safeguarding net. In April 2013, as part of the Welsh Government's Efficiency and Innovation Programme, a MASH for managing missing child incidents was implemented in the region of Gwent, namely the Missing Children's Team (MCT). Using multi-agency information (children's services, health, education and police) the MCT have generated an online database. This is where information deemed relevant to the well-being and safeguarding of an individual child can be stored on one form, and utilised for a collaborative multi-agency risk assessment. This online form has been referred to as the 'Missing Individual Risk Assessment Form' (MIRAF). As part of the MCT service, a referral is made for a return interview with an independent service to gather further information on missing incidences. Although a full evaluation of the effectiveness of the MCT has yet to be completed, an evaluation at the formative stage reports that there is "*some promising evidence which suggests the Hub*[1] *is resulting in its intended impacts and outcomes*" (Cordis Bright for the Welsh Government, 2015).

Therefore, when a child runs away from home or care a multitude of professionals become involved across a variety of services. In the UK, recognition of the impact across services of children who runaway has given rise to a multi-disciplinary approach to tackling the problem.

[1] Hub refers to the Missing Children's Team within the Cordis Bright 2015 evaluation report.

Implications for Professionals

Professionals working with children who runaway have a variety of factors that require careful consideration and management. These include; identifying and managing risk factors that that led to the child's decision to leave; the impact of risks and harmful events experienced by the child whilst missing; and consideration of factors that may impact successful re-unification of the child with their parents or carers.

The magnitude of consequences to runaway children, their families and to society highlights the need for an effective response. It is of vital importance that early identification and intervention with 'at risk' children is undertaken to prevent further risk-taking behaviour, reduce harm and direct resources effectively (CEOP, 2011; Browne & Falshaw, 1998). The link between going missing and other risk taking behaviours, such as engaging in sexual exploitative activities, have been highlighted. This suggests that children may require specialist assessment and support services. Further research to develop understanding of the nature and extent of missing children is of the utmost importance in tackling this social problem.

Thesis Objectives and Structure

This thesis aims to further understanding and knowledge of risk factors relevant to children who runaway. Specifically to:

- Identify risk factors most relevant to children running away

- Establish whether risk factors can be used to distinguish between those children reported missing once versus those reported on multiple occasions
- To evaluate assessment methods currently being used with this group

Within the next chapter, chapter two, this thesis begins addressing objectives by systematically considering the literature available in relation to risk factors associated with children who runaway. It is hoped that through synthesising results of available studies, risk factors relevant to running away can be established to assist in identifying at risk children.

Following this, chapter three presents a research study analysing data collected by a team dedicated to managing missing child incidents in Gwent, Wales. Within this study risk factors relevant to being reported missing on more than one occasion will be identified. It is hoped that this study will provide the base of a risk assessment tool that can be utilised to predict repeat missing incidences. This could potentially be used to guide intervention strategies and direct resources by targeting those most at risk.

Chapter four presents a case study reflecting on the assessment and intervention of a child reported missing to Gwent Police. The main objective was to present the case making links between relevant psychological theory and implications on practice.

Recommendations and future directions for research and service provision are provided.

Chapter five will consider a tool that has been used to risk assess children whom are suspected to be at risk of sexual exploitation. Child sexual exploitation has been associated with running away either as a cause or consequence. The Sexual Exploitation Risk Assessment Framework (SERAF) is utilised in Wales and is advocated by the Welsh Government. This tool is critiqued on its; psychometric properties, applicability to children in Wales and research and practice issues.

Finally, chapter six concludes the thesis by presenting a discussion on the findings in relation to the specific objectives of the thesis. The implications of the findings and recommendations for future research are also discussed.

CHAPTER TWO

RISK FACTORS ASSOCIATED WITH RUNNING AWAY:

A SYSTEMATIC REVIEW

Risk Factors associated with Running Away:

A Systematic Review

Abstract

This systematic review explores factors that increase a child's risk of running away. An electronic search identified 573 references produced since NISMART-2 (October, 2002). Of these, 87 were duplicates, 84 were irrelevant hits and 387 publications did not meet the inclusion criteria of the review and therefore were excluded (3 of which were excluded due to a lack of clarity regarding population age range), leaving 15 studies. The quality of primary studies were assessed and the findings synthesised. Results indicated that children who runaway are a heterogeneous group. Six risk factors appear to be consistent for runaways across the studies reviewed including; gender (female), lower socio-economic status, family structure other than intact nuclear family, history of abuse or neglect, substance use and lower school attachment/engagement. The limitations of the current review are highlighted and recommendations for future research are outlined.

Introduction

Definitions of what constitutes a runaway varies between countries and between studies, however, it is generally understood that runaways refer to children who have made the decision to leave home without the permission of parents or carers (Hammer, Finkelhor & Sedlak, 2002; Wade, 2003). Although the child may have left home wilfully, often the circumstances that led them to make the decision to leave suggests that the child felt that they had no alternative, for example, those living in violent and abusive homes (Kurtz, Kurtz & Jarvis, 1991; Wade, 2003). For this reason some researchers have combined measures of runaways with another sub-group of missing children known as thrownaways; those children asked to leave home by parents/carers without adequate care arrangements (Hammer, Finkelhor & Sedlak, 2002).

Running away has been identified as a significant social problem across Western countries. For example; in the US, in 1999, approximately 631,488 children were identified to have run away from home (Sedlak, Finkelhor, Hammer & Schultz, 2002); in the UK it has been estimated that each year 77,000 children under the age of 16 runaway overnight (Rees & Lee, 1999); studies in Canada and Australia have also identified running away as the most common subtype of missing child (CPIC as cited in James, Anderson & Putt, 2008; James, Anderson & Putt, 2008). These prevalence rates take

into consideration the number of individual children whom have runaway, not repeat running incidences, therefore the overall rate of running away is much higher.

Children who runaway have been identified as vulnerable to physical, psychological and sexual abuse (CEOP 2011; Smeaton, 2009). It has also been highlighted that children who runaway are more likely to engage in delinquent behaviours such as crime and substance use (Smeaton, 2009; Thompson, 2004; Wade, 2003). The consequences of a child running away are not limited to the child. Their families have to deal with the devastating impacts including the emotional, social and legal difficulties (Holmes, 2008). Further, when a child runs away this may prevent them from meeting their potential and their ability to develop into productive members of society which has economic and social costs for society (CEOP, 2011). The prevalence of running away and the severity of harm that's caused in such cases to the child, their family and the impact on society demands that they are dealt with effectively.

There are many potential factors that could increase a child's risk of running away. Risk factors have been defined as 'those characteristics, variables or hazards that, if present for a given individual, rather than someone selected from the general population, will develop a disorder' (Mrazek & Haggerty 1994). Therefore, in the case of runaways, a risk factor is anything that

increases the probability that a child will be more prone to running away. It is important to identify risk factors to enable successful and accurate assessment of risk. In turn risk assessment informs intervention strategies which aim to reduce risk and thus decrease the problem.

International Research on Risk Factors

In the US, a series of national household surveys (including juvenile facilities) known as NISMART have been undertaken to explore patterns and characteristics of missing children. In the most recent of these studies Sedlak, Finkelhor, Hammer & Schultz (2002) explored the prevalence of potential risk factors relevant to running away. Physical or sexual abuse at home or fear of abuse upon return was identified as the most common risk factor; 21% of runaways/thrownaways identified this factor as present. The second most common risk factor was substance dependency; 19% of runaways/thrownaways identified this factor as present. An exploration of demographic factors found that the majority of runaways/throwaways were aged 15-17 suggesting this age group were most at risk of running away. However, there were no gender differences and runaways/thrownaways did not come disproportionately from any of the racial or ethnic groups analysed.

The NISMART studies have provided a national picture of the prevalence rates of children running away in the US and provide a

starting point in terms hypothesis generation. However, the very nature of the survey design means that limitations are inherent. For example, the cross sectional nature of survey designs means that causality cannot be established. Further, cross sectional designs are prone to sampling bias. Indeed authors highlight that the telephone interview nature of the survey meant that children living in households without telephones, homeless children and abandoned children are unlikely to have been represented. Therefore, although these are cited as "comprehensive" (PACT, 2005) it is clear that further research using alternative research designs are needed to confirm findings.

In 2005 the international Non-Government Organisation (NGO) Parents & Abducted Children Together (PACT) conducted a review of the available data on missing children in the UK (PACT, 2005). Within the chapter focussing on runaways, eight "key studies" were included. It was identified that as a general trend this sub-group of missing children were more likely to be females than males, they were most likely to be middle to late adolescence (>14 years old) and Asian children were less likely to runaway than white or Afro-Caribbean children. It was also highlighted that children ran away for a variety of reasons such as; problems at home (e.g. physical or sexual abuse, quality of family relationships, family structure), problems at school, mental health difficulties and engagement in substance use.

The chapter produced by PACT (2005) brought together literature on the nature and causes of running away in the UK highlighting a number of potential risk factors. However, there was no available information regarding how the eight articles included for review were identified. Only published studies were included indicating there is likely to be publication bias. Further, there is no indication that studies were assessed in terms of risk of bias, therefore quality of studies included is unknown.

In Australia the Australian Institute of Criminology (AIC) within their Research and Public Policy Series addressed the issue of missing persons (James, Anderson & Putt, 2008). As part of a much larger study the authors produced an international review (US, UK, Australia and Canada) of the literature on young people who go missing. Through this review a number of risk factors relevant to running away were identified. Demographic risk factors identified included being female, aged 13-17 and coming from lower income families and blended families/families who had experienced a change in structure. Other risk factors included; a history of abuse (sexual and physical), family conflict or violence, problems at school, mental health difficulties, alcohol or drug problems, peer pressure, poor coping skills and emotional or behavioural difficulties.

James, Anderson & Putt (2008) highlighted numerous risk factors that had been identified in the literature. Unlike, previously

discussed reviews authors documented specific search terms used in identified databases. However, this review fell short of being systematic due to a lack of critical evaluation of included studies. Further, its replicability is questionable given the lack of information regarding inclusion and exclusion criteria.

Overall, numerous potential risk factors have been identified in the literature. These risk factors span multiple levels including individual ontogeny, family factors, school factors and neighbourhood or community factors. However, results across studies have been inconsistent and there has not been an attempt to systematically map all the risk factors, explore the methods in depth and put the results in context of the methods used.

Previous systematic reviews

A scoping search was carried out on three databases (Campbell Collaboration, PsycInfo and Open Grey) and The Centre for the Study of Missing Persons (CSMP) publications online Hub (specifically the risk assessment, quantifying and characterising missing, and young people and running away sub-sections of the Hub) in July 2015. No systematic reviews on this topic were found to exist.

Objectives

The current review aims to systematically explore and synthesise existing literature (both published and unpublished primary research) on children who runaway. It is an exploratory analysis that will assess the heterogeneity and quality of the studies before their findings are synthesised. Studies included for review were quantitative as the focus was on establishing known risk factors and meta-analysis would have been carried out if data were deemed as appropriate (qualitative evidence serves different purposes; exploring possible factors / patterns for further investigation or looking into the process or mechanism in depth and hence were excluded from this review). Studies have been weighted based on their quality assessed via their risk of bias. The results from these studies are summarised, providing researchers with up-to-date knowledge of the subject area and identifying gaps in the literature to prompt future research.

The background information yields a number of justifications for a systematic review on this topic. The severity of harm that's caused in missing child cases to the child, their family and the impact on society demands that they are dealt with effectively. This systematic review carries implications for preventing or reducing the behaviour or running away in children, as it will highlight the risk factors relating to children who run away. This will allow for future

identification of those children most at risk so that they can be supported by appropriate interventions being put in place.

Methods

Criteria for inclusion

An Inclusion Criteria Checklist (Appendix A) was used to assess the studies for eligibility.

Type of study: Cohort, case control and analytical cross-sectional designs. Viewpoints, reviews, case studies, qualitative and purely descriptive cross sectional studies were excluded.

Study question: when a study was not designed to focus on runaways and simply measured it as a by-product, it was excluded.

Country of origin: English speaking and high income countries (according to World Bank). This included; United Kingdom, United States, Canada, Australia and New Zealand.

Population: children and adolescents <18 years old at the time of runaway incident. If the sample included both <18 year olds and ≥18 year olds, in order to be included, clear differentiation between these groups was required in the analysis and results.

Exposure: any risk factor or characteristic that is related to the outcome and suspected to occur prior to the outcome.

Comparator: non-runaway children (<18 years old), general population children (<18 years old) or runaway recidivists.

Outcome: the child is reported to have 'run away' or have been 'missing'. 'Trafficked' and 'abducted' were excluded.

Date of publication: After publication of NISMART-2 (October, 2002).

Search methods for identification of studies

The following databases were searched in March 2016; the Campbell Collaboration; Open Grey; PsycInfo; ASSIA; NCJRS; ERIC and ProQuest Dissertations & Theses AI. The same concatenation of keywords was used in all searches, although minor modifications to the search syntax were made for each particular database.

("missing child*" OR "missing person" OR "runaway behav* OR runaway* OR "runaway youth*" OR "runaway adolescen* OR "emotionally disturbed runaway adolescents" OR "thrownaway*") AND ("risk factor*" OR "demographic characteristic*" OR "family background*" OR "causes" OR "correlate*" OR "precursor*" OR "predict*" OR "background characteristic*" OR "personal characteristic*" OR "family characteristic*").

In addition, CSMP publications Hub, specifically the risk assessment, quantifying and characterising missing, and young people and

running away sub-sections of the Hub were searched to identify further relevant studies.

Data collection and analysis

The references yielded in the database search were exported onto Mendeley Desktop (N= 573). After excluding duplicates (N= 87), the titles of the remaining references were scanned to remove book chapters, reviews or meta-analyses, opinion papers, and clearly irrelevant papers (N= 84). The abstracts of the 402 remaining references were compared to the inclusion/exclusion criteria and 366 did not meet the inclusion criteria. The full-text of the remaining 36 articles was assessed using the Inclusion Criteria Checklist, resulting in the exclusion of 21 references (3 of which were excluded due to a lack of clarity regarding population age range), with 15 matching all the inclusion criteria. A list of excluded articles and reasons for exclusions can be found in Appendix B. Four papers (Benoit-Bryan, 2014; Oriade, 2015; Sanchez, Waller & Greene, 2006, Waller & Sanchez, 2001) analysed the same dataset; data collected in the National Longitudinal Study of Adolescent Health. Each of these studies had differing research questions, study designs and study parameters. Thus, these reports were considered to be separate studies. However, the overlap between these studies is considered when synthesising results. The sorting is in Figure 2.

Data extraction

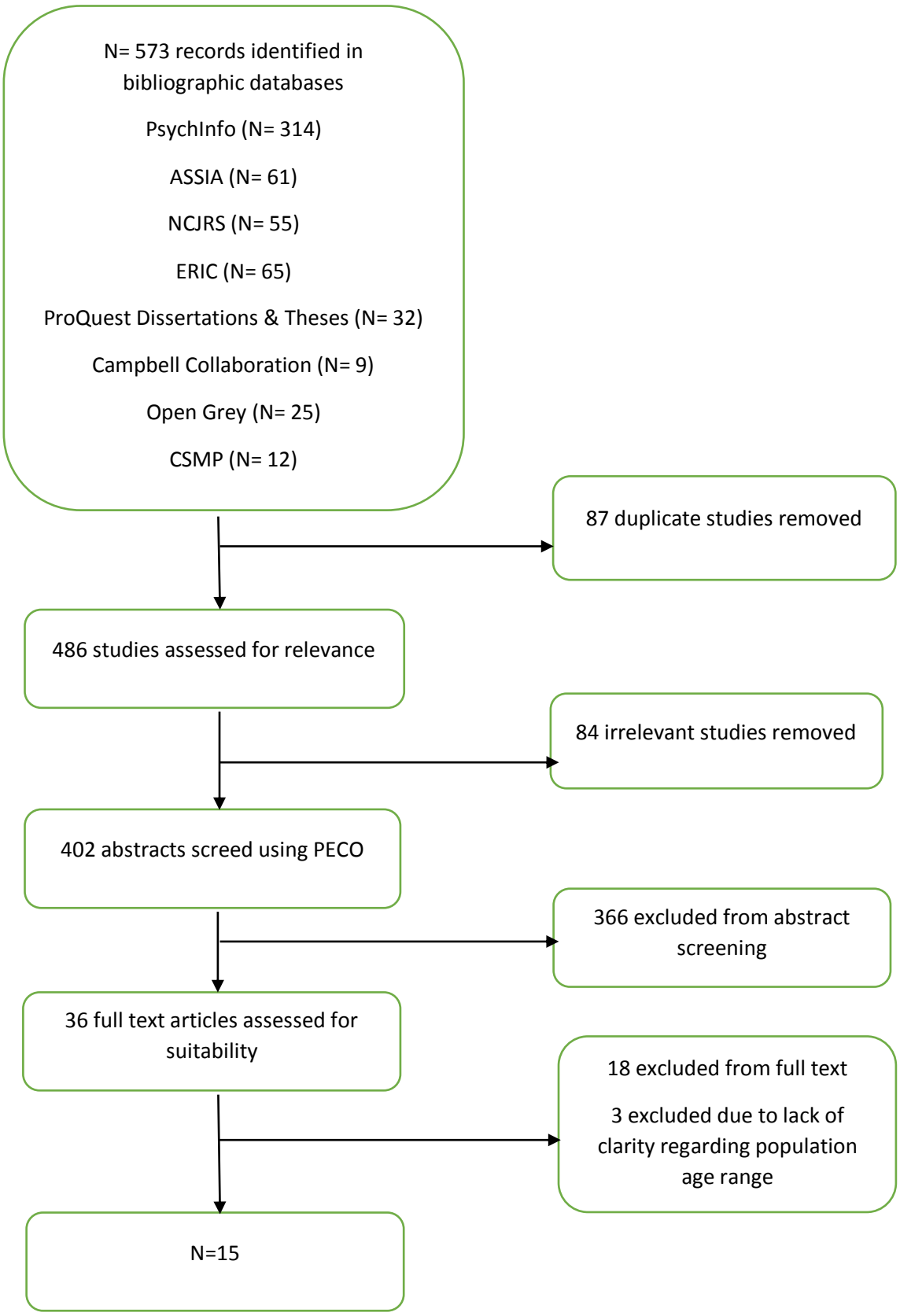
A pre-defined Data Extraction Sheet was used to extract the information relevant to the review question (Appendix C).

Assessment of risk of bias

The included studies were either cohort (N= 7)[2, 3, 4, 5, 6, 11 & 14], case control (N= 1)[1] or analytical cross-sectional studies (N= 7)[7, 8, 9, 10, 12, 13 & 15].

The checklist (Appendix D) and accompanying dictionary (Appendix E) was adapted from the Effective Public Health Practice Project (EPHPP). The checklist covered biases resulting from selection, design, confounders, blinding, data collection and withdrawals/drop-outs. A number of criteria were identified in each category of bias whose presence would increase or decrease the risk of bias. The assessor could also rate an item unclear (can't tell) or non-applicable from the information provided in the article.

Figure 2: Sorting of identified articles



Analysis

If data were found to be appropriate we would have carried out a meta-analysis. Meta-analysis is a technique that statistically combines the results of studies, to provide a more accurate effect of results, assuming absence of clinical heterogeneity between studies. The advantage of utilising this review method is that results of studies are assimilated to provide an overall evidence base that can be used to guide practice. This means that small or inconclusive studies lacking in statistical significance can contribute to the larger picture (Grant & Booth, 2009).

Results

Characteristics of included studies

The characteristics of the 15 reviewed studies are in Table 1. Each study was assigned a study number and will be referred to by their study number in text or in superscript when mentioned in the results, discussion, and conclusion.

The diversity across the studies is clear. They differ in terms of type of sample (i.e., juvenile offenders, runaway shelters, foster care users, Youth Protection Services, general population identified through school rosters and household surveys), size of sample and age of sample (i.e., ranging from 0 to 34 years old). The aims of the studies also vary. Most of the studies were conducted in the US (n

= 10), while three took place in the UK, and two were conducted in Canada. One study only assessed females [10].

Two studies used official records of running away [1, 3] (e.g. status offence charges, court petitions or use of runaway shelter service) whereas the other studies used self-report data. Using official data did not appear to provide more consistent results than self-report data. For example, study 1 found being African-American or Asian significantly reduced risk of running away, whereas study 3, found no significant difference amongst ethnicity groups. However, some of the main findings identified by studies using official records was also reflected in studies using self-report data. For example, the child's living situation, history of abuse and substance use were highlighted to be significantly associated with runaways in both types of study. Some studies looked at running away rates prior to age 18 [1, 3, 11, 13 & 15] , two studies looked at running away before the age of 16 [8 & 10], whereas other studies looked at running away during a specific time period (e.g. between interviews or 12 months prior to study) [2, 4, 5, 6, 7, 9, 12, 14]. One study used a psychometric assessment tool to assess running away; the Adult Psychiatric Morbidity Survey (APMS) 2007 questionnaire module Stressful Life Events [8]. Some studies compared runaways with non-runaways [1, 2, 3, 5, 6, 7, 8, 9, 10, 12, 13 & 14], one study compared recidivists with non-recidivists [4]. One study split the sample into two groups of runaways; those that ran <3 times and those who ran ≥3 times [15].

Three studies analysed running away rates on a continuous scale [4, 5, 11]. Definitions of running away also varied between studies. For example, some studies specified that the child needed to have spent at least one night away from home to be classed as a runaway [5, 6, 12 & 13] whereas others did not. Some studies did not present a clear definition of a running away, this was particularly true of studies that asked participants to self-report running away.

Table 1: Study characteristics

Study no.	Author, date of publication, country of publication and design	Sample size, type of sample and age range	Operationalization of runaway group	Operationalization of comparator group
1	Kempf-Leonard & Johansson (2007) US Case control	N= 42,577, youths processed by the juvenile justice system (1997-2003), ages not recorded	Youth charged with a status offence of runaway (N= 6,743)	Youth never charged with a status offence of runaway (N= 36,101)
2	Benoit-Bryan (2014) US Cohort	N= 20, 745 @wave I, N= 14, 738 @ wave II, nationally representative probability sample drawn from school rosters (National Longitudinal	Respondents who identified running away in the 12 months prior to wave II (N= 590)	Respondents who did not identified running away in the 12 months prior to wave II (N= 14, 148)

		Study of Adolescent Health), age 12-17		
3	Lee (2009) US Cohort	N=596, children previously reported for abuse or neglect who had exited a spell in foster care, age 0-17	Those children with official records of at least one runaway episode (e.g. a court petition or runaway shelter stay, N=60)	Those children without official records of at least one runaway episode (e.g. a court petition or runaway shelter stay, N= 536)
4	Slesnick, Guo, Brakenhoff, Feng (2013) US Cohort	N=179, shelter-recruited adolescents who had previously participated in a clinical trial for substance-abusing runaways, age 12-17	Those adolescents who reported a runaway/homelessness episode between interviews (measured at 3, 6, 9 , 12 & 24 months after baseline) N=115 reported at least one additional runaway episode	Those adolescents who reported no runaway/homelessness episode between interviews (measured at 3, 6, 9 , 12 & 24 months after baseline) N= 54 no additional runaway/homeless

				episodes at any follow up point.
5	Tyler & Bersani (2008) US Cohort	N= 1579, prospective household survey (National Longitudinal Survey 1997), age 12-16	Respondents who reported at least one runaway episode (left and stayed away from home for at least one night without parent's prior knowledge or permission) between interviews (N= no figure provided)	Respondents who reported no runaway episodes between interviews (N= no figure provided)
6	Tucker, Edelen, Ellickson, Klein (2011) US Cohort	N= 4,329, children in school who had previously undertaken a social-influence-based intervention programme, age 13-17	Respondents who identified as having run away from home overnight on at least one occasion in the past 12 months. (N= 3,822)	Respondents who did not identify any occasions of having run away from home overnight in the past 12 months. (N= 507)

7	Robert, Pauzé & Fournier (2005) Canada Cross sectional	N= 218, children under the supervision of Youth Protection Centres (YPC), age 12-17	Youths who had reported a period of homelessness in the 12 months prior to the study due to not wanting to return home or being unable to return home (N= 110)	Matched control group who had not reported a period of homelessness in the 12 months prior to the study (N= 108)
8	Meltzer, Ford, Bebbington & Vostanis (2012) UK Cross Sectional	N= 2,247, nationally representative household survey, age 16-34	Respondents who answered yes to any 1 of 3 questions related to running away in the AMPS 2007 questionnaire module Stressful Life Events (N=159)	Respondents who answered no to all 3 questions related to running away in the AMPS 2007 questionnaire module Stressful Life Events (N=2,088)
9	Waller & Sanchez (2011) US Cross sectional	N= 10, 246 nationally representative probability sample drawn from school	Respondents who identified running away in the 12 months	Respondents who did not identify any occasions of having run away in the

		rosters (National Longitudinal Study of Adolescent Health), age 12-17	between interviews (N= 1098)	12 months between interviews (N= 9148)
10	Andres-Lemay, Jamieson & MacMillan (2005) Canada Cross sectional	N= 3760, province wide household survey, age 15-34	Female respondents who answered yes to the question "before the age of 16, did you ever run away from home (other than from a group or foster home)?" (N= 284)	Female respondents that answered no to the question "before the age of 16, did you ever run away from home (other than from a group or foster home)?" (N= 3,476)
11	Kim, Tajiman, Herrenkohl & Huang (2009) US Cohort	N= 457, prospective study (Lehigh Longitudinal Study) recruited from child welfare abuse and protective service programs, Head Start	Number of incidents of running away from home before age 18, self-reported by youths during adolescence (N= 139)	Number of incidents of running away from home before age 18, self-reported by youths during adolescence (N= 277)

		classrooms, day care programs and private nursery programs, age 18 months – 23 years		
12	Rees (2011) UK Cross sectional	N= 7,349, national representative survey sample of mainstream secondary schools, age 14-16	Self-reported running away overnight in the past 12 months (N= 6.2% of sample)	No self-reported running away overnight in the past 12 months (N= 93.8% of sample)
13	Rees & Lee (2005) UK Cross sectional	N= 10,716, national school survey using stratified cluster sampling, age 14-16	Respondents who self-reported running away for at least 1 night on the most recent occasion they ran away or were forced to leave and first ran before their 16th birthday (N= 11%)	Respondents who did not identify themselves as having run away for at least 1 night on the most recent occasion they ran away or were forced to leave and first ran before their 16th birthday (N= 89% of sample)

14	Sanchez, Waller & Greene (2006) US Cohort	N= 10,225, nationally representative probability sample drawn from school rosters (National Longitudinal Study of Adolescent Health), age 12-17	Respondents who reported at least one runaway episode during the 12 months between wave I & wave II (N= 631)	Respondents who reported no runaway episodes during the 12 months between wave I & wave II (N= 9,624)
15	Oriade (2015) US Cross sectional	N= 246, children who had run away in the 12 months prior to interview/survey (National Longitudinal Study of Adolescent Health), age 12-17	Children who reported having runaway <3 times	Children who reported running away ≥3 times

Risk of bias

The overall quality of studies varied; strong (N= 5), moderate (N=6) and weak (N= 4). Table 2 shows the risk of bias across the 15 studies included in the review.

Selection bias

The selection bias component ratings examined whether the individuals selected to participate in the study were likely to be representative of the study target population. The participant selection of two studies were considered weak [7 & 8]. Assessment was made on the basis that <60% of selected individuals agreed to participate. However, it is important to note that Study 7 compared those individuals who refused to participate with those who took part and found that the final sample varied by <10% from the initial participant selection on the factors; place of residence, age, gender and reason for supervision by the youth service centres. In addition, Study 8 used statistical weighting procedures and to ensure the final sample was representative of the general population in an attempt to counter selection bias.

The participant selection of three studies were considered strong. These studies selected individuals representative of the target population and achieved greater than 80% participation. Study 1 utilised file data collected on all juveniles who were processed by the juvenile court system in four counties of Texas over a six year

period (as file information was utilised participation rate was non-applicable). Study 5 utilised data collated by the National Longitudinal Survey of Youth 1997 (NLSY97); a survey recruiting respondents who were representative of the national general population of 12-16 year olds in the US. It was identified that the NLSY97 maintained a high retention rate across annual interviews; its lowest retention rate was observed in 2001 at 87.7%. Study 10 utilised a province wide household survey where there was an 88% response rate. All remaining studies were assessed as moderate.

Study design

Generally, study design is a good indicator of the extent of bias due to the allocation process in experimental studies and the independence of exposure and outcome in observational studies. Thus, no studies were assessed as strong in their design. Cohort and case control studies were assessed as moderate and all other study designs (cross sectional) were considered weak.

- *Cohort studies*

Cohort studies are the best method of identifying the incidence and course of development of a condition (Mann, 2003). A cohort design enables observation of each variable on the development of the outcome of interest (Mann, 2003). Seven cohort studies [2, 3, 4, 5, 6, 11 & 14] were included in the review. All cohort studies were completed in the US. When considering risk factors identified via cohort studies

it is important to take into account the limitation regarding the variety of types of samples used (e.g., general child population [2, 5 & 14], children enrolled in pre-school programmes [11], children with a history of abuse or neglect and foster care [3], children who had previously spent time in a runaway shelter [4] and children who had previously undertaken a specific substance misuse module as part of their curriculum at school [6]). Two of the cohort studies utilised data collected by the same national survey (the National Longitudinal Study of Adolescent Health) [2 & 14.] These studies were retrospective cohort studies; the studies were performed post-hoc on data that was collected for another purpose. Despite using the same datasets these studies did not explore the exact same variables (although there is overlap; gender and ethnicity) and therefore these studies will be discussed separately.

- *Case control studies*

Case controlled studies compare groups retrospectively. They aim to identify the relative importance of a predictor variable on the outcome (Mann, 2003). One case control study was identified (study 1).

Study 1 assessed children processed by the juvenile justice system across four counties in Texas (US) over a seven year period, thus minimising selection bias. These children were split into two groups by the researchers; those charged with a status offence of running

away and a control group of those never charged with a status offence of running away. This study assessed a wide variety of factors from data collected by court officials. However, accuracy and comprehensiveness of data collected was unable to be determined and it was unlikely that data was collected consistently due to differing settings (different courts), assessors and unknown levels of training or experience. Therefore, data collection methods were considered weak.

- *Cross sectional studies*

Risk factors were also identified from the cross sectional studies that were reviewed. Cross sectional studies involve assessing one group of subjects on all measurements (exposures and outcomes) at one point in time. Differentiating cause and effect from simple association is problematic in this study design (Mann, 2003). Seven analytic cross sectional studies were included in the review. Cross sectional studies were conducted in a variety of countries; UK (N= 3), US (N= 2) and Canada (N= 2). None of the cross sectional studies conducted in the UK utilized multivariate statistical analyses and therefore would be considered weaker in their analysis of results than studies from other countries. Cross sectional studies utilised national surveys, with the exception of study 7 where children under the supervision of youth protection centres were sampled. Two of the studies utilised data collected by the National Longitudinal Study

of Adolescent Health; studies 9 and 15. However, study 9 analysed the difference between runaways and non-runaways whereas study 15 analysed children who ran away on <3 occasions compared to children who ran away on ≥3 occasions and therefore these results of these studies are considered separately. Studies with stronger quality ratings [9, 10 & 13] tended to have less risk of bias in their selection procedures, were more likely to control for confounding variables and had stronger data collection procedures.

Confounders

Both design (stratification and matching) and analyses were considered with regards to the confounding variables; age, sex, ethnicity and SES. In studies where these were the target variables of interest the risk of bias rating was scored as non-applicable. Three studies were identified as weak with regards to bias related to confounders. Results in study 8 identified that twice as many females reported running away than males, however, due to the lack of multivariate analyses in identifying risk factors associated with running away confounders were not controlled for. Within studies 12 and 13 neither study conducted between group analyses on potential confounding variables and therefore important differences between groups were unable to be detected. Further, a lack of multivariate analyses within these studies meant that if confounding variables existed they were not controlled via the analysis.

The remainder of studies were assessed as strong with regards to how confounders were dealt with. Two studies identified no differences between groups on the potential confounders; gender, age and ethnicity/race [4 & 9]. One study utilized matching procedures (matched groups based on gender, age and urbanicity) and further identified similarity between groups across additional potential confounders (e.g. income) [7]. Three studies controlled for demographic confounders [4, 6 & 11]. Further, all those studies utilised data analysis procedures that enabled effect of confounders to be controlled (multivariate analysis or modelling).

Blinding

There were two components to blinding sub-section of risk of bias. Firstly, assessor blindness to participants within each group, to protect against detection bias. Secondly, participant blindness to the research question, to protect against reporting bias. All included studies were assessed as moderate on blinding. Two studies protected against reporting bias but did protect against detection bias [1, 3.] Within all other studies information on blinding was not described or only partially described.

Data collection methods

The data collection methods components assessed whether the study utilised valid, reliable and consistent methods and tools within the study. Five studies were identified to be weak on their methods

of data collection, mainly a result of a lack of information regarding reliability and consistency of data collection methods. Studies considered moderate lacked consistency of data collection methods for example differences in settings, assessors, inter-rater reliability or training level of assessors.

Withdrawals and drop-outs

For five studies the data were collected at one time only and therefore risk of bias as a result of withdrawals and drop-outs was non-applicable [7, 8, 9, 12 & 13]. For three studies secondary or file data were utilised and therefore this type of bias was also non-applicable to these studies as only those participants with complete data were utilised [1, 3 & 14]. Four studies [5, 8, 11 & 15] had a follow up rate of at least 80% and therefore were assessed as strong. Only one study identified reasons for withdrawals or drop-outs [6].

Table 2: Risk of bias of studies

Study no	Selection bias	Study design	Confounders	Blinding	Data collection methods	Withdrawals and drop-outs	Overall rating
1	Strong	Moderate	Non applicable	Moderate	Weak	Non applicable	Moderate
2	Moderate	Moderate	Non applicable	Moderate	Moderate	Non applicable	Strong
3	Moderate	Moderate	Non applicable	Moderate	Weak	Non applicable	Moderate
4	Moderate	Moderate	Strong	Moderate	Moderate	Moderate	Strong
5	Strong	Moderate	Strong	Moderate	Moderate	Strong	Strong
6	Moderate	Moderate	Strong	Moderate	Moderate	Moderate	Strong
7	Weak	Weak	Strong	Moderate	Moderate	Non applicable	Weak
8	Weak	Weak	Weak	Moderate	Moderate	Non applicable	Weak
9	Moderate	Weak	Strong	Moderate	Moderate	Strong	Moderate
10	Strong	Weak	Strong	Moderate	Moderate	Non applicable	Moderate
11	Moderate	Moderate	Strong	Moderate	Weak	Strong	Moderate
12	Moderate	Weak	Weak	Moderate	Weak	Non applicable	Weak
13	Moderate	Weak	Weak	Moderate	Weak	Non applicable	Weak

14	Moderate	Moderate	Non applicable	Moderate	Moderate	Non applicable	Strong
15	Moderate	Weak	Non applicable	Moderate	Moderate	Strong	Moderate

Risk Factors

Risk factors assessed by included studies were broad and results varied. Risk factors and the results for all studies are displayed in Table 3. Risk factors with significant results are displayed in Table 4.

Demographics

Demographic variables were examined in all seven cohort studies [2, 3, 4, 5, 6, 11 & 14], five cross sectional studies [8, 9, 12, 13 & 15] and the case control study [1].

- *Gender*

Within cohort and case control studies results of gender were mixed; four studies [3, 4, 6 & 11] found no significant difference between runaways and the control group (non-runaways), whereas three studies [1, 2, 5 & 14] found that being female was a significant risk factor associated with running away. However, it is important to note that two of these studies [2 & 14] used the same sample (National Longitudinal Study of Adolescent Health, NLSAH) and therefore it is unsurprising that both studies found significant results.

Within cross sectional studies results of gender were also found to be mixed; studies using bivariate analyses tended to find a significant difference between runaways and non-runaways with more females likely to runaway [8 & 12], whereas, multivariate studies

found no such significant difference [9 & 15]. However, it is important to once again note that studies 9 and 15 both used the same sample (NLSAH). This suggests that the study design as well as level of analyses may have impacted outcomes associated with gender.

Overall, of the twelve studies that analysed gender; using bivariate analyses, four studies found significant results; using multivariate analyses, three studies found significant results. All those studies that found significant results indicated females to be significantly more likely to belong to the runaway group.

- *Ethnicity*

Ethnicity was also found to have mixed results. Six cohort studies [2, 3, 4, 5, 6 & 14] explored this risk factor, three of which identified no significant difference between runaways and non-runaways [3, 4 & 14]. It is important to note that there was also inconsistency in the results of studies that found significant differences between the two groups. Study 2 identified Asian children as most at risk of running away, study 5 found white children to be overrepresented in the non-runaway group and study 6 identified that being African-American or Hispanic reduced risk of running away. Interestingly, studies 2 and 14 despite both analysing data collected by the NLSAH did not produce the same results. This difference could potentially be a result of sampling procedures used by each study. Study 14 (N=10,225) only used cases where data was available for both

waves of data collection and where the child was <18 at wave II of data collection, whereas study 2 (N= 20, 745 at wave I of data collection and N= 14, 738 at wave II of data collection) used all available data of children (<18) at both waves I and II.

Within cross sectional studies ethnicity was assessed in three studies all of which found no significant differences [9, 13 & 15]. Within the case control [1], study similar to study 6, being African-American or Asian demonstrated to significantly reduce risk of running away in both males and females.

Overall, of the 10 studies that assessed ethnicity, four found significant differences between runaways and non-runaways. However, these four studies were inconsistent in their findings with regards to which ethnicities are most at risk of running away.

- *Family structure*

The demographic characteristic with the most agreement amongst cohort studies was family structure; four of the five studies reported that children living in family structures other than intact nuclear families (with two-biological parents) were significantly more likely to belong to the runaway group [1, 5, 6 & 14].

Cross sectional studies exploring family structure similarly found that children who ran away were more likely to come from family structures other than living in homes with two-biological parents

(e.g. single parent or step-parent homes) than non-runaways [12, 13 & 9].

Within the case control study [1] for both males and females it was found that children living somewhere other than with parents (e.g. another relative, foster care or group home) were significantly more likely to belong to the runaway group. Therefore, family structure was on the whole consistent with regards to results across study designs.

- *Age*

Age was explored by three cohort studies [4, 6 & 14] and one cross sectional study [9]. Only one cohort study found age to be a significant risk factor in predicting running away [14] with children in the older age bracket (15-17) being more likely to runaway than those in lower age bracket (12-15). This conflicts with the cross sectional study [9] which found as age decreased risk of running away increased (age range 10-17). These conflicting results are particularly interesting considering both studies utilised data collected by the NLSAH. Difference in results may be explained by the differing study designs; the cohort study was considered a stronger study design. Nevertheless, there is not enough evidence across studies to suggest that this factor is predictive of running away.

- *Socio-economic status (SES)*

Three cohort studies [5, 6 & 11] and three cross sectional studies [12, 13 & 15] analysed factors relevant to SES. Study 6 identified SES to be a significant covariate of running away. Studies 5 and 11 found lower SES to be related to running away. However, it is important to note that for study 11 results became non-significant using multivariate analyses. Thus, only one cohort study [5] demonstrated a significant difference between runaways and non-runaways when using multivariate analyses. Within the cross sectional studies lower SES was found to be related to running away. However, two of these studies [12 & 13] used bivariate analyses only.

Overall, lower SES has been found to be related to running away. However, it is possible that these results may be a result of the level of analyses used.

- *Other*

Some other demographic factors that have been assessed but to a lesser extent include;

Sexual orientation: Children with same-sex romantic attractions or relationships were more likely to run away than children with opposite sex attraction. This was true of both the cohort study [2] and the cross sectional study design [9].

Disabilities: Children with disabilities, including learning disabilities, identified themselves more often as having runaway than the comparison group [12 & 13].

Country of origin: Results relating to whether the child was residing in their country of origin differed between the cross sectional study design which found no significant difference [13] and the cohort study design which found that children living in their country of origin were significantly more likely to runaway [2]. These conflicting results may be a result of study designs or they may be a result of the studies taking place in different countries (study 2 US and study 13 UK).

Region of US: Results relating to regions of the US most at risk of runaways were also conflicting, with the cross sectional study [9] identifying southern regions and the cohort study [14] identifying western regions. Due to the comprehensiveness of study 14 it is suggested that this is likely to provide the strongest result.

All other demographic factors assessed found non-significant results (including; *pregnant or young parent* [1]; *developmental stage* [15]; and *household size* [15]).

Victimisation

Four cohort studies [2, 3, 5 & 11] and two cross sectional studies [8 & 10] and the case control study [1] examined the child's history of victimisation. Runaways were significantly more likely to have experienced abuse or neglect than non-runaways. However, cohort

studies varied in their multivariate results in terms of the type of abuse deemed to be significant (study 2, physical abuse; study 3, sexual abuse; study 11 physical and psychological abuse). Studies 5 and 8 found that victimisation through repeated bullying, being threatened or being a victim of crime were also a significant factors in running away.

Overall, the type of victimisation most consistently assessed across studies was a history of at least one type of abuse or neglect. When taken together, results consistently found that a history of abuse or neglect was greater in the runaway group, in comparison to the non-runaway group.

Mental Health

Three cohort studies [3, 4 & 6] and four cross sectional studies [7, 8, 9 & 12] examined mental health related risk factors. Although overall cohort studies gave mixed results, at the multivariate level of analysis only one study found significant differences between the runaway and control group (non-runaways); study 6. This study found depressive symptoms or affect to be significantly associated with the runaway group. This result conflicts with study 4 which found no such significant difference. This may be explained by the difference in sample groups. Children who had previously met the DSM criteria for substance abuse or dependence and had received treatment at a runaway shelter were the sample in study 4, whereas study 6

utilised a sample from mainstream school who had previously undertaken a substance misuse module.

Results of the cross sectional studies were also mixed; study 7 found that runaways were more likely than controls to be diagnosed with anxiety disorder. However, when other factors (such as behavioural disorder, poor quality parent-child relationship, parental violence and history of care) were taken into consideration the difference between groups was no longer significant. With regards to depressive symptoms or affect study 9 found runaways to be more likely to report depressive symptoms than controls, however, study 8 found no significant difference. Study 12 found that runaways were more likely to report lower subjective well-being than non-runaways.

Overall, results of both cohort and cross sectional studies indicate mixed results relating to mental health factors. However, the majority of studies indicate that when multivariate analyses are conducted results relating to mental health factors become non-significant. This suggests that other factors are more important in predicting runaway behaviour.

Problem Behaviour

Problem behaviours were examined in three cohort studies [4, 5 & 6], the case control study [1] and four cross sectional studies [7, 8, 9 & 13]. On the whole runaways were more likely to have problem behaviours

than the control group. For example, substance use (including alcohol) [1, 4, 6, 7, 9 & 13], conduct disorder related problems prior to the age of 15 [8], diagnoses of oppositional or behavioural disorders [7], a history of offending [13] and delinquency [6 & 5]. Within the case control study it is important to note that although the number of offences was greater in the runaway group, the offences committed were considered less serious in comparison to the control group (juvenile offenders not charged with a runaway status offence). It was also found in study 1 that males with early onset of offending (<13 years old) were more likely to run away.

The problem behaviour most consistently assessed across studies was substance use. Results relating to this factor consistently found that substance use was greater in the runaway group in comparison to the non-runaway group.

Family/Parent Factors

Seventeen family or parent factors were considered across five cohort studies [2, 3 4, 5 & 6]. The majority of family or parent risk factors were non-significant when using multivariate analysis methods. Nevertheless, a number of factors were found to be significantly associated with the runaway group including; lower family cohesion [4], lower parental monitoring [5], less parental support [6], less trust from parents [2], higher frequency of parental binge drinking [2] and a history of being separated from parents due to being accommodated

in care [2]. Of those children who had a history of care the age of their first placement was significant in predicting running away; children who were placed in care over the age of three were more likely to runaway [3]. Additionally, foster care placement factors were also found to be significant. For example, children who received multiple spells in foster care, who were accommodated in residential treatment homes and who were not reunified with family were significantly more likely to runaway [3].

Family or parent factors were also considered in six of the cross sectional studies [7, 8, 9, 10, 12 & 15]. Within studies using multivariate analyses four of the 11 family or parent factors were found to be significant. Parental diagnosis of a psychiatric disorder was significantly associated with runaways in comparison to non-runaways [10]. The quality of parent child relationship was found be poorer in in the runaway group than in the control group of non-runaways [7 & 9]. Study 15, however, found no difference on parent-child relationship quality between children who run on <3 occasions versus those who run on more than ≥3 occasions. This suggests that although the quality of family relationship is predictive of running away it may not be predictive of recidivism of running away. Other factors that were significant using multivariate analyses in the runaway group in comparison to the non-runaway group were family problems or dysfunction [7], a history of care [7] and parental violence towards youth [7].

Therefore, across both cohort and cross sectional studies a history of care and difficulties in family relationships (problems or cohesion) were more prevalent in runaways than non-runaways. There were conflicting results relating to parental mental health [7 & 10]. However, it is important to note that study 7 assessed parent/caregiver mental health in terms of engagement with mental health services, whereas study 10 limited parental mental health to specific psychiatric diagnosis disorders (major depression, schizophrenia, antisocial personality and mania). In addition, the sample used within study 7 were children who had a history of abuse or neglect and time spent in care, whereas as in study 10 a national household survey was conducted. These differences in study design may explain differences in results. The variety of parent or family factors assessed across studies meant that many of the study results were unable to be compared.

Peer Factors

Peer factors were assessed by one cohort study [2], the case control study [1] and two cross sectional studies [12 & 15]. Only two of the ten peer factors analysed by study 2 were found to be significant at the multivariate level of analysis; runaways were significantly more likely than the control group (non-runaways) to have delinquent friends [2] and to have friends with lower school grades [2]. The case control study [1] found that males charged with a juvenile offence

were significantly more likely than other juvenile offenders to be involved in gangs. Study 12 using bivariate analyses found that runaways were more likely to report lower relationship quality with friends than non-runaways. Study 15 found no significant difference between low risk (<3) and high risk (≥3) runaways on peer support and trouble with peers.

Of 12 peer factors assessed only two were found to be significant at the multivariate level; having friends with delinquent behaviours and having friends with low school grades. Overall, studies analysing peer factors varied in the type of peer related factor assessed and therefore it was difficult to draw comparison across studies.

School Factors

Six cohort studies [2, 3, 4, 5, 6 & 14] and five cross sectional studies [7, 9, 12, 13 & 15] examined school factors. Overall, school factors were found to be significant across both study types using bivariate analyses. However, a smaller proportion of school related factors remained significant when using multivariate analyses.

Within cohort studies, factors relevant to the child's personal experience of school found to be significantly associated with the runaway group at the multivariate level of analysis were; lower grades [2], higher frequency of suspensions [5] and lower attachment or engagement in school [2 & 6]. Factors relevant to the school environment that were significantly associated with running away

were larger average class sizes [2] and schools located within more urban areas [2].

In cross sectional studies, runaways were less likely than non-runaways to feel connected to school (attachment/engagement) or have positive views of school [9, 12 & 13]. Further, children who ran away on ≥3 occasions were also significantly less likely to feel connected to school than those who ran away on <3 occasions [15]. Runaways were more likely than non-runaways to attend a school from an urban area [9]. Cross sectional studies using bivariate analyses found that runaways had lower perception of their achievements at school and had lower aspirations for higher education [12], however, there was no significant difference in concerns regarding exams [13].

Therefore, similarities exist across cohort studies and cross sectional studies. Within both study designs using multivariate analyses school attachment/engagement (connectedness) and urbanity of school were predictive of running away. However, difficulties in school, differed between study types. Study 5 found that difficulties in school were significantly more prevalent in the runaway group than non-runaway group, whereas in study 7, no significant difference between groups was found. However, it is important to note that the school difficulty assessed in study 5 was school suspensions, whereas in study 7 the school difficulty considered was dropping out of school. This difference in school difficulties assessed

could also explain differences in results. Overall, there were a variety of school related factors assessed. Not all factors were assessed by both cohort and cross sectional studies. Further, due to some studies only utilising bivariate analyses it was difficult to draw comparisons on some of the results. The most consistent results relate to school attachment/engagement.

Neighbourhood Factors

Three cohort studies [2, 3, & 5] and one cross sectional study [15] examined neighbourhood factors. Within cohort studies, at the multivariate level of analysis, four factors were found to be significantly different between the runaway and control group (non-runaways). Runaways were more likely to live in neighbourhoods with; higher divorce rates [2], lower average incomes [3] and lower average education levels [2]. Children who ran away were also more likely to have experienced neighbourhood victimisation (household burglaries or witness to shootings before the age of 12) [5]. Within the cross sectional study [15], those children who ran away on ≥3 occasions were less likely to be satisfied with their neighbourhood than those who ran <3 occasions. However, there were no significant differences on neighbourhood problems or safety. Due to the variety of neighbourhood factors assessed across studies it is difficult to draw comparisons across between cohort and cross sectional studies.

Meta-analysis

It would be inappropriate to combine results of studies that are not sufficiently similar (Grant & Booth, 2009). In this case there's a vast amount of clinical heterogeneity therefore a meta-analysis is unable to be completed.

Table 3: Study risk factors and results

Study no	**Risk factors**	**Bivariate results**	**Multivariate results**	
1	Gender	p<.001	Males:	Females:
	Ethnicity			
	White	p<.001	-	-
	African American	p<.001	β=-.292, p<.001	β= -.641, p<.001
	Hispanic	p<.001	β=-.608, p<.001	β= -.374, p<.001
	Other	NS	-	-
	Other & White	-	β= -.566, p<.01	β= -.335 (NS)
	Living situation			
	Single parent	p<.001	β=.091 (NS)	β= -.134, p<.01
	Relative	p<.001	β=.457, p<.001	β=.135 (NS)
	Foster/group home	p<.001	β=.604, p<.001	β=.345, p<.01
	Other	NS	β=.445, p<.001	β=.183 (NS)

	Abuse (physical, sexual & emotional/neglect)	p<.001	β=1.359, p<.001	β=1.230, p<.001
	Pregnant/parent already	p<.001	β= -.117 (NS)	β=.006 (NS)
	Substance abuse	p<.001	β=.411, p<.001	β=.481, p<.001
	Gang involvement	NS	β=.280, p<.001	β= -.006 (NS)
	Offending			
	Early onset (<13)	NS	β=.201, p<.01	β= .123 (NS)
	Number of charges	p<.001	-	-
2	Gender	X^2= 44.7, p<.001	β= .48	
	Ethnicity			
	Hispanic	6.36, p< .01	NS	
	White	4.09, p>.05	NS	

	African-American	4.37, p>.05	NS
	Indian/Native	7.26, p<.001	NS
	Asian/Pacific Islander	10.53, p<.001	β=.43
	Other	5.30, p<.05	NS
	Country of origin	42.05, p<.001	β=.63
	Sexual orientation	182.66, p .001	β=.94
	Foster care history (removed by CPS before 6th grade)	113.61, p<.001	β= 1.29
	Abuse (neglect, sexual &physical)	83.37-186.52, p<.001	β=.83 (physical)
	School		
	Grades	699.85, p<.001	β= -.05
	Attachment	439.78, p<.001	β= -.03

	Parents factors		
	Divorced/Separated	4.65, p<.05	NS
	In receipt of public assistance	5.72, p<.05	NS
	Trust		
	Lived apart from child	91.59, p<.001	β=.37
	Higher education	34.28, p<.001	NS
	Alcohol consumption	22.82, p<.001	β=.27
	Friends characteristics		
	School activity involvement (GPA)	36.34, p<.001	β= -.37
	School attachment	46.40, p<.001	NS
	Delinquent behaviour	47.94, p<.0001	β=.02
	Network structure		
	Number of connections identified by self	7.69, p>.05	NS

	Number of connections identified by others	39.13, p<.001	β= -.11
	Network density	8.38, p>.05	NS
	Network reach	35.17, p<.0001	NS
	Network centrality	13.11, p<.05	NS
	School characteristics		
	Teachers education length	38.54, p<.0001	NS
	Teachers qualification level	27.62, p<.001	NS
	Average class size	22.39, p<.001	β=.03
	% parents involved in PTA	22.71, p>.01	NS
	% students below grade level	46.54, p<.001	NS
	Availability of counselling services	25.69, p<.001	NS
	Attendance levels <80	6.09, p<.01	NS
	Public/private school	73.12, p>.05	NS
	Neighbourhood factors		

	Urbanization	21.60, p<.01	NS
	Racial dispersion	48.88, p<.001	NS
	% foreign born	58.44 p<.001	NS
	% homes owner occupied	8.78, p>.05	NS
	Divorce rates	11.83, p>.05	β= 3.72
	% with high school degree	15.19, p<.05	β= -1.92
	% below poverty level	19.15, p<.01	NS
3	Gender	X^2= .01, p= .91	HR= .88, p= .67
	Ethnicity	X^2= .25, p= .61	HR= 1.68, p= .10
	Age at first placement in care >11	X^2= 55.12, p<.01	HR= 439, p<.0001
	Caregiver characteristics		
	Caregiver's foster care	X^2= 1.68, p= .19	-
	Education	X^2=.00, p=.99	-
	Age	X^2=.05, p=.81	-

	Neighbourhood factors		
	Average income >$30,000	X^2= 4.05, p= .04	HR= 2.08, p= .02
	Higher education	X^2= 1.60, p= .20	-
	Abuse type (sexual)	X^2= 13.9, p <.01	HR= 2.59, p= .03
	Foster care placement factors		
	Number of placements (3)	X^2= 7.4, p= .02	HR= 2.67, p= .007
	Number of spells in foster care (≥3)	X^2= 8.72, p< .01	HR= 2.37, p= .04
	Length of placement	X^2=.15, p= .98	-
	Reunified with parents	X^2= 13.34, p <.01	-
	Parent mental health	X^2=.17, p= .91	-
	In home child welfare service (prior to foster care)	X^2= 18.68, p= <.01	HR= .11, p= .0005
4		3 month follow up:	

	Gender	NS	-
	Age	NS	-
	Ethnicity	NS	-
	Depressive symptoms	t(138)= -2.47, p< .05	OR= 1.04 (NS)
	Substance abuse	NS	OR= 1.02, p<.001
	Delinquency	NS	-
	School enrolment	NS	-
	Family factors		
	Cohesion	t(134)= 1.73, p= .086	OR=.83, p<.05
	Conflict	t(135)= -2.16, p< .05	OR= 1.06 (NS)
5	Gender		β=.81, p<.01

	Family structure		β= -.15 (NS)
	SES		β= -.15, p<.05
	Ethnicity		
	African-American		β= -.88, p<.01
	Hispanic		β= -.64, p<.05
	Parenting		
	Harsh punishment		β= -.27 (NS)
	Monitoring		β= -.10, p<.01
	Warmth & support		β= -10 (NS)
	Environmental risk		β= -.01 (NS)
	Neighbourhood victimisation		β=.49, p<.05

	Personal victimisation		β=.31, p<.05
	Deviant peers		β=.01 (NS)
	Early alcohol onset		β=.23 (NS)
	School suspension		β=.99, p<.01
	School fights		β=.05 (NS)
	Delinquency		β=.58, p<.01
6	Covariates		
	Gender	NS	-
	Ethnicity	$X^2(6)= 108.6$, p<.001	-
	Family structure	$X^2(2)= 126.7$, p<.001	-
	Age	NS	-
	SES	p<.05	-
	Number of schools attended	NS	-

	Deviance	p<.05	-
	Substance use (cannabis, alcohol & cigarettes)	-	β= .116(SE= .012), p< .0001
	Depressive affect	-	β= .116(SE= .012), p< .0001
	Lack of parental support	-	β= .116(SE= .012), p< .0001
	School disengagement (grades, academic intentions & attitudes)	-	β= .116(SE= .012), p< .0001
7	Clinical diagnoses		
	Anxiety	<.01	NS
	Opposition	<.001	NS
	Behavioural disorder	<.001	OR= 3.00, <.001
	Family problems		
	Dysfunctional family dynamic	<.01	NS

	Poor youth/parent relationship	<.001	OR= 2.28, p<.05
	Parental violence	<.001	OR=2.17, p<.05
	Excessive discipline and punishment	<.05	NS
	Prior care placements	<.001	OR= 2.15, p.05
	Substance use (regular alcohol consumption, drug use & hard drug use)	<.05	NS
	Dropping out of school	<.05	NS
8	Gender	M= 5.3% F=9.8% (significance not reported)	
	Abuse (sexual & physical, 5 factors)	X^2= 39.05-143.32(1), p<.001	

	Adverse life events Bullied Felt depressed Something of value stolen Family problems (4 factors) Conduct problems during childhood (<15 years, 13 factors) Tortured or hurt animals	 X^2= 45.17(1), p<.001 X^2= 3.74(1), p= .053 X^2= 28.06(1), p p<.001 X^2= 19.63-63.77(1), p<.001 X^2= 4.70-126.20(1), p< .05 X^2= 1.11(1), p= .292	
9	Gender Ethnicity Non-Hispanic white Non-Hispanic black		β= 0.00 (NS) Referent β= -.01 (NS)

	Hispanic		β= -.03 (NS)
	Non-Hispanic other		β= -.05 (NS)
	Family structure		
	Two biological parents		Referent
	Two parents		β= .07, p<.05
	Single mom		β= .06, p<.05
	Other		β= .17, p<.01
	Age		β= -.01, p<.05
	Region		
	West		Referent
	Midwest		β= -.07, p<.05
	South		β= -.09, p<.01
	Northeast		β= -.05 (NS)
	Urbanicity of school		

	Urban		Referent
	Suburban		β= -.04 (NS)
	Rural		β= -.08, p<.01
	Romantic attractions		
	Opposite-sex only		Referent
	Any same-sex		β= .12, p<.05
	No attractions		β= .05 (NS)
	Relationships		
	Opposite-sex only		Referent
	Any same-sex		β= .01 (NS)
	No relationships		β= -.03, p<.01
	Frequency of alcohol consumption		β= .12, p<.001
	Depressive symptoms		β= .02, p<.001

	Parent relationship Close Neither close nor not close Low closeness		 Referent β= .07, p<.001 β= .26, p<.001
10	Abuse Physical Sexual Both Parental psychiatric disorder Parents did not complete high school (SES)	 OR= 2.9, p<.05 OR= 3.1, p<.05 OR= 7.5, p<.05 OR= 5.5, p<.05 OR=.7, p<.05	 OR= 2.2, p= .0046 OR= 2.6, p= .0461 OR= 3.9, p< .0001 OR= 3.6, p= .0001 OR= 1.0, p= .7829
11	Gender SES Abuse	r= .01 (NS) r= -.20, p<.05	β= .03 (NS) β= -.03 (NS)

	Physical & psychological Sexual	r= .39, p<.001 r= .24, p<.001	β= .34, p<.001 β= .07 (NS)
12	Gender Ethnicity Disabled Learning difficulties Living with family Family structure Recent changes in family structure	p<.01 Significance not reported p<.01 p<.01 p<.01 p<.01 p<.01	

	Family economic status (assessed via no adults with paid job and free school meals) Family relationships (low warmth & high conflict conflict) Poor quality friendships School problems School connectedness Perception of achievement Aspirations for higher education Subjective well-being	p<.05 p<.01 p<.01 p<.01 p<.01 p<.01 p<.01	
13	Gender	p<.05	

	Disability (including difficulties learning) Family structure Looked after child SES (free school meals & household adults in paid employment) School factors Negative views of school Concerns about exams Substance use (alcohol & drugs) Offending	p<.05 p<.05 p<.05 p<.05 p<.05 p>.05 p<.05 p<.05	
14	Gender		F= 10.32, p <.005

	Ethnicity Age (<15, 15-17) Family structure Urbancity of school Region		F= 2.37 (NS) F= 4.62, p <.05 F= 13.42, p <.005 F= 4.32, p <.05 F= 4.58, p <.005
15	Gender Developmental stage Ethnicity Hispanic White		β= -.572, p= .152 β= -.184, p= .663 β=.143, p= .816 β= -.916, p= .318

	Family poverty		β=.787, p= .019
	Parental education		β=.006, p= .951
	Parents marital status		
	Single		β= -.340, p= .852
	Married		β= -1.400, p= .427
	Divorced		β= -2.117, p= .276
	Relationship quality with parents		β= -.143, p= .081
	Parental warmth		β= -.391, p= .170
	Parental involvement		β=.763, p= .535
	Household size		β= -.111, p= .394
	Peer support		β=.320, p= .322

	Trouble with peers		β=.015, p= .940
	School connectedness		β= -.763, p= .013
	Neighbourhood problems		β= -.222, p= .553
	Neighbourhood satisfaction		β= -.774, p= .032
	Neighbourhood safety		β= -.122, p= .818

Table 4: Significant results

Risk factor	**Results**
Demographics	
Gender	1***, **2*, 5**,** 8 (?), 12**, **14**
Age	**4, 14*, 9***
Ethnicity	**1*, 2*, 5,**,** 6***
Country of origin	**2***
Sexuality	**2*, 9****
Region	**9***, **14***
SES	**5*,** 6*, 11*, 12**, 13**, **15****
Family structure	**1*,** 6***, **9**,** 12**, 13**, **14****
Pregnant/young parent	1***
Disability	12**, 13**
Learning disability	12**, 13**
Victimisation	
History of abuse or neglect	**1**, 2***, **3**,** 8***, **10*, 11****

Other victimisation	**5*,** 8***
Child welfare involvement	1***
Mental health	
Anxiety disorder	7**
Depressive symptoms/affect	4*, **6**, 9***
Subjective well-being	12**
Problem behaviours	
Substance use	**1**, 4***, 6**,** 7*, **9***, 13**
Offending	1***, 13**
Delinquency	**5**,** 6*
Early alcohol onset	**1* (males only)**
Conduct problems	8***
Oppositional disorder	7**
Behavioural disorder	7**
Family & parent factors	

Parent/child relationship	**7*, 9***,** 12**
Family cohesion	**4***
Family conflict/problems	4*, 7*, 8***
Harsh punishment	7*
Low parental monitoring	**5****
Low parental warmth	12**
Lack of parental support	**6****
Parent trust	**2***
Parent marital status	2*
In receipt of public assistance	2*
Parent education	2***
Parent mental health	**10*****
Alcohol consumption	**2***
Parental violence	**7***
Caregiver foster care	2***
Caregiver age	2***
History of care	**2*, 7***
Age at first placement in care	**3****

Foster care placement factors	**3****
Peer factors	
Peer relationship quality	12**
School activity involvement	2***
School attachment	2***
Delinquent behaviours/gang	**1** (males only), 2***
Grades	**2***
Number of connections identified by self	2***
Network reach	2***
Network centrality	2***

School factors	
Grades	**2***
School difficulties (e.g. truancy, suspensions etc)	7*, **5**,** 13(?)
Attachment/engagement	**2*, 6**, 9**,** 12**, 13(?), **15****
Academic intentions	12**
Perception of achievement	12**
Teacher's length of service	2***
Teacher's qualification level	2***
Average class size	**2***
% parents involved in PTA	2***
% students below grade level	2***
Availability of counselling	2***
Attendance levels	2***
Urbanicity of school	**14*, 9****
Neighbourhood factors	
Urbanization	2**

Racial dispersion	2***
% foreign born	2***
Homes owner occupied	
Divorce rates	**2***
Income/SES	2**, **3***
Higher education	**2***
Neighbourhood victimisation	**5***
Neighbourhood satisfaction	**15***

* .05
** .01
***.001
(?) Significance level not reported
Bold multivariate results
Non-bold bivariate results

Discussion

The aim of this exploratory systematic review was to assess the quality of primary studies on children who runaway and synthesise their findings regarding the characteristics and risk factors associated with these children. The studies that were reviewed have considered the risk of running away in terms of demographic characteristics, mental health, history of victimisation, parents and family, problem behaviours, peers, school and neighbourhood factors. They show that risk factors are cumulative.

The review brings together a list of significant risk factors in relation to children who runaway, based on their presence in at least one cohort or case control study and two or more analytical cross sectional studies, or two or more cohort or case control study and at least one analytical cross sectional studies. These risk factors are:

- Gender (female): one case control [1], three cohort [2, 5 & 14] and two cross sectional [8 & 12].
- Lower SES: three cohort [5, 6 & 11] and three cross sectional [12, 13 & 15].
- Family structure other than intact nuclear family: one case control [1], two cohort [6 & 14] and three cross sectional [9, 12 & 13]

- History of abuse or neglect: one case control [1], three cohort [2, 3 & 11] and two cross sectional [8 & 10].
- Substance use: one case control [1], two cohort [4 & 6] and three cross sectional [7, 9 & 13]
- Lower school attachment/engagement: two cohort [2 & 6] and four cross sectional [9, 12, 13 & 15].

It is important to note that these risk factors should be considered with caution. It is possible that children presenting with these risk factors may never runaway. The mixed findings across the studies also show that more research is required in this area. Clinical heterogeneity of studies prevented a meta-analysis being conducted.

A possible reason for the gender differences in running away is because females experience a higher rate of sexual abuse, thus they are more likely to flee their abusive home environments to avoid future harm (Tyler & Bersani, 2008). Females may also be more vulnerable to grooming by exploiters. Exploiters may pose as a 'boyfriend' and encourage girls to run away from home to spend time with them and attend parties (Smeaton, 2009). However, an alternative explanation for gender differences in runaway rates is that differing boundaries are set for males and females regarding staying away from home. Females may be seen as at greater risk from the adversities of 'the streets' and less able to look after

themselves than their male counterparts (Kempf-Leonard & Johansson, 2007). This may impact the rules and boundaries set by caregivers due to the perceived additional risks faced by females. Adolescence is a time of change whereby children begin testing boundaries and seeking independence. As a result of gendered differences in rules and boundaries females may be more likely to be identified as running away than their male counterparts.

Families living in greater poverty (lower SES) are likely to be faced with multiple stresses and strains produced by living in disadvantaged economic conditions. SES impacts well-being at multiple levels, including both family and neighbourhood. Facing daily stresses linked with low SES may result in erratic, inconsistent or neglectful parenting behaviours (Tyler & Bersani, 2008). Bradley and Corwyn (2003) state that "Stresses, uncertainties, and the low social standing associated low SES can bring about a sense of powerlessness and low self-esteem in children". Running away can serve the function of taking control of the situation and escaping familial difficulties associated with poverty.

It is important to consider that differences between runaways and non-runaways on the demographic characteristics gender and SES tend to become non-significant within multivariate level analyses. This suggests that other factors are more important in predicting running away.

There are a number of potential explanations why children living in family structures other than with two-biological parents are at greater risk of running away than children living in intact nuclear families (i.e. with two-biological parents). Families where two-biological parents are available in the household may be in a better position to provide a higher degree of parental-monitoring, involvement and support to their children (Sanchez, Waller & Greene, 2006). There are numerous stresses associated with disrupted families such as financial concerns and parent's new romantic relationships (Waller & Sanchez, 2011). In addition, such families are likely to have experienced a period of instability and difficulties within the family home prior to the change in structure. This potentially could impact children through adverse home environments characterised by conflict, uncertainty or intimacy deficits amongst family members. Adapting to changes in family structure can be challenging even for the most resilient of children.

A history of abuse or neglect increases the risk of running away. For some children running away may serve as a short term adaptive function to escape abusive or neglectful home environments (Kurtz, Kurtz & Jarvis, 1991). Running away becomes a coping strategy that continues beyond the abusive experience. For example, Wade (2003) suggests that children who run away from care established runaway patterns long before their removal from the family home. Over time the coping strategy of running away may exacerbate

interpersonal problems, create additional stress and lead to further abusive situations.

Using alcohol and other substances can provide a means of escapism for coping with the stress associated with living in unstable home environments (Tyler & Johnson, 2006). Substance use in children may contribute to the reoccurrence of further risk taking and impulsive behaviours such as running away (Slesnick, Gu, Brakenhoff & Feng, 2013). Running away means that children become more socialised on 'the streets' where appropriate adult-monitoring and boundaries are lacking. These children are vulnerable to the influence of others who encourage further delinquent behaviour. Thus, running away can exacerbate substance use and vice versa (Tucker, Edelen, Ellickson & Klein, 2011).

When children are faced with stress they may seek out other arenas of comfort, school has been described as one of these arenas (Gerard & Buehler, 2004 as cited in Oriade, 2015). Therefore, it is unsurprising that higher attachment or engagement in school would reduce the likelihood of running away.

Implications of the review

The review shows that children who runaway are a heterogeneous group. The six risk factors short-listed above are those most consistent across the current literature. This presents a base for future research and the development of interventions to reduce the

risk of running away. The different themes regarding the risk factors indicate that a holistic prevention and intervention package would be most suitable in tackling the problem.

It is recommended that family support and parenting interventions, particularly following family breakdown or changes in family structure, would be beneficial in improving parent-child relationships. Mediation services may be particularly useful in engaging parents and children in discussions that can support the child in managing negative feelings associated with such changes. It should also be considered that families from impoverished communities may need additional support. Professionals providing services to families should be trained to detect indicators of neglect and abuse. Specialist services should be considered for those children with a known or suspected history of abuse or neglect to support them processing their experiences and managing traumatic memories that continue to impact their emotional and behavioural well-being. The provision of school engagement packages with staff trained in providing support to children with a history of problematic behaviour may be useful in promoting children's engagement and attachment to school, which could act as a protective factor in reducing runaway risk. Given the contribution of substance use to the reoccurrence of running away, substance abuse treatment should be an important consideration in support packages. The difference in gender and running away suggests that assessment

and intervention may need to be tailored based on gender, however, further research is required to understand these differences.

Limitations and future research

The quality of the included studies varied, with some more prone to biases than others. This limitation is primarily due to the inclusion of weaker study designs. Cross sectional study designs were imperative to include as recent research in this area has been fairly limited. However, this has implications for establishing cause and effect (Mann, 2003). In addition, inconsistency in data collection procedures is likely to have impacted the quality of available data.

The variety of sample groups recruited for studies (e.g. shelter recruited runaways, children charged with a status offence of running away, children self-reporting running away) presents limitations in that the comparability of studies included in this review is questionable. It is possible that the variety of sample groups used in studies is due to a lack of consistent definition of running away. Further, there was a large variety of risk factors analysed across studies. For example, there were eleven risk factors associated with neighbourhood. Due to the inconsistency in type of risk factors assessed across studies evidence is inconclusive with regards to the relevance of many of these risk factors. In addition, many studies did not specifically define each risk factor they measured. This means that the risk factors may be defined differently across the

studies. Future research would benefit from an agreed set of definitions.

It is worth noting that all studies assessed as 'strong' in quality were from the US. Studies based in the UK tended to utilise weaker data analyses which meant that confounding variables were largely left uncontrolled. No research was identified from Australia or New Zealand. Further good quality research would be beneficial from areas outside of the US. This may also be useful in identifying if differences exist between countries on risk factors relevant to running away. This would have implications for the applicability of interventions across countries.

Future studies should consider utilising cohort study designs. Although these study designs can be expensive they allow for the identification of factors that pre-cede the outcome and therefore can distinguish between cause and effect (Mann, 2003). This could assist in developing appropriate interventions and identify key points where intervention would be most effective.

Although overall results of gender suggest this to be a risk factor in running away, when other factors were taken into consideration the impact of gender on running away appeared to reduce (as demonstrated in multivariate studies). As stated above, further research is recommended to identify if gender itself is a risk factor of running away, or if other factors linked to gender are more

important. This will have direct implications for assessment and intervention. Therefore, further research in this area is recommended.

Conclusion

This exploratory systematic review assessed the quality of primary studies on children who runaway. Findings were synthesised regarding the characteristics associated with this group. The results indicate that children who runaway are a heterogeneous group, risk factors for running away span multiple levels including individual ontogeny, family factors and school factors. The findings were mixed, but six risk factors were identified which appear to be consistent for runaways across the studies reviewed. These factors were: gender (female), lower SES, family structure other than intact nuclear family, history of abuse or neglect, substance use and lower school attachment/engagement. Further good quality research using cohort study designs, with consistent definitions is now recommended.

CHAPTER THREE

PREDICTING REPEAT MISSING CHILD REPORTS

Predicting Repeat Missing Child Reports

Abstract

The purpose of this study was to explore the risk factors of 523 children who were reported missing to Gwent Police. Using data collected by the Gwent Missing Children's Team over a one year period, this study compared two groups of children: 275 (52.6%) who were reported missing once ('low risk') and 248 (47.4%) who were reported more than once ('high risk'). Results indicated that a five variable model could predict outcome in 73.2% of cases. Variables within the model included; looked after children, substance use, suspected sexual exploitation, known to Youth Offending Services and a history of abuse/neglect. From this study a simple summation checklist has been identified that can be used as a base for risk assessment procedures. This could potentially be used in Gwent to guide intervention strategies, with those children identified as 'high risk' requiring more comprehensive intervention and support.

Introduction

There were approximately 306,000 reports of missing persons in the UK from 2012-2013, 64% involved children (Bureau, 2014). ACPO defines missing as: "*Anyone whose whereabouts cannot be established and where the circumstances are out of character or the context suggests the person may be subject of crime or at risk of harm to themselves or another*." (ACPO, 2013). Children go missing for a variety of reasons. Within their research Biehal, Mitchell and Wade (2003) identified that 70% of missing children had made the decision to leave home and the majority of these were considered to have 'run away'.

Running away is often preceded by; conflict with parents or carers; family breakdown or poor relationships; experiences of abuse and neglect; or problems at school (Biehal, Mitchell, & Wade, 2003; Rees & Lee, 2005; Social Exclusion Unit, 2002). These have been referred to in the literature as 'push factors' (Kerr & Finlay, 2006; Kirby & Middleham, 2005). Research has also identified that 'pull' factors (factors that make running away more appealing) also contribute to the child's decision to leave home. Examples include; leaving home to be with an older 'boyfriend', the promise of a better life or striving for independence (Smeaton, 2009; Smeaton, 2013; Henderson & Henderson, 1998). There is a risk of child sexual exploitation (CSE) or involvement in crime, either as a consequence of, or a reason for,

a child running away (Cusick, 2002; Shalev, 2011; Scott & Skidmore, 2006; Smeaton, 2009). Within a recent scoping exercise conducted by Barnardo's utilising data from Thames Valley Police a number of precursors to running away were identified including; CSE, gang or drug exploitation, child protection or safeguarding issues, mental health or self-harm, anti-social behaviour and being known for other criminality (unpublished presentation provided by Barnardos).

Irrespective of the reasons, while children are missing they are at risk of physical, psychological and sexual abuse (CEOP, 2011; Plass, 2007; Finkelstein, Wamsley, Currie & Miranda, 2004). Going missing regularly can increase exposure to these risks and is associated with substance misuse and delinquency (Browne & Falshaw, 1998; CEOP, 2011).

Upon receiving a report of a missing child the Police, alongside the Local Authority, are immediately responsible for investigating and safeguarding the child. It was estimated that in 2010 the cost of missing children investigations conducted by the Police in the UK was £222 million, with £1000 being quoted as an average cost of a missing persons search (Parliamentary Panel, 2007). More recently researchers have suggested that an average missing persons case (<48 hours in length) costs approximately £2,415.80 (Shalev-Greene & Pakes, 2013). However, other costs for services such as

the health, education, children services and the criminal justice system, whom are all involved in the consequences of dealing with the harm a child may have suffered whilst missing, are much more difficult to calculate.

Repeat missing incidents account for approximately 38% of reported missing incidences (Bureau, 2014). Biehal and Wade (2002) identified that young people who go missing three times or more are at a particularly high risk of harm. Within a large scale survey study in England of young people aged 14 to 16 (N=7,349), it was found that 42% of runaways had run more than once, with 22% on more than 3 occasions (Rees, 2011). Therefore, research suggests that there is heavy demand on public services in responding to children that are regularly reported missing (Hayden & Goodship, 2013; Shalev-Greene & Pakes, 2013).

It is agreed that repeat missing incidences are often due to a lack of support or intervention in resolving the reasons why the child went missing (Biehal, Mitchell, & Wade, 2003; Mervyn, 2004; Rees & Lee, 2005; Social Exclusion Unit, 2002). Despite media attention on missing child incidents, cuts to funding for service provision have occurred. This means that public services are under considerable pressure to do more with less money. It is of vital importance that early identification and intervention with 'at risk' children is undertaken to prevent further risk-taking behaviour, reduce harm

and direct resources effectively (CEOP, 2011; Browne & Falshaw, 1998). Identifying these children cannot be accomplished without first identifying specific characteristics or risk factors associated with repeat missing incidences.

There is a dearth of research identifying risk factors associated with repeat missing incidences. The little research that has been conducted has identified that these children are more likely to have chaotic and difficult family and home lives, fraught with abuse and conflict (Baker, McKay, Lynn, Schlange, & Auville, 2003; Thompson and Pollio 2006; Safer on the Streets, 1999; Smeaton, 2009). It has also been highlighted that a disproportionate amount of missing reports relate to children in care with these children more likely to go missing repeatedly (Abrahams and Mungall 1992; Rees, 2011; Hayden & Goodship, 2013). This research suggests that children who are likely to go missing repeatedly are more likely to have negative home life experiences. However, it is well-established that social problems rarely result from a single factor but usually from the interplay of several factors (Oriade, 2015).

Indeed other risk factors relevant to running away most consistently identified in the literature (see chapter 2 for full review) include; being female (Meltzer, Ford, Bebbington & Vostanis, 2012; Tyler & Bersani, 2008; Sanchez, Waller & Greene, 2006), lower socio-economic status (Tyler & Bersani, 2008; Rees, 2011) family

structure other than intact nuclear family (Kempf-Leonard & Johansson, 2007; Rees, 2011; Rees & Lee, 2005), history of abuse or neglect (Andres-Lemay, Jamieson & MacMillan, 2005; Lee, 2009; Meltzer, Ford, Bebbington & Vostanis, 2012) substance use (Kempf-Leonard & Johansson, 2007; Rees & Lee, 2005) and lower school attachment/engagement (Rees, 2011; Rees & Lee, 2005). However, very little research has explored the question of whether risk factors can be used to distinguish between those children who are at risk of going missing on multiple occasions versus those who go missing on once.

Studies in the US have begun to explore this question and evidence suggests that that different pathways may exist for single versus multiple running away episodes (Baker, McKay, Lynn, Schlange & Auville, 2003; Oriade, 2015; Thompson & Pollio, 2006). However, factors identified as important in distinguishing between these groups have been inconsistent. Further, the applicability of research conducted in the US to children in the UK is questionable.

Current Research Aims

Research specific to risk factors associated with repeat missing episodes has been limited. The aim of this study was to explore risk factors associated with children reported missing and to identify those factors that predict that a child is at risk of being reported missing again (i.e. repeat missing cases).

The main objective of this study was to develop a hierarchical model of risk factors identified as the best predictors of repeat missing incidences, using logistic regression. This model could be used in practice to direct resources by targeting those most at risk.

Method

Data

Data for this study were drawn from the Gwent Missing Children's Team database, namely the MIRAF (Missing Individual Risk Assessment Form). The Missing Children's Team (MCT) is a multi-agency (children's services, health, education and police) safeguarding team, serving the geographical area of Gwent (made up of five local authorities) team, for managing missing child incidents. The MIRAF stores multi-agency information recorded on individual children reported missing to Gwent Police. A child's information is input onto the database if they are considered to meet the ACPO definition of missing. For this study, data from a 1 year period (1st April 2013- 31st March-2014) was analysed. This equated to 536 individual children. For the purpose of anonymity and confidentiality, a reference number was assigned to each.

Incidences of running away were collected from separate police databases, as this information was not available on MIRAF. During this time period Gwent Police changed systems from COMPACT to

NICHE for recording data. Therefore, incidence data was collected from COMPACT from 1st April 2013 until January 31st 2014 and from NICHE thereafter. Incidence data collated from relevant databases was matched with individual children. Incidence data was unavailable for 13 of children; this reduced the sample size to 523 individual children.

Procedures:

There were 46 variables included within the MCT database however only those with less than 10% missing data were analysed (for a full list of variables and definitions refer to Appendix F). Those variables with less than 10% missing data were divided into 4 broad categories (see Table 5). These variables were examined to identify risk factors among the children who were reported missing once (low risk) compared to children who were reported missing more than once (high risk).

Treatment of Data

A chi-squared analysis was conducted on the data using cross-tabulations for further analysis. Positive associations between variables and the high risk group were identified. Because of multiple testing and the number of chi-square tests carried out only those reaching a 1% level of significance ($p<0.01$, two tailed) were noted, and those that were very highly significant ($p <0.001$, two

tailed) were selected to be utilized in a binary logistic regression (predictor variables). Where data from these variables was missing, missing values were transformed into 'no' responses for all dichotomous 'yes/no' variables (see Appendix G for missing data figures).

Binary logistic regression is a multivariate statistical method whereby the expected values of the response variable ('low risk' vs 'high risk') are modelled based on a combination of values taken by the predictors. The model parameters provide measures of strength of associations between the response variable and the predictor variables. The enter method was applied; all variables were added to the model simultaneously. Variables that did not show significance ($p>.05$) were eliminated, on the basis that they were likely to be highly correlated with other variables in the model. Following elimination of non-significant variables the logistic regression was re-run and this was adopted as the final model.

This model allowed for a simple checklist of risk factors predicting that the child would be reported missing again. The odds ratio between the predictor variable and the outcome was considered and a simple summation model was identified as appropriate. Cut-off scores for the checklist were identified for the two groups based on cross-tabs classification percentages.

Table 5: Data collected by the Missing Children's Team on children reported missing to Gwent Police 2013-2014 (N= 523).

Variable	Yes (%)	No (%)
Demographics		
Age ≥ 12 years old	93.1	6.9
Female	50.8	49.2
White	94.8	5.2
English language	98.7	1.3
Physical disability	12.3	87.7
Learning disability	14.1	85.9
Family factors		
Arguments in family	73.5	26.5
History of abuse/neglect	62.6	37.4
History of domestic abuse	60.2	39.8
Young carer	5.3	94.7
Risk taking behaviours		
Violence	51	49
Crime	51.8	48.2
Substance use	54	46
Suspected sexual exploitation	26.8	73.2
Service involvement		
Known to social services	97	3
Open[2] to social services	62.7	37.3
Protection plan	8.2	91.8
Known to Youth Offending Services	35.4	64.6

[2] Open to social services: an 'open' case currently active with a social worker allocated, either being worked as child in need, child protection, looked after (section 20 and 31) or aftercare.

Looked after child	28.2	71.8
Formal boundaries in place	12.1	87.9
Changes in placement	18.3	81.7
Frequent A&E attendances	74.4	25.6

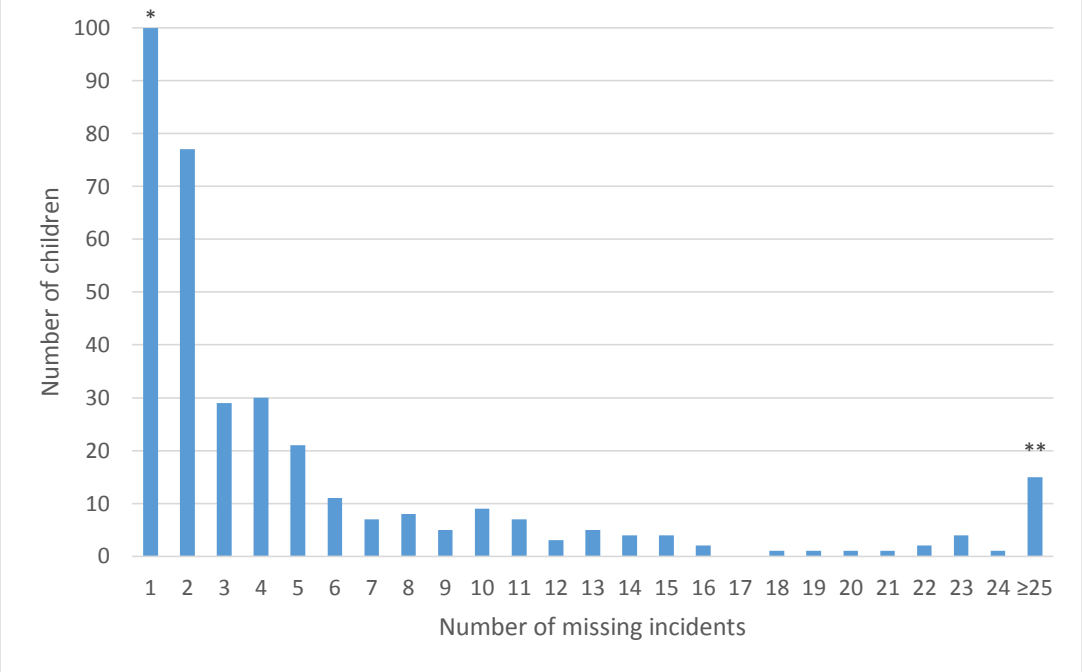
Results

Univariate Results (see Table 5):

Incidences

All 523 children included in the analysis had been reported missing to Gwent Police in one year. Of these 248 high risk children (47.4%) had been reported missing more than once, of which 171 had run away 3 or more times in the same period. By contrast, 275 low risk children (52.6%) were reported to run away only once. Figure 3 presents a histogram showing the number of children and frequency of missing incidents.

Figure 3: A histogram showing the number of children and frequency of missing incidents



** Total frequency with one missing incidence = 275*
*** For full list of frequencies* ≥25 please refer to Appendix H.

Demographics

The majority of children reported missing were over the age of 12 (93.1%, N=498). This is in line with previous research that has identified adolescents as a particularly high risk of running away (Biehal, Mitchell & Wade, 2003; Bureau, 2014; Rees, 2011; Rees & Lees, 2005). There was a small difference in the gender of the children with 50.8% (N=270) being female and 49.2% (N=262) male. In line with demographics of the region the majority of children reported were white (94.8%, N=490) and their first language was English (98.7%, N=529). A minority of the children

were classed as having a physical disability (12.3%, N=61) and/or a learning disability (14.1%, N=68).

Family factors

There was a general trend in the data towards difficulties within the family home including; reports of arguments within the family (73.5%, N=363); a history of domestic violence within family (60.2%, N=295); and the majority of children having experienced abuse/neglect as identified by services at some point in their lives (62.6%, N=316). A smaller percentage of children were identified to be young carer's (5.35%, N=27). These could be considered 'push factors' relevant to runaway behaviour.

Child's risk taking behaviours

In line with research identifying causes and consequences of being missing risky behaviours such as violence (51%, N=251), crime (51.8%, N=256) and substance use (54%, N=268) were present in over half of the sample. Further, suspected sexual exploitation were present in 26.8% (N=143) of children reported missing highlighting risks faced by these children whilst missing.

Service involvement factors

Interestingly, 97% (N=519) of children reported missing to Gwent Police were already known in some capacity to social services, with

62.7% (N=308) being classed as open to social services. This meant that at least 62.7% of the children were identified by social services as warranting some sort of assessment or intervention. Indeed, 28.2% (N=151) were looked after children (LAC) and a further 8.2% (N=42) had child protection plans in place. Of those children that were looked after approximately two thirds (N=91) had experienced what was considered frequent changes in placement (18.3% of total sample).

It was highlighted that 35.4% (N=179) of children reported missing were known to the Youth Offending Services (YOS). This suggests that approximately 15% of those children identified as involved in crime were not on the YOS's radar (no trace of the child on YOS's systems indicating YOS had never received a referral in respect of the child and there had never been any contact with the child). Some children (12.1%, N=61) were identified as having formal boundaries (e.g. curfews, exclusions zones) in place either for the child's own safety or as a result of involvement with criminal activity. The fact that these children were reported missing suggests that they are unlikely to have been complying with these formal boundaries.

A large proportion (74.4%, N=360) of children that were reported missing were identified to have had frequent A&E attendances. This demonstrates the strain on services that these children are likely to be having.

Bivariate Results (see Table 6):

Thirteen variables associated with being reported missing more than once (high risk) were identified (at a minimum p<.01 level). These variables showed significant (p<.001, two tailed) positive associations with repeat missing incidences determined by chi-squared analysis. These variables are listed in Table 6.

Children age 12 or older were significantly associated with the 'high risk' group; 97.2% (N=241) of the 'high risk' group were age 12 or over compared to 89.5% (N=246) of the 'low risk' group.

Although the vast majority of children reported missing to Gwent Police were known in some capacity to social services, a significant positive relationship was found between being known to social services and being reported missing more than once. In fact, 100% (N=248) of children belonging to the 'high risk' group were known to social services compared to 94.2% (N=258) of the 'low risk' group; 81.3% (N=182) of 'high risk' children were open to social services compared to 46.7% (N=119) of the 'low risk' group; and 47.6% (N=118) of the 'high risk' group were LAC compared to 10.6% (N=29) of the 'low risk' group. For those children that were looked after, changes in placement was also significantly positively associated with being reported missing more than once; 32.3% (N=72) of the 'high risk' group compared to 6.5% (N=17) of the 'low risk' group. This children's services involvement suggests that

family problems feature in these cases. Indeed, results indicate that arguments in the family are significantly more likely within in 'high risk' group (80.4%, N=185) compared to the 'low risk' group (67.3%, N=171).

Results confirmed that risk taking behaviour was significantly associated with repeat missing incidences. This included; substance use, with this factor present in 71.2% (N= 166) of 'high risk' group compared to 38.1% (N=96) of the 'low risk' group; crime, with this factor present in 62.5% (N=145) of the 'high risk' group compared to 41.2% (N=103) of the 'low risk' group; and violence, with this factor present in 60% (N=138) of the 'high risk' group compared to 42.8% (N=107) of the 'low risk' group. In line with these results children in the 'high risk' group were significantly more likely to be known to YOS (48.9%, N=115) and/or to have formal boundaries (18.5%, N=43) than those in the 'low risk' group (22%, N=57 and 6.2%, N=16 respectively). This indicates that they were known to Police as either being a risk to others or at risk themselves. Indeed, children in the 'high risk' group were significantly more likely to be identified as victims of abuse; 37.5% (N=93) of this group were suspected of sexual exploitation compared to 18.5% (N=49) of the 'low risk' group and 73.4% (N=174) identified as having experienced abuse/neglect at some point during their lives compared to 52.1% (N=134) of the 'low risk' group.

Table 6: Risk factors for children being reported missing*

Variables	***N (Total =523)***	***Children reported missing once (%)***	***Children reported missing more than once (%)***	***Chi² value (df= 1)***	***P value (two tailed)***
Age ≥ 12 years	523	89.5	97.2	12.134	.0001
Arguments in family	484	67.3	80.4	10.668	.001
History of abuse/neglect	494	52.1	73.4	23.779	.0001
Violence	480	42.8	60	14.182	.0001
Crime	482	41.2	62.5	21.836	.0001
Substance use	485	38.1	71.2	53.560	.0001
Suspected sexual exploitation	520	18	37.5	24.812	.0001
Known to social services	522	94.2	100	14.940	.0001
Open to social services	479	46.7	81.3	61.076	.0001
Looked after child	522	10.6	47.6	88.075	.0001

Changes in placement	486	6.5	32.3	53.794	.0001
Known to Youth Offending Services	494	22.0	48.9	39.367	.0001
Formal boundaries in place	493	6.2	18.5	17.649	.0001

*As identified by Chi² analysis

Logistic Regression

The 12 variables identified to have very high significant associations ($p<0.0001$) with the 'high risk' group (as identified in Table 6) were entered into the binary logistic regression analysis (i.e. one variable 'arguments in family' was eliminated). In doing this only 5 variables were identified as significant at the $p<.05$ level. Therefore, the logistic regression model was re-run using only these identified risk factors (Table 7).

Table 7 shows that in comparison to those children that were reported missing once, children who were reported missing more than once, were; 4.9 times more likely to be a looked after child; 2.6 times more likely to have be partaking in substance use; 2.2 times more likely to have experienced abuse/neglect; 2.1 times more likely to be known by YOS; and 1.8 times more likely to have been suspected of sexual exploitation.

Table 7: Binary logistic regression for 'high risk' children (N=523)

Variable	***Odds Ratio (S.E)***	***P value***
History of abuse/neglect	2.225 (.215)	.000
Substance use	2.590 (.217)	.000
Suspected sexual exploitation	1.804 (.235)	.012
Known to YOS	2.145 (.227)	.001
Looked after child	4.923 (.248)	.000

This resulted in a model that was able to correctly classify the outcome in 73.2% of cases (Table 8). More specifically, the checklist correctly specified 81.1% (specificity) of those who were reported missing once and was sensitive to 64.5% (sensitivity) of those who were reported missing more than once. However, 18.9% of those who were reported missing once were incorrectly classified, resulting in 52 false positives. Similarly, 35.5% of those who went missing more than once were incorrectly assigned, resulting in 88 false negatives.

Table 8: Accuracy of risk factor checklist in classifying children who were reported missing once or more than once (N = 523)*

Actual Incidences of Running Away	Predicted Incidences		
	1 (Low Risk)	>1 (High Risk)	Actual Total
1	223 (81.1%)	52 (18.9%)	275 (100%)
>1	88 (35.5%)	160 (64.5%)	248 (100%)
Predicted total	311	212	523

* 73.2% correct classification

Practical Applications

In order to administer the checklist in a practice setting a simple summation model is suggested, where the number of risk factors are simply added up, with a minimum score of 0 and a maximum score of 5 (i.e. each risk factor is assigned a score of 1).

To test the feasibility and practical efficacy of the risk factor checklist in discriminating between those children who are reported missing once (low risk) versus those who are reported missing more than once (high risk), the simple summation scoring system replaced the original data. Figure 4 displays the total checklist score calculated for each individual child on the basis of the number of risk factors (0 to 5) present that are associated with missing incidence (missing

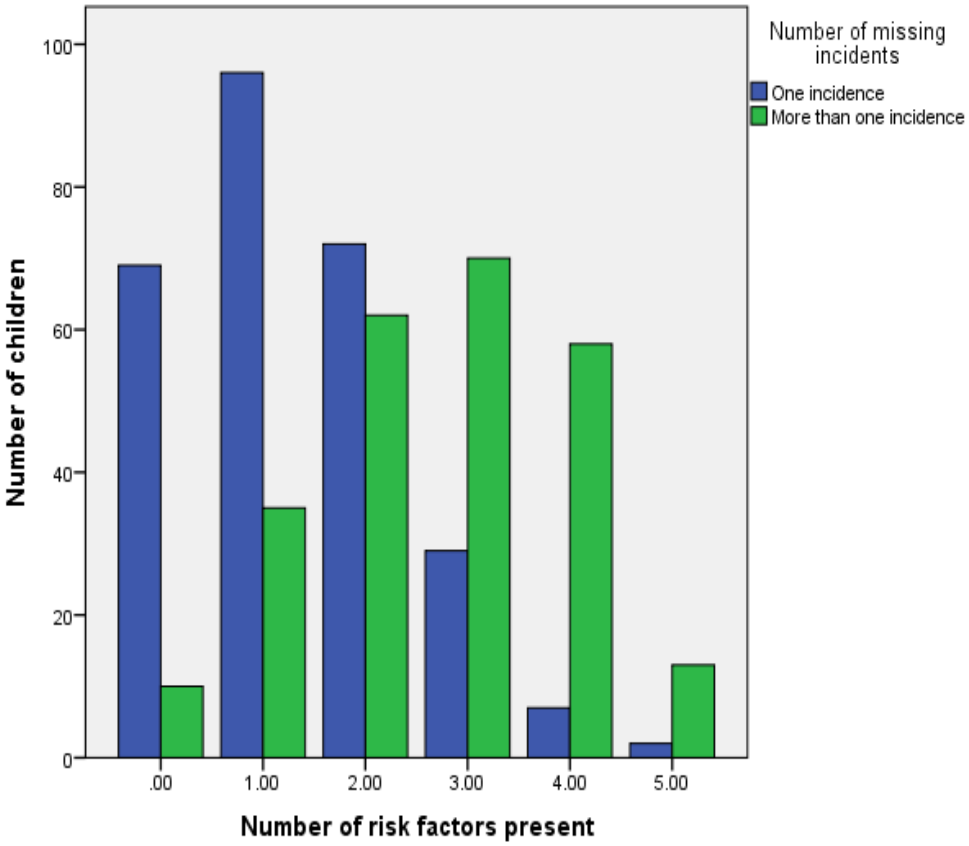
once versus missing more than once). The totals were then compared to outcome to establish the most effective cut-off point (Score of 2 or more). This identified 210 'low risk' children who scored less than 2 and 313 'high risk' children who scored more than 2 factors. Approximately 4 out of 5 'low risk' children were children who ran away just once and 2 out 3 'high risk' children were children who ran away more than once. Overall, the simple summation checklist of the number of risk factors present (0 to 5) was able to correctly classifying 70.4% of cases with a cut-off point of 2 or more risk factors categorised as 'high risk' (Table 9). Further analyses determined that weighting those characteristics with higher odds ratio had little effect on the correct classification rate.

Table 9: Accuracy of risk factor checklist when 2 or more risk factors classifies high risk children who were reported missing more than once *

Actual Incidences of Running away	**Predicted Incidences**		
	1 (Low Risk)	**>1 (High Risk)**	**Actual Total**
1	165 (78.6%)	110 (35.1%)	275
>1	45 (21.4%)	203 (64.9%)	248
Predicted Total	210 (100%)	313 (100%)	523

* 70.4% correct classification

Figure 4: Missing incidence by checklist score of the number of risk factors present (N = 523)



Discussion

Risk factors most consistently identified as relevant to running away have been identified within the systematic literature review presented in chapter 2. Following on from this, within the current chapter, risk factors relevant to the problem of missing children were further explored. This study analysed data collected by the Gwent MCT to identify risk factors associated with 523 missing children that predict repeat missing incidences. The aim was to

identify a model that could be used by Police, to direct resources, by targeting those most at risk. Results identified a five variable model could be used as a simple summation checklist. This checklist could predict 275 low risk children (no further missing reports) and 248 high risk children (further missing reports) in 70.4% of cases.

Therefore, it was found that the following 5 risk factors could distinguish those reported missing once in comparison to those reported missing more than once:

- Known to Youth Offending Services
- Looked after child (in local authority care)
- History of substance misuse
- History of sexual exploitation (CSE)
- History of abuse and neglect

Overall, 13 characteristics correlated with the high risk group. However, 8 of these characteristics were highly correlated with the above 5 characteristics and contributed little to the predictive model. If a cut off score of 2 or more of the above 5 risk factors is utilised, then the predictive model correctly classifies 70.4% of the cases. For those cases that are reported missing more than once (high risk), 82% will be identified and for those who are reported missing only once (low risk), 60% will be identified. This means that over half (60%) of those children who are reported missing for the first

time will be identified at risk of being reported missing again (has 2 or more risk factors out of the above 5). Of these, 4 out of 5 will be truly at risk of being reported missing at least 2 or 3 times. One out of 5 will be a false positive but still a child in need of support. To summarise;

- Incidence of running away more than once = 47.4%
- High Risk for Running away more than once = 59.8%
- Positive Predictive accuracy of 5 factor model = 64.9%
- Negative predictive accuracy of 5 Factor model = 78.6%
- Risk Ratio (RR) = 0.83
- Sensitivity = 60%
- Specificity = 82%

The results of the study indicated that LAC are significantly more likely to belong to the 'high risk' group. This is in line with previous research (Rees, 2011). It has been suggested that most LAC who run away do so to seek out family members or friends which they have been separated from as a result of being placed in local authority care (Biehal & Wade, 2002; Fasulo, Cross, Mosley & Leavey, 2002; Kerr & Finlay, 2006). LAC may feel a greater sense of attachment to their origin families than to their current living environment and these feelings may act to drive their runaway behaviour (Fasulo, Cross, Mosley & Leavey, 2002). However, LAC generally enter into care system having come from families who are

deemed unable or unwilling to provide adequate care and hence have had significant negative experiences before being looked after. Many of these children have an established pattern of running away which began within the family environment (Rees, 2011; Biehal & Wade, 2000). Therefore, it is likely that their runaway behaviour began as a way of escaping from or coping with difficulties they were experiencing within their family homes. Indeed, within this study children with a history of abuse/neglect were significantly associated with the 'high risk' group. It should also be considered that LAC may be reported more regularly as missing due to more vigilant reporting by carers whom are trained and expected to report children missing as a matter of protocol (CEOP, 2011).

CSE was also found to be a significant predictor of the 'high risk' group. Research has identified missing behaviour associated with CSE with children often being internally trafficked by their exploiters and returned following being sold for sex (CEOP, 2011; Sharp, 2012; Smeaton, 2013). Exploiters target children deemed more vulnerable, for example those suffering bereavement or other loss, those who are experiencing difficulties within the family with a history of abuse or those who are already accommodated in care (Scott, 2001). These children may seek out love and affection outside of their homes and are more vulnerable to grooming. An

exploiter may pose as a 'boyfriend' who encourages the child to stay away from home.

The majority of children reported missing to Gwent Police were engaged in risk taking behaviours, such as substance use and crime. Previous research has identified such behaviours to be prevalent in runaways (Browne & Falshaw, 1998; CEOP, 2011; Shalev, 2011; Thompson & Pollio 2006). It is possible that run away behaviour forms part of a more general delinquent lifestyle where the child stays away from home in order to engage in such activities (cause of being missing). Alternatively, it may be the case that whilst the child is missing they are at risk of being subjected to experiences and influences where this behaviour is condoned or encouraged (consequence of being missing). The results of this study, in line with previous research, indicated that substance use is a predictor of the 'high risk' group. In addition, those children known to YOS were significantly more likely to belong to the 'high risk' group. Children may be known to YOS for a number of reasons including; involvement in crime; engaging with peers who are involved in crime; or demonstrating behaviours that are considered 'concerning' to others.

The main limitation in this study was the reliability of data. At the time of data collection the MCT was a new team that were essentially developing their role 'on the job'. Definitions of variables were

lacking, meaning that staff members subjective interpretations of definitions were relied upon. In addition, many of the variables contained missing data. This may be a result of the vast quantity of data being collated by the team or due to a training issue with regards to how to collate and input information. The problem of missing data prevented the exploration of educational variables. Future research may benefit from analysing these variables as previous research suggests that problems at school are predictive of running away (Rees, 2011; SEU, 2002; Thompson and Pollio 2006). Once a more complete dataset, which includes educational variables, is collected its significance within the current model can be analysed.

The five variable model identified within this chapter demonstrates overlap in terms of risk factors identified within the systematic literature review presented in chapter 2. Specifically, the risk factors substance misuse and a history of abuse or neglect were identified as significant and consistent risk factors within both studies. Unfortunately, information on all variables identified as consistently significant in chapter 2 was not available in this study. For example, data on SES. Future studies may benefit from exploring whether SES is predictive of repeat missing incidents and tested in terms of its relevance to the 5 factor model identified in the current study.

It is also noteable that risk factors identified within this study overlap with those identified via the Barnardo's scoping exercise conducted in Thames Valley (unpublished presentation provided by Barnardo's). For example, both identified the risk factors; CSE, substances (either as substance use or substance exploitation), child protection and crime/offending behaviour. However, within the Barnardo's scoping exercise the percentage of children reported missing with these risk factors was higher than the percentages identified within this study (refer to page 18 for percentage values of Barnardo's results). A potential explanation for these differences is that within the Barnardo's exercise the focus was on incidents rather than individuals reported missing. Therefore, it is possible that the Barnardo's sample contained multiple incidents of the same individual child giving rise to a higher overall percentage associated with each of the identified risk factors. Despite these percentage differences it is promising that the same or similar risk factors have recently been identified elsewhere in the UK as this indicates that the 5 factor model may be applicable for use outside of Gwent.

Conclusion

This study provides support for the use of risk factors in identifying children who are at greater risk of repeat missing incidences, and hence are likely to be exposed to greater risk of harm. The validity of using retrospective data may be questioned in that, ideally, risk

assessment tools should be developed on the basis of prospective studies. Therefore, the risk factor checklist should be treated with caution, although the scale shows some predictive value, it incorrectly classified in 29.6% of missing child cases. The risk factor checklist should therefore not be the sole indicator of risk. It is advised that those using the tool continue to use their existing procedures and clinical experience alongside the tool when assessing risk.

The checklist provides a base for risk assessment procedures and could potentially be used to guide intervention strategies. The majority of children belonging to the 'low risk' group were living with family and had significantly fewer risk taking behaviours. This suggests that they may be more amenable to less intensive, early, family based intervention strategies aimed at preventing future missing incidences. Interventions aimed at this group should look to reduce negative interactions and resolve conflicts e.g. via mediation services. Return interviews where the reasons for the child going missing are explored are likely to be hugely beneficial to this group.

Children within the 'high risk' group would warrant more intensive and comprehensive intervention to counter the risk factors that contribute to their run away behaviour. Services that focus on; substance use; the effects of physical and sexual abuse and/or exploitation; and criminal activity are especially needed for this

group. In addition, building strong and positive relationships within care placements is essential to preventing LAC from repeatedly running away (Biehal & Wade, 2002; Finkelstein, Wamsley, Currie & Miranda, 2004).

It is hoped that this approach would be useful in the assessment of children reported missing to the police to identify service intervention requirements and prioritisation of resources. However, applicability of the scale in other areas or its general use in the assessment of missing children is questionable in terms of both reliability and validity. It may now be beneficial to collect data in geographical regions other than Gwent, to confirm its practical utility as a risk assessment tool.

CHAPTER FOUR

RESEARCH CASE STUDY: THE ASSESSMENT AND INTERVENTION OF AN ADOLESCENT REPORTED MISSING TO GWENT POLICE

Research case study: The assessment and intervention of an adolescent reported missing to Gwent Police

Ethical Considerations

The following case study is based upon a factual account of the assessment and intervention of a young female who was reported missing to Gwent Police. In order to maintain anonymity the identity of the client has been concealed and her name altered. Consent was obtained from all relevant parties before translating the client's details in this manner.

Note to the Reader

Please note that this is a retrospective case study and that there was no contact between the author and client. Consequently, this case study is based upon secondary information only, which was obtained from assessments, reports and case notes held by the Missing Children's Team and interviews with professionals who worked with her.

Abstract

This case study involved the assessment and intervention of a 17 year old female, E, who had been reported 'missing' to Gwent Police. The Gwent Missing Children's Team undertook a multi-agency assessment of E's missing incident and E's missing behaviour was considered 'high risk'. Further, she was identified as 'significant risk' of sexual exploitation. Over the duration of 1 year, a number of interventions were put in place for E including; return debrief interviews; specific direct work to address risk of sexual exploitation; support with substance misuse; and practical support. Following intervention professionals report observing a significant reduction in E's risk taking behaviour and her level of risk was considered reduced for both missing and sexual exploitation.

Introduction

This report will document a case study relating to an adolescent reported missing to Gwent Police as a result of running away. The report aims to present the assessment and intervention that was undertaken with the adolescent making links between relevant psychological theory and implications on practice.

Research suggests that children are more likely to be reported missing than adults, even though they are more likely to go missing intentionally. In their research, Biehal, Mitchell & Wade (2003) found that over two thirds of young people under the age of 18 reported as missing had done so by choice. Children and young people who leave home of their own volition have historically been termed 'runaways'.

Research has demonstrated that the most common reasons for running away relate to problems at home (Rees & Lee, 2005). This includes poor quality family relationships, conflict, maltreatment and abuse (Rees, 2011; CEOP 2011). Attachment theory states that children who receive inconsistent and poor quality caregiving during their early years are more likely to form insecure attachments. Indeed, a relationship between runaway behaviour and the quality of parental attachment has been found (McGarvey, Keller, Brown,

DeLonga, Miller, Runge & Koopman, 2010). This suggests that insecure attachment style may predict runaway behaviour.

Further evidence of attachment theory being particularly relevant to runaway behaviour is that there is a substantial over-representation of young people in substitute care or accommodation reported to the police as missing (Newman, 1989; Abrahams & Mungall, 1992; CEOP, 2011). Children and young people are likely to enter into care system having come from families who are deemed unable or unwilling to provide adequate care and protection. Looked-after children may seek affection and love outside elsewhere. This vulnerability can be specifically targeted by groomers for exploitation (CEOP, 2011). However, it should also be considered that this over-representation may also be explained by children in care being more readily reported due to strict protocols in place at children's homes.

As well as problems in the home environment, strong links have been found between running away and a range of other problems and issues in young people's lives including truancy, offending and substance use (CEOP, 2011; Rees & Lee, 2005). This suggests that run away behaviour may form part of a more general delinquent lifestyle.

General Strain Theory (GST, Agnew, 1992) has been used to explain delinquent behaviour. GST suggests that runaway behaviour is used

to reduce or escape from strain. Personality traits were largely ignored within the original theory of GST and instead it focussed on several other factors proposed to condition the effect of strain on delinquency including; importance attached to goals, values or identities threatened; coping skills and resources; self-esteem and self-efficacy; social supports; and association with delinquent peers. However, these factors have been examined in the literature and little support has been found for the conditioning effects predicted by the original GST (as cited in Agnew, Brezina, Wright & Cullen, 2002).

Children who runaway do so for a variety of reasons. This suggests that complex interactions of factors give rise to different pathways to 'running away'. According to the biopsychosocial model of risk taking behaviour, biological (e.g. genetic predispositions), psychological (e.g. self-esteem), and social or environmental variables (e.g. peers, parents) mediated by perceptions of risk and peer-group characteristics predict adolescent risk taking behaviour (Irwin & Millstein, 1986). In addition this model predicts that adolescent vulnerability to risk-taking behaviours may also be increased situationally by family disruption, school disruption, substance use, and peer initiation of risk-taking behaviours. Some of these factors are also commonly associated with running away (Rees, 2011; Newiss & Meyer, 2005).

Problems with current research into children with runaway behaviours relates to research being limited to those children who are identified as missing e.g. via police reports. The majority of children and young people who run away are not formally reported, survey research has suggested that only three in ten children who run away come to the attention of the police (Rees, 2011). This not only suggests statistics are likely to be underestimates but is also likely generate a bias in the development of pathway models to explain runaway behaviour.

It is generally accepted that running away or being reported 'missing' is a sign that something else within that child's life requires attention. When children are reported missing this provides an opportunity for agencies to intervene (CEOP, 2011). It is advised that successful interventions should focus on providing; independent return interviews to establish the reasons for the missing incidence and identify any harm experienced by the child whilst missing; support services to young people and families; multi-agency working; free and independent advice services; and emergency accommodation and refuges (CEOP, 2011). However, despite guidance, problems with dealing with missing child incidents continue to exist due to confusion with; definitions of missing; definitions of risk; and responsibilities of services (Hayden & Goodship, 2013).

Missing Children's Team (MCT) Introduction

In April 2013 a multi-agency safeguarding team serving the geographical area of Gwent for managing missing child incidents was established; the Missing Children's Team (MCT).

Using multi-agency information the MCT collaboratively generate risk assessments for children reported missing to Gwent Police. They also utilise information gleaned from this process to refer to relevant organisations/services for intervention.

During September 2015 Manager of the MCT approved access to a child reported missing on their system for the purpose of this case study. The case was selected on the basis that they had received assessment and intervention via the MCT. It was also important that the child now was over the age of 18 so that they could provide consent to access of their records. The MCT identified this case to have been 'memorable' due to being one of the first children dealt with by the newly established team. Despite being 'memorable' the MCT report that this type of case is not considered uncommon and is similar to many cases they have encountered since.

Client Introduction

For the purpose of this case study and protecting the client's anonymity, the client will be referred to as "E".

E is a 19 year old Caucasian female. Approximately 2 years ago, when E was 17, staff at her residential unit reported her missing to Gwent Police when she did not return at her curfew. E was considered missing for 3 hours (12:00-03.25) before she returned to the unit of her own accord. This generated an automatic referral to the Gwent MCT.

E was reported missing a further 24 times up to the age of 18, after which no further missing incident reports were received by Gwent Police.

Client information was obtained through accessing the MCT records. This included social services documents, police records, return debriefs, risk assessments and intervention reports. In addition I liaised directly with staff involved in E's case.

Assessment, Analysis & Formulation

Assessment is the systematic evaluation of an individual to arrive at hypotheses about that person's psychological functioning and/or behavioural tendencies. It consists of three stages; collection of information, interpretation of information and conclusions and/or recommendations (Weiner, 2003).

Psychological assessment involves integrating information gleaned from a number of sources (Weiner, 2003). For this reason a variety of approaches were utilised within the assessment including; risk assessments, interviews, behavioural observations, collateral reports and historical documents.

Assessment methods:

Clinical Interviews

Clinical interviews are a useful way to gain in-depth information from the perspective of the individual. They allow flexibility and sensitivity as well as providing valid information for the purpose of assessment.

Professionals working directly with E conducted clinical interviews which allowed them to gather information in respect of E's experiences, perceptions and behaviours. Clinical interviews were conducted by trained CSE Police Officers.

For the purpose of this report interviews were conducted with professionals who had undertaken clinical interviews with E previously. This was to gain a better understanding of; the issues that contributed to E's missing incidences; the role of the MCT and related services; the interventions prescribed and their outcomes. Interviewing a number of professionals from differing background meant that a more holistic picture of E could be built utilising perspectives from different agencies.

However, professionals were asked to reflect on E's case approximately 1 year following her exit from services. A major limitation of obtaining information this way is the inaccuracies that are likely to exist due to failures in memory. In order to minimise bias information was also gathered from case files held by social services, police, debrief workers and third sector organisations involved in E's case.

The following background information was obtained from clinical interviews with professionals and a file review.

Childhood & Family background

The family first became involved with social services 17 years ago. Initially E's mother contacted social services as she was having difficulties coping with her mental health. It is recorded that E's mother has a history of mental health difficulties including depression and bi-polar disorder. Social services remained involved due to parental substance use and domestic violence. E's parent's relationship was unstable for a number of years which lead to her father inconsistently living at the family home. This relationship ended when E was approximately 10 years old.

E has one older sister (now age 23) and one younger brother (now age 17). E and her siblings spent a number of periods on the Child Protection Register for 'emotional harm' and have been in and out of the looked after child system. Both E and her siblings witnessed

their parents substance use and domestic violence perpetrated by their father against their mother.

When E was 17 years old her mother reported that her behaviour was unmanageable and refused to have her return to the family home, E was classed as homeless and accommodated by the local authority within supported accommodation for young people.

Health

E has a weight problem and is classed as obese. She was referred to child health and dietetics in 2008 with a history of obesity and was seen on a regular basis until discharge in 2010.

E has been hospitalised on 2 occasions for her substance misuse. E's substance misuse has included; alcohol, cannabis, ecstasy, ketamine and Mephedrone. E began engaging in substance use at approximately age 13. This behaviour increased in frequency and professionals were concerned about E's risk taking behaviour when seeking and using substances.

At age 17 E became known to a Police operation which was set up to protect child victims of sexual exploitation. E was known to be 'promiscuous' and would often have sexual intercourse with adult males who supplied her with substances. E disclosed that she had engaged in unprotected sex with a male who was HIV positive. She was provided with HIV medication due to the possibility of

contracting the virus. At this time professionals report that E's self-esteem and mood was very low.

At a similar time E became involved in a relationship with a 32 year old male. This was a particularly volatile relationship and E was assaulted on a number of occasions. This resulted in E being hospitalised with a broken jaw. E reported this incident to the Police, the male was arrested and the relationship ended.

Education

It is recorded that E left school age 16 and remained NEET following this. Prior to leaving school it is recorded that E had attendance issues. There were no mentioned issues or concerns with regards to E's academic performance.

Anti-social/Offending Behaviour

E has been arrested on a number of occasions for offences dating back to 2009 including; theft x 2 (reprimand); criminal damage x 2 (NFA); battery x 2 (warning & discontinued); making a false representation for personal gain (NFA); and burglary (cautioned).

Missing behaviour

E would go missing of her own volition. Missing incidences varied in duration from 3 hours to 2 days. E would usually return to her address of her own accord. E reported to professionals that she did not see herself as missing when she had been reported. She would

not plan a missing incident but would instead impulsively decide to stay away without permission.

Although at first E would not disclose where she had been or whom she had been with at a later date she confirmed that she would use substances with older males and engage in sexual behaviour.

E was also engaged in offending behaviour when missing; she was arrested for a violent altercation with an unknown female and commercial burglary during times when she had been reported as missing.

Missing Individual Risk Assessment Framework (MIRAF)

The MCT collate information in relation to children that have been reported missing to Gwent Police onto one form, namely the MIRAF. The MIRAF contains multi-agency information held in respect of the child including; health, education, local authority information, information from police and information collated from the parents and child themselves. For, a full list of variable information collated please refer to Appendix F. From this the team generate a risk matrix which looks at the likelihood of the child being absent/missing again and the likely outcomes of such an event. The team agree the actions of parents/guardians, police and the local authority for any future missing episodes (e.g. to treat as absent or missing). This is then shared with relevant professionals.

It has been noted that differing definitions of risk between services complicates safeguarding actions put in place and can impact searching for and returning the child (Hayden & Goodship, 2013). The MIRAF provides clarity to response officers and consistency between services with regards to actions they should take. The multiagency approach of the MIRAF allows for a holistic picture of the child to be built and hence more adequate interventions to be put in place.

However, the MIRAF system is a fairly new development and therefore problems do exist. For example, the MIRAF is only updated following 4 or more missing incidents in one month. This meant that where E was missing 3 times per month updates regarding risk were likely to have been missed. Hence, E's risk level shared with response officers would remain constant despite potential changes. This limitation can be extended to chapter two, whereby information relevant to children reported missing repeatedly but not reaching the threshold (missing four times in one month) possibly being out of date on the MIRAF system, for example, information relevant to living situation. In addition, the current risk matrix does not provide clear definitions of the 'severity' and 'likelihood' status levels and although it is positive that a multi-agency decision is reached there are no scientific grounds for these decisions.

Table 10: E's MIRAF Results Pre-intervention

Risk Matrix Item	**Assessment Result**
Severity (how severe could the consequences be to the missing person):	Insignificant Minor Moderate **Major** Catastrophic
Likelihood (how likely is it that an episode of missing could occur)	Almost certain **Likely** Possible Unlikely Rare
Risk	**High** Medium Low
Response (how professionals are to treat case)	Absent **Missing**
Rationale	Potential CSE and substance use which has led to hospitalisation.

Return Debrief/Interview

A return interview is an in-depth interview with the child to identify and deal with any harm they may have suffered whilst missing and to understand the reasons for the missing incident. It should be conducted by an independent and trained professional who is not directly responsible for the response to the missing incident. The return interview aims to prevent further missing episodes. It is good

practice to conduct a return interview within 72 hours of a child returning from a missing incident (DCSF, 2009).

A trained debrief worker from the MCT conducted a semi-structured interview with E following her 6th missing incident (5 months after becoming known to the MCT). This delay in service was explained by the MCT as a 'backlog' of missing child incidences due to the new team set up. This delay meant that triggers of missing episodes went largely unexplored until E's 6th missing incident. A second return debrief interview was conducted approximately 6 months later as E was continuing to go missing.

E appeared to forge a positive relationship with the debrief worker and was open about where she was, who she was with and what she would be doing whilst missing. However, E failed to identify herself as missing and demonstrated a lack of awareness of risk. Following the first debrief E was referred for a SERAF assessment (see below).

Sexual Exploitation Risk Assessment Framework (SERAF)

The SERAF (developed by Barnardo's Cymru) is a risk assessment framework developed for identifying children at risk of or engaged in sexual exploitation. Different vulnerabilities and risk indicators are weighted and each are associated with a 'score'. The total 'score' is associated with an identified level of risk. The SERAF categories of risk framework sets out each category of risk and provides a recommended response in relation to each category.

The SERAF is a non-intrusive and timely assessment as it does not require the engagement of the young person. This was considered important in the case of E as during early stages of involvement with the MCT she was resistant to engaging with professionals and timely assessments are imperative due to the potential for or actual abuse of a child. Use of the SERAF allowed professionals to identify that there was a need for CSE specific intervention and facilitated in the construction of a plan to reduce/manage risk of CSE. However, as highlighted in Chapter 5, a number of limitations with regards to the SERAF exist including; lack of scientific validation; non-inclusion of protective factors (potentially leading to an over-estimation of risk); and a lack of explanation of the cut-offs used for each risk category.

The SERAF assessment was completed by a trained member of the MCT (Appendix I). E's score on the SERAF was 55 indicating she was at 'significant risk' of being sexually exploited or she was already being sexually exploited.

Self-assessment of risk

E undertook a self-assessment of risk using a resource known as the 'How safe am I?' assessment (developed by Barnardo's Cymru as part of the SERAF resource pack). This assessment allows the young person to identify their own areas of risk using a traffic light system. The assessment looks at a broad range of life areas including; accommodation, relationships, education/training/employment,

substance use, sexual health, self-esteem, awareness of rights and the law.

The main limitation of self-assessments are the biases that are likely to occur as a result of self-report e.g. social desirability bias. However, using this tool enables the professional to explore the young person's understanding of risk and educate the young person with regards to aspects of their life which may be considered unsafe. This tool can also be used with the young person following intervention to demonstrate progress.

E's self-assessment of risk indicated several 'red' areas including; education/training/employment, substance use, sexual health and people she feels close to (in reference to relationship with partner who was violent). Through discussions with the assessor it was also demonstrated that E has difficulties identifying high risk relationships and has overly trusting beliefs about the intentions of others.

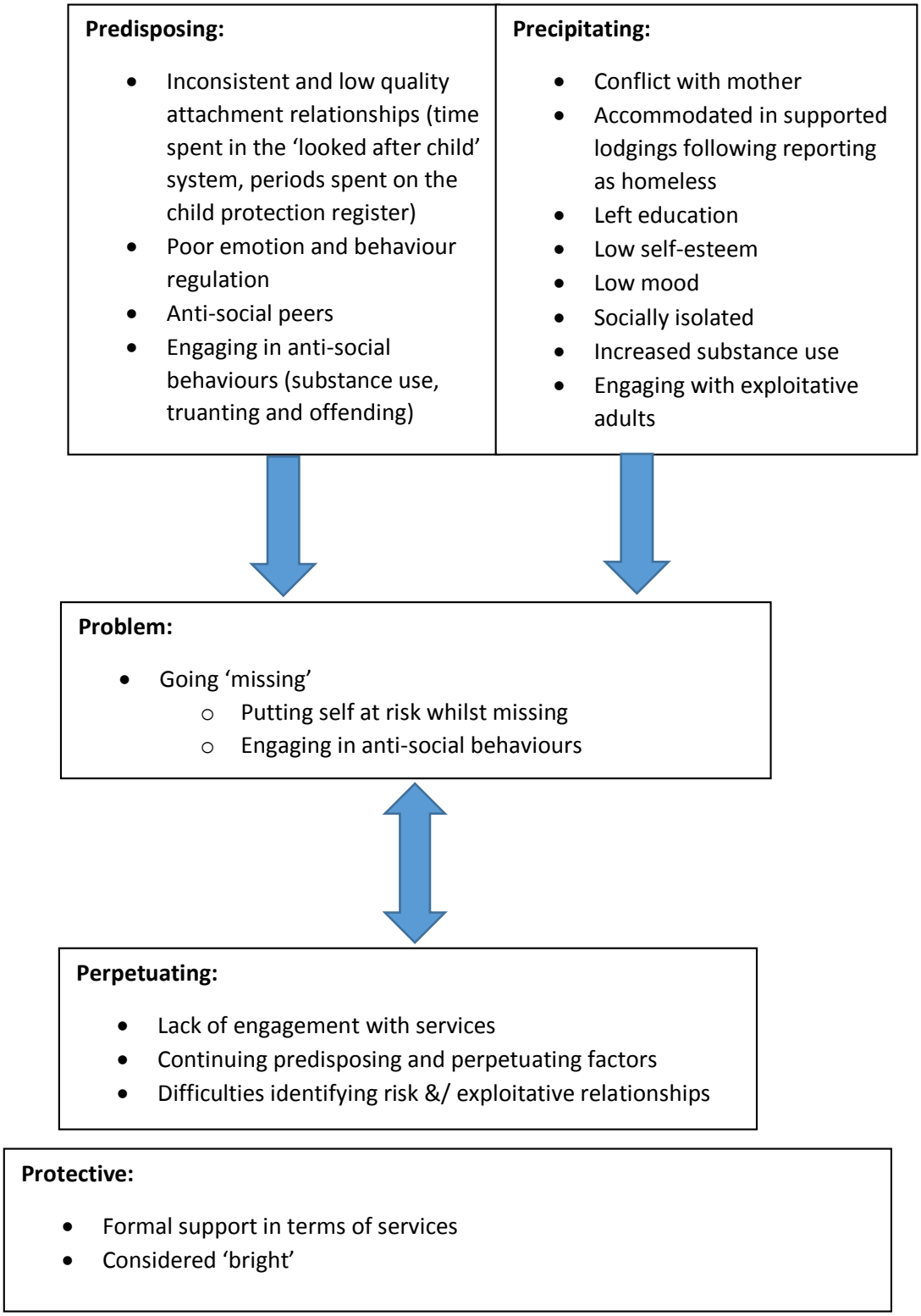
Formulation

Psychological formulation is the integration of information acquired from the assessment process to make hypotheses regarding the causes, precipitators and maintaining influences on an individual's psychological, interpersonal and behavioural problems (Eells, 2007).

The Four P's Model is an integrative framework of case formulation. This model organizes the client's presentation into predisposing, precipitating, perpetuating and protective factors.

The Four P's Model was utilised to formulate the problem of E's runaway behaviour (Figure 5). This formulation is based on the missing incident that referred E to the MCT. E's runaway behaviour was considered problematic as when 'missing' she would engage in substance misuse, sexually exploitative relationships and offending behaviour.

Figure 5: Case Formulation for E's runaway behaviour



Predisposing factors include historical social, environmental and family experiences that can render some children vulnerable to the presenting symptoms (in this case runaway behaviour). The majority of E's predisposing factors relate to her family and childhood. E's emotional and behavioural regulation were negatively impacted by her inconsistent attachment experiences (e.g. mothers mental health issues; spending periods being 'looked after' by the local authority due to 'emotional harm'; witnessing domestic violence within her parent's relationship; her father's inconsistency in the family home). This had a knock on impact onto her ability to develop relationships with pro-social peers. E began spending time with peers who also struggled with managing their behaviour and began engaging in anti-social behaviours e.g. substance use, offending and truanting. This behaviour escalated and was deemed 'unmanageable' by her mother.

Precipitating factors are the current triggers to the behaviour i.e. what set off the runaway behaviour. In the lead up to her runaway behaviour E and her mother were in conflict due to her 'unmanageable' behaviour and her mother refused to have her return to the family home. E entered into supported lodgings for young people having reported as homeless. During this period professionals report that she her mood was very low and she had poor self-esteem. It is likely that E was feeling socially isolated having little support from family and few/if any positive supportive

relationships with peers. During this same period E left education and therefore no longer had the support system of the school. E began engaging with 'anyone' in a bid to secure friendships. She began forging relationships with exploitative adults as a way of seeking 'intimacy' and resolving her emotional loneliness. Her difficulties coping with her negative emotions led to increased substance use to cope and rendered her even more vulnerable to exploitative adults who were supplying her with substances. E disregarded boundaries set in her place of residence in relation to curfew instead choosing to spend time with exploitative adults and substance using peers; this lead to staff reporting her missing.

Perpetuating factors are internal and external thoughts and behaviours that maintain the problem. E's lack of engagement with professionals meant that services found it challenging to intervene and reduce the impact of predisposing and precipitating factors which acted to perpetuate the behaviour. Her difficulties identifying risk and exploitative relationships meant that she continued engaging with exploitative adults who provided her with attention and substances. Her offending behaviour further isolated her from potential pro-social relationships.

Protective factors describe the person's strengths, resilience and supports. At the time of E's first missing incident she had very few protective factors. The formal support of agencies was available to

her (e.g. local authority, police and supported accommodation), however, she was not engaging. Nevertheless, these agencies continued to try to engage E and provided support in practical areas such as housing and accessing benefits. In addition, E was considered 'bright' and therefore had the capacity to undertake and understand direct intervention work once her engagement had been secured.

Support & Intervention Needs

Based on the above information the following support and intervention needs can be identified in respect of E:

- E to be treated as 'high risk' by all agencies when missing
- Direct work to address risk of CSE
- Substance misuse support/intervention
- Support in rebuilding family relationships
- Continued practical support including; attendance to health services, access relevant benefits; maintaining accommodation and access to further education.

Responsivity issues

In order for intervention to be effective it is important to address or accommodate for factors that inhibit the client's responsiveness to intervention.

In the case of E, she was involved in sexual relationships with exploitative adult males. Due to the complex grooming process young people who are sexually exploited are less likely to engage with services and make disclosures of abuse (Scott & Skidmore, 2006; Berelowitz, Firmin, Edwards & Gulyurtlu, 2012; NSPCC, 2013). Indeed, E was resistant to engaging with services and at this time was not disclosing who she was with or what they were doing.

Creating a therapeutic relationship is an important factor in the success of an intervention (Rogers, 1957). Therefore, developing a trusting and positive relationship with E and enabling her to break away from harmful, abusive and exploitative relationships prior to the commencement of direct work would be vital to the success of intervention.

Support & Intervention

Support and intervention was provided to E over a period of one year.

Missing Intervention

Due to E's High risk of harm, as identified by the MIRAF, when her whereabouts could not be established it was important that all agencies respond with urgency and treat her as missing (not absent). The MIRAF risk matrix was shared with relevant professionals. As a result of sharing this; the residential unit continued to contact Police to report E missing when she did not return; and upon receiving the missing report the Police immediately deployed officers to investigate and search for her with the aim of returning her to her residence 'safe and well'.

Substance Misuse Intervention/Support

Due to E's substance misuse and her risk taking behaviours when seeking and using substances E was offered substance misuse work by a community substance misuse team. However, E choose not to attend appointments.

E's support worker within her residential unit engaged in informal discussions with E regarding the risks of substance use, however, the support worker felt that E was disinterested in the support offered and did not appear to process information provided.

CSE Intervention

A 12 session intervention programme addressing CSE was prescribed to E due to her high SERAF score and her difficulties identifying exploitative relationships and high risk situations. These sessions were 1-2 hours in length weekly and took place in the community. This work was conducted by a Barnardo's SERAF Service Practitioner commissioned by the MCT. The intervention programme took place on a one-to-one basis and was individually tailored to meet E's needs.

The CSE intervention sessions took on a psychoeducational approach. The sessions included E completing structured work around risks and steps to keeping safe. The grooming process and child sexual exploitation were explored using a variety of methods, including worksheets, case studies, quizzes and media (see Appendix J for the full programme of work).

Intervention sessions provided a forum within which E could be provided with knowledge and encouraged to reflect on her relationships. The importance of cognitive psychology in psychoeducation has been highlighted, as it involves challenging maladaptive thinking processes and suggesting alternative patterns of thinking (Wood, Brendto, Fecser & Nichols, 1999). Through the provision of knowledge to E, existing unhelpful cognitions surrounding relationships could be challenged in a non-threatening

way. Socratic questioning was utilised to encourage E to reflect on relationship scenarios, exploring emotions of characters involved and eliciting feedback from E on ways in which characters could change or manage their circumstances to ensure safer relationships. This was then utilised to create cognitive dissonance with regards to E's own relationships and behaviours which she was encouraged to reflect on and identify safer behaviours that she could implement. Positive reinforcement was used when E described safer behaviours that she had attempted to implement to encourage repetition of behaviour. Changing or adapting cognitions as a way of changing behaviour is underpinned by cognitive-behavioural theory which suggests that thoughts, emotions and behaviours are interconnected (Beck, 2011). Thus, based on these theoretical concepts it would be expected that E would adapt her behaviour based on new thinking processes elicited via intervention.

E was encouraged to rate her own levels of safety and ways in which to build on this. This aimed to empower E with regards to taking control and planning her future. Hayes & Gantt (1992) reasoned that the benefits that result from psychoeducational intervention may be derived through mastery experiences and from increased levels of empowerment.

Throughout the intervention a positive therapeutic relationship was maintained. The benefits of which were twofold; it provided a safe

learning environment within which new ideas and information could be considered and it provided a model of a healthy and appropriate relationship with an adult. In addition, research suggests that this relationship can serve as the mediating factor in the successfulness of an intervention (Lambert & Barley, 2001).

E attended 9 of the 12 sessions offered. Even when a session was cancelled by E the therapist reported keeping in regular contact with her by phone. It is reported that because of this regular contact a positive therapeutic relationship was developed.

Continued practical support

E continued to receive practical support from the local authority, police and her support worker at her residential unit. This included;

- Support in making and attending health appointments.
- Support with completing application forms to attend an access course at college. She was accepted onto this course and was due to commence September 2014.
- Support in filling out forms to access benefits and encouragement to attend relevant appointments.
- Supported overnight stays at her mother's address.
- Relocation support to a second residential unit closer to her family (January 2013) and support in moving back to her mother's address (August 2014).

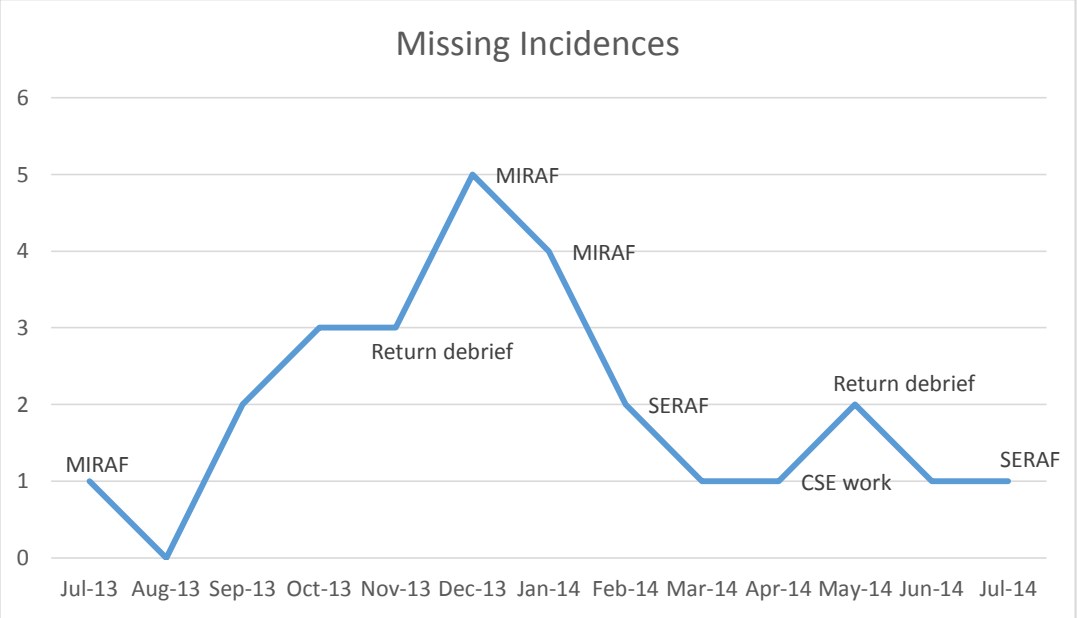
Results

The MCT worked with E over a one year period. Professionals working with E reported that by the age of 18 (when involvement of the MCT ceased) E was using substances less frequently, engaging with services more readily, no longer committing crime, her run away behaviour had reduced and she was in what was considered an appropriate and healthy relationship. E's relationship with her mother had improved and she had returned to live with her family. The outcome of the interventions put in place for E were considered a success.

Missing

E's missing incidences were observed to increase during the first 6 months of contact with the MCT and decrease over the latter 6 months (see Figure 6). No further missing reports have been made to Gwent Police in respect of E since July 2014. However, it should be noted that E returned to her family home in August 2014 and therefore it is also possible that no further missing incidences have occurred due to lack of reporting.

Figure 6: Graph depicting E's missing incidences, assessments and interventions.



The MCT last updated E's MIRAF in January2014 and her risk assessment result remained consistent with her initial assessment (July 2013). For the purpose of this case study I worked with the MCT in updating E's MIRAF 1 year later (July 2015) utilising information held by health, social services and police in respect of E. The MIRAF demonstrates a reduction in likelihood, severity and risk (see Table 11). However, the response remained as 'missing' the rationale for this decision related to her history of risk taking behaviours and as at this time she was pregnant.

Table 11: E's MIRAF Results Pre and Post Intervention

Assessment Date	**Likelihood**	**Severity**	**Risk**	**Response**
Pre-intervention July 2013	Almost certain **Likely** Possible Unlikely Rare	Insignificant Minor Moderate **Major** Catastrophic	**High** Medium Low	Absent **Missing**
Post-intervention follow up July 2015	Almost certain Likely Possible **Unlikely** Rare	Insignificant Minor **Moderate** Major Catastrophic	High **Medium** Low	Absent **Missing**

Sexual Exploitation

It is reported that E responded well to the direct work addressing CSE. By the end of the sessions E had a good understanding of sexual exploitation and was able to identify factors that make young people vulnerable to being sexually exploited. In relation to herself, E was able to identify some risk taking behaviours in her life. For example, she showed concern about previously taking too many drugs, previously being in a relationship with someone who was violent towards her and going missing. When reviewing her 'How

Safe Am I?' self-assessment, E had improved in certain areas, such as engaging in education and training, and having safer sex. However, E was still spending time with peers who were taking drugs and admitted to being tempted to join in.

The SERAF was updated directly following CSE intervention work in August 2014 (Appendix K). Results indicate a reduction in risk of CSE (see Table 12). This suggests that the intervention work undertaken by E was a success in terms of reducing her risk of CSE, however, E was still considered at 'significant risk'. This 'significant risk' score is likely to have been maintained as the SERAF takes into consideration the last 6 months prior to assessment. Unfortunately, a follow up SERAF was unable to be completed 12 months later due to E's disengagement (please refer to Follow Up section below). However, the SERAF Service Practitioner felt confident that E's SERAF score would be likely to continue to reduce.

Table 12: E's SERAF Results Pre and Post Intervention

Assessment Date	**SERAF Score**	**Risk Category**
Pre-intervention February2014	55	Significant risk
Post-intervention August 2014	37	Significant risk

Follow up

Follow up was conducted 1 year following involvement of the MCT and other services. At this time E had moved into her own flat with her partner and they were expecting a child. No further police reports have been made in respect of E for any missing incidences or any other reasons.

It was hoped that E would engage in a clinical interview at follow up to evaluate service provision, complete a follow up SEARF and identify outstanding treatment needs.

Unfortunately despite E's initial consent to engage in a clinical interview it was unable to be conducted due to her disengagement. In order to work around E's resistance to face-to-face contact questionnaires were sent to E's mother via post for completion by E (Appendices L and M), however, these were not returned.

Recommendations

Due to difficulties securing engagement with E at follow up recommendations are limited to information held by services at the time that services ceased engagement with E (age 18, 1 year prior to this report).

- Substance misuse support
- Continued monitoring of E's relationships
- Follow up SERAF assessment

Discussion

Over the year that the MCT worked with E she received 3 MIRAF's, 2 return debriefs and 2 SERAF's provided by the MCT (see Figure 6). As a direct result of the assessments provided by the MCT CSE intervention work was also undertaken with E. E demonstrated a reduction in runaway behaviour and other associated risk taking behaviours also decreased (e.g. substance misuse, spending time with exploitative adults). This suggests that the interventions prescribed were successful.

However, it should be considered that E's return to her family home resulted in a lack of reporting of her run away behaviour. As E had turned 18 (July 2014) services involvement had ceased and therefore reporting of missing incidences was reliant on the family. No missing reports were filed in respect of E when previously living at her mother's address, although it is suspected that this behaviour commenced prior to her first missing report. Nevertheless, E's runaway behaviour had been reducing 6 months prior to this move and therefore this suggests that interventions were taking effect. Rebuilding supportive relationships with professionals and with her family as well as engaging in a positive relationship with an appropriate partner appeared to reduce her interactions with exploitative others.

E's runaway behaviour appeared to be part of a more general delinquent lifestyle. The biopsychosocial model suggests that a young person's perceptions of risk act to mediate their delinquent behaviour. Indeed, professionals working with E report that prior to intervention work she found it difficult to identify high risk situations and relationships that were considered high risk (exploitative). The model suggests that delinquent behaviour can also be impacted situationally. In E's case a conflict with her mother (family disruption) appeared to be the main trigger to her run away behaviour. However, it is likely that E's runaway behaviour had commenced prior to this but was not reported. Indeed, other delinquent behaviours (e.g. substance misuse, truancy) commenced earlier and appear to have been triggered her father's permanent departure from the family home.

Practical & Theoretical Issues

Within the CSE intervention work a positive therapeutic relationship appeared to develop between the Practitioner and E. Creating a therapeutic relationship is an important factor in the success of an intervention (Rogers, 1957). Once professionals had established a positive relationship with E it appeared that E became more able to break away from harmful, abusive and exploitative relationships which was considered vital to the success of intervention.

E initially consented to taking part in a follow up clinical interview, however, she disengaged prior to the conduction of the interview. This meant that effective assessment at follow up was inhibited and recommendations of further work were limited to information held by services in respect of E. Disengagement also meant that the longer term effectiveness of service provision was unable to be assessed for E's case. Disengagement from services is a day-to-day struggle faced by community based teams who work with chaotic individuals and their families.

A number of limitations with regards to assessments and interventions provided to E exist. Firstly, there were significant time lags between assessments and intervention (particularly related to the return debrief and CSE related work). It is possible that had assessment and intervention been provided sooner that E's number of missing incidents may not have escalated as dramatically during the first 6 months known to the MCT. This has direct implications for the risks that E encountered.

Secondly, service provision ceased when E turned 18. This is despite E still being considered at 'significant risk' of CSE (however, it is important to note that the SERAF not a validated risk assessment tool). Although E's level of risk had reduced it may have been beneficial to have provided E with step-down service to enable her to continue to receive some level of support. Unfortunately, this

appears to be related to monies provided to organisations for service provision once individuals reach age 18.

Finally, the lack of psychometrics used in E's case meant that assessment pre and post intervention was reliant on clinical judgement of those professionals working with E. For example, professionals felt that E had a low mood and low self-esteem prior to intervention and report that this increased following intervention. However, there were no objective means of measuring this.

Future Directions

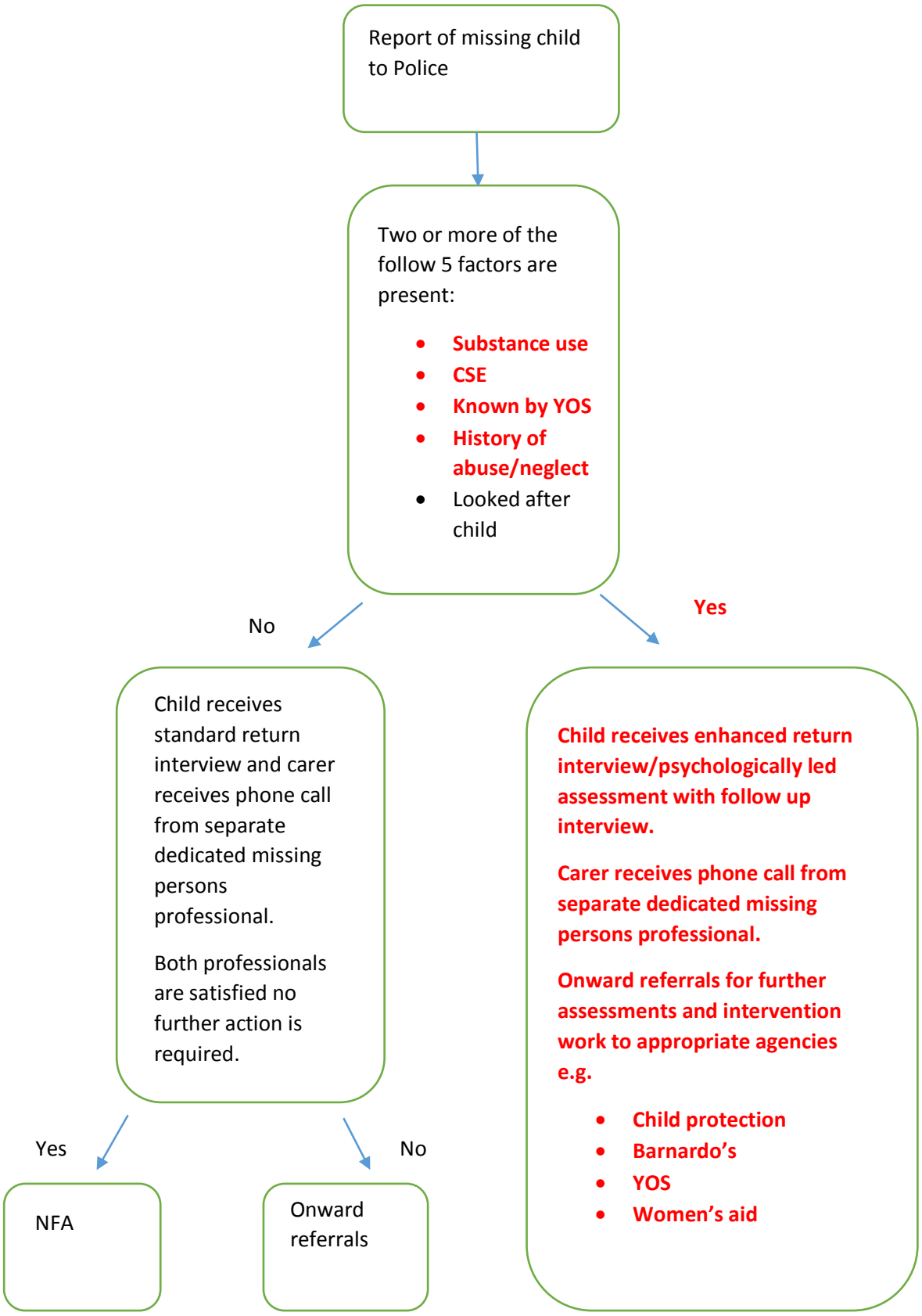
Currently no theories or models specific to runaway behaviour exist. This is likely due to this area being under researched. Further research is required in order to identify what risk factors are relevant and hence what works with this population in reducing this risk taking behaviour (see chapter 2 and 3). This research would be beneficial to the MCT in guiding their risk assessment process (MIRAF).

Future directions for the MCT service provision relate to improvement of the MIRAF in terms of clarity of definitions and consistency in approach to the decision making process. It may also be beneficial for the team to develop some clear guidance with regards to the process undertaken to reach decisions. Further, provision of a psychologically led assessment or return interview for children with repeat missing reports would enable swifter

identification of most suitable interventions and onward referrals that could support reduction in runaway behaviour.

In addition to above it will be important to reduce the time it takes between referral to the MCT and the return debrief; guidance suggests 72 hours (DCSF, 2009). It may be beneficial to consider either expanding the number of return debrief workers or look to developing a strategy for aiming resources towards those cases that are more likely to be reported missing recurrently. Chapter 3 has begun to explore ways in which to identify those children at risk of repeat missing episodes. Indeed, application of the 5 factor checklist identified within chapter 3 would have assessed E as high risk of repeat missing incidences. Taking this into consideration a model in the form of a decision tree could potentially be used in practise by the MCT to support professionals when a report of a missing child is received. Figure 7 highlights (in red) results of such a model when applied to E. Had this model been available at the time of E's first missing report, swifter identification her high risk of repeat running away could have led to swifter and more appropriate assessment and thus intervention to reduce risk.

Figure 7: A decision tree to support professionals when a report of a missing child in received



CHAPTER FIVE

A CRITIQUE OF THE SEXUAL EXPLOITATION RISK ASSESSMENT FRAMEWORK (SERAF)

A critique of the Sexual Exploitation Risk Assessment Framework (SERAF)

Note to reader*:*

Much research has highlighted the link between running away and sexual exploitation in young people (CEOP, 2011; Smeaton, 2009). Previous chapters within this thesis (Chapters 3 & 4) have further highlighted this link. Within the Gwent Missing Children's Team, in conjunction with the Missing Incidence Risk Assessment Framework (MIRAF), the Sexual Exploitation Risk Assessment Framework (SERAF) is regularly applied to children reported missing. Indeed, the SERAF identifies 'Periods of going missing overnight or longer' as a 'significant risk indicator' of sexual exploitation in children or young people. Due to the use of the SERAF with children reported missing a critical discussion of the tool is presented in this chapter.

Abstract

The Sexual Exploitation Risk Assessment Framework (SERAF) was developed by staff working for the charity organisation Barnardo's Cymru. This tool aims to provide support to practitioners (including; health, social services and youth justice), based in Wales, in their identification of children and young people at risk of sexual exploitation and categorise them in terms of level of risk. Within this chapter the SERAF is critically discussed. It was found that much of the information relevant to the tools validity and reliability was either not available or an inappropriate measure. The tools scientific properties were supplemented using five principles recommended by Lavoie, Guy and Douglas (2009). Using these principles it is suggested that the SERAF is a defensible risk assessment tool. Research and practice issues associated with the SERAF are also discussed in detail. Of particular concern is the conflict in interest in Barnardo's authoring the All Wales Protocol that advocates the use of the tool in Wales. Overall, the SERAF combines consistency in approach with ease and efficiency of identification and intervention for children and young people at risk of, or abused through, sexual exploitation. However, it is recommended that more work analysing this tool is required before it can be considered a reliable and valid assessment of risk.

Introduction

Sexual exploitation can be defined as a form of sexual abuse "rationalised by the concept of exchange. It is specifically the exploitation of young men and young women where they have needs that would compromise their ability to provide any form of informed consent to sexual activity. Exchange can be used to describe both tangible (money, drink, drugs) and intangible (shelter, protection, coercion) forms of payment" (Manchester ACPC, cited in Calder 2001). Child sexual exploitation (CSE) doesn't always involve physical contact and can happen online. Sexual exploitation results in children and young people suffering harm, and causes significant damage to their physical and mental health (Department for Children, Schools and Families & Home Office, 2009).

CSE is a hidden form of abuse. Identification has been compounded by the low levels of disclosure associated with the complex grooming process and low practitioner awareness (Berelowitz, Firmin, Edwards & Gulyurtlu, 2012). Research has identified a number of risk factors of CSE such as disengagement from education (Scott, 2001; Scott & Skidmore, 2006; Jago, Arocha, Brodie, Melrose, Pearce & Warrington, 2011), drug or alcohol misuse (Scott, 2001; Scott & Skidmore, 2006), physical or sexual abuse within the family (Scott, 2001), running away or going 'missing' (Cusick, 2002; Pearce, 2002; Scott & Skidmore, 2006), being 'looked after' by local

authority care (Cusick, 2002; Jago et al, 2011) and the extensive use of a mobile phone to multiple callers (Pearce, 2002).

Coles (2005) conducted a scoping study of CSE in Wales. Information was collated from 21 of the 22 local authorities in Wales from 32 practitioners (working in social services). From this data 184 cases of CSE were identified. This was considered an underestimate of actual prevalence rates.

Identification and intervention with children and young people at risk of or abused through sexual exploitation has been highlighted as difficult by practitioners (Coles, 2005). In response to these difficulties Barnardo's Cymru developed the Sexual Exploitation Risk Assessment Framework (SERAF). This tool aims to provide support to practitioners (including; health, social services and youth justice), based in Wales, in their identification of children and young people at risk of sexual exploitation and categorise them in terms of level of risk. This in turn should allow for appropriate intervention strategies to be put in place. The Safeguarding and Promoting the Welfare of Children who are at Risk of Abuse through Sexual Exploitation, All Wales Protocol (Barnardo's on behalf of the AWCPPRG, 2013) advocates the use of the SERAF and as a result it is heavily relied upon in Wales in the safeguarding of children and young people at risk of or involved in abuse through CSE.

This report examines the SERAF developed by Barnardo's Cymru. The report starts by giving a description of the SERAF followed by a critique in terms of its scientific properties (validity and reliability), it's defensibility as a risk assessment, it's applicability to children and young people at risk of sexual exploitation in Wales, research and practice issues.

Overview of the SERAF

The SERAF forms part of a resource pack which also includes; a resource pack instruction manual; information and intervention pathways guide; safeguarding actions poster; intelligence sharing form; protective factors form (for Barnardo's staff to record progress of intervention); and the SERAF step assessment (self-assessment tool for direct work with young people). The SERAF assessment is designed for completion by a practitioner who is usually the case holder for a child or young person or who works directly with a child or young person. The resource pack instruction manual includes details of how to score SERAF assessments.

The SERAF utilises a set of vulnerabilities and risk indicators which have been evidenced in relation to CSE. Vulnerability factors include social, environmental and family experiences that can render some children more susceptible to sexual exploitation e.g. low self-esteem, a history of abuse or neglect and a breakdown in family relationships. Risk indicators are aspects of behaviour that are

considered concerning, problematic or unsafe. Risk indicators can be observed by professionals and therefore could alert them to the possibility of a child being sexually exploited e.g. exclusions, unexplained absences and non-engagement in education, use of a mobile phone that causes concern and periods of going missing overnight. Disabilities (learning and physical) as well as age are taken into consideration within the scoring (Refer to Appendix N for a copy of the SERAF assessment).

Different vulnerabilities and risk indicators are weighted and each are associated with a 'score'. Those higher weighted items were developed based on frequency at which they occur within cases of CSE in Barnardo's services (Clutton & Coles, 2009). The total 'score' in relation to an individual child or young person is associated with an identified level of risk. The SERAF categories of risk framework sets out each category of risk and associated child protection actions in relation to each category. It is suggested by authors that the higher the level of risk identified by the SERAF the more intense the level of response required (see Table 13).

The SERAF form captures information in relation to the gender, age, ethnicity and legal status of the child or young person. The form also captures information about any child protection procedures; involvement in the youth justice system; and concerns about or

prior identification of sexual exploitation as an issue in relation to the case.

The assessor has the opportunity to send the assessment to the Barnardo's team to be reviewed free of charge. As such the assessor is required to input clinical reasoning as to why vulnerabilities and risk indicators have been assessed as present (although the score is only effected by the presence of a vulnerability or risk indicator and not the reasoning). For example, if 'Physical abuse by parent, carer or family member' is assessed as present the assessor may report any periods the child has spent on the Child Protection Register, information relating to this factor recorded within social services file notes, any information gained from discussions with the child or any other relevant information. A new risk assessment where any change in circumstance occurs is advised and authors state that risk assessment should be reviewed at regular intervals in line with standard working practices in the locality.

The SERAF was piloted in Newport in 2006; of 1,487 cases held by social services, 9% (129) of children and young people already in contact with services were identified as at 'significant risk' of sexual exploitation (Clutton & Coles, 2007; Clutton & Coles, 2009). The SERAF was updated in 2013 using information gathered from practice. This led to minor amendments of the tool.

Table 13: SERAF categories of risk framework and recommended response

Risk Category	Recommended Response
Not at risk Scores 0-5	• Preventative keep safe education
Mild risk Scores 6-10	• Preventative keep safe and risk awareness education
Moderate risk Scores 11-15	• Multi-agency meeting to formulate child protection plan • At least 1 review • Risk reduction &/ keep safe intervention work with child
Significant risk Scores 16+	• Multi-agency meeting to formulate child protection plan • Regular reviews • Long term direct intervention work with child

Evaluation of the SERAF

Scientific Properties

Reliability and validity are ways of defining and measuring bias and distortion in research. Reliability refers to the repeatability of findings, whereas validity refers to the credibility or believability of the research. In order for research to be of value and of use it must be both reliable and valid. The SERAF will now be evaluated in terms of its validity and reliability.

Validity

- *Face validity*

Face validity is simply whether the test appears, at face value, to measure what it claims to. The way in which the SERAF was developed, through data collected from service users (Clutton & Coles, 2009) and practitioner input (Clutton & Coles, 2007), indicates that the test is likely to have good face validity. However, as no specific test of face validity has been conducted (i.e. asking users to rate the validity of the test as it appears to them), this cannot be established with certainty.

- *Concurrent validity*

How well a test correlates with other tests purporting to measure the same construct or behaviour is referred to as concurrent validity. Barnardo's have also been responsible for producing frameworks for the risk assessment of CSE elsewhere in the UK and risk factors identified overlap with those identified in the SERAF (Leblock & King, 2006). More recently, local authorities outside of Wales have also begun to devise checklists to support social workers in their identification of CSE. These checklists utilise many of the same risk factors as those included in the SERAF. However, the SERAF appears to have taken the next step in terms of development of a risk assessment template. As far as I am aware the SERAF is the first risk assessment tool of its kind, thus comparison to other such

assessments has yet to be conducted. Therefore, the SERAF's concurrent validity is unknown.

- *Content validity*

Content validity considers whether the test measures all aspects of the subject under consideration, in this case sexual exploitation. Since 1995 Barnardo's CSE projects across the UK have collected data on children who utilise their services (Clutton & Coles, 2009). Within a scoping study conducted in Wales it was found that research confirmed evidence from Barnardo's practice elsewhere in the UK, in terms of the patterns of vulnerability and risk indicators associated with CSE (Coles, 2005). These risk factors have also been identified in other research. For example, Jago et al (2011) in their research conducted a national snapshot of CSE in the UK and found that of those children identified as being involved in sexual exploitation; 53% were going missing regularly; 43% were regularly absent from education; and 39% abused substances. Therefore, it is suggested that a broad range of well documented risk factors that have an empirical relationship with CSE are included within the SERAF.

However, it is important to note that the vast majority of research that has been used to inform the development of the SERAF has been either conducted by Barnardo's, in collaboration with, or utilised data collected by Barnardo's services. This therefore

compromises integrity due to risk of bias. Although Barnardo's are a charitable organisation the charging of customers for intervention work (related to SERAF result) and relevant training can result in a conflict of interests between generating revenue and remaining objective. Nevertheless, there is little, if any, conflicting evidence suggesting SERAF risk indicators are inappropriate, thus it is considered to have good content validity.

- *Construct validity*

Construct validity refers to the tests ability to measure the construct it purports to be measuring. Risk assessment procedures and measures are not measures or tests of psychological constructs, such as anxiety or depression. This measure of validity is therefore considered non-applicable in the case of the SERAF.

- *Predictive Validity*

Predictive validity refers to how well an assessment predicts a specific future outcome. In the case of the SERAF how well it correctly predicts that a child will be sexually exploited. Risk assessment tools are generally evaluated on their predictive validity using logistical regression and the relative operating characteristic (ROC). However, the SERAF aims to prevent the outcome of CSE. For example, a child or young person identified as high risk using the SERAF should be made a higher priority for intervention resources and should be subject to greater child protection

procedures. In order to test predictive validity of the SERAF an assessment would need to take place without intervention following. Given the potential harm that could be caused to the child or young person this approach is considered unethical. Therefore, the predictive validity of the SERAF remains unknown.

Reliability

- *Test-retest reliability*

Test-retest reliability is a measure of reliability obtained by administering the same test twice over a period of time whereby it would be expected that results would be stable. The SERAF's emphasis is on dynamic variables that can change, in some cases, over short periods of time e.g. misusing drugs or alcohol, having an older partner. Due to the changeability of dynamic factors included within the SERAF test-retest reliability may not be appropriate. The SERAF takes this into consideration by advising assessors to review assessments following any change of circumstance and at regular intervals in line with local authority protocols.

- *Internal reliability*

Internal reliability refers to the extent to which all parts of the test contribute equally to what is being measured. Internal reliability is of limited use in evaluating the scale because the SERAF is designed for use in risk assessment rather than measuring the strength of a psychological disposition (Kropp & Hart, 2000).

- *Inter-rater reliability*

Inter-rater reliability refers to the degree to which different assessors give consistent estimates of the same behaviour. If assessors are unable to agree on the presence of individual risk factors, or the implications that can be drawn from them, there is little point in conducting the assessment (Kropp & Hart, 2000). Therefore, inter-rater reliability can be considered much more important than other identified reliability measures.

The SERAF, to my knowledge, has not been tested for inter-rater reliability. Within an unpublished article on the development of the SERAF (provided by Samantha Clutton, author of the SERAF, Barnardo's Cyrmu) it is highlighted that through the piloting of the SERAF it was found that "while there was sometimes some variation in the score identified by practitioners in relation to application of SERAF against case studies the category of risk related to the final score was the same". However, without inter-rater reliability analyses being conducted conclusions regarding consistency across assessors cannot be drawn. Of particular concern are cases where a child may generate a score that falls on the borderline between two categories; a lack of knowledge regarding inter-rater reliability means that it is unknown whether a more conservative assessor may downgrade the child to a lower risk category. This could impact

on intervention response and could ultimately compromise the safety of the child.

Principles of a defensible risk assessment

Evaluation methods should be congruent with the goals of risk assessment (Lavoie, Guy and Douglas, 2009). As half of the validity and reliability analyses are non-applicable in the case of the SERAF it is important to consider alternative approaches to evaluation. In their research based on the risk assessment of violence Lavoie, Guy and Douglas (2009) proposed 5 principles that a defensible risk assessment procedure should embody, these principles may also be beneficial in the evaluation of the risk assessment of CSE:

- *Inclusion of relevant and scientifically supported risk factors*; development of the SERAF utilising data collected from service users has ensured included risk factors have an empirical relationship with CSE. To take this a step further, a systematic review and meta-analysis of risk factors relevant to CSE would be beneficial in confirming the empirical relationship of risk factors identified in the SERAF.

- *Comprehensive coverage of risk factors*; as identified within discussion of content validity a broad range of well documented risk factors are included within the SERAF.

- *Facilitate the construction of a plan that aims to reduce and manage risk*; the process of reducing and managing risk is

aided by the recommended responses Barnardo's Cymru make for risk categories. Indeed the recommendations made within the risk assessment framework advocate a number of intervention techniques that have been highlighted as effective in the intervention of CSE including a multi-agency approach (Cusick, 2002; Swann and Balding, 2001; Creegan, Scott and Smith, 2005), increasing the child's recognition of risk and awareness of rights (Scott & Skidmore, 2006) and addressing immediate needs (e.g. inappropriate accommodation, Chase & Statham, 2005) which can be achieved via child protection procedures.

- *Provide a clear and logical method of communicating risk decisions*; this is achieved by risk category with associated intervention strategies, further, the suggestion of multi-agency meetings for 'moderate' and 'significant' risk cases provides an appropriate forum for sharing this information. However, It is important to note that the SERAF lacks explicit explanation of how risk categories and cut offs were developed. It is therefore difficult to identify if children within different risk categories significantly differ in terms of their level of risk of CSE.
- *Transparent decision making process which should be available for review;* the recommendation of including clinical input as to why vulnerabilities and risk indicators were assessed as present

allows for a reproducible and transparent process, although this process is not repeated for those factors which are assessed as absent.

Therefore, the SERAF appears to have at least partially met the 5 principles suggested by Lavoie, Guy and Douglas (2009). However, limitations do exist.

Applicability to children and young people in Wales

Although the SERAF has to my knowledge never been empirically validated a review of its use was conducted in 2009 which confirmed that prevalence of risk indicators increased with risk categories (Clutton & Coles, 2009). Within this review the authors acknowledge that the sample was biased towards children and young people at risk because it was drawn from Social Services and Youth Offending Service case loads. Therefore, prevalence rates and characteristics data collected by Barnardo's Cyrmu by using the SERAF cannot be considered to represent local child populations as whole. As such the 'not at risk' category cannot be considered as truly 'not at risk'. The SERAF acknowledges this by recommending that some preventative education on keeping safe take place with those children assessed as 'not at risk'.

The Clutton and Coles (2009) review utilised a sample of 1,487 children taken from only 3 of the 22 Local Authorities in Wales. However, research on CSE based elsewhere in the UK has been

found to generalise to children in Wales and therefore it is unlikely that this sample should significantly differ from other regions. Hence, applicability of the SERAF to other Local Authorities would be considered appropriate.

Practice Issues

Barnardo's Cymru are clear on how risk should be managed according to risk category. In practice the use of the numerical 'score' allows those involved in the child's protection to utilise this figure as a comparator to other children within the same risk category. This may act to contextualise the individual case. However, there is also the potential that the comparisons of scores within the same risk categories could be used inappropriately. For example, a score of 17 may not be seen as urgent in comparison to a score of 40, hence, resources may be directed towards the child scoring 40 at the expense of a child scoring 17 despite both children being at 'significant risk' of CSE. This may be particularly true in circumstances where the case holder has a high level caseloads.

Definitions of vulnerabilities and risk indicators included within the SERAF can be criticised for lack of operationalization. For example, low self-esteem as a vulnerability has no definition or associated indicators of what low self-esteem may look like in a child or young person. Although it may be assumed that SERAF assessors as practitioners working within the field of child protection should have

knowledge regarding such concepts it may be beneficial to provide explicit definitions of such a factor to ensure consistency between assessors and a higher degree of objectivity. Even more beneficial may be the inclusion of supplementary well validated psychometric assessments that assess such psychological dispositions. For example, to assess the presence of low self-esteem the Self-Perception Profile for Children (Coppersmith 1967, 1975, 1981, 2002) may be beneficial. However, although this would increase validity of such factors being assessed as present this may be at the sacrifice of completing a timely assessment. Timely assessments are imperative due to the potential for or actual abuse of a child. In addition, psychometric assessments are self-assessments and hence require the engagement of the child or young person. Children involved in CSE have been cited as unlikely to disclose abuse due to the nature of the grooming process (Scott & Skidmore, 2006; Berelowitz, Firmin, Edwards & Gulyurtlu, 2012; NSPCC, 2013) and therefore may be unlikely to engage in such assessments, particularly during the initial stages of service involvement. This suggests that the better option would be to operationalize risk factors more clearly.

Research Issues

The SERAF to our knowledge is the first risk assessment of its kind. Data on CSE is routinely gathered as part of the SERAF risk

assessment process (Kwaya-James, 2012). Collection of such data is imperative in terms of understanding types and patterns of CSE. Data collected via the SERAF has already proven useful in terms of identifying trends and patterns of CSE. This data has identified a spectrum of routes into CSE including; peer led; internal trafficking; survival; older boyfriend; informal economy (Kwaya-James, 2012). This could also potentially be important in the type of interventions that are prescribed to children and young people involved in or at risk of abuse through sexual exploitation.

In their research Barnardo's Cymru have heavily influenced the Welsh Governments policy on CSE. The Safeguarding and Promoting the Welfare of Children who are at Risk of Abuse through Sexual Exploitation, All Wales Protocol (Barnardo's on behalf of the AWCPPRG, 2013) states that the SERAF should be used in conjunction with the protocol where there are concerns that a child is at risk of, or is abused through, sexual exploitation. This has led to a greater awareness of the problem of CSE and provided a more consistent approach in the identification and intervention procedures of CSE across Wales. However, this also means that other competing organisations are unable to utilise alternative risk assessment tools or procedures within Wales. This in turn could potentially have a detrimental impact on CSE research and hence the production of alternative risk assessment tools undertaken by these organisations. It is also notable that it could be considered a conflict

of interest that Barnardo's authored the aforementioned protocol on behalf of the All Wales Child Protection Procedures Review Group. Thus, the organisation whose practice should be scrutinised by the authority essentially wrote the 'rule book' for the authority.

Research indicates that consideration of protective factors are integral in risk assessment and that risk-only evaluations are inherently inaccurate (Rogers, 2000). Protective factors reduce or prevent vulnerability or level of risk. This is achieved by protective factors either reducing the effect of risk factors (e.g., Clayton, Leukefeld, Donohew, Bardo, & Harrington, 1995) or by exerting an independent influence on the outcome (e.g., Hoge, Andrews, & Leschied, 1996). Barnardo's partially acknowledge the importance of protective factors by providing a protective factors form to be utilised in intervention to demonstrate progress. This raises the question as to why protective factors are not included within the SERAF scoring system. Non-inclusion of protective factors could potentially over estimate level of risk.

Conclusion

Utilising validity and reliability constructs to evaluate the SERAF the majority of information was either not available or non-applicable. Therefore, the evaluation criteria suggested by Lavoie, Guy and Douglas (2009) were also utilised. Using these criteria the SERAF includes; a comprehensive coverage of relevant and empirical risk

factors; it facilitates the construction of a plan to reduce or manage risk of CSE using effective intervention and prevention techniques; it suggests clear and logical methods of communication via a risk category with associated intervention strategies, further, the suggestion of multi-agency meetings for 'moderate' and 'significant' risk cases provides an appropriate forum for sharing this information; and the inclusion of clinical information for each item rated as present encourages a transparent and reviewable process.

However, it has been highlighted within this report that a number of limitations exist. Firstly, the over-reliance on Barnardo's research data compromises integrity due to risk of bias. Secondly, a lack of clearly operationalized risk factors means that a level of subjectivity within scoring may exist. Thirdly, a lack of explanation regarding how risk category cut offs were determined means that it is difficult to identify if children within different risk categories significantly differ in terms of their level of risk of CSE. Finally, a lack of inter-rater reliability analysis; significant variability between assessors scoring could essentially render the tool useless and so it is imperative that further analyses are conducted.

Despite limitations the SERAF is a time efficient assessment that can be undertaken by a variety of professionals. The SERAF has ensured consistency in approach in the identification and intervention of children and young people at risk of, or abused through, sexual

exploitation in Wales. It has promoted the awareness of CSE to professionals working with at risk children and has provided a base for which research can continue to develop so as to further inform practice in safeguarding children. However, it is important to note that more work analysing this tool is required before it can be considered a reliable and valid assessment of risk.

CHAPTER SIX

DISCUSSION

DISCUSSION

This thesis aimed to further understanding and knowledge of the problem of runaway children. More specifically; to identify risk factors most relevant to children running away; establish whether risk factors can be used to distinguish between those children reported missing once versus those reported on multiple occasions; and to evaluate assessment methods currently being used with this group.

Chapter two systematically reviewed the recent research literature on risk factors associated with runaways. This was an exploratory systematic review and to my knowledge is the first to review this particular topic. Studies published since the keynote study NISMART-2 (Sedlak, Finkelhor, Hammer & Schultz, 2002), from high income and English speaking countries were included for review. It was found that risk factors explored across studies were varied and there was a lack of consistent definitions. Results of the review indicated that children who runaway are a heterogeneous group. A finding which was confirmed in the empirical research project presented in chapter three. Risk factors found most consistently to be associated with running away spanned multiple levels including; being female, lower socio-economic status, family structures other than intact nuclear family (two-biological parents), history of abuse or neglect and lower school engagement/attachment. Implications

for intervention strategies with this group were discussed. This review identified a need for further good quality research identifying risk factors relevant to running away particularly in countries outside of the US.

Taking into consideration recommendations from chapter two, chapter three explored risk factors of children reported missing to Gwent Police over one year period. Chapter three had highlighted multiple level factors relevant to running away and therefore this study also chose to explore risk factors that spanned multiple levels. However, it is important to note that data on all variables highlighted within the systematic review as predictive of running away was not available, for example information relevant to socio-economic status. The aim of the study presented in chapter three was to identify a hierarchical model of risk factors that were the best predictors of repeat missing incidences. Using logistic regression a simple five factor summation checklist was identified that that could distinguish between those children reported missing once in comparison to those reported missing more than once. Risk factors included in the final checklist were; known to Youth Offending Service, looked after child (local authority care), history of substance use, history of actual or suspected sexual exploitation and a history of abuse or neglect. If two or more risk factors are identified as present then the model can correctly predict outcome in 70.4% of cases. Therefore, chapter two, provides support for the

use of risk factors in identifying children who are at greater risk of running away and chapter three built on these results providing support for the use of risk factors in identifying children who are at greater risk of repeat missing incidences. The checklist provides a base for risk assessment procedures that could potentially be used in Gwent to guide intervention strategies, with those children identified as 'high risk' requiring more comprehensive intervention and support. Further, results of a scoping exercise, idnetfying precurors to being reported missing, conducted by Barnardo's (unpublished presentation provided by Barnardo's) suggest that the model identified within this study may be applicable for use outside of Gwent.

The case study presented in chapter four allowed further in-depth analysis of one of the missing child cases identified in chapter three. Chapter four presented the assessment and intervention provided to an adolescent female reported as 'missing' to Gwent Police. Case formulation identified a number of factors that contributed to her runaway behaviour including; inconsistent and low quality parenting, engagement with anti-social peers, difficulties at school, substance use, low self-esteem and being targeted by exploitative others. Interventions provided attempted to target risk of sexual exploitation, substance misuse and practical issues such as housing and accessing education. Assessment and intervention procedures were critically discussed considering practical and theoretical issues.

Results showed a reduction in runaway behaviour following intervention. Reflecting on work with this young person suggests that multi-level factors impact running away and that holistic intervention, incorporating specialist services, are applicable in reducing risk taking behaviours in this client group. This is in line with findings and recommendations of both the systematic review (chapter two) and the empirical research study (chapter three).

Chapter five critically evaluated the Sexual Exploitation Risk Assessment Framework (SERAF). Prior research has identified a link between running away and child sexual exploitation. Further, child sexual exploitation was highlighted to be a significant risk factor in predicting repeat running away in Gwent as highlighted both in the empirical study (chapter three) and the case study (chapter four). The SERAF, as far as I am aware, is the only tool of its kind. An overview of the tool was provided followed by its evaluation. The evaluation discussed the tools scientific properties, it's applicability to young persons in Wales, research and practical issues. It is recommended that practitioners using this tool, including the MCT, take into consideration factors highlighted within the discussion of this critique when utilising the tool.

This thesis offers novel contributions to current research. Firstly, chapter 2 presents the first international systematic review identifying risk factors relevant to running away. Secondly, chapter 3 presents a newly developed risk assessment tool that can be

utilised in practice by Police when a child is reported as missing, this has not previously been achieved. Chapter 4 highlights how this risk assessment tool could be used in practice through a decision tree model. Finally, chapter 5 is the first report to critique the SERAF, a tool that is advocated in policy across Wales, which could have implications on future policy and practice.

Limitations of Thesis

This thesis has some important limitations which should be noted. Chapter two highlighted a number of problems in the existing research exploring risk factors associated with running away. There were mixed findings across studies which suggests that results of the review should be interpreted with caution. This was true even in some of the most consistently identified risk factors. For example, for the risk factors gender (female) and low-socioeconomic status it is noteworthy that findings had a tendency to become non-significant when multivariate analyses were conducted. Further, it is important to note that within the empirical study presented within this thesis (chapter three) gender was not found to be a significant predictor in the final regression model. This highlights the need for further research on this topic.

Within the review it was decided to include analytic cross sectional studies. This was due to the underwhelming quantity of studies in the research area. Cross sectional studies are fraught with biases,

in particular the difficulties identifying cause and effect or the sequence of events (Mann, 2003). Further limitations are in the form of inconsistency between studies. This was true of sample groups used, comparators and risk factors. This calls into question the comparability of studies which are likely to have impacted results of the review. Ultimately, this prevented a meta-analyses being conducted.

In chapter three limitations of the empirical research study related to the dataset. Data used was collected by the MCT for the purpose of their risk assessments (secondary data). The very nature of using secondary data means that the quality of data was reliant on the MCT's data collection procedures, thus was unable to be controlled, giving rise to a number of problems. For example, a lack of clear definitions of risk factors meant that data was reliant on subjective interpretation of individual team members collecting the data. As the MCT is a multi-agency team it is possible that their professional backgrounds may have impacted how variables were coded giving rise to inconsistencies. Lack of clear definitions is something that was also highlighted as a problem within the systematic review presented in chapter two. This adds weight to the recommendation of creating consistent definitions (see suggestions for future research paragraph below). In addition, the problem of missing data in the empirical study prevented exploration of a number of potentially significant variables. For example, educational variables,

which were shown to be significant within the systematic review (chapter two).

Another limitation of the empirical research is the production of a risk assessment tool using retrospective data. Instruments designed to quantify risk should demonstrate predictive validity. Establishing predictive validity requires prospective longitudinal study designs (Rosenfeld & Penrod, 2011). Additionally, in the final model 29.6% of missing child cases were incorrectly classified. Therefore, at this stage, the checklist cannot be considered as an assessment that can be carried out independently of other existing risk assessment procedures. Finally, as data was collected from a relatively small area of five local authorities the tool needs validation in further regions to identify its practical utility outside of Gwent.

In terms of limitations of the case study (chapter four) the young person's disengagement provided the biggest constraint. Lack of engagement prevented assessment at follow up, thus, long term impact of intervention and service provision was largely unknown. This meant that recommendations identified at follow up were reliant on the professional opinions of staff involved in her case. Professional judgement has consistently been found to be less reliable than that of more structured and objective methods of risk assessment.

It is also important to note that although intervention was deemed as successful in terms of reducing running away incidents, as the young person returned to her mother's care, it is possible that this behaviour continued or even increased but was not reported and therefore not recorded. This limitation could be extended to chapter three, whereby missing reports are dependent on caregivers; it is possible that there were more cases whereby living situations changed over the course of the empirical study impacting reporting rates. Further, the updating of information on the MIRAF occurs at a lower rate than reports of missing incidences (see discussion of the MIRAF in the assessment sub-section of the case study). This meant that where the young person was missing repeatedly up to three times per month updates regarding risk were likely to have been missed. It is important to note that this limitation may also have impacted the empirical research (chapter three). Those reported missing repeatedly but less than four times in a one month period would have less up-to-date information relevant to risk factors e.g. changes in living situation such as the child being accommodated in care.

With regards to the assessment and intervention that was undertaken in the case study there were also some limitations highlighted. This included the delay in intervention following initial missing reports. It is possible that earlier intervention could have reduced risk experienced by the young person by reducing runaway

incidents. The cease in service provision when the young person turned 18 prevented her receiving support despite being identified as at risk of sexual exploitation. This calls into question ethical and social responsibilities. A further criticism is the use of risk assessment tools used which do not appear to have been validated (e.g. the SERAF). In addition, the very nature of a case study means that results cannot be generalised to the wider population.

Finally, chapter five provided a critical evaluation of the SERAF. This tool does not appear to have previously been assessed for inter-rater reliability or validated. Further, the vast majority of research included in the critique was produced in collaboration with Barnardo's.

Implications for Practice

Despite the limitations there are a number of implications for practice. This thesis provides research evidence for risk factors associated with running away spanning multiple levels including individual ontogeny, family and school. This was demonstrated by chapters two, three and four.

Currently no theory specific to running away exists. However, this thesis provides support for the application of Bronfenbrenner's (1979) ecological theory of child and adolescent development to understanding and explaining runaway behaviour. In line with ecological theory results of this thesis suggests that interventions

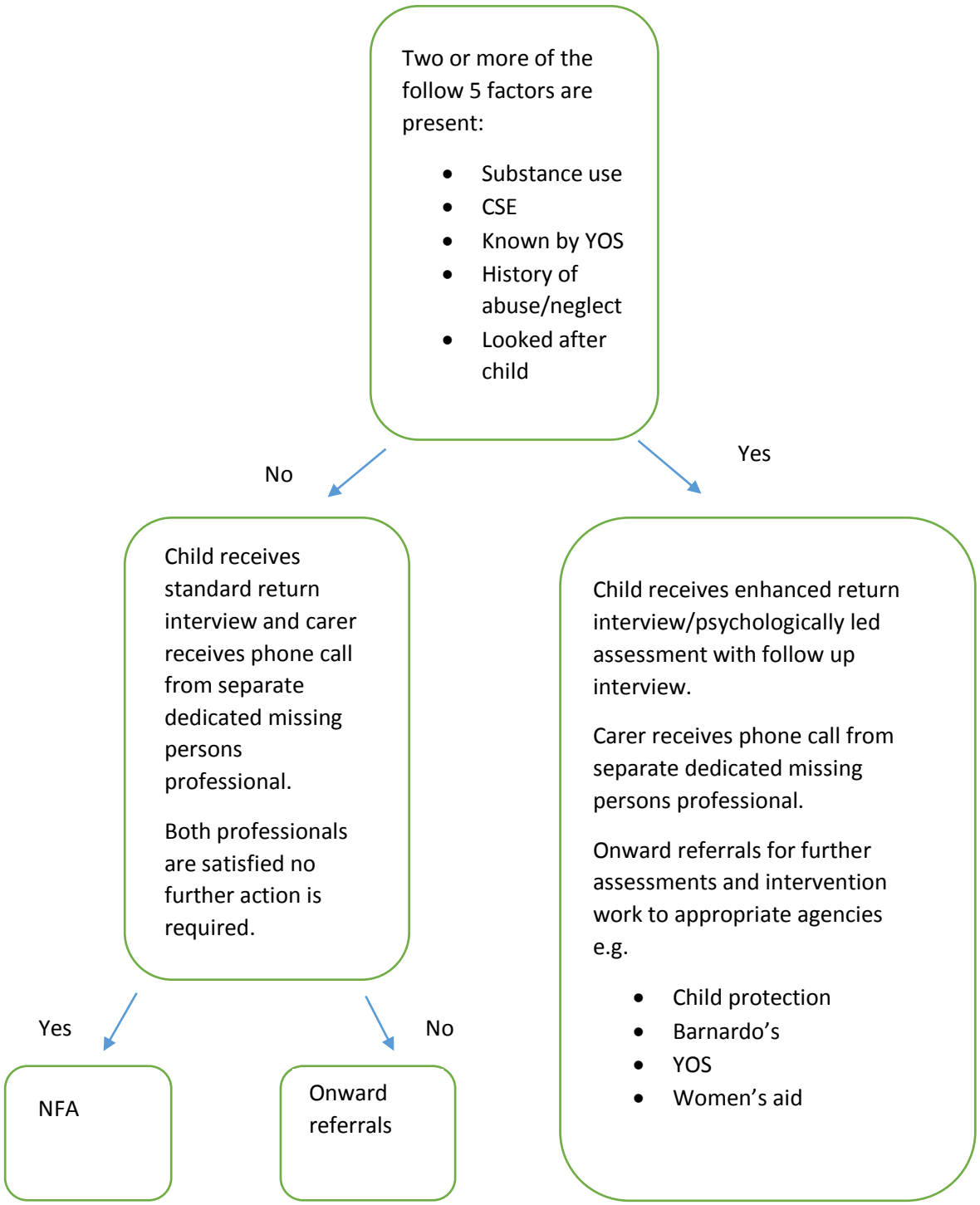
should be holistic and look to address difficulties across levels. Some suggestions regarding likely appropriate intervention techniques have been recommended such as; substance abuse interventions, family mediation services and school engagement packages. Due to the heterogenity that exists within this group risk factors present should first be considered in order to identify appropriate intervention strategies.

The empirical study has provided research evidence for risk factors being able to successfully predict repeat missing reports. The five variable checklist can be utilised by the police or the local authority in Gwent to identify those children who are likely to be reported missing again (high risk). Depending on risk outcome identified by using the checklist (low versus high risk) the likely intervention intensity and thus allocation of resources could be established. Children identified as 'low risk' are likely to require less intensive and family based interventions strategies, whereas those identified as high risk are likely to require more intensive and comprehensive intervention strategies. Refer to Figure 8 for a pathway decision tree that could be utilised by professionals to support them in their decision making when a report of a missing child is received. A further recommendation for practice is the need to support the development of strong and positive relationships within care placements to prevent repeat running away (Finkelstein, Wamsley, Currie & Miranda, 2004).

From the case study the importance of building a therapeutic relationship when working with children who are engaged in relationships with exploitative others was highlighted. Children who have been exploited are likely to experience long term consequences from the harm caused through sexual abuse (Simons & Whitbeck, 1991). Ethical and social responsibility calls for extended service provision for these young people once they turn 18. Follow-on or step-down services should look to support these young people in their transition to adulthood whilst continuing to monitor their ability to keep themselves safe.

Some implications for practice specific to the MCT were also identified. For example, the production of guidance or staff training to ensure clarity of definitions of risk factors utilised by the team. This will be vital in ensuring standardisation and consistency in risk assessment. The production of objective definitions of risk factors could also improve the objectivity of the SERAF, thus this recommendation is extended to the Barnardo's SERAF service. It is also recommended that the MCT look to expand the debrief service to reduce time between initial missing episode of children and intervention provision. In addition, the MCT are advised to begin collecting data on risk factors highlighted by the systematic review as consistently predictive of running away, such as SES and family structure, which are not currently collected by the team.

Figure 8: Decision tree to support professionals when a report of a missing child in received



Implications for Policy and Statutory Guidance

This thesis has confirmed that risk factors that contribute to a child running away span multiple levels. Therefore, professional input from a range of services is likely to be required when intervening with this vulnerable group.

Despite guidance advocating a multi-agency approach (Department of Education, 2014), the majority of services have previously worked in relative isolation when dealing with these children. Within Gwent (Wales) a novel approach to managing missing children is being undertaken in the form of a multi-agency team, namely the Missing Children's Team (MCT). This is enabling a multi-disciplinary risk assessment process, incorporating data from a range of services, which can be utilised to identify more holistic packages of support for these at risk children.

The MCT has created a database system, that convenes all relevant data and risk assessment outcomes for each child reported missing, that can be accessed across services (Police, Health, Education and Children's Services). This ensures that risks associated with the individual child 'follows' them between services, ensuring a more joined up approach, which aims to prevent individuals slipping through the safeguarding net. In addition, collating all relevant data

on one system allows for ease of access to data which could serve to increase research in this area.

Taking into consideration benefits highlighted it is recommended that statutory guidance go one-step further in their recommendation of a 'multi-agency approach' to managing missing children and that the Gwent MCT be utilised as a template for multi-agency working with missing children.

Within statutory guidance (Department of Education, 2014) on children who run away or go missing it is highlighted that all runaways should receive a return interview with the view that if they continue to runaway follow up discussions and referrals should take place. This is a reactive approach to running away and assumes that a return interview would be suitable for different sub-types of runaway children.

Chapter 3 suggests that separate pathways for single versus repeat missing children may exist and thus a one-size-fits all approach may not be effective. Further, the results of Chapter 3 have indicated that a more proactive approach can be undertaken with children at risk of repeat running; the simple summation checklist can be utilised to identify those children at high risk of running away repeatedly following their first missing report. This enables appropriate intervention and prevention strategies to be put in place immediately (as opposed to waiting for a second or third missing

report). As discussed above this could be in the form of a more enhanced return interview. It would be beneficial for this enhanced return interview to be a psychologically led assessment conducted by a professional trained and experienced in undertaking such assessments. A case formulation for the individual child could be produced, such as that in Chapter 4, which would increase understanding of the child's running away and thus enable appropriate recommendations for intervention.

A further protocol to be considered is that of the Safeguarding and Promoting the Welfare of Children who are at Risk of Abuse through Sexual Exploitation, All Wales Protocol (Barnardo's on behalf of AW CPPRG, 2013). Within this protocol it is highlighted that children suspected to be at risk of CSE should receive a SERAF assessment. Barnardo's authored both the SERAF and the protocol. This raises concerns of a conflict of interest.

It is recommended that where possible protocols and policies should be authored by independent agents or researchers. This is particularly true as the advocated use of the SERAF by the Safeguarding and Promoting the Welfare of Children who are at Risk of Abuse through Sexual Exploitation, All Wales Protocol has ensured that throughout Wales the risk assessment that is utilised in every case of suspected CSE is one which has not been empirically validated. Therefore, it possible that the use of ineffective risk assessment tool is being reinforced by the protocol.

Suggestions for Future Research

Future research should take into account the limitations discussed. The systematic review identified further good quality research is needed to identify risk factors associated with running away, particularly research from areas outside of the US. Existing cross sectional research can be used to guide research in identifying risk factors of interest. However, future research would benefit from utilising cohort study designs that are able to determine cause and effect. Future studies may benefit from utilising an agreed set of international definitions for the differing sub-types of missing. This would allow comparison across studies which could inform future systematic reviews in identifying the most influential risk factors in running away. Future studies should also clearly define risk factors under investigation and where definitions exist these should be applied consistently, this was also highlighted by empirical research project and thus this recommendation can be extended to the MCT. Systematic reviews investigating similar risk factors should consider the possibility of a meta-analysis, and ensure the outcomes selected allow for this to occur. It is also suggested that a gap in the research exists in terms of systematically reviewing other sub-types of missing.

The empirical research has highlighted a variable checklist that can predict recidivism of running away by children in Gwent. This can

now be used as a base for further research to collect data prospectively to validate the checklist as a risk assessment tool. It would be beneficial for future studies to collect this data from regions outside of Gwent, preferably national data. This would increase the practical utility of the tool in that it would be suitable for use by police and local authorities across the UK.

Currently the MCT do not record types of missing incidence e.g. runaway versus lost. Very little research currently exists on the 'lost, injured or otherwise missing' sub-type of missing child. Lack of research on this sub-type of missing child means that little is known about the risk factors relevant to this group. It may be beneficial for the MCT to begin separating incidences of missing based on sub-type of missing; this could provide a base for identifying if this sub-type of missing child differs significantly from other sub-types such as runaways.

Within the critique of the SERAF a number of areas for future research were highlighted. The priority would be to conduct a full scale study to validate and test the inter-rater reliability of this tool. It is suggested that the MCT take into consideration limitations highlighted in respect of the SERAF when utilising this tool. It has also been highlighted that protective factors may require consideration in such risk assessments. There has been limited, if any, research on protective factors relevant to either CSE or running

away and therefore these are two areas that could be explored in future research.

Conclusions

This thesis aimed to further understanding and knowledge of the problem of runaway children. It was identified that risk factors that are relevant to running away span multiple levels. It was also identified that risk factors can be used to identify those children who are likely to be reported missing on multiple occasions. The heterogeneity of this group suggests that intervention should be holistic and target identified risk factors. Research on this topic area is in its infancy. Further research to inform risk assessments utilised in respect of this group is recommended.

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APPENDICES

Appendix A: Inclusion Criteria Checklist

Study reference:

Inclusion criteria	**Description**	**Yes**	**No**
Research question	Identifying risk factors relevant to running away from home or care must be clearly identified as a research aim or question		
Population	<18 years old @ time of outcome OR The sample clearly differentiates between <18 years and adults (≥18) within results		
Exposure	Risk factors: Any factor/characteristic that is related to the outcome and suspected to occur prior to the outcome		
Comparator	1. Runaway children VS Non-runaway children 2. Runaway children VS Child general population 3. Runaway 1x VS Runaway >1x time 4. Runaway <3x VS Runaway ≥3x		

Outcome	Missing OR Runaway (exclude trafficked/abducted)		
Study type	RCT OR Cohort OR Case Control OR Cross sectional (exclude viewpoints, reviews, case study & qualitative)		
Country	English speaking (primary/majority language of country) & High income (according to world bank)		
Date of publication	Published since NISMART, October 2002		

Include study?

Yes No If no, why not?

Appendix B: List of excluded articles and reasons for exclusions

Excluded due to irrelevance

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Appendix C: Data Extraction Sheet

Study Identifier:

Reference:

Source of information:

Publication year:

Date of data extraction:

Type of article

Published? Y / N

Where is research from? Book / Journal / Thesis / Conference paper / Report (NGO, Police, Government) / Other (specify)

If published was it peer reviewed? Y / N

Study characteristics

Study aims:

Hypotheses:

Design:

Sample description:

How data was collected?

Where was the study carried out?

Definition of runaway? Y / N

If Yes specify:

Characteristics identified in study

Demographic characteristics of the child e.g. age, gender or ethnicity

Y / N

Family characteristics e.g. family type

Y / N

Abuse including; physical, sexual, emotional or neglect.

Y / N

Exploitation including; sexual and commercial

Y / N

Difficulties within the home e.g. conflict with carers or witnessing domestic violence

Y / N

Difficulties at school e.g. poor grades, poor attendance or bullying

Y / N

Significant life events e.g. bereavement or parental separation

Y / N

Mental health difficulties

Y / N

Other (specify)

Research findings

Study conclusions:

Appendix D: Risk of bias checklist

Reference:

Component ratings

A) Selection bias

Q1) Are the individuals selected to participate in the study likely to be representative of the target population?

1. Very likely
2. Somewhat likely
3. Not likely
4. Can't tell

Q2) What percentage of selected individuals agreed to participate?

1. 80-100%
2. 60-79%
3. <60%
4. Not applicable
5. Can't tell

Rate this section	Strong	Moderate	Weak
	1	2	3

B) Study design

1. RCT/CCT
2. Cohort
3. Case-control
4. Cross sectional

Rate this section	Strong	Moderate	Weak
	1	2	3

C) Confounders

Q1) Were there important differences between groups on identified confounders?

1. Yes
2. No
3. Can't tell

Confounders:

- Race
- Sex
- Age
- SES

Q2) If yes, indicate the percentage of relevant confounders that were controlled (either in the design (e.g. matching, stratification) or analysis?

1. 75-100%
2. 50-74%
3. <50%
4. Can't tell

Rate this section	Strong	Moderate	Weak
	1	2	3

In studies where identified confounding factors are actually their targets of research they do not they need to be controlled for in this case mark Q1 as 2.

D) Blinding

Q1) Were the assessors aware of the exposure status of participants?

1. Yes
2. No
3. Can't tell

Q2) Were the study participants aware of the research question?

1. Yes
2. No
3. Can't tell

Rate this section	Strong	Moderate	Weak
	1	2	3

E) Data collection methods

Q1) Were the data collection tools shown to be valid?

1. Yes
2. No
3. Can't tell

Q2) Were the collection tools shown to be reliable?

1. Yes

2. No
3. Can't tell

Q3) Was the assessment carried out consistently?

1. Yes
2. No
3. Can't tell

Consider the following:

- Same setting
- Same assessor
- Inter-rater reliability
- Training

If at least 75% of identified consistency factors are present = Y

If < 75% of identified consistency factors are present = N

Rate this section	Strong	Moderate	Weak
	1	2	3

F) Withdrawals and drop-outs

Q1) Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?

1. Yes
2. No
3. Can't tell

Rate this section	Strong	Moderate	Weak
	1	2	3

Global rating

Component	Strong	Moderate	Weak
A) Selection bias	1	2	3
B) Study design	1	2	3
C) Confounders	1	2	3
D) Blinding	1	2	3
E) Data collection methods	1	2	3
F) Withdrawals & drop-outs	1	2	3

Global rating for this paper:

1 Strong (no weak ratings)

2 Moderate (one weak rating)

3 Weak (two or more weak ratings)

Appendix E: Dictionary to accompany risk of bias checklist

Component Ratings of Study:

For each of the six components A – F, use the following descriptions as a roadmap.

SELECTION BIAS

Participants are more likely to be representative of the target population if they are randomly selected from a comprehensive list of individuals in the target population (score very likely). They may not be representative if they are referred from a source (e.g. clinic) in a systematic manner (score somewhat likely) or self-referred (score not likely).

Strong: The selected individuals are very likely to be representative of the target population (Q1 is 1) **and** there is greater than 80% participation (Q2 is 1).

Moderate: The selected individuals are at least somewhat likely to be representative of the target population (Q1 is 1 or 2); **and** there is 60 - 79% participation (Q2 is 2). 'Moderate' may also be assigned if Q1 is 1 or 2 and Q2 is 5 (can't tell).

Weak: The selected individuals are not likely to be representative of the target population (Q1 is 3); **or** there is less than 60% participation (Q2 is 3) **or** selection is not described (Q1 is 4); and the level of participation is not described (Q2 is 5).

B) DESIGN

Strong: will be assigned to those articles that described RCTs and CCTs.

Moderate: will be assigned to those that described a cohort analytic study, a case control study, a cohort design, or an interrupted time series.

Weak: will be assigned to those that used any other method or did not state the method used.

C) CONFOUNDERS

The authors should indicate if confounders were controlled in the design (by stratification or matching) or in the analysis.

Confounders include:

- Age
- Sex
- Ethnicity
- SES

Strong: will be assigned to those articles that controlled for at least 75% of relevant confounders (Q1 is 2); **or** (Q2 is 1).

Moderate: will be given to those studies that controlled for 50 – 74% of relevant confounders (Q1 is 1) **and** (Q2 is 2).

Weak: will be assigned when less than 50% of relevant confounders were controlled (Q1 is 1) **and** (Q2 is 3) **or** control of confounders was not described (Q1 is 3) **and** (Q2 is 4).

D) BLINDING

Strong: The outcome assessor is not aware of the intervention status of participants (Q1 is 2); **and t**he study participants are not aware of the research question (Q2 is 2).

Moderate: The outcome assessor is not aware of the intervention status of participants (Q1 is 2); **or** the study participants are not aware of the research question (Q2 is 2); **or** blinding is not described (Q1 is 3 and Q2 is 3).

Weak: The outcome assessor is aware of the intervention status of participants (Q1 is 1); **and** the study participants are aware of the research question (Q2 is 1).

E) DATA COLLECTION METHODS

If 'face' validity or 'content' validity has been demonstrated, this is acceptable.

Consider the following when assessing consistency:

- Same setting
- Same assessor
- Inter-rater reliability
- Training

If at least 75% of identified consistency factors are present = Y

If < 75% of identified consistency factors are present = N

Strong: The data collection tools have been shown to be valid (Q1 is 1); **and** the data collection tools have been shown to be reliable (Q2 is 1). **and** the data collection methods have been on the whole consistent (Q3 is 1)

Moderate: Two of the three questions have a number 1 response. E.g. The data collection tools have been shown to be valid (Q1 is 1);

and the data collection tools have been shown to be reliable (Q2 is 1) but the data collection methods have not been consistent or are not known (Q2 is 2 or 3).

Weak: Two of the three questions have a number 2 or number 3 response. E.g. the data collection tools have not been shown to be valid (Q1 is 2) and the data collection methods have not been consistent (Q3 is 2) **or** both reliability and validity are not described (Q1 is 3 and Q2 is 3).

F) WITHDRAWALS AND DROP-OUTS - a rating of:

Strong: will be assigned when the follow-up rate is 80% or greater (Q1 is 1).

Moderate: will be assigned when the follow-up rate is 60 – 79% (Q1 is 2) **OR** Q1 is 5 (N/A).

Weak: will be assigned when a follow-up rate is less than 60% (Q1 is 3) or if the withdrawals and drop-outs were not described (Q2 is 4).

Appendix F: Full list of variables and associated definitions used by the Gwent MCT

The MCT does not have clear definitions related to every variable on the MIRAF and therefore the team is required to exercise professional judgement when deciding if some factors are present or absent. They are however provided with an overview of how to accumulate evidence to aid them in their decision during their induction into the team.

Variable	**Process by which the MCT decide on the presence or absence of a variable**
Age	Chronological age according to date of birth
Gender	Biological gender (male or female)
Ethnicity	As identified by child or child's family/carers
Language	First spoken language
Religion	Religious beliefs as identified by child or child's family/carers
Known to Social Services	If the child is known in any capacity to social services i.e. the child's name appears on social service records irrespective of reasons why
Open to Social Services	Social services are currently involved in any capacity to child's case
Looked After Child	Child is accommodated by the local authority including residential children's homes and foster care
History of abuse or neglect	There is information available in the child's social services files that suggest the child was a victim of abuse/neglect or the child themselves report incidences of abuse/neglect. MCT to decide if evidence is unclear.
Protection plan in place	The child is currently subject of a child protection plan i.e. on the child protection register

Frequent changes in placement	Whether the MCT judge the child to have more looked-after placements than would be expected based on experience of the team
Conflict in placement	The child or their carers report arguments or disagreements within their current place of residence and if the MCT judge this to be a concern.
Known to Youth Offending Service (YOS)	The YOS have records indicating that the child is known to their service irrespective of reasons why
Frequent A&E attendances	Whether the MCT judge the child to have had more A&E attendances (as identified by hospital records) than would be expected based on the experience of the team
Physical disability or illness	The child is registered as disabled on health records or the child or child's family/carers report that the child has a disability
Engaged with sexual health services	Health records of child attending sexual health services irrespective of reasons why
Self-harm	Reports of self-harm from any individual involved in the child's care or the child themself
Mental illness	Recorded mental illness on health records or any mental health issues identified by the child and or child's family/carers
Depression	Reports of depression from any individual involved in the child's case including family/carer and the child themself
Mentally ill parent	Reports by professionals involved in case and/or parent themself
Poor school attendance	Less than 80% attendance as identified by the child's school
Educational statement	Child has an educational statement as identified by the child's school irrespective of reasons why

Bullying	Any professional or child's family/carers or child themself report child has been victim of or perpetrator of bullying or if the MCT feel that reports indicate bullying
Specialist education	The school considers itself as a provider of special education including pupil referral units
Learning disability	The child's school or family/carers or the child themself report learning disabilities/difficulties
Domestic violence within parental relationships	Reports from child or child's parents/carers of domestic abuse within the family home. Police records are also checked to identify call outs to family home regarding domestic disputes.
Substance use	Reports from professionals, the child's family/carers or the child themself to suggest the child uses or has used substances
Substance using parent	Reports from professionals, the child's family/carers or the child themself to suggest the child's parents use or have used substances
Criminal child	Police records check of criminal activity/convictions
Criminal parent	Police records check of criminal activity/convictions
Previous victim	The child's records indicate any previous victimisation. If professionals, child's family/carers or the child themselves report previous having been a victim of crime.
Violent	Reports indicate that the child has previously had violent outbursts. Professionals, child's family/carers and reports from the child themselves are taken into consideration.
Family scapegoating	Does the MCT judge that the way in which the child's family/carers talk about the child suggest that they are used as a scapegoat for wider problems in the home.

Arguments within family	Professionals, the child's family/carers or the child themselves report arguments within the family.
Older boyfriend/girlfriend	Professionals, the family/carers or the child themself identify a boyfriend or girlfriend whom is significantly older. The MCT judge the appropriateness of this relationship on a case by case basis.
Risky internet use	The child's family/carers or the child themselves identify the internet to be a risk. The MCT judge this based on experience of working with children.
Suspected sexual exploitation	The MCT utilise their training and experience to identify if the child is demonstrating any signs that they are being sexually exploited. Police and social services record are utilised to provide further evidence.
Evidence of trafficking	The MCT utilise their training and experience to identify if the child is demonstrating any signs that they are being trafficked. Police and social services record are utilised to provide further evidence.
Young carer	The child meets the definition of a young carer as identified by the Welsh Government/Children's Commissioner, irrespective of whether the child is registered as a young carers
Boundaries in place	The MCT believe from speaking to the child's family/carers that the child has boundaries set by adults within their home
Support network	The MCT believe from speaking to the child's family/carers and from checking social services records that the child has a positive support network
Formal boundaries in place	The child is subject to any police orders (according to police system)

Receiving direct work	The child currently receiving any direct intervention from any service
Engaged in positive social activities	There is evidence (including self-report) of the child to be engaged in pro-social recreational activities. Types of activities considered pro-social are left to the discretion of the MCT

Appendix G: Missing data in variables utilized in initial binary logistic regression

Variable	Valid	Missing	% Missing
Age	536	0	0
Known to social services	535	1	.2
Open to social services	491	45	8.4
Looked after child	535	1	.2
History of abuse/neglect	505	31	5.8
Frequent changes in placement	498	38	7.1
Known by Youth Offending Service	505	31	5.8
Substance use	496	40	7.5
Criminal child	494	42	7.8
Violence	492	44	8.2
Arguments within family	494	42	7.8
Suspected sexual exploitation	533	3	.6
Formal boundaries in place	504	32	6

Appendix H: Table showing number of children and frequency of missing incidences

Number of missing incidents	Number of missing children
1	275
2	77
3	29
4	30
5	21
6	11
7	7
8	8
9	5
10	9
11	7
12	3
13	5
14	4
15	4
16	2
17	0
18	1
19	1
20	1
21	1
22	2
23	4
24	1
25	0
26	0
27	1

28	0
29	0
30	2
31	1
32	0
33	0
34	1
35	0
36	1
37	1
38	0
39	1
40	1
41	0
42	1
43	0
44	1
45	0
46	0
47	1
48	1
49	0
50	0
51	1
52	0
53	0
54	0
55	0
56	0
57	0
58	0
59	0
60	0

61	0
62	0
63	0
64	0
65	0
66	0
67	0
68	0
69	1

Appendix I: SERAF completed in respect of E pre-intervention

Believe in children
Barnardo's Cymru

SERAF Risk Assessment Form

Name of worker completing assessment (by phone or email)	x	Name and contact details of referrer	
Child's Name	E	Local Authority	
Known to social services since	Yes	Date of SERAF Assessment	11.02.2014
Age	17	Legal status Section:	section 17
Date of birth		Migrant/Refugee/Asylum Seeker/Trafficked status Please specify:	
Ethnicity	white british	Gender	female
Physical/learning disabilities	n/a	Languages spoken	english
Have child protection procedures been initiated? (If yes provide date)	Yes ☒ No ☐ If yes when:	Involvement with the youth justice system?	Yes ☐ No ☐
Is the child receiving support or services from any other agency?	Yes ☒ No ☐	If other agencies are involved please list them here e.g. CAMHS, EWO etc.	Substance misuse councilling services CSE Police Operation 16+ team
Has sexual exploitation previously been identified as a specific issue for this child?	Yes ☒ No ☐ If yes when:	Has the All Wales Safeguarding and Promoting the Welfare of Children who are at Risk of Abuse through Sexual Exploitation Protocol been used?	Yes ☒ No ☐ If yes when:

Vulnerabilities	Please tick	Vulnerabilities	Please tick
Emotional neglect by parent/carer/family member	☒	Family history of mental health difficulties	☒
Physical abuse by parent/carer/family member	☐	Low self-esteem	☒

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Sexual abuse	☐	Unsuitable/inappropriate accommodation	☐
Breakdown of family relationships	☒	Isolated from peers/social networks	☐
Family history of domestic abuse	☒	Lack of positive relationship with a protective/nurturing adult	☒
Family history of substance misuse	☒		

Moderate risk indicators	Please tick if present on date of referral or during the past 6 months
Staying out late	☒
Multiple callers (unknown adults/older young people)	☒
Use of a mobile phone that causes concern	☒
Expressions of despair (self-harm, overdose, eating disorder, challenging behaviour, aggression)	☒
Exclusion from school or unexplained absences from or not engaged in school/college/training/work	☒
Sexually Transmitted Infections (STIs), pregnancy/termination of pregnancy	☒
Drugs misuse	☒
Alcohol misuse	☒
Use of the internet that causes concern	☐
Living independently and failing to respond to attempts by worker to keep in touch	☐

Significant risk indicators	Please tick if present between 6 and 12 months ago	Please tick if present on date of referral or during past 6 months
Disclosure of sexual/physical assault followed by withdrawal of allegation	☐	☒
Peers involved in clipping/sexual exploitation	☐	☒
Periods of going missing overnight or longer	☐	☒
Older 'boyfriend'/ relationship with controlling adult	☐	☒

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Physical abuse by controlling adult / physical injury without plausible explanation	☐	☐
Emotional abuse by controlling adult	☐	☒
Entering/leaving vehicles driven by unknown adults (not taking and driving away: car theft)	☐	☒
Unexplained amounts of money, expensive clothing or other items	☐	☒
Frequenting areas known for on/off street sexual exploitation	☐	☒

SERAF Score	55	In addition: Physical/Learning Disability: Score 1 Age under 13 and at least 1 significant risk factor present: Score 5
Risk Category	Significant	

Appendix J: Programme of CSE direct work

Session	Content	Structure
Week 1	Introductory meeting. Building relationship.	E met with Service Practitioner and began building relationship; conversations revolved around E's interests and hobbies. Purpose of sessions discussed. Expectations for engagement moving forward were collaboratively identified. Next session date set.
Week 2	People in my life worksheet. How Safe Am I booklet.	Introductory discussion to establish how E was feeling following previous session and to provide updates on current situation. Topic of relationships introduced; worksheet provided as a base for discussions around relationship types. E provided with opportunity to identify and share experiences of her relationships. E rated herself in terms of safety in various aspects of her life using a traffic light system.

		Discussion regarding next session.
Week 3	Session cancelled by E.	-
Week 4	Good Partner/ Bad Partner activity. Risk taking flowchart.	Introductory discussion. Idea of healthy and unhealthy relationship behaviours introduced. Socratic questioning used to create a discussion around expectations of an intimate partner. Checklist of behaviour presented to E where she was encouraged to categorise behaviours into positive, negative and unsure. Reasons for categorizations were discussed. Risk taking flowchart which depicts decision making chain. Depending on route taken young person can identify themselves as at risk ('warning'), 'not bad' or they congratulated on their positive safety choices. Discussion regarding next session.
Week 5	It's my life questionnaire. Consent Quiz.	Introductory discussion.

	Positive Relationships.	Educational session regarding consent. E completed questionnaire identifying her beliefs with regards her rights. Answers discussed. Quiz on consent presented. E collaboratively scored her answers with Practitioner. Activity to identify traits of a healthy and positive relationship. Discussion regarding next session.
Week 6	Session cancelled by E.	-
Week 7	Grooming Process and case studies	Introductory discussion. Reasons for non-attendance of last session explored. Information on grooming discussed. E's understanding of this topic explored and gaps in knowledge filled by explanation from Practitioner. Case studies provided which were discussed by E and Practitioner to solidify learning regarding this topic. Discussion regarding next session.
Week 8	Session cancelled by E.	-

Week 9	Child sexual exploitation DVD "Hidden" and associated questions	Introductory discussion. Reasons for non-attendance of last session explored. DVD presenting short films on sexual exploitation. Workbook completed alongside DVD to ensure critical thinking regarding characters thinking, feeling and behaviours. E encouraged to make connections between characters and herself through discussion. Discussion regarding next session.
Week 10	Steps to Safety activity. Applied to case studies.	Introductory discussion. Reflecting on case studies E was encouraged to identify ways in which to make decisions of characters presented safer. E encouraged to discuss personal experiences of situations where she could have made the decision to implement steps to safety behaviours. Discussion regarding next session.
Week 11	Revisiting healthy relationships and the risks	Introductory discussion.

	posed by a particular adult of concern in E's life. Planning for the future e.g home, flat, car, relationship.	Reflection on a personal high risk relationship. Discussions of risks collaboratively identified. E encouraged to identify ways in which to manage her safety with regards her relationships. Consolidating the importance of checking in with staff when out overnight. Drug use and peer pressure discussed. E encouraged to identify her own future life goals. Discussion regarding next session. Reminder of final session.
Week 12	Child sexual exploitation DVD "Sick Party" and associated questions. How Safe Am I reviewed.	Introductory discussion. Feelings regarding final session explored. DVD presenting short films on sexual exploitation. Workbook completed alongside DVD to ensure critical thinking regarding characters thinking, feeling and behaviours. Collaboration in re-rating E's safety in various aspects of her life using a traffic light system.

		Positive handover to Social Worker.

Appendix K: SERAF completed in respect of E post-intervention

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SERAF Risk Assessment Form

Name of worker completing assessment (by phone or email)	x	Name and contact details of referrer	
Child's Name	E	Local Authority	
Known to social services since	Yes	Date of SERAF Assessment	06.08.2014
Age Date of birth	18	Legal status Section: Migrant/Refugee/Asylum Seeker/Trafficked status Please specify:	Closed case as now 18
Ethnicity	White British	Gender	Female
Physical/learning disabilities	n/a	Languages spoken	English
Have child protection procedures been initiated? (If yes provide date)	Yes ☐ No ☒ If yes when:	Involvement with the youth justice system?	Yes ☐ No ☒

Is the child receiving support or services from any other agency?	Yes ☒ No ☐	If other agencies are involved please list them here e.g. CAMHS, EWO etc.	Supported living
Has sexual exploitation previously been identified as a specific issue for this child?	Yes ☒ No ☐ If yes when: 3	Has the All Wales Safeguarding and Promoting the Welfare of Children who are at Risk of Abuse through Sexual Exploitation Protocol been used?	Yes ☒ No ☐ If yes when:

Vulnerabilities	Please tick	Vulnerabilities	Please tick
Emotional neglect by parent/carer/family member	☒	Family history of mental health difficulties	☒
Physical abuse by parent/carer/family member	☐	Low self-esteem	☒

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Sexual abuse	☐	Unsuitable/inappropriate accommodation	☐
Breakdown of family relationships	☐	Isolated from peers/social networks	☐
Family history of domestic abuse	☒	Lack of positive relationship with a protective/nurturing adult	☐
Family history of substance misuse	☒		

Moderate risk indicators	Please tick if present **on date of referral or during the past 6 months**
Staying out late	☒
Multiple callers (unknown adults/older young people)	☒
Use of a mobile phone that causes concern	☒
Expressions of despair (self-harm, overdose, eating disorder, challenging behaviour, aggression)	☐
Exclusion from school or unexplained absences from or not engaged in school/college/training/work	☐
Sexually Transmitted Infections (STIs), pregnancy/termination of pregnancy	☐
Drugs misuse	☒
Alcohol misuse	☐
Use of the internet that causes concern	☐
Living independently and failing to respond to attempts by worker to keep in touch	☐

Significant risk indicators	Please tick if present **between 6 and 12 months ago**	Please tick if present **on date of referral or during past 6 months**
Disclosure of sexual/physical assault followed by withdrawal of allegation	☒	☐
Peers involved in clipping/sexual exploitation	☒	☐
Periods of going missing overnight or longer	☒	☒
Older 'boyfriend'/ relationship with controlling adult	☒	☒

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Physical abuse by controlling adult / physical injury without plausible explanation	☐	☒
Emotional abuse by controlling adult	☒	☒
Entering/leaving vehicles driven by unknown adults (**not** taking and driving away: car theft)	☒	☐
Unexplained amounts of money, expensive clothing or other items	☒	☐
Frequenting areas known for on/off street sexual exploitation	☒	☐

SERAF Score	37	**In addition:** **Physical/Learning Disability: Score 1** **Age under 13 and at least 1 significant risk factor present: Score 5**
Risk Category	Significant	

Appendix L: Letter to Client E

Dear E,

We have a free gift voucher for you here at the Missing Children's Team for agreeing to take part in our research.

We would like to ask you some questions about the service you received from the Missing Children's Team but we have not been unable to contact you via telephone.

I am able to bring the voucher to you if you contact me:

Mobile: 07515728811

Office: 01495 745660

Alternatively please return this questionnaire as soon as possible.

Thank You,

Emma Hutchings

Gwent Missing Children's Team

Kerry Wade (Manager)

Gwent Missing Children's Team

Appendix M: Questionnaire

Please return this questionnaire in full to receive you free voucher.

We have recorded that Rachel came out to visit you when you returned from being reported missing. How helpful or unhelpful were your meetings with the Rachel? Please describe in as much detail as possible.

_____
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We have recorded that Rhiannon completed some work with you on relationships and risk. How helpful or unhelpful were your meetings with Rhiannon? Please describe in as much detail as possible.

Do you think the way you see risk has changed since meeting Rachel and Rhiannon?

Do you think your behaviours have changed since meeting Rachel and Rhiannon?

What is different about your life now? Please describe in as much detail as possible.

Would you recommend that the Missing Children's Team continue working with young people? Why?

How could services be improved for young people in the future?

_____

_____

_____

Thank you for your time. We will send out your voucher once we receive you completed questionnaire, alternatively you can contact us on the telephone numbers provided.

Appendix N: Blank SERAF

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SERAF Risk Assessment Form

Name of worker completing assessment (by phone or email)		Name and contact details of referrer	
Child's Name		Local Authority	
Known to social services since		Date of SERAF Assessment	
Age Date of birth		Legal status Section: Migrant/Refugee/Asylum Seeker/Trafficked status Please specify:	
Ethnicity		Gender	
Physical/learning disabilities		Languages spoken	
Have child protection procedures been initiated? (If yes provide date)	Yes ☐ No ☐ If yes when:	Involvement with the youth justice system?	Yes ☐ No ☐
Is the child receiving support or services from any other agency?	Yes ☐ No ☐	If other agencies are involved please list them here e.g. CAMHS, EWO etc.	
Has sexual exploitation previously been identified as a specific issue for this child?	Yes ☐ No ☐ If yes when:	Has the All Wales Safeguarding and Promoting the Welfare of Children who are at Risk of Abuse through Sexual Exploitation Protocol been used?	Yes ☐ No ☐ If yes when:

Vulnerabilities	Please tick	Vulnerabilities	Please tick
Emotional neglect by parent/carer/family member	☐	Family history of mental health difficulties	☐
Physical abuse by parent/carer/family member	☐	Low self-esteem	☐

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SERAF Risk Assessment Form

Name of worker completing assessment (by phone or email)		Name and contact details of referrer	
Child's Name		Local Authority	
Known to social services since		Date of SERAF Assessment	
Age Date of birth		Legal status Section: Migrant/Refugee/Asylum Seeker/Trafficked status Please specify:	
Ethnicity		Gender	
Physical/learning disabilities		Languages spoken	
Have child protection procedures been initiated? (If yes provide date)	Yes ☐ No ☐ If yes when:	Involvement with the youth justice system?	Yes ☐ No ☐
Is the child receiving support or services from any other agency?	Yes ☐ No ☐	If other agencies are involved please list them here e.g. CAMHS, EWO etc.	
Has sexual exploitation previously been identified as a specific issue for this child?	Yes ☐ No ☐ If yes when:	Has the All Wales Safeguarding and Promoting the Welfare of Children who are at Risk of Abuse through Sexual Exploitation Protocol been used?	Yes ☐ No ☐ If yes when:

Vulnerabilities	Please tick	Vulnerabilities	Please tick
Emotional neglect by parent/carer/family member	☐	Family history of mental health difficulties	☐
Physical abuse by parent/carer/family member	☐	Low self-esteem	☐

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Physical abuse by controlling adult / physical injury without plausible explanation	☐	☐
Emotional abuse by controlling adult	☐	☐
Entering/leaving vehicles driven by unknown adults (not taking and driving away: car theft)	☐	☐
Unexplained amounts of money, expensive clothing or other items	☐	☐
Frequenting areas known for on/off street sexual exploitation	☐	☐

SERAF Score		In addition: Physical/Learning Disability: Score 1 Age under 13 and at least 1 significant risk factor present: Score 5
Risk Category		

Vulnerabilities Identified: (if any of these have been ticked please detail why)

Emotional neglect by parent/carer/family member:

Physical abuse by parent/carer/family member:

Sexual abuse:

Breakdown of family relationships:

Family history of domestic abuse:

Family history of substance misuse:

Family history of mental health difficulties:

Low self-esteem:

Unsuitable/inappropriate accommodation:

Isolated from peers/social networks:

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Appendix O: SERAF - Case Study

Ellie is 14 years old and is living in foster care; she has been living there since she was 8. Ellie was removed from the parental home by Social Services because she told her teacher that her mother's boyfriend was sexually abusing her. Ellie's mother has long term substance misuse issues and sometimes neglected Ellie.

Ellie has never liked school and has barely attended since Christmas. Ellie's behaviour at school is described as poor and she has been involved in violent altercations with other pupils. Teachers feel that Ellie is a bully.

Last month Ellie walked into a local police station and made allegations that she was raped by a man 5 months ago, she has since withdrawn this. Ellie's foster carer says she has heard Ellie receive threatening phone calls from this man's friends over the last month. Ellie often has new things and her foster carer is unaware of how she has got them, such as a new phone and designer clothes.

Ellie currently receives a lot of phone calls from older youths and men. Ellie sometimes does not come home until very late at night. Recently she has been going missing from placement for days at a time; this has been going on for the last 2 months. Ellie does not disclose where she has been or who she has been with when away from home however she has been spotted in areas known for prostitution.