Youth runaway experiences: risk factors and posttraumatic outcomes for young people suspected of being criminally exploited

HOLLIE PRICE, BSc (Hons), MSc

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Abstract

The current research contributes to the youth missing literature base by exploring risk factors for absconding, types of crime committed whilst away, and the psychological impact of runaway episodes. It studies factors before, during and after missing episodes, through a lens of potential criminal exploitation.

A systematic review of thirteen existing studies highlighted significant associations between missing episodes and involvement in theft, violence, property crime and drug related offences. Following this, an empirical study of 166 young people residing in a youth secure unit identified various individual, relational, and contextual risk factors for absconding from care, including care history and onset and frequency of offending, particularly theft and criminal damage. The study proposed a predictive model of absconding behaviours where care history was the strongest predictor. A second study explored the psychological impact of youth runaway episodes from 83 questionnaire responses. The findings showed that trauma symptomology was greater in those with histories of abuse, away for longer periods of time, engaged in substance misuse whilst away, and with indicated criminal exploitation. The study considered the mediating effect of suspected criminal exploitation on psychological harm. A case example contextualised findings throughout the thesis, considering issues typically affecting young people in care. Finally, the research comments on current practice through a critique of the Return Home Interview assessment process. It calls for improved tools for identifying indicators of harm or criminal exploitation.

This thesis overall strengthens understanding of links between missing episodes and offending, including possible psychological harm, and suggests criminal exploitation as a contextual framework behind the association of runaways and criminality. It highlights longer term harms of missing and emphasises the importance of standardised measures to capture the experiences of youth runaways. The results have practical implications, such as providing insight for police and partner agencies to develop informed practice. The predictive model and early indicator tools provide a means for services to identify high-risk youth before they go missing, allowing them to offer targeted prevention or safeguarding responses.

Keywords: missing children, missing youth, runaways, absconding, child criminal exploitation, CCE, runaway crime, trauma, return home interviews

An overview of the research completed in this thesis was presented at the School of Medicine Postgraduate Research Impact Forum 2020 and won the award for best peer-voted poster presentation (see Appendix A and Appendix B).

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List of Abbreviations

ACE	Adverse Childhood Experience
ACPO	Association of Chief Police Officers
ADHD	Attention Deficit Hyperactivity Disorder
APPG	All Party Parliamentary Group
AWOL	Absence Without Leave
CAF	Common Assessment Framework
CCE	Child Criminal Exploitation
CD	Conduct Disorder
CI	Confidence Interval
CORE-10	The Clinical Outcomes Routine Evaluation (10 item)
CSE	Child Sexual Exploitation
DfE	Department for Education
DSM-5	The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
DV	Dependent Variable
FE	Fisher's Exact
GST	General Strain Theory
ICC	Inter-rater Correlation Coefficient
IES-R	The Impact of Events Scale Revised
IV	Independent Variable
MoJ	Ministry of Justice
MOPAC	The Mayor of London's Office for Policing and Crime
NCA	National Crime Agency
NRM	National Referral Mechanism
OSQE	Observational Study Quality Evaluation
PCL-5	The Posttraumatic Stress Disorder Checklist
PTSD	Posttraumatic Stress Disorder
RHI	Return Home Interview
SD	Standard Deviation
SRO	Self-Report of Offending questionnaire

Chapter One

Introduction

This thesis explores youth runaway experiences including risk factors and posttraumatic outcomes for young people suspected of being criminally exploited. Several methodologies are used to investigate this research topic. These include systematic review methodology, primary research using established databases, primary research using online questionnaires, a single case study approach and a methodological critique of Return Home Interviews. This introduction will address background literature and definitions of the terms used throughout the thesis.

Young runaways

There is an increase in UK missing child reports (National Crime Agency, 2019) including those who have left home or care by choice. Definitions for absconding behaviours vary across the literature depending on location and care setting. In the UK, the police define a missing person as "anyone whose whereabouts cannot be established where the circumstances are out of character or the context suggests the person may be the subject of crime or at risk of harm to themselves or another" (ACPO, 2013, p.5). Similarly, Bowden, Lambie and Willis (2018, p. 537) define absconding as "when whereabouts is no longer known, and when the young person has left the property". In this thesis, the term 'running away' is used to describe young individuals leaving home or care by choice and staying away without permission (Smeaton, 2013), and the terms 'missing', 'run away' and 'abscond' are used interchangeably.

In terms of who runs away, there are consistent findings that youth are more likely to go missing from care than home (Pona, Raws & Chetwynd, 2019; Rees & Lee, 2005). Missing People (2021) reported one in ten looked after children go missing compared to one in two hundred predicted amongst the typical youth population (DfE, 2021). Sturrock and Holmes (2015) suggest a link between going missing and gang involvement, but state the association remains under researched. Absconding amongst diverse groups such as youth with disabilities and those who identify as LGBTQIA+ are under explored, although existing tentative findings suggest rates of running away to be significantly higher for minority groups (Maccio & Ferguson, 2016; Sullivan & Knutson, 2000).

Common to the literature are cited 'push' and 'pull' factors that contribute to missing episodes. Push factors that can drive youth out of their home include conflict or friction with parents or carers, family breakdown, poor relationships, abuse or neglect, problems in school and unhappiness with care placements or

the rules set by them. Pull factors that might encourage a young person to runway include relationships, seeking independence or a better life, exploitation or drug or alcohol use outside of their home (Biehal, Mitchell & Wade, 2003; Burgess *et al*., 2010; Jeanis, Fox & Muniz, 2019; Missing People, 2021; Taylor *et al*., 2014).

Risk when away

Current research literature draws attention to an array of risks of running away, related to health, physical and sexual abuse, substance use and addiction, crime and criminal conviction, exploitation, victimisation and possible longer-term harm (O'Hagan & Edmundson, 2021; Sturrock & Holmes, 2015), and it has been reported that one in 11 young runaways in the UK are harmed in some way whilst away (Rees, 2011). Robinson (2020) argued that harmful experiences during missing episodes contribute to a level of stress that outweighs a young person's emotional capacity or coping ability, possibly leading to longer term effects which the current study hopes to examine further.

It is repeatedly acknowledged in the current literature that links exist between running away and involvement with crime (Bowden & Lambie, 2015) with 52% of runaways committing crime (Hutchings *et al.*, 2019). Shalev Greene (2011) also found 82% of youth repeat runaways were arrested for criminal behaviours. Criminal behaviours whilst away can include violent person crimes, or offences against the person, which are crimes committed by direct physical harm or force being applied to another person. Statistics suggest there has been an increase in youth involvement with factors of the illicit drug market such as production, possession, and intent to supply (Home Office, 2007; Spicer *et al*., 2020) as well as amplified and potentially connected knife crime and homicides (O'Hagan & Edmundson, 2021; Sturrock & Holmes, 2015). Some factors of criminal activity and financial gain are also maintained as pull factors to running away (Sturrock & Holmes, 2015).

Crime and exploitation

Involvement in crime whilst away may also widen opportunity for youth to be at risk of exploitation and victimisation, where young people may become involved in criminality as a result of Child Sexual Exploitation (CSE) or Child Criminal Exploitation (CCE; MOPAC, 2021). The Children's Society (n.d.) report 4,000 adolescents are being criminally exploited in London alone, including both

individuals who are missing and who are not missing. Stevenson and Thomas (2018) studied the longer-term criminal justice-related outcomes of missing youth and found two thirds of Australian runaways were involved in offending and two thirds had a reported history of victimisation. They specified further research should aim to understand the extent of linked risks and vulnerabilities.

Exploring crime whilst away, and potential CCE, is driven by emerging literature and contributions to national news that young people appear to be travelling to distant areas when away from home to participate in illicit activities. For example, young people leave home to be able to courier drugs out of their local areas, in line with drug market changes (Robinson, McLean & Densley, 2019; Windle & Briggs, 2015). CCE can be viewed as a form of modern slavery and has been defined as events where "an individual or group takes advantage of an imbalance of power to coerce, control, manipulate or deceive a young person into criminal activity" (Home Office, 2018a, p. 2). In 2015, legislation sought to acknowledge exploitative activity where new offences for human trafficking were introduced to the Modern Slavery Act in England and Wales. It commonly involves a young person being manipulated and receiving payment or material gifts in return for fulfilling often criminal tasks. Exploitation can include working in drug factories, pickpocketing, assisting financial fraud and county lines involvement such as transporting drugs or money (Turner, Belcher & Pona, 2019). Young people are utilised to mitigate risks to exploiters, whereby children often have no existing criminal history, are less likely to be suspected of crime, will receive softer convictions, and can be more easily manipulated to carry out tasks for little or no reward (NCA, 2015). Whittaker *et al*. (2020, p. 14) describe CCE as a "highly exploitative operating model", where young people are especially vulnerable to being drawn into criminal activity though use of financial and status incentives or debt bondage.

It is reported one in twelve young people who go missing become victims of CCE (Pona *et al*., 2019), where the typical age of exploited youth has been reported across publications as young as 8-12 (Robinson, 2020; Windle & Briggs, 2015). It is suggested CCE can be both a cause and a consequence of missing episodes (Hunter, Dickson & Allan, 2019; Maxwell *et al*., 2019). For example, 27% of a small study of youth involved in county lines drug networks were previously reported as missing, with two fifths reported as repeat runaways (Bonning & Cleaver, 2021).

One mode of criminal exploitation that appears to be rising in the media and academic literature in recent years (Robinson, 2020) and identified as a key priority to tackle by the UK Government's Home Office (HM Government, 2018) is that of county lines drug networks, which refer to "organised criminal networks involved in exporting illegal drugs into one or more importing areas within the UK, using dedicated mobile phone lines or other form of 'deal line'". These networks are found to exploit young people and vulnerable adults to participate in the transporting and storing of drugs and money, using coercion, intimidation, violence and weapons to operate effectively (Rescue and Response Report Analysists, 2019, p. 7) and benefit profits that contribute to a £500m industry (Grierson, 2019). It is reported 1,729 children were suspected of being exploited by county lines networks in 2021 (Swann & Buchanan, 2023), although it is expected to be much higher. It is also noted that patterns of exploitation are likely to have changed following the impact of Covid-19. A recent study on the implications of the pandemic on county lines suggested that further to the ongoing evolution of the drugs supply model, county lines adapted to Covid-19 lockdown restrictions. Decreased reports of missing youth were initially interpreted as a reduction in those being exploited, but other reports suggested that networks had adopted new approaches to avoid police detection (Caluori, 2020, as cited in Brewster *et al*., 2023). For example, tactics included using vehicles or wearing uniforms and face masks to disguise as key workers to avoid detection on emptier train networks, following inconspicuous public movements on foot such as to supermarkets and daily exercise to travel, transporting more drugs at a time and staying in supply locations for longer periods (Brewster *et al*., 2023).

Child criminal exploitation is an issue that has only recently been defined and explored in the literature, and remains underdeveloped, however, missing youth has already been recognised as a likely indicator and risk factor for involvement in criminal exploitation (Sidebottom *et al*., 2019). Historical studies exist for issues that overlap in nature, some of which might appear relevant to a focus on CCE, including gang involvement and sexual exploitation (Maxwell *et al.,* 2019). To refine the focus of this research, a decision was made to exclude sources concerning human trafficking, CSE and gang networks as separate topics from the literature review and primary research unless findings were deemed relevant in the understanding or comparison of key concepts presented throughout, namely CCE and young runaways.

This thesis acknowledges that CSE has dominated the existing youth exploitation literature, and minimal studies seek to explore exploitation in the context of criminal activity, specifically youth being manipulated and coerced into committing crimes. This may be reflective of societal views that individuals involved in criminal behaviours are perpetrators, rather than recognised victims of any form of exploitation, a stance further perpetuated by the legislative framework in England that continues to separate youth who experience harm (via the child protection system) from those who are causing harm (via the youth justice system) (Lloyd *et al*., 2023). In support of an attitude shift, the All Party Parliamentary Group (APPG, 2015, p. 2) suggest "patterns of grooming of children for criminal exploitation are very similar to those of CSE. CSE was in the past perceived amongst professionals as the victim's fault or due to their risky behaviour". They believe "a similar culture currently exists around criminal exploitation" which will be discussed in this research.

Links to theory

Theoretical frameworks have been applied to youth runaway behaviours including attachment theory, where positive attachments with a parent or caregiver, typically stemming from physiological needs being met in infancy or childhood, are important for later outcomes (Ainsworth & Bowlby, 1991). Stein *et al*. (2009) explore maternal and paternal influences on runaway behaviours and subsequent youth crime, concluding that attachments, particularly to fathers, were protective against challenging behaviours. Runaway youth presenting with defiant and antisocial behaviours may not have had a secure base, such as a stable home which would act as a safe haven, offering safety to allow them to explore their environment, leading to the development of consequent problem behaviours (Golder *et al*., 2005). Youth who run away are especially vulnerable to criminal exploitation because they will cling to the first experience that fulfils their need rather than explore further options. Returning to a home that is not a safe haven may not be an option for some of these young individuals. Alternatively, youth may have lacked opportunities to experience appropriate parental boundaries and learn how to keep themselves safe, leading to runaway behaviours and subsequent negative outcomes such as involvement in crime. As highlighted in Jeanis (2017), classical criminology theories have also been applied to runaway youth samples. Social bond theory suggests that whilst all humans have the

capability to commit crime, some individuals have controls within their life that deter offending, such as strong bonds and family attachments, prosocial peers, beneficial school experiences, and a positive sense of community (Hirschi, 1969), which has been applied to youth runaway populations in several studies (Jeanis, 2017).

Harm and trauma

The final focus of this thesis is to reveal finer details of the harmful psychological impact missing episodes have on young people, particularly those featuring criminal and victim elements. This follows recognised links between stressful experiences and adverse psychological outcomes (Maschi *et al*., 2010) and literature that suggests exploitative activities whilst missing can have longer term consequences such as experiencing cumulative adverse childhood experiences (ACEs; Windle *et al.*, 2020), where more adverse life events experienced before the age of 18 contributes to a greater negative influence on health, mental health, and wellbeing throughout life (Anda *et al.,* 2010). Enduring emotional and psychological responses may include perceived memories of traumatic events, repetitive behaviours, trauma related fears or changed attitudes about self, the others and the world (Terr, 2003), or responses could reflect pervasive symptoms of posttraumatic stress disorder (PTSD) which may include nightmares, flashbacks, feelings of isolation, irritability and guilt (NHS, 2022). It is possible such early trauma could contribute to the development of later forms of mental distress such as adult psychosis (Shevlin *et al.,* 2008). Current awareness of challenges young people face whilst away, including in the context of crime and exploitation, introduces questions around the psychological impact of such activities, which this research aims to address.

Identifying noted behaviours and harms experienced relies on missing reports, multi-disciplinary approaches and effective communication. The efficacy of existing information gathering tools such as Return Home Interviews (RHIs) is considered in this thesis, in relation to the risk factors and harms identified throughout the studies.

Rationale, aims and contribution

Recent publications have maintained that there is a concerning scarcity of statistics and reporting of young people at risk of criminal exploitation (Turner *et*

al., 2019) and associated risks of harm. Much of the current understanding is tenuous, with mainstream media contributing often inaccurate or distorted portrayals of events (Robinson, 2020), police or government reports being potentially limited by bias (Windle *et al.,* 2020) and true realities from young people involved being hard to reach. Thus, findings are often drawn from state body published reports, which remain an important data source (Windle *et al.,* 2020). Current understanding also touches upon literature on CSE where similar trajectories of exploitation and abuse can be observed. An increased understanding of the topics of young runaways, risks whilst missing, crime, and harms experienced can contribute towards changes in legislation parallel to CSE research. Research can provide recommendations at practice level working with runaway youth, and at policy level towards shaping legislation that could address both victims and those at risk of missing-related harm or exploitation. A deeper understanding of who needs what type of support can help inform police strategy, assessment tools, practitioner intervention and wider governmental policy.

Current understanding of these elements introduced are further explored in succeeding chapters through consideration of existing literature and novel findings from the present research. Considering the existing evidence base is broadly informative regarding youth experiences when they abscond from home or care, this thesis attempts to explore further links between missing episodes and involvement with crime. It begins to examine what types of offending behaviours might be committed by those who run away through a systematic review of the current literature.

Existing research also illustrates some of the risk factors for running away from home or care. To build on this understanding, the current research looks into particular links and risk factors related to the perpetration of offending behaviours and their impact on the likelihood a young person will abscond.

It goes on to investigate victimisation through the potential harm and traumatic impact of experiences whilst away. The research maintains an open stance to the view young people might be either perpetrators of crime or victims of exploitation in these scenarios, and therefore the research will hold a particular focus on individuals who report indicators of criminal exploitation. Following chapters exploring runaway perpetration of crime and risk of harm and victimisation, a single youth case study aids the understanding of missing experiences featuring criminal behaviours and negative psychological outcomes.

It can be argued that all explored areas are a cause for concern for the youth population, which poses a question of exactly how young individuals at risk can be supported through identification of such risks. Therefore, the research finally diverts focus to current practice utilised in the UK to elicit information from young people that may be indicative of involvement with missing episodes, and potentially linked crime and trauma. It critiques the RHI protocol used by professionals following a missing episode, highlighting strengths of the tool, as well as limits to the reliability, validity and practicality of use across services.

In summary, this thesis will broadly explore young runaways, risks when away, crime and exploitation, and subsequent harm experienced. It will narrow its focus to applying findings to existing practical tools to make recommendations for service delivery. In such, the thesis addresses the following key research questions and provides commentary to all in the final discussion:

1. What are the typologies of criminal offences young runaways become involved in?
2. Is there evidence to suggest those who commit criminal offences whilst missing do so in the context of exploitation?
3. What factors already related to harm and offending are associated with young people who abscond from care settings?
4. How does involvement in crime or exploitation whilst away impact experience of trauma?
5. Are existing tools to identify risks of harm and exploitation related to youth absconding effective?

Chapter Two

Systematic Review

Youth criminal offending during runaway episodes: a systematic review

Link to previous chapter

The introduction highlights loose exploration of the behaviours of runaways and begins to draw attention to youth involvement in criminal offending whilst away. With a recent increase in young people reportedly travelling to different areas to engage in antisocial and criminal behaviours, as detailed through county lines phenomena, it is vital to gain a fuller understanding of what crimes young people become involved in when away, identified through missing person reports. However, the diversity within the evidence related to runaways, homeless youth, gangs, and victims of exploitation blurs the current understanding of what criminal behaviours young people become involved with during runaway episodes. This chapter aims to develop a foundational understanding of the criminal offending element of young runaways' behaviour by systematically assessing the current literature.

Abstract

Youth are exposed to increased risks whilst missing from home or care, including harm, exploitation and/or survival means that can be linked to involvement in criminal behaviours. Current literature lacks studies specifically examining the offending behavioural patterns of runaways and therefore this review examines and combines existing understanding of factors associated with different types of crime committed by young people whilst away. Thirteen quantitative studies were identified following a systematic search of five databases, grey literature and manual screening of relevant journals. A synthesis highlighted some significant associations between missing episodes and involvement in offending, including theft, violence, property crime and drug related offences. Some studies reported that criminal behaviour whilst missing was also associated with gender, ethnicity, location and length of time away. The review calls for additional empirical studies with improved methodology to contribute to the literature base. Implications for policy and practice, and recommendations for future research are considered.

Introduction

Incidents of going missing are a risk indicator for harm and exploitation, which warrants exploration of the risks young people face whilst away including those entwined in criminal behaviours, as highlighted in Chapter One. The previous chapter introduced definitions of missing persons, who goes missing and the causal and consequential effect of vulnerabilities in missing populations and repeat missing episodes.

Runaway crime

Research has illustrated links between running away and risk-taking behaviours such as offending (Sturrock & Holmes, 2015). For example, according to Rees and Lee (2005), young individuals who have come to the attention of police are more likely to have previously gone missing. In 2019, over 80% of youth given a criminal record whilst residing in care were also reported to have gone missing from care at least once, and 11% of all looked after children who were criminalised that year had recently been reported missing (The Mayor of London's Office for Policing and Crime (MOPAC), 2021). MOPAC report a complex relationship between missing incidents and involvement in criminal activity, and it is repeatedly acknowledged that links exist between running away and coming to the attention of the youth justice system (Bowden & Lambie, 2015); runaway youth are more likely to repeatedly engage in antisocial and criminal behaviours than those who do not run away (Kaufman & Widom, 1999; McCarthy & Hagan, 1992). Biehal and Wade (1999) explored over two hundred missing episodes and found just over one fifth of young people reported criminal activity the last time they were away from care. Furthermore, it has been suggested up to 52% of runaways become involved in crime (Hutchings *et al.,* 2019) and it has been proposed that after one month away, one in two runaway youth resort to criminal activities to support themselves including theft and drug dealing (Straus, 1994).

Further to this, Windle (1988) reported in early research that crime rates are twice as high for repeat runaways than one-time runaway youth. Shalev Greene (2011) explored a small cohort of these repeat runaway youth and found 82% were involved in criminal behaviours and subsequently arrested. They also reported that one police force found children who go missing frequently are seven times more likely to engage in crime than general population youth. The importance of the link is further highlighted by findings that in up to 40% of cases,

adolescents' criminal behaviours start when they are reported missing, implying missing episodes can be a catalyst to criminal involvement. However, the study did not explore the potential context of trafficking or exploitation.

It has been established that young individuals who already have a criminal offending history are more likely to go missing than those without convictions, potentially leading for further prospect of crime (Abrahams & Mungall, 1992; Sinclair & Gibbs, 1998, as cited in Shalev Greene, 2011). Evidence also conclusively demonstrates that youth in care are consistently over-represented in youth offending groups (Bateman, Day & Pitts, 2018). The connection between the care and youth justice systems is complex and determined by exogenous factors influencing each system including behavioural, social, familial, and systemic factors (Bateman *et al.*, 2018). This review will be open to exploring studies from diverse viewpoints but primarily aims to synthesise evidence focused on young runaways and crime which may include indicators of exploitation.

However, in contrast to the majority of conclusions, Abrahams and Mungall (1992) proposed no evidence to support previous views that runaways frequently become involved in crime. They presented findings from their study commissioned by the Metropolitan Police that showed most runaways picked up by police in London in one year were at risk of victimisation rather than perpetrating crime. They also suggested findings fell consistent with the idea that runaways tend to stay with friends or relatives for short durations. It is argued in this current review that activities have changed over time, and runaways are more commonly spending time on the streets or at locations organised by social peers or even criminal groups, increasing the risk for commission of crime. Typical locations and activities of young runaways requires fresh exploration.

Given runaway youth are likely to move location during their episode, it is important to consider the interaction of location of criminal behaviours. For example, a growing number of youth have been found in areas large distances from their home (NCA, 2017 as cited in Spicer *et al*., 2019). MOPAC (2017) reported just over half (55%) of youth offenders commit crime in the same borough in which they live in. It might be hypothesised that a proportion of the remaining offences committed by youth, in different boroughs to their place of residence, could be related to offending whilst missing from home or care.

Reasons for crime

The high rates of offending among runaways have been suggested as likely being the result of survival strategies, such as theft or selling drugs to meet basic needs such as funding food, accommodation and safety (Jeanis, 2020). This can be explored through further understanding of the types of crime young people commit whilst away. Tyler, Kort-Butler and Swendener (2014) explored homeless youth offending in the context of General Strain Theory (GST) which posits that strain (i.e., stress) contributes and leads to negative emotion or affective difficulties such as anger, anxiety, and depression, which can also expand to antisocial coping or criminal offending. Their conclusions of general strain linking to offending related to homeless youth could be applied to runaways who may too experience strain through poor childhood backgrounds, histories of living in care or push factors causing them to run away. From another perspective, Sturrock and Holmes (2015) found factors related to crime and financial gain were the most commonly reported pull factors to running away, suggesting young people may run away with intentions to commit acquisitive crime for their own personal gain.

Types of crime

Smeaton (2005) acknowledged little is known about the experiences of runaway youth and interviewed a small sample of twenty-three who ran away from home for continuous periods. They found a majority engaged in illegal activities to support themselves, where the most common strategy was stealing, including from shops, street robbery, stealing cars and burglary. Cockbain and Brayley (2012) proposed criminal typologies for general offending within their research on links between CSE and youth criminal activity. Typologies are based upon shared characteristics and labelled by their primary function, including Aggression (angry outbursts including assault and criminal damage), Acquisition (obtaining money or material, including through shoplifting and burglary), Non-compliance (not following legal requirements, such as breach of order or resisting arrest), Escapism (to release boredom or block out emotions, for example taking without consent and drug possession) and lastly Sexual Deviance (coercing others to participate in sexual acts, or statutory assaults). More than a third of the recorded offences in their study met the Aggression typology, which they deemed to be the most common. Overall, research has not yet clarified the characteristics or typologies of offending behaviours young people become involved in whilst

missing from home or care. It also does not consider how these may link to existing vulnerabilities or victimisation in the context of exploitation.

Exploitation

Whilst current statistics provide overviews of annual youth offending, research rarely explores offending locations or measures proportions of offences committed locally or away from home boroughs. Therefore, we turn to the literature that utilises populations of runaways, or youth who have been reported as missing from their home location, to explore types of criminal involvement.

Exploring this area is driven by emerging literature and contributions to national news that young people appear to be travelling to distant areas when away from home to participate in activities often deemed to be illegal. For example, young people leave home to be able to courier drugs out of their local areas (Robinson *et al.*, 2019; Windle & Briggs, 2015;), as part of a phenomenon known as county lines. County Lines Drug Networks (CLDNs) are organised networks involving the transportation of drugs from urban to rural areas (Home Office, 2022), carried out by criminal and organised crime groups (Home Office, 2022; National Crime Agency, 2016). CLDNs are understood under the broader definition of CCE, as defined by the Home Office (2022) who explain "CCE is common in county lines and occurs where an individual or group takes advantage of an imbalance of power to coerce, control, manipulate or deceive a child or young person under the age of 18. The victim may have been criminally exploited even if the activity appears consensual. Child criminal exploitation does not always involve physical contact; it can also occur through the use of technology".

A note on terminology

It is noted that previous research has often confounded those who run away and youth who are homeless, despite the two characterising different, yet not mutually exclusive, groups (Mansion, 2018). Mansion (2018, pg. 30) outlines that "leaving home (i.e. running away) is different from not having a home (i.e. homelessness), but one could also run away from home then become homeless or youth who remain with their parents despite all being homeless would not be considered a runaway". These overlapping but individual definitions make defining and reviewing studies difficult. The current review and wider thesis focus only on running away from home or care.

With that in mind, the current review hypothesises similar outcomes from the homeless population literature. Youth who are homeless report more drug selling, shoplifting, burglary and robbery behaviours when compared to non-runaway youth (Baron & Hartnagel, 1998). Violent crimes are also more frequent amongst homeless populations, 25% of whom have been identified as engaging in knife crime and 22% in firearms offences in the United States (Kipke *et al.*, 1997, as cited in Bender *et al*., 2010).

Similarly, it is noted a proportion of the literature, particularly that from the United States, utilises terminology including 'juvenile' to refer to being under the age of 18 and 'deviant' or 'delinquent' to refer to children or adolescents who commit illegal activities (Straus, 1994, pg. 80). For example, 'juvenile delinquency' is the youth violation of a law which would be considered a crime if committed by an adult. This review will consider all interchangeable terms. Lastly, many studies refer to prostitution and sex work as criminal offences due to historical legislation or existing laws in some countries. This study will not consider prostitution as criminal behaviour, aside from referring to sexual exploitation in a contextual manner.

Rationale

Studies have examined the long-term effects of missing episodes on outcomes including adult criminal offending (Benoit-Bryan, 2011; Windle, 1988) but focus on such behaviours whilst missing has not been evaluated or collectively reviewed. Although not all runaways become involved in criminal behaviours, the nature of these experiences is serious enough to warrant further understanding (Freeman, 1993).

Most previous runaway youth studies have been limited by small sample sizes, samples that include homeless adolescents, single-gendered samples, limited explored variables, and use of subjective, non-empirical methods (Jeanis, Fox & Muniz, 2019). There are no existing or planned systematic reviews on the topic and therefore this review hopes to explore and understand youth runaway crime to begin theorising factors that could contribute to offending patterns.

The aims are to understand the types of criminal offences young people are charged or prosecuted for and determine whether there is evidence to suggest those who commit criminal offences whilst missing do so in the context of trafficking or exploitation, based on existing indicators of such, as well as

additional potentially associated factors such as gender, ethnicity and length of time away.

Scoping exercise and objectives

Existing research has generally focused on why young people run away and what happens whilst away, with only a small sector of the literature beginning to address links between going missing and involvement with offending behaviours. Given the limited coverage and conclusions, often unearthed in grey literature and hidden within wider studies, this review aims to draw the existing evidence together to form an initial understanding of the potential association and to direct fuller research.

An initial scoping search was conducted in December 2022 to determine whether existing reviews addressed the area of interest. The Campbell Collaboration Library of Systematic Reviews, Cochrane Database of Systematic Reviews, and the search engine Google Scholar were searched, revealing no existing reviews. A further scoping exercise was performed to establish the feasibility of the review focus dependent on the extent of existing research, with initial findings supporting the proposal.

The aim of this review is therefore to summarise the evidence of the researched links between running away from home or care, and involvement in criminal offending whilst away. It intends to review types of crime committed and differences in behaviours by gender, ethnicity, whether missing from home or care, length of time away and single versus repeat missing episodes. It aims to identify patterns across these suggested associations and draw upon current understanding of CCE to comment on whether there is sufficient evidence pointing toward a potential link between the concepts of running away, exploitation and crime. The objective for the synthesis approach to review is to present new perspectives (Rumrill & Fitzgerald, 2001) on criminal activity whilst missing, and to begin to understand what happens whilst away through a lens of the current understanding of the important and emerging issue of CCE.

Building on the understanding of crime whilst missing, and potentially CCE, will support policy and practice development for organisations working with young populations who go missing and become involved in the criminal justice system by spotlighting warning signs for such behaviours as well as types of crime young people may commit. It may also aid legal services to understand the context

behind youth offending to strengthen decision making and approaches to youth prosecution and rehabilitation.

Methods

Search terms

A PECOC structure (Petticrew & Roberts, 2008) was defined to expand the review question by component concepts:

Population – youth/adolescents/teenagers under the age of 18, all gender identities and ethnicities, world wide

Exposure – defined as 'runaways' or 'missing persons'

Comparison – none/or a sample with no crime if reported

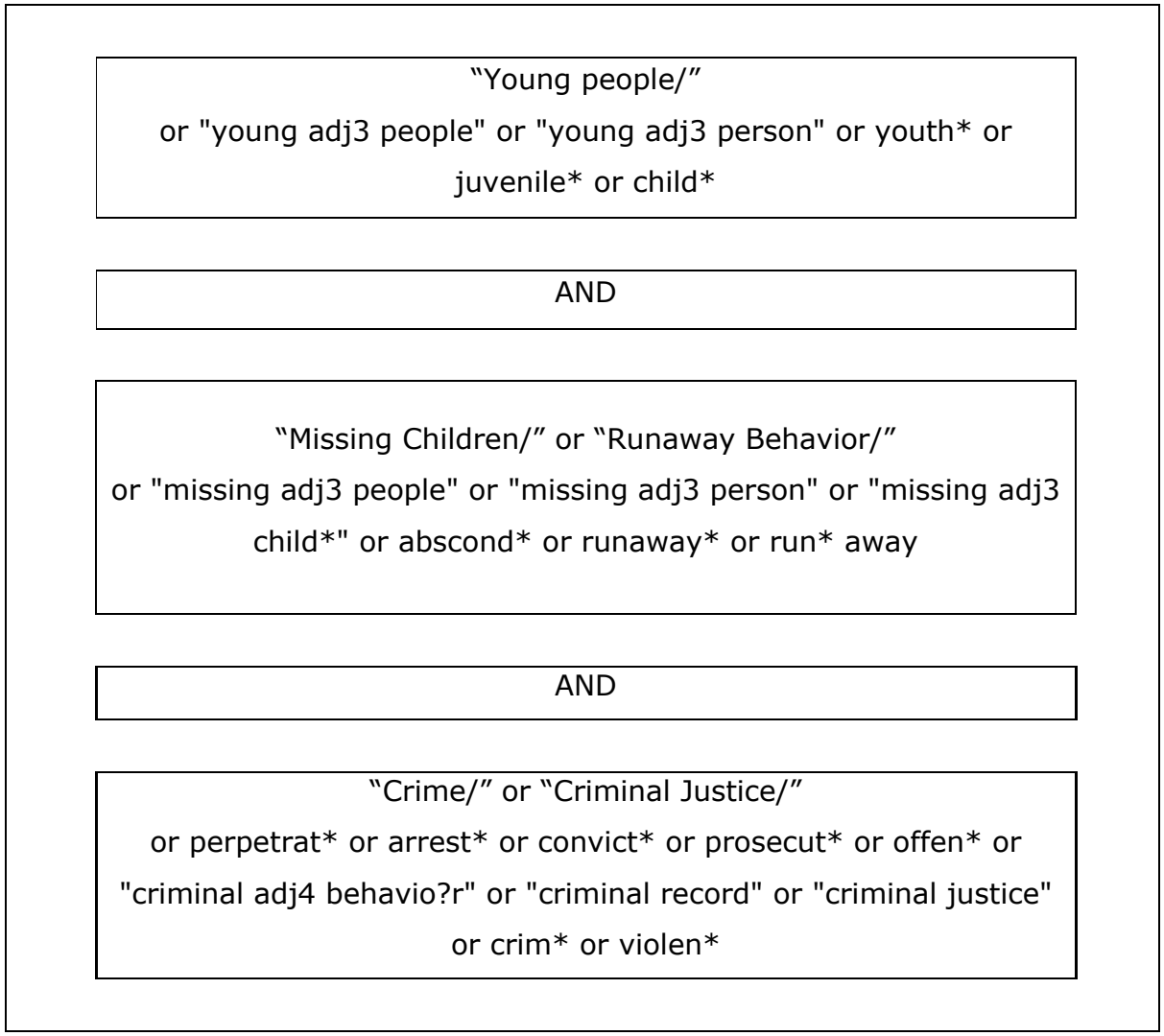
Outcomes – criminal offending defined by prevalence or types of crime and analysed associations, can include self-reports of engagement, police records and arrests or convictions.

Context – international studies published in English.

Key concepts were identified to develop the relevant search terms, such as by examining existing papers on associated topics sourced in the initial scoping exercise for key words and alternative terminology, for example, those used in other countries or aged language. Final search terms were reviewed by a professional librarian to ensure the strategy was comprehensive and efficient. The PsycINFO search strategy is presented in Figure 1 as an example, whereby search operators were adjusted minimally across databases to meet local requirements.

Figure 1

Example search strategy including search terms for electronic database searches, adapted for each specific database



Data sources

Terms identified were searched within the following electronic databases on 1st May 2023:

- Ovid: MEDLINE(R) ALL (1946 to April 30, 2023)
- Ovid: Embase (1974 to 2023 Week 18)
- Ovid: PsychINFO (1806 - to May Week 1 2023)
- ProQuest: Applied Social Sciences Index and Abstracts (ASSIA) (ALL)
- Web of Science Core Collection

A search for grey literature was conducted using the following databases and online resources: Barnado's, The Children's Society, National Crime Agency, NSPCC and Safeguarding Hub. Reference lists of included studies and relevant papers were manually searched.

Selection and screening tool

The search aimed to include study populations under the age of 18 in line with international law (UNCRC, 1989) of the age individuals are considered to be a child protected in law. Some previous studies of missing youth (Babuta & Sidebottom, 2020) have restricted their sample to the legal age of criminal responsibility, which is 10-17 years old in England (Cockbain & Brayley, 2012). Other studies have ignored this criteria and sampled children of any age who go missing. Searches were limited to pre-defined criteria and the English language.

The SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research type; Cooke *et al.,* 2012) tool was utilised to profile suitable references based on inclusion and exclusion criteria and guide the selection process (see Table 1). The SPIDER expanded on the PECOC defined earlier for the purposes of scoping. Findings were recorded using summary forms (see Appendix C) and texts were organised through EndNote reference management software.

Table 1

Inclusion and exclusion criteria applied to extracted references following SPIDER model

	Inclusion	Exclusion
Sample	• Individuals aged 5-18 years old at time of missing episode • Individuals over 18 who reported on experiences when they were under 18 • All gender identities, all ethnicities • All countries	• Adult samples (18+ years) • Mixed samples that do not report results by age • Homeless populations
Phenomenon of Interest	• Involvement in any type of criminal offending, by self-report, police record, arrest or conviction • Running away or missing episodes or specified as non-runaway group (for case control studies)	• Criminal offending prior to missing episode • No report of history of missing episodes or acknowledged as non-runaways • Sexual exploitation or victimisation
Design	• Empirical design, e.g., cohort, cross-sectional, case-control, longitudinal, prospective, retrospective studies • Use of interviews, psychometric measures or questionnaires	• No empirical design
Evaluation	• Themes, observations, opinions, self-reports, outcome measures, questionnaires, local authority or service records	• No outcomes assessed • Estimated results
Research Type	• Empirical studies including qualitative, quantitative, or mixed methods research • Articles including grey literature • Peer-review articles • Doctorate theses • Studies within book chapters	• Non-empirical studies/papers, e.g., narratives, reviews, editorials, letters, biographies, news articles, non-empirical book chapters • Below doctoral level thesis
Language	• Papers written in English.	• Papers written in languages other than English

Quality assessment

Quality assessment was conducted by one reviewer employing the Observational Study Quality Evaluation (OSQE; Drukker *et al*., 2021) tool. The OSQE was adopted for critical appraisal as it consists of three versions of the tool applicable to cross-sectional, cohort and case-control study designs, meeting the observational design variety of included texts (see Appendix D). The OSQE is a brief but comprehensive list designed to assess study quality and risk of bias (Drukker *et al*., 2021) and has been made up of three current quality lists to combat critique that existing tools are unsuitable for all observational studies (Sterne *et al*., 2016, as cited in Drekker *et al*., 2021). It has sufficient reliability (Drekker *et al*., 2021) but a limitation is that additional psychometric properties of the tool have not yet been published.

It uses a star rating score to discriminate study quality, where a higher score represents better quality, but sum of stars varies depending on questions applicable to the specific study and optional criteria. For fair comparison, a score was calculated (i.e., percentage totals of 'Yes' items) to develop a global quality rating (as in Richard & King, 2022). Scores were reviewed using criteria adapted from descriptors created in previous studies using the OSQE (Grinstead & Yoon, 2022; Richard & King, 2022): papers were considered low quality when below 50% of possible stars, moderate-fair between 50-<70%, moderate-good between 70-<80% and high-quality when ≥80%.

Due to the limited number of full text references included in this review and argument that all current research findings could input some insight, a low threshold was decided for excluding studies based on quality. No low quality studies according to the above criteria were identified, therefore, no studies were excluded following quality assessment. Assessment was still considered important for evaluation and discussion of the review findings, such as focusing on those offering higher quality research. A secondary reviewer was not used in this review, limiting the reliability of the assessment.

Data extraction

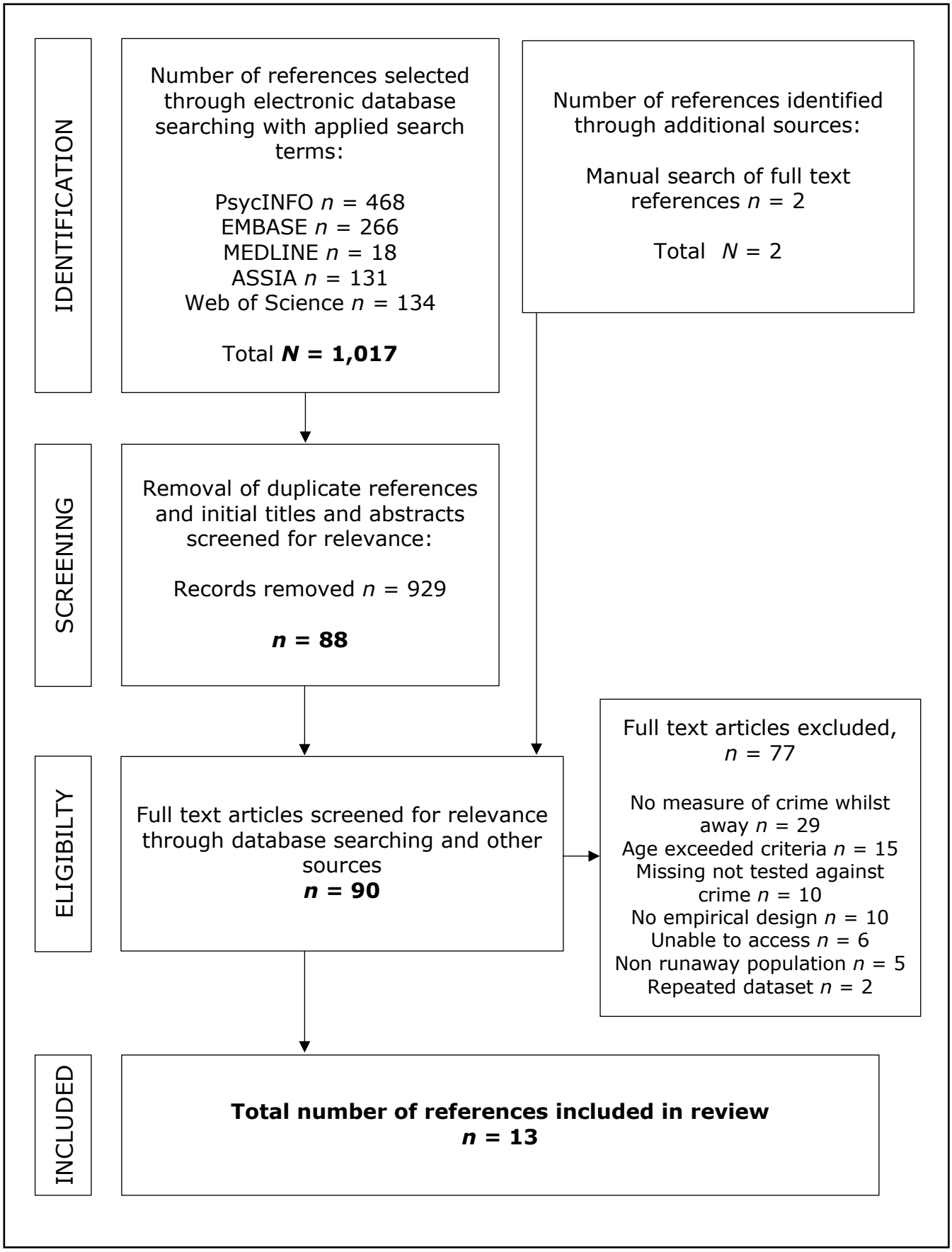
A data extraction form was developed based upon the inclusion and exclusion criteria of the current systematic review (see Appendix G), and drawing features from existing templates (i.e., The Cochrane Collaboration form). The form aimed to record relevant descriptive and outcome data.

Results

Following the full search, all records were imported into reference management software and duplications were removed (*n* = 340), resulting in 677 references. A further 589 records that did not meet the inclusion criteria were deselected at initial screening of titles and abstracts. See Figure 2 for a flow diagram of the search process (Moher *et al.,* 2009). Searches were supplemented by bibliography searching resulting in a further two suitable records. A total of 90 full text papers were retrieved and 77 were excluded at full text review as they did not meet criteria for reasons such as age exceeding criteria, not including a measure of criminal offending, and lack of empirical design (see Appendix E for full list). Accordingly, 13 sources were included for review.

Figure 2

PRISMA flow diagram of selection and screening process



Characteristics of included studies

All thirteen included studies were quantitative papers and published in the English language. Five studies were completed in the United Kingdom and the remaining eight were based in the United States. The dates of the studies ranged from 1973 to 2023.

All papers had observational designs which included eight cross-sectional studies (assessing risk factors and outcomes concurrently), three cohort studies (assessing risk factors in a group at the baseline and following the cohort over time to examine outcomes) and two case–control studies (a group of subjects meeting the phenomenon of interest matched with non-exposed controls) (Mann, 2003; Drekker *et al*., 2021). The majority of studies were published whereas two studies were PhD level dissertations.

The total number of participants across studies was 48,043, ranging from 41 to 42,577. All participants were aged 10-18, with the exception of one study that utilised slightly older participants who retrospectively reported missing experiences when they were under 18. The mean age, where reported across six studies, was 14.7 (or approximately 14 years and 8 months). Of 13 studies, 11 reported gender breakdowns. Six studies included more males and five had more female participants. Mean percentages were 50.7% and 48.2% respectively, illustrating a fairly equal gender split.

A range of methods were used to identify or measure participants as runaways and involvement in offending. For runaway prevalence, no consistent psychometric tools were recognised, but eight studies used self-report measures (i.e., through custom demographic forms, surveys/questionnaires or interviews). One study used a Missing Person Experience survey developed by the researcher (Hunt, 2021). Five studies utilised existing records (i.e., RHIs, missing persons files, agency records or referrals to justice systems). The same ratio was found for offending behaviours, where eight studies used self-report measures and five drew information from existing records. One self-report study (Francis, 2008) used an adapted Self-Report of Offending (SRO) questionnaire (Huizinga, Esbenson & Weihar, 1991). In addition to Hunt's (2021) own Missing Person Experience survey, Hunt also used the Criminal Narrative Roles questionnaire (Canter, Ioannou, & Youngs, 2009, as cited in Hunt, 2021) to measure offending. Table 2 summarises the characteristics of each included study. Papers will hereafter be referred to by their numerical ID.

Table 2

Summary of included study characteristics

	Study		Aims	Design	Sample details	Measure of running away	Measure of criminal behaviour	Quality rating
	Author	**Country**						
1	Allen (2005)	Oregon, USA	To explore differences among incarcerated males and females based on the type of crime they committed	Cohort, longitudinal PhD thesis Prospective survey approach	*N*=531 incarcerated youth in five large corrections facilities 443 males (83%) 88 females (17%) Age 12-18, *M*=15.77 19.8% from a minority cultural group	History of running away (as a variable in a wider study but high prevalence across sample: 90% of females, 56% of males) Self-report measured through custom demographic form 'Does the student have a history of running away from past living arrangements (at least one documented occurrence)?' Yes/no/I don't know	Types of crime, defined by person (victim present and violent, threatening or may result in harm) or property crime (taking or damaging something of value) To answer questions around 'violent versus less violent' acts Self-report measured by custom criminal activity form	86%

2	Biehal & Wade (2000)	UK	To explore risks encountered by young people who go missing from foster and residential placements To identify patterns for individuals who go missing to be with friends or family compared with those who run away	Cross-sectional Two parts – 1) main survey and 2) children's home survey Mixed methods quantitative methods and qualitative (36 interviews and 14 focus groups)	1) *N*=210 Age 11-16 Residential placements across four English local authorities 2) *N*=272 Youth in children's home Age 11-16 No ethnicity data	Missing from care overnight or reported missing to the police, measured through surveys - all types of unauthorised absence from placements, defined by individuals or professionals as running away Separated into 'friends' (gone missing to be with friends or family, 53%) and 'runaways' (run away or stayed out, 45%) profiles	Offending while away No report of types of crime Compares away for longer vs less time	75%
3	Boulton *et al*., (2023)	UK	To determine what information is regularly	Cross-sectional	*N*=90 Data from 113 RHI forms Age 8-17; *M*=14.49, *SD*=1.69	Exploratory analysis of Return Home Interviews - information	Reported previous offending and crime whilst away	88%

			gathered in RHIs To understand what insights RHIs might provide regarding missing incidents and those involved, including experience of harm whilst away		Of total RHI forms (not total youth in sample): 70 males (62%) 40 females (35%) 3 Unknown or not recorded (3%) Ethnicity breakdown: 29 white (26%) 8 Asian (7%) 2 mixed race/ethnicity (2%) 1 Black (1%) 1 Other racial/ethnic group (1%) 72 unknown (64%)	recorded in RHI assessments recorded by one English police	25 reports of crime during missing episode with types listed Lists reported and suspected criminal exploitation and organised crime group involvement	
4	Brennan, Huizinga & Elliott (1978)	Colorado, USA	To explain, predict, and describe the runaway behaviour of adolescents	Case control	Total *N*=674 *Study one: survey sample* Case *n*=183 Control *n*=139 Stratified, multistage cluster approach of 2,400 households Age 10-18 *Study two: institutional sample*	Runaway samples, uses explicit behavioural definition: youth absent from home for some period without guardian consent, 8 hours minimum *Study one: survey sample*	Self-reported delinquent behaviour developed and used, measured whether youth was arrested and whether referred to juvenile court Acknowledges victimisation, mostly sexual, but reliable	79%

					Case *n*=139 (of 816 in original study) Control *n*=213 (of 467 in original study) Through agencies working with runaway youth Age 10-18 No gender or ethnicity breakdown but later compares Anglo/non-Anglo groups	Measured through screening and parent and youth questionnaires *Study two: institutional sample* Part of national study of seven sites across USA	quantitative statistics not collected.	
5	Francis (2008)	Illinois, USA	To test the ability of a theory of crime and behaviour called General Strain Theory (GST) to explain gender differences in responses to stressors or strain	Cohort, longitudinal PhD thesis	*N*=1,915 from 80 Chicago neighbourhoods Age 11-18 by end of study period, *M*=14 950 females (49.6%) 965 males (50.4%) Ethnicity breakdown: 804 Latino (42%) 612 African-American (32%) 441 white (23%) 58 other (3%)	Self-reported number of times in the last year the participant ran away from home overnight	Correlations with minor theft Measure of aggressive delinquency drawn from adapted Self-Report of Offending (SRO) questionnaire. Considers frequency of 'law-violating behaviours' including	100%

							aggressive property crimes Measured through self-reported number of times in the last 12 months they have (a) stolen something from a store and (b) taken something that did not belong to them	
6	Howell, Emmons & Frank (1973)	USA	To report on the experience of going missing in the view of the runaway, such as reasons for leaving, difficulties whilst away, positives, and plans for the future	Cross-sectional	*N*=41 Youth who had contact with a non-profit multi-service agency / clinic for runaways Age >18, *M*=16 years, 1 month 23 males (56%) 18 females (44%) No ethnicity data	Youth who have run away and stayed away for three days or more and from 'stable' two-parent families Runaways interviewed by telephone one year after episode	Youths arrested as runaways Small mention of crime whilst away	63%
7	Hunt (2021)	UK	To explore whether the criminal	Cross-sectional	*N*=61 Age range not reported, *M*=21.17, *SD*=5.54, but	Previous missing measured through Missing	Percentages of crime whilst missing as part of	88%

			narrative experience framework is applicable to missing children to gain insight into the emotional, behavioural and psychological differences of decisions made by youth whilst away		'who had previously gone missing when they were a child' 12 males (19.7%) 43 females (70.5%) 6 other/unknown (9.8%) Ethnic breakdown: 30 White British (49.2%) 13 White other (21.3%) 11 Asian (18%) 4 Black (6.6%) 1 other/unknown (1.6%)	Person Experience survey developed by the researcher	missing person experience survey developed by the researcher and Criminal Narrative Roles questionnaire (Canter, Ioannou, & Youngs, 2009, as cited in Hunt, 2021)	
8	Jeanis *et al*., (2020)	Florida, USA	To ascertain the distinctive paths of runaway experiences, and to explore whether risk factors from developmental and life-course criminology (DLC) theories are applicable to missing youth	Cohort, longitudinal	*N*=295 Youth runaways Retrospective age at runaway event 6-18, *M*=14.6, *SD*=1.9 145 males (49%) 150 females (51%) 158 White (non-Hispanic; 53.5%) 103 African American (35%) 31 Hispanic (10.5%) 3 Other (1%)	Population of runaway cases in one calendar year Longitudinal data on each missing episode were acquired from agency records for a 4-year period = runaway frequency variable (range 0-66 events)	Measure of delinquency (60% of sample), data obtained from local police department Coded to analyse the coinciding crime correlated with runaway behaviour, defined by youth committing an offence serious enough to be	79%

			To identify sub-types of runaways based on number of episodes				referred to the juvenile justice system during the four years. Dichotomised as no delinquency history v referral	
9	Kempf-Leonard & Johansson (2007)	Texas, USA	To examine how gender affects youth who are referred to juvenile court for runaway offences	Cross-sectional	*N*=42,577 *n*=6,473 in runaway sample Age = not specified, but restricted to 'youths', data from juvenile setting 14,230 females (33.4%) 28,347 males (66.6%) Ethnicity breakdown (totals not reported): Runaways: White (26.6%) Black (36.0%) Hispanic (35.0%) Other (2.3%) (Non-runaways: White (38.3%) Black (30.8%) Hispanic (29.0%) Other (1.9%))	Defined as arrested for runaways status offence with at least one referral for running away from home	All referrals processed by juvenile justice system Defined by type of crime and level of seriousness Offending during period of runaway episode/charge, but not specific to whilst missing	88%

10	Sarri *et al*., (2016)	Michigan, USA	To understand the characteristics and consequences for youth who ran away and subsequently enter the justice system To determine the links between running away from care and involvement in the criminal justice system	Case control	*n*=371 matched pairs (total *N*=742, in care Age = adolescents over the age of 12 AWOL sample 209 females (56.3%) 162 males (43.7%) No AWOL sample 206 females (55.5%) 165 males (44.5%) AWOL sample 57 white (15.4%) 312 African American (84.1%) 2 other (0.6%) No AWOL sample 55 white (14.8%) 314 African American (84.6%) 2 other (0.6%)	Missing from foster care at least once, compared runaways vs non-runaways	42% of sample have reported convictions from administrative data taken from juvenile justice and child welfare records Link between running away from foster care and criminal justice system	100%
11	Shalev Greene (2011)	UK	To highlight the extent of missing youth's involvement in crime and	Cross-sectional	*N*=51 Missing youth Age 9-17, *M*=14 36 females (71%) 15 males (29%)	Missing three or more times in one year period Taken from missing persons	List of offences Arrest and conviction records from police	63%

			related long-term risks		No ethnicity data	files held by police departments	department records	
12	Wade *et al.* (1998)	UK	To outline key elements of youth backgrounds and risks encountered whilst away	Cross-sectional Three studies: main survey, community homes and interview	*Main survey sample* *N*=210 Youth from four local authorities Age 10-16 105 females (50%) 105 males (50%) Black and Asian (20%) *Community homes sample* *N*=272 Age 10-16 114 females (42%) 158 males (58%) Black and Asian (25%)	Missing overnight or reported as missing to police from self-report surveys	Previous offending and crime whist away (22%), lists types Self-report surveys	63%
13	Yoder *et al.* (2005)	Nebraska, USA	To examine how race and gender can contribute to the likelihood arrest for a more serious or	Cross-sectional	*N*=584 Homeless and runaway youths in four states Age 12-22 *M*=16.27, *SD*=1.93, but age of runaway also reported (*M*=13.53)	Runaway and homeless population (interpreted with caution due to presence of homeless)	Arrests prior (*n*=16) and during runaway episode (*n*=282) Collected through interview (how	88%

	less serious criminal offence	361 females (60%) 223 males (40%) Ethnicity breakdown 351 white (non-Hispanic) (60.1%) 141 African American (24.1%) 19 Hispanic (3.3%) 15 Native American (2.5%) 58 mixed ethnicity/other (10%)	Collected through interview (age at which they first ran away)	many times ever been arrested, type of offence(s) committed for their first arrest and for their four most recent arrests) Define 'less serious offences' and 'more serious offences'

Note: Some data is not recorded due to being unreported in the listed studies

Quality assessment

Quality assessment of the current studies ranged from 63% (6, 11 and 12) to 100% (5 and 10), with a mean of 82%. This provides an indication that the overall quality of selected studies was satisfactory. All studies had clearly defined aims, objectives and samples. The independent and dependent variables were judged to be optimal and valid in all studies. Studies followed satisfactory protocols in reporting results, apart from in one study where this was deemed inadequate (2) and one study where it was unclear (9). In cohort studies, all references followed acceptable protocols including using unknown exposures and sufficient follow up periods. Weaknesses included that a number of studies were deemed to have inadequate samples for internal validity and representativeness (1, 6, 7, 11 and 12), and some studies did not specify factors of the study design resulting in a number of 'unknown' ratings. Weaknesses are noted in synthesis in order to direct caution when interpreting results.

See Appendix F for quality assessment results and Table 3 for rank ordered list of included studies. For those with the same quality score, cohort study designs were ranked higher than other observational designs due to potential to produce the most robust scientific evidence (Song & Chung, 2010). It is finally noted gender analyses were not carried out for studies 2, 3, 7, 11 and 12, and ethnicity analyses were not conducted in studies 1, 2, 3, 5, 6, 7, 8, 11 and 12, meaning these studies are less robust than others which further affects interpretation of quality scores.

Table 3

Included texts ranked by quality assessment score (see Appendix F)

ID	Author	Quality rank	Quality score	
5	Francis (2008)	1	100%	High
10	Sarri *et al*., (2016)	2	100%	
3	Boulton *et al*. (2023)	3	88%	
7	Hunt (2021)	3	88%	
9	Kempf-Leonard & Johansson (2007)	3	88%	
13	Yoder *et al.* (2005)	3	88%	
1	Allen (2005)	4	86%	
2	Biehal & Wade (2000)	5	75%	Moderate-good
8	Jeanis *et al*. (2020)	6	79%	
4	Brennan, Huizinga & Elliott (1978)	7	79%	
6	Howell, Emmons & Frank (1973)	8	63%	Moderate-fair
11	Shalev Greene (2011)	8	63%	
12	Wade *et al.* (1998)	8	63%	

Synthesis

Findings were extracted from consultation of the 13 full texts, which were recorded in data extraction forms and summarised in Table 4. Findings from the pooled result are discussed in relation to the aim of the current review and to explore heterogeneity using a descriptive approach. This synthesis treats studies 1-13 as a group unless otherwise specified that concepts have been mapped from separate subgroups.

Table 4

Summary of findings and data synthesis

STUDY	ANALYSIS	RESULTS					
		Running away and criminal offending	Types of crime	Difference in criminal offending by group			
				Gender	Ethnicity	Missing from home or care	Single or repeat episodes
1 Allen (2005)	Chi-square, ANOVA, discriminant analysis	-	The presence of running away is associated with person crimes for males	87.8% of females committed person crimes and ran away compared with 54.6% of males (p<.001) 97.2% of female runaways committed property crimes, compared with 60.8% males (p<.001) No intragroup differences were found for running	-	-	-

				away according to the type of crime committed (male p=.228; female, p=.124). No statistically significant interactions between running away and gender in the prediction of type of crime committed *(F* = 1.60, p=.21)			
2 Biehal & Wade (2000)	Multivariate – analyses not reported	*N* = 75 offended whilst away (35.7% of sample) Presence of offending whilst away was significantly different between *friends* and *runaway* groups, with	-	-	-	Compared *home* and *care* groups and found significant association between care group and involvement in offending (p=.010)	Number of times recently gone missing found to be one of three variables most influential in explaining different patterns for *friends* and *runaway* groups Past offending significantly

		friends group less likely to have committed offence (p<.001)					associated with high absence rate in both *friends* and *runaway* groups (p<.001)
3 Boulton *et al*., (2023)	Spearman's correlation and chi-square tests	-	Of 46 RHIs that recorded *previous* crime: 72% (n=33) drug related; 11% (n=5) related to violent offences; 7% (n=3) theft; 4% (n=2) sexual offences; 2% (n=1) other and 7% (n=3) type unknown. Of 25 RHIs (22%) that stated engagement in crime *during* episode: 13% (n=15) drug related (includes consumption, drug selling and drug running); 4%	-	-	Breakdown of from home or care listed in study but not included in statistical analyses against offending	Half of sample (48%, n=54) repeat runaways, 14%, n=16) first time runaways and 38% (n=43) unknown Repeat RHIs significantly associated with crime *before* missing episode (p<.001) and crime type (mostly drug-related; p<.010)

			(*n*=5) theft and 3% (*n*=3) violence 26% (*n*=29) didn't admit crime and 52% (*n*=59) unknown/ unreported Few references to CCE: Confirmed 4% (*n*=4), suspected 11% (*n*=12) and 86% unknown (*n*=97) Few references to links to organised crime groups: Confirmed 4% (*n*=4), suspected 4% (*n*=5) and 92% unknown (*n*=104)				
4 Brennan, Huizinga &	ANOVA and post hoc tests, stepwise	Arrest and charge rates for runaways: 10-13 years old	Theft identified in 'large proportion' of sample, including variety	More male than females sell drugs (no	Made some Anglo versus non-Anglo comparisons but	-	Multiple/repeat runaways have 'far higher' rates of theft (no

Elliott (1978)	discriminant analysis (later in study)	(<10%), 16+ years old (>20%).	of difference kinds: 33% small scale (stealing <$5) and 15% larger values (>$50) 6% of sample reported using violence to get money from other persons 20% reported selling cannabis, 11.4% 'hard drugs' Other survival crimes: breaking into buildings (10.3%), taking a car (13.9%), assault (10.9%), property damage (14.5%)	statistical significance) Female more likely to be arrested than male, but no influence on tendency to have general contact with police Females still reported generally 'less delinquent' (p=.100) in one study, second study reportedly higher significance but not reported	does not define categories Arrest rates higher for non-Anglo (36%) than Anglo (29%), (no statistical sig) Anglo 'less delinquent' than non-Anglo – reported to be significant but no value published, with Black males highest Listed specific offences more commonly committed by minorities (breaking and entering property, gang fighting, using force or violence to get money,		values or sig values) Repeat have higher rates of violence (8%) compared with single episode runaways (4%) (no sig values) Repeat have higher rates of selling cannabis (26.4%) compared with single episode runaways (9.6%) and 'hard drugs' where repeat (16.5%) compared with single (5.5%) (no sig values) All of 'other survival crimes' listed in column 4 are higher for repeat than

					theft >$50, taking a car, using and selling drugs) No strong influence of ethnicity on contact with police 29% non-Anglo go to juvenile court as a result of behaviour associated with runaway episode compared to 22% Anglo		single runaways (see page 129 of original text)
5 Francis (2008)	Correlations Later hierarchical regression specific to study aims	Found aggressive delinquency (see Table 2 definition) related to running away (p<.010)	Found minor theft related to running away (p<.010)	Found no gender differences in running away and frequency of minor theft	-	-	-

6 Howell, Emmons & Frank (1973)	Chi-square associations	20% (*n*=12) reported difficulties with police whilst missing	One male was arrested for stealing a car	20% (*n*=8) males reported problems with police compared with 10% (*n*=4) of females, but difference was found to be non-significant	-	-	-
7 Hunt (2021)	Smallest space analysis (SSA), uses coefficients to create visual repre-sentation	-	During runaway episodes: (*n*=10, 16.4%) Begging (*n*=7, 11.5%) Selling drugs (*n*=2, 3.3%) Shoplifting / theft (*n*=2, 3.3%) Physical violence against person (*n*=1, 1.6%)	-	-	-	-
8 Jeanis *et al*., (2020)	Correlations Group-based trajectory modelling (GBTM)	-	-	Significant difference between male and female runaways and the presence of a	-	-	(Measured low rate (average of two runaway episodes) and chronic) at least 6 episodes) but no stats

				delinquency referral Males has far higher delinquency rate (70%) compared to female runaways (51%) (x^2 = 11.9, p<.010)			compared with criminal behaviour)
9 Kempf-Leonard & Johansson (2007)	Correlations Logistic regression	Compared runaways with non-runaways but not specific to offences More runaways had 2-4, or 5 or more charges (p<.001) than non-runaway	More than 10% of runaways were charged with theft or simple assaults Serious charges were not common among runaways compared with other youths referred to juvenile justice system 'Serious charges' defined as including homicide, robbery,	Of runaway sample: 72.8% females did not commit crime v 56.2% of males 25.2% females had non-serious criminal charges vs 32.9% of males 2.1% females had serious charges vs 11% of males	Offence seriousness was directly correlated with African American ethnicity for males and females (p<.010), but not other ethnic identities No ethnicity to crime type direct comparisons	Compared home: 'lives with two parents', 'single parent', 'friend/ relative' or care: 'foster care, group home or institutional settings' Offence seriousness was significant (p<.001) for care group for both males and females, living with a relative or	Compared one runaway charge against multiple charges When comparing youth with at least one runaway charge, there's a statistically significant difference with males more involved than females in other types of offending,

			burglary, aggravated assault and weapons violations	Most youths had offence referrals during a single year, but male runaways had more multiple year offending than other young people No statistical analyses		friend was only home group found to be significant for males only (p<.010).	particularly theft, assault, drugs and weapons (no statistics) Three quarters of runaways had only one runaway charge, one quarter had multiple (no statistics)
10 Sarri *et al*., (2016)	Correlations Event history analysis Cox regression/ hazard ratio	Youth that ran away from placement (AWOL group) were significantly more likely to have subsequent contact with the justice system (hazard increased by 239%), not explicit but alludes to crime whilst away	Crime types defined as: Serious person felonies – homicide, serious assault, carjacking Person felonies – armed robbery, sexual assault, lesser assault Property crimes – burglary, theft of personal property, other theft No key findings between types	Of AWOL male sample (N=108) and AWOL female sample (N=34), differences in percentages but not statistically analysed: Serious person felony: male (n= 6, 5.6%) vs female (n=2, 5.9%) Person crime: male (n=18,	Differences in percentages but significance not statistically analysed: Serious person felony: African American (n= 8, 6.3%) v white (n=0) Person crime: AA (n=23, 18.3%) vs white (n=2, 12.5%)	-	-

		16.7%) vs female (*n*=7, 20.6%) Serious property crime: male (*n*=24, 22.2%) vs female (*n*=3, 8.8%) Drug violations: male (*n*=20, 18.5%) vs female (*n*=2, 5.9%) Weapons violations: male (*n*=15, 13.9%) vs female (*n*=0) Property crime: male (*n*=25, 23.1%) vs female (*n*=20, 58.8%) Males had more juvenile justice system contact for both	Serious property crime: AA (*n*=23, 18.3%) vs white (*n*=4, 25%) Drug violations: AA (*n*=19, 15.1%) vs white (*n*=3, 18.8%) Weapons violations: AA (*n*=15, 11.9%) vs white (*n*=0) Property crime: AA (*n*=38, 30.2%) vs white (*n*=7, 43.8%) There was no statistically significant hazard rate for offending in African American and white youth

				runaways and non runaways			
11 Shalev Greene (2011)	Correlations	*Arrests:* 86% repeat runaways arrested at least once, nearly 8 times per person (range 1-30) 13.7% never arrested 35.3% 1-5 arrests (over a third) 21.6% 6-10 arrests 17.6% 11-20 arrests 11.8% 21+ arrests *Convictions:* 75% no convictions 20% 1-5 convictions 6% 6+ convictions	Child protection / domestic incidents: arrests *n*=47, 12%, no convictions Harassment: arrests *n*=13, 3%, no convictions Drug possession: arrests *n*=10, 2%, convictions *n*=1, 1% Did not support drug possession theories in literature as found to be rare Shoplifting: arrests *n*=42, 11%, convictions *n*=4, 8% Theft: arrests *n*=42, 11%,	(There were likely gender differences, for example 6 of the 7 rape arrests were female, however, no analyses were reported)	-	Youth go missing from care more often than those living at home. But no statistical correlation was found compared against number of arrests	(Whole sample repeat, no comparator) *Arrests:* 86% repeat runaways arrested at least once, nearly 8 times per person (range 1-30) 13.7% never arrested 35.3% 1-5 arrests (over a third) 21.6% 6-10 arrests 17.6% 11-20 arrests 11.8% 21+ arrests

	Record of 51 convictions, between 0-10 per person Statistical analyses found no significance	convictions *n*=4, 8% Shoplifting and theft suggested to be indicative of survival crimes Burglary: arrests *n*=15, 4%, convictions *n*=3, 6% Battery, assault and GBH: arrests *n*=110, 28%, convictions *n*=16, 31% Most common type of crime for arrests and convictions Public disorder: arrests *n*=18, 5%, convictions *n*=3, 6% Criminal damage: arrests *n*=54,			

			14%, convictions *n*=7, 14% Rape: arrests *n*=7, 2%, no convictions Robbery: arrests *n*=8, 2%, no convictions Arson: arrests *n*=7, 2%, convictions *n*=1, 1% Statistical analyses found no significance				
12 Wade *et al.* (1998)	Correlations	Going missing with others could initiate or escalate crime Nearly half (49%) had previous offence prior to missing episode, but	-	-	-	Sample all from care, with 2/3 from residential placements, mostly community homes, and 1/3 foster placements. But nearly half (46%)	-

	22% committed an offence during recent missing episode. They suggested a strong relationship, but reported no statistics.		were known to have first gone missing from home, dividing the sample. Past offences: those missing from home more likely to have past offences (58%) compared with 40% from care, p=.020. Also measured 'placement movement' to indicate care history or those with 'less stable care career': care group missing significantly more often (p=.030) and offend significantly more (p=.010).	

13 Yoder *et al.* (2005)	Discrete time event history analysis Logistic regression	Of total *N*=584 runaways in sample, *n*=312 were arrested at some point in their lives (53.4%) *n*=298 used for further analysis: 16 were arrested before running away 282 were arrested after running away from home (94.6% of those ever arrested and 48.3% of total runaway sample), 229 of who had not been arrested prior	Of 282 who were arrested after running away ('post-run arrests'): 155 were for less serious offences: Shoplifting 17.4% of 155/ (9.6% of 282), Alcohol and drug-related offences (15.5% of 155) / (8.5% of 282), Other (33.6% of 155) / (18.4% of 282)[1] 127 were for more serious offences: Property offences/theft 18.9% (of 127) / (8.5% of 282), Damage/ vandalism or arson 6.3% / (2.8% of 282),	Gender was statistically significant in the model predicting arrests for a more serious crime – males were 1.65 times more likely than females to commit a more serious crime (*p*<.050) Gender x ethnicity interaction: Of all interactions analysed, race*gender was statistically significant in the model predicting arrest for a less serious offence (*p*<.010): White females found to be more likely than non-white females (*p*=.030) and white males (*p*=.010) to be arrested for a less serious offence.	Ethnicity/race was statistically significant in the model predicting arrests for a more serious offences – 'non-white' youths were 1.49 times more likely than white youths to commit a more serious crime (*p*<.050)	-	-

	Serious property offences (burglary, armed robbery, auto theft) 29.1% / (13.1% of 282), Injury (assault, assault with a weapon, fights or domestic violence) % unknown[1]	'Non-white' males somewhat more likely than white males (p=.07) to be arrested for a less serious offence. 'Non-white' males not significantly more likely than non-white females (p=.16) to be arrested for a less serious offence.	

[1] The paper does not clarify crimes included in the 'Other' category or the percent involved in injury as a more serious offence. The authors were contacted for clarification but due to the considerable number of years since publication the authors were unable to recall detail to answer queries.

Findings from across the collection of included studies are grouped and discussed parallel to the review aims. The final map is further explored by involvement in criminal offending and the interaction with types of crime.

General running away and offending rates and patterns. Nine studies directly compared incidences of running away and criminal offending (2, 4, 5, 6, 9, 10, 11, 12 and 13), some of which outlined direct correlations. Rates of crime, arrest, or interaction with police whilst running away when compared in the perspective of whole samples varied across studies, widely ranging from <10% to 86% with a mean of 34.57 (*SD* = 24.0). The variety of rates does not enable a plausible conclusion on the rate of runaway offending to be implied. Wade *et al.* (1998) suggested a strong relationship but did not statistically analyse results to strengthen their claims, and Shalev Greene (2011) reported statistical analyses found no significance in these areas of study.

In the absence of a numerical statistic, further studies (9 and 10) supported the notion that runaways were more involved in crime than non-runaways. Kempf-Leonard and Johansson (2007) reported highly significantly more runaways had 2-4 or 5 or more criminal charges than non-runaways and Sarri *et al*. (2016) found runaways were significantly more likely to have consequent contact with the justice system, which whilst not explicit to the commission of crime, alludes to offending whilst away.

In terms of findings that were included in forms of statistical analysis, Francis (2008) reported aggressive property crimes (i.e., arson, breaking and entering, use of weapons and gang fighting) to be significantly related to running away, although this is limited to only a few types of crime. Biehal and Wade (2000) looked at the presence of runaway offending between groups who ran to spend time with friends versus those who stayed out, and reported a significant difference whereby those who ran away to stay out were more likely to offend. No further studies provided statistical backing to their reports.

Of the studies listed, six explored offence data measured through self-report methods (2, 4, 5, 6, 12 and 13) and three used existing records from administrative data or local police departments (9, 10 and 11). Self-report data could weaken statistics presented.

Types of crime committed by runaways. Eight studies identified and listed the types of crime committed by runaways (3, 4, 5, 6, 7, 9, 11 and 13), which will be discussed by type. Past offences are considered but the main focus in line with the review aims is offences committed whilst missing.

Past offences. For purposes of context, one study explored past offending histories of runaways. Boulton *et al.* (2023) reported past crime runaways had committed: 72% were drug related, 11% related to violent offences, 7% theft and 4% sexual offences. A further 9% were 'other' or unspecified types, given the nature of information being collected from RHIs which likely lacked full detail. In addition, 52% of crimes were unknown or unreported, which is a limitation of Boulton *et al*.'s study.

Offending whilst away

Violence. One fifth of Boulton *et al.*'s (2023) sample of return home interviewees reported crime while being away, with 3% of these having been involved in violent crimes. Brennan *et al.* (1978) also reported 6% of their sample used violence to aid theft from persons, and 11% committed assault. Hunt (2021) reported a small number of offences whilst away, accounting for 16% of the sample, including 2% who committed physical violence against persons. The small rate is likely to be influenced by the very small sample size.

Shalev Greene (2011) found 3% of arrests and convictions on record to be related to harassment. They reported higher rates of battery, assault and grievous bodily harm (GBH), with 28% of arrests and 31% convictions recorded. These forms of violence were reportedly the most common type of crime amongst recorded youth runaway arrests and convictions.

Only one study reported measures of sexual offences. Shalev Greene stated a small frequency of 2% of arrests and convictions were for rape offences.

Theft. Francis (2008) found minor theft to be significantly related to running away. Of Boulton *et al.*'s (2023) sample, 4% of offending runaways reported theft. This is quite different from earlier findings by Brennan *et al.* (1978) who reported theft to be identified in a large proportion of their sample, which included 33% of runaways involved in 'small scale' theft (stealing <$5) and 15% larger values (>$50). Additionally, 14% reported taking a car. However, their findings are not

backed by statistical analysis. Howell *et al.* (1973) reported one case of a male runaway being arrested for stealing a car, but the single case alongside their small sample size does not contribute valuable findings to the evidence. Hunt (2021) found 3% of their sample to commit shoplifting or theft, and Shalev Greene (2011) reported slightly higher rates of arrests (11%) and convictions (8%) for shoplifting among runaways. Shalev Greene's results were exactly replicated in those who committed theft, both of which are suggested to be indicative of survival crimes whilst away. Only 2% of records indicated arrests for robbery. Yoder *et al.* (2005) examined 282 youth who were arrested after running away and found 9% of those were involved in theft from properties, and 10% shoplifting.

Property crimes. Brennan *et al.* (1978) found 10% of their sample broke into buildings and 15% committed property damage. Shalev Greene (2011) found a smaller rate of 4% arrests for burglary, but 14% of records for arrest and 14% of convictions included elements of criminal damage. Yoder *et al.* (2005) found 3% of youth had been involved in property damage including vandalism and arson, but a higher rate of 13% had serious property offences including burglary, armed robbery and auto theft.

Arson. Only one study considered or reported arson offences; Shalev Greene (2011) identified 2% of arrest records were related to arson, but there were no convictions.

Drug crimes. Of Boulton *et al.*'s (2023) sample, 13% of runaways who committed crime reported drug related offences, including drug selling, running and consumption. This is close to findings of Brennan *et al.* (1978) who reported 20% of their sample selling cannabis and 11% selling hard drugs. A smaller rate was reported by Yoder *et al.* (2005) who found only 8.5% of their total sample to have alcohol and drug-related offences. Hunt (2021) also reported low incidences of drug selling, with 3% of their sample involved, although this is likely affected by small sample size. Similarly, Shalev Greene (2011) indicated 2% of their sample had arrests and 1% convictions for drug possession, which they argue illustrated drug possession to be rarer than was proposed in existing literature.

Begging. Hunt (2021) stated 12% of offending runaways reported begging. No other studies explored this, despite it being an expected behaviour for runaways to aid survival, as highlighted in the homeless population literature.

Organised crime. Boulton *et al.* (2023) explored indicators of organised crime and found 4% confirmed involvement in their sample, 4% of whom it was suspected and 92% unknown.

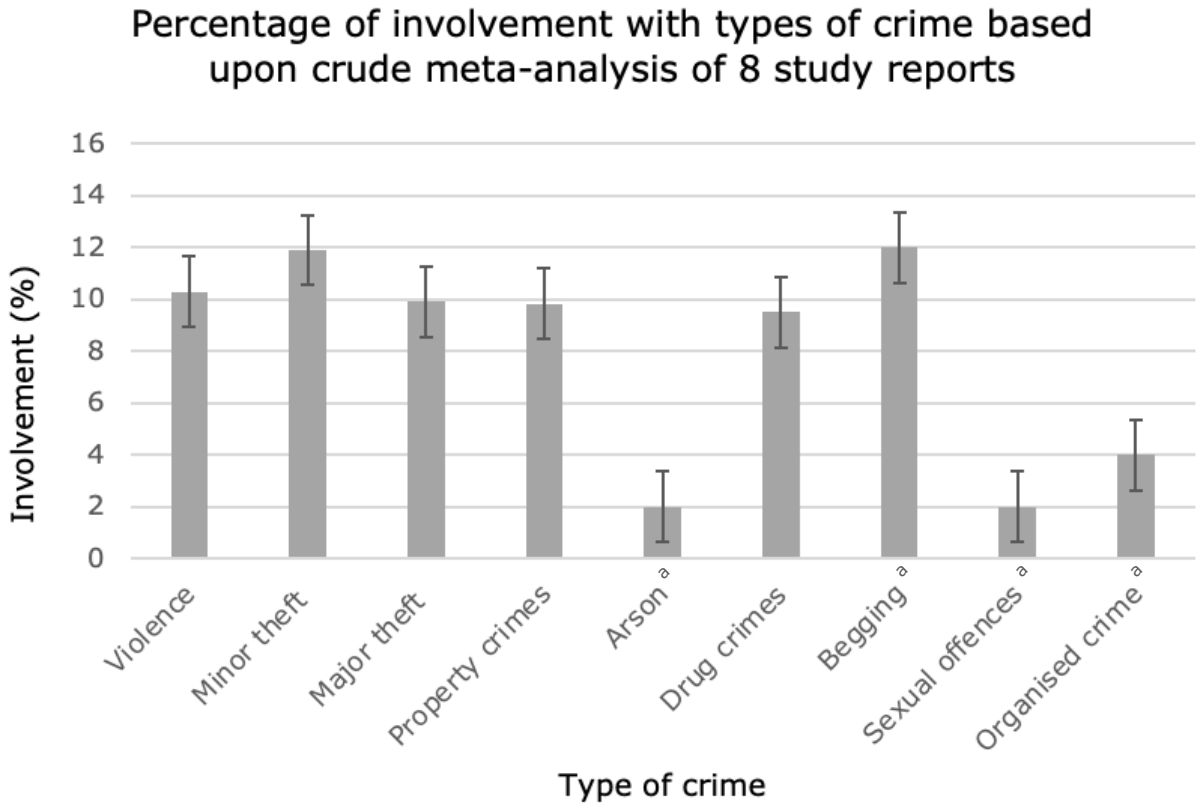
Criminal exploitation. Only one study made references to offending in the context of criminal exploitation, which is expected given CCE is a relatively new phenomenon. Boulton *et al.* (2023) explored indicators of CCE reported in return interviews and shared 4% of runaways had confirmed involvement, 11% suspected and 86% unknown.

Overall. In contrast to the above findings, Kempf-Leonard and Johansson (2007) suggested serious charges (including homicide, robbery, burglary, aggravated assault and weapons violations) were not as frequent among runaways as they were found to be among non-runaway youths referred to the youth justice system. More than 10% of their sample were charged with theft or minor assaults.

Based on percentages reported, crude meta-analyses were conducted based on average findings from eight studies (3, 4, 5, 6, 7, 9, 11 and 13), as presented in Figure 3. A limited number of eight studies contributed to this analysis due to lack of reported percentages in the existing literature, which is acknowledged in the study limitations. For prevalence reported for both arrests and convictions (i.e., Shalev Greene, 2011), an initial average of both was calculated before inclusion in the computation of the final mean. The final averages presented in Figure 3 were calculated by inputting percentages for involvement in each crime type across individual studies into a mean calculation. The number of studies included in each crime type ranged from 1-6, M = 3.44, SD = 2.35). Findings showed the most common types of crime committed during runaway episodes based on more than one reported prevalence were minor theft (11.9%), violence (10.3%) and major theft (9.9%), although the prevalence of property crimes (9.8%) and drug crimes (9.5%) were not hugely different.

Figure 3

Bar chart presenting mean percentages of involvement in different types of crime



[a] Figure calculated from only one study

Gender differences. Eight studies listed and explored differences in crime committed according to the gender of runaways, based upon binary identities (1, 4, 5, 6, 8, 9, 10 and 13). Involvement, types of crime and predictive abilities are outlined.

Male runaways were generally found to be more involved in criminal offending whilst away. Jeanis *et al*. (2020) found male runaways had a significantly higher rate of delinquency compared with females, which they define to be based on criminal activity serious enough to be reported to the youth justice system. Kempf-Leonard and Johansson (2007) also reported higher percentages of crime, including both 'non-serious' and 'serious' criminal charges in male runaways compared with females, but did not report statistical evidence. They added that whilst most youths had referrals for offences in a single year period, male runaways had increased multiple year offending than females, suggesting they are involved in repeat or

continuous offending behaviours. Generally, Sarri *et al*. (2016) reported male runaways to have more juvenile justice system contact than females. Yoder *et al.* (2005) also looked at the gender and ethnicity interaction in their study and found the interaction to significantly predict arrests for less serious offences. This introduces the notion that gender may not be a distinct predictor, but ethnicity also needs to be considered. Findings are reported below when discussing ethnicity.

In terms of predictive models, Yoder *et al.* (2005) reported gender to be statistically significant in their model predicting arrests for a more serious crime, whereby males were 1.65 times more likely than females to commit such. However, despite significant differences in gender, Allen (2005) reported no statistically significant interactions between running away and gender when attempting to predict types of crime that would be committed.

Only one study alluded to evidence for higher female involvement, where Brennan *et al.* (1978) found females more likely to be arrested than males. However, they found no gender influence on the tendency for young runaways to have contact with the police more generally. Despite their findings for more female arrests, Brennan *et al.* (1978) reported females to generally be 'less delinquent', which they define by arrests and/or referrals to juvenile court, making their overall conclusions unclear. Two studies found no such differences. Francis (2008) found no gender differences in running away and frequency of crime, namely minor theft, and similarly, Howell *et al*. (1973) reported more males who reported problems with the police than females, but the difference was found to be non-significant.

When considering differences in the types of crime committed, three studies reported sufficient details to further breakdown findings so far. Two studies pointed to females having greater involvement in person crimes. Allen (2005) found a highly significant difference in runaways committing person crimes, with more females than males involved. Sarri *et al*. (2016) similarly compared differences in crime frequency for AWOL males and females and reported mixed results, including that females had marginally higher percentage involvement in serious person crimes and person crimes. In addition, females were found to have higher involvement with weapons violations. However, Sarri *et al*.'s (2016) small and unequally distributed sample size may affect results and additionally, they provided percentage comparisons but no statistical analysis. No studies reported greater involvement in person crimes for male runaways.

Similar to their findings for person crimes, Allen (2005) found a highly significant difference whereby females committed more property crimes compared with males. Again, in line with this, Sarri *et al*. (2016) reported AWOL females to have higher involvement in property crime than males, although this result reverted to a higher frequency of males involved in serious property crime. Neither were analysed for significance.

Adding to the suggestion males are more involved in serious property crime, Brennan *et al.* (1978) stated more males than females sell drugs but did not report any statistical evidence. Parallel to this finding, Sarri *et al*. (2016) reported higher male involvement in drug related offences compared with females. Again, their small sample may affect results.

There is a lack of reported crime type defined by gender across all studies in this review, with only a couple of studies reporting percentage comparisons between person and property crimes, and only one study (10) listing prevalence of crime types by gender. Therefore, robust synthesis is not possible from the studies included in this review.

Ethnicity. Only four studies explored differences in crime committed according to the ethnicity of runaways (4, 9, 10 and 13), despite ten studies reporting the breakdown of ethnicity of their sample. Only one study reported on the interaction between runaway ethnicity and general involvement with crime, where Brennan *et al.* (1978) reported 'non-Anglo' runaways to be statistically more delinquent, or involved in crime, than 'Anglo' groups, with Black males reported to be most involved. Two of the remaining studies reported no such influence, where Kempf-Leonard and Johansson (2007) stated ethnicity does not strongly influence arrests associated with running away, and Sarri *et al*. (2016) found an overall mixed level of involvement in crime between their African American group versus white participants. However, Sarri *et al*. (2016) did not statistically analyse the differences, and it is observed their sample of offenders was small and more heavily weighed towards African American participants (84%) which may have influenced outcomes.

In terms of types of crime and seriousness, studies reported mixed findings. Those who reported higher Black and minority ethnic youth involvement include Brennan *et al.* (1978) who found types of crime more commonly committed by minority ethnicities such as breaking and entering property, gang fighting, using

force or violence to get money, theft, taking a car, using and selling drugs. Of their mixed findings, Sarri *et al*. (2016) more recently proposed higher percentages of involvement for African American runaways in person crimes and weapons offences, which appear somewhat opposed to those of Brennan *et al.* (1978) who reported more property-, drug- and group-based crimes for this ethnic group. Yoder *et al.* (2005) argued ethnicity was a statistically significant factor in predicting arrests of runaways for more serious offences, with non-white youth found to be 1.49 more likely than white youth to commit a serious crime. As noted in the gender narrative, they found significant interaction effects for less serious offences whereby white females were most likely to be arrested for less serious offences, but non-white males were slightly more likely than white males to be. Kempf-Leonard and Johansson (2007) also found offence seriousness was correlated with African American runaways of both genders but did not compare specific types. Sarri *et al.* (2016) alternatively reported higher white youth involvement in property crimes and drugs violations, although grouped types of crime were not further described. This is unexpected following Brennan *et al.'s* (1978) older findings. No other studies argued for higher rates of crime in white groups.

Similar to the lack of gender comparisons, the included studies lack focus on ethnicity and crude meta-analyses cannot be conducted with the limited frequencies reported. Only one study, Sarri *et al*. (2016), offer prevalence percentages defined by ethnicity, however, they only specify African American heritage compared with white participants. They reported higher percentages of African Americans involved in person crimes, serious person crimes and weapons offences compared to white individuals. They reported higher percentages of white youth involved in property crime, serious property crime and drug offences compared with Black individuals (see Table 4).

Missing from home or care differences. Of all included studies, four studies explore participants who had gone missing from home, two from care, three mixed populations and four did not specify where the young person had run away from. Only four studies compared differences in criminal offending based upon whether the young individual had gone missing from home or care (2, 9, 10 and 12).

One study argued missing from home was more highly correlated with crime. Whilst Wade *et al.'s* (1998) whole sample were from care, including residential

placements, community homes and foster care, they also measured those who first went missing from home and found a prevalence of nearly half (46%), enabling division of the sample to make further comparisons. They found those first missing from home significantly more likely to have a past history of criminality compared with those from care. However, the loss of temporal evidence weakens their presented findings. They also measured 'placement movement' to indicate stability in care histories and found runaways with greater care placement instability were both missing more often and offended significantly more frequently.

Two further studies supported this evidence for greater rates of running away in care groups. Biehal and Wade (2000) compared home and care groups and found a significant association between the group of youth who ran away from care and involvement in offending. Parallel to this, Kempf-Leonard and Johansson (2007) compared home and care backgrounds and reported offence seriousness was highly significant for both male and female care groups. They also found only one of the home groups, living with a relative or friend, to be significantly associated with offence seriousness, but this was for males only and a weaker association than the care group. Unfortunately, some studies, such as 3 and 11, distinguished whether their sample had run from home or care but did not include this as a factor in correlation analyses.

Repeat episodes. Five studies considered whether individuals reported single or repeat missing episodes when compared with offending (2, 3, 4, 9 and 11). No studies explicitly reported significant indications that involvement was higher or lower for either single or repeat groups. One study loosely explored rates of offending through arrest and conviction records from police department records (11). Shalev Greene (2011) studied a sample of repeat runaways in the absence of a comparator variable, but found a high presence of involvement in crime, with 86% of repeat runaways being arrested at least once, reportedly at an average rate of nearly eight times per person. Over a third of cases had 1-5 arrests, and half reported six or more. It is interesting to note, however, that those in the sample were not convicted as often as they had been arrested, with 75% of the sample having no previous convictions.

Two studies (4 and 9) touched upon difference in types of crime. Brennan *et al*. (1978) found repeat runaways to have 'far higher' rates of theft. More generally, they reported repeat runaways to have slightly higher rates of violence and selling

cannabis and 'hard drugs', than single episode runaways. However, they did not report all values or statistical evidence. Percentage of breaking into buildings, taking a car, shoplifting, assault and property damage were also found to be higher for repeat runaways. In more recent research, Kempf-Leonard and Johansson (2007) compared one charge against multiple charges in runaways but only found one statistically significant difference between gender, where single episode males were more involved with theft, assault, drugs, and weapons offences than females. This finding is limited in contributing to the current review question.

Biehal and Wade (2000) found past offending to be highly significantly associated with repeat incidences of missing in both 'to stay with friends' and 'to stay out' groups, although this is restricted to past offending which may not have necessarily occurred during runaway episodes. Half of Boulton *et al*.'s (2023) sample were repeat runaways, and they found repeat missing reports were highly significantly associated with crime before the missing episode, as in Biehal and Wade (2000), and significantly associated with crime type, which were mostly recorded as drug related offences. However, in their study, a high rate of 38% of the sample were unknown to be single or repeat runaways, and the study does not specify exactly when offences occurred.

Length of time away. Only one study explicitly addressed length of time away and differences in criminal offending. Biehal and Wade (2000) found length of time away was significantly different between friends and runaway groups, where those who ran away to stay with friends, as opposed to stay out, were away longer. Although those in the runaway group were away for shorter periods, they were found to be more likely to have committed an offence. However, of that runaway group, a significant difference in offending whilst away for different lengths of time was identified, where 68% of those who were away for 'less time' committed an offence compared to only 27% of those 'away longer'.

The study also focuses on uncommon comparison groups based upon runaway types: those who run away to be with friends and those who stay out. Shalev Greene (2011) also recognised their measure of time away was likely unreliable so did not include such in analyses. With a lack of corroborating or contrasting evidence, this searched factor was excluded from the main findings presented in Table 4 and the review calls for more evidence exploring time away and behaviours whilst missing.

Discussion

The aim of this review was to systematically assess the existing literature base to collate knowledge of the relationship between running away from home or care and criminal activity during missing episodes. Findings were further explored through differences in gender, ethnicity, location, length of time away and frequency of episodes.

Main findings

The prevalence of offending during missing episodes is difficult to quantify given variety in existing conclusions, but there is general evidence for an association between running away and involvement in criminal behaviours with studies supporting the idea that runaways are involved in increased incidents of crime than non-runaways. This supports previous qualitative findings by Sturrock and Holmes (2015) who proposed links between absconding and risk-taking behaviours such as offending.

The most common types of crime whilst missing appear to be theft, violence, property crime and drug related offences. These are expected based upon those likely to be committed outside of a domestic home, and for the purposes of acquiring means to survive. For example, this falls in line with Sturrock and Holmes (2015) who found criminal activity and financial gain to be commonly reported pull factors to running away. They additionally advised that youth often go missing as they are forced to pay debts accrued to gang networks, and whilst they proposed running away to be a form of escapism, it is theorised in this review this concept could also be linked, or lead to, acquisitive crime (i.e., crime to derive material gain, such as theft or burglary) to help rectify problems with gang network debts.

Crime types identified in the runaway population are parallel to existing prevalence reported by Vo (2015) who examined missing and absent cases from existing crime records including of children, and named top crime types as common assault, actual bodily harm, shoplifting, criminal damage and theft. However, Vo's (2015) findings are presented in a Master's dissertation and therefore not included in the main synthesis. The prevalence of drug offences amongst runaways meets findings from the general population reported by Spicer *et al.* (2019) who highlighted that despite the frequency of illegal drug use in the UK being stable, there is a reported increase in young individuals involved in parts of the drug market more recently. They also match MOPAC's (2017) data illustrating the largest

proportion of young people proceeded against were for drug-related offences, and Sturrock and Holmes (2015) who, in their research focused on gang involvement, found youth who go missing are often recruited to travel to locations distant from where they live to sell drugs. It is possible the high rates of drug offences in both the youth runaway population and general youth population are a result of young people seeking financial gain before or without formal employment opportunities. Additionally to low job opportunities, Little and Steinberg (2006) suggested lack of parental monitoring, poor neighbourhood conditions, parental substance misuse, peer group deviance, alienation from conventional goals and poor commitment to school lead to youth drug dealing. These factors may be present in both runaway and general populations, particularly where factors overlap with push and pull factors to running away such as family breakdown, problems in school and seeking independence. The prevalence of violence offences amongst runaways is parallel with Ministry of Justice (MoJ; 2022) general youth population crime statistics identifying common assault as the most common, and possession of a weapon as the second most common youth offence. This could be linked to the findings that theft and violence are most common in the runaway population, whereby weapons could be used to commit violent acts of harm or to increase the violent element of theft, such as aggravated burglary. Findings also contribute to an interesting illustration of types of crime in the context of modern offending, where general population offence types that have demonstrated the largest percent increase over a ten-year period are possession of weapon offences, drug offences and violence against the person (MoJ; 2022), in line with common types identified in the current review on runaways such as violence and drug crimes. Sexual offences are less common, which is expected as search terms of this review did not specify terminology attracting literature on sexual offending or potential CSE. In the framework of Cockbain and Brayley's (2012) criminal typologies, it can be argued review findings fit the aggression (e.g., violence, property crime) and acquisition (e.g., theft, drug dealing, other forms of property crime) typologies, and support their proposal that aggression appears to be the most common category among youth.

Overall, research points towards higher male involvement in crime amongst runaways. This is expected given the higher rate of crime by males in the general (MoJ, 2022) and youth population (MoJ, 2023). Gender differences may have also been impacted by the exclusion of prostitution as a crime. The findings also spotlight

the importance of exploring gender interactions, where ethnicity was found to have interaction effects with gender, as well as predictive capacities, as Yoder *et al.* (2005) proposed gender can predict arrests for more serious crimes. Studies of specific crime types point to more female involvement in person and minor property crimes, but more male involvement in serious property crime and drug related offences. Although the overall population gender identity split was equal, this finding may be affected by differences in sample distributions by gender in the studies that contributed to these particular findings. Findings are limited in number of studies, lack of statistical analysis, and outcomes remain mixed, therefore further study is needed to solidify understanding of gender differences.

Regarding ethnicity, minority ethnic groups were linked to more serious crimes. This finding may be influenced by cultural factors such as the racial disparity identified in police responses to crime and arrests. Evidence shows significant disproportionality in the use of stop and search powers by ethnicity. For example, in 2019/20, individuals from ethnic minority backgrounds were stopped and searched at a rate 4.1 times higher than white people (HMICFRS, 2021). In particular, Black individuals were 8.3 times more likely to be searched than white people, despite figures to suggest the percentage of white people possessing illicit drugs was higher than for Black individuals (HMICFRS, 2021). These findings are possibly linked to police stereotyping with regard to age, appearance and social class that informs suspicions concerning stop and search practices (Minhas & Walsh, 2021). However, no clear distinction for involvement or types of crime by race can be concluded in this study as the results are mixed and broad, calling into question the generalisability of associations. One reason for the differences could be that relevant studies contain methodological limitations. For example, Brennan *et al.* (1978) provides some ambiguity to this synthesis given they compared Anglo versus non-Anglo groups but do not define each category.

When considering those who ran from home versus care, evidence suggests youth in care offend more often than those from home. This was expected based upon understanding young people are generally more likely to go missing from care (Pona *et al*., 2019; Rees & Lee, 2005) and proportions in care become involved in crime (MOPAC, 2021) and are particularly vulnerable to criminal exploitation (Williams & Finlay, 2019). This may be linked to instability and possibly support Tyler *et al.*'s (2014) GST which would argue stress related to living in care, such as frequent disrupted moves and unsuitable placements, may contribute to negative

affect and ultimately deviant coping or criminal offending. Although the evidence points to this consistent conclusion, it is difficult to make reliable conclusions given the small number of studies in this factor of the review.

The impact of length of time away was found to be neglected in existing studies, calling for more research to consider this as a variable. This is especially important knowing that in CCE models, young people stay away for a period of time to complete duties, often involving criminal offending, which could inform methods for assessing presence or risk of involvement in offending whilst away based upon length of time away. Practical implications could include providing care or accommodation services with a tool to identify risk of offending in runaways, or for police and partner agencies to assess likelihood of crime based on time away.

In terms of repeat episodes, it was found repeat runaway incidences were linked with theft, among various other types of crime, although these effects were small. Overall, there were no noteworthy conclusions focused on repeat versus single episodes, which was surprising given the level of literature specialising in repeat runaways.

Implications

Whilst findings can be shared with statutory bodies for implementation in youth offending services practice, policy and even law, the review findings can also shape local practice and intervention. As a foundation, Browne and Falshaw (1998) suggested runaway crime can be reduced by intervening to prevent runaways from becoming victims of crime by others, and also by offering counselling to prevent runaways from committing criminal acts. They focus on youth building trust with professionals and also youth recruiting other runaways to guide them towards support. By broadening the knowledge of offending behaviours young people commit whilst away, professionals can make informed decisions on how to work with and support those who may be at risk of harm or involvement in the criminal justice system, especially when it is evident young people are often unwilling to disclose runaway behaviours or potentially incriminating information from experience of missing episodes.

Limitations

Included studies draw some limitations to the review. Despite initial diversity in the literature's country of origin, the final sample of included studies was

restricted to those conducted in the UK and USA, limiting the external representativeness of findings. This is likely a result of the already limited nature of relevant literature, but may also be due to international definitions and linked laws surrounding the management of runaways guiding direction for research. Similarly, as highlighted in Wade *et al*. (1998), running away is difficult to define, and therefore questionable to measure. This becomes true within a review, which relies on search terms for running away to collate papers addressing similar definitions of the phenomenon. Early research focuses on homeless populations which were excluded in this review, narrowing the available evidence. There is also limited existing data collected whilst youth are missing, and although this study aims to work with research that offers clearly defined and linked records within the time period of a missing episode, it could be argued that the review lacks inclusion of studies specific to offending whilst away.

In terms of methodological weaknesses, the literature lacks statistical exploration, often where studies have reported relationships in concepts as a side application of wider research with less relevant aims. The review calls for more case control studies to directly compare runaways and non-runaways and attempt to determine incidence. The literature base also contains a large number of studies relying on self-report data, potentially weakening accuracy and reliability. More studies utilising data from existing records will strengthen this. Whilst potential limitations of the synthesis approach have been taken into account, the review may still contain potential bias and reproducibility (Papaioannou *et al.*, 2016).

Comparably, a broad range of literature was included. A date limit was not utilised during the search, benefitting the review by including as much evidence as possible but also opening it to potentially outdated studies, for example, the two publications from the 1970s. The variation in study types also impacts the presented crude meta-analysis. Whilst the model provides an early insight into the most common types of crime committed during runaway episodes, it was developed from only eight studies, limiting the findings. This is observed across four crime types (arson, begging, sexual offences and organised crime) that are calculated from only one study that reported percentage of youth involved. There is also substantial variation in the comprised studies (as detailed in Table 3), including the methods for sourcing and measuring criminal behaviour (i.e., self-report or official records) and demographic diversity of participants, limiting the application and generalisability of findings.

The review hoped to capture modern offending patterns to comment on the potential influence of exploitation. When exploring evidence to make recommendations for contemporary policy and practice, it is important to consider the impact older research may have on modern phenomena, and this is particularly pertinent in this review given interest in the possibility of CCE, which will not have been understood or explicitly considered in older research. Therefore, a further review should be conducted to consider newer findings. Moher and Tsertsvadze (2006) indicate a sufficient timeframe between reviews depends on the rate of development in the field of interest. Whilst this remains ambiguous, it can be argued that the topic of CCE and related offending is rapidly emerging whereby new research is likely to come to light in approaching years. Therefore, it is recommended an updated review is conducted following multiple new studies.

Considering the findings and limitations presented, additional recommendations prior to future reviews include for more research using existing records or standardised measures of missing episodes and criminal offences to be conducted. Given the potential mediating link of gang involvement not held within the remit of this research, forthcoming reviews could include search terms for gang-related activity and crime to capture evidence from a broader angle. From a wider practical view, the review calls for youth organisations to grasp more informed understandings of potential runaway crime to tailor prevention and intervention approaches to the findings of the review.

Conclusion

The review identified a body of quantitative research exploring the relationships between running away from home or care and involvement in criminal offending. It synthesised results from existing research that utilised various samples and settings. Some significant association between missing episodes and involvement in offending was highlighted, often linking to incidences of theft, violence, property crime and drug related offences. Some crime types are suggested to link to modern criminal exploitation models, but CCE was not explicitly evidenced in this review due to lack of existing research on offending in the context of criminal exploitation. Males are generally more involved in runaway crime, but types of crime by gender differ. Results were not definitive regarding ethnicity but point towards early conclusions that ethnic minorities report more crime whilst away. Lastly, youth in care are more likely to offend whilst missing, but no key conclusions were drawn

from length of time or repeat episode studies. Ultimately, the review did not supply sufficient robust findings to accurately quantify prevalence of crime whilst missing. However, it is suggested that the links and conclusions drawn begin to shape knowledge of what youth become involved with whilst missing, and contribute initial patterns and recommendations for youth offending policy and practice such as prevention and rehabilitation with young runaways.

Chapter Three

Research Study One

Youth absconding: exploring care, harm and offending histories of young people who run away from the care system

Link to previous chapter

Chapter Two provided a review of the existing literature exploring young runaways and criminality. Developing insight into the types of crimes young people commit whilst away highlights uncertainty around who goes missing, and why, which was also emphasised by the review which found youth in care are more likely to offend whilst missing. Although a more commonly featured area of research amongst the existing literature base, it is important to understand the root cause of runaway behaviours, and especially those that might link to such offending. The following chapter draws on existing data from a residential youth setting to investigate characteristics and risk factors of those who abscond from care, with a focus on their involvement with crime.

Abstract

A multitude of factors contribute to the likelihood that young people will run away from care settings. This study aimed to explore associations with absconding considering a particular focus on offending behaviours.

Method

Variable data of 166 young people residing at a Youth Treatment Centre Secure Unit were explored for associations and predictive properties of care, harm, school, family and offending backgrounds on absconding.

Results

The study found 24 significant relationships between absconding and factors within themes of care history, onset and frequency of offending, theft and criminal damage. A regression model of 16 variables was found to be predictive of absconding with care history contributing the most to prediction.

Conclusion

The study proposed care history and offending backgrounds of young people predict absconding behaviours, but supported existing conclusions that youth absconders are not a homogenous group but have complex histories and experiences that shape diverse risks and outcomes of running away.

Introduction

There is an increase in UK missing child reports (National Crime Agency, 2019) including those who have chosen to leave home or care. Since early research in the 1950s, criminologists and practitioners have sought to understand the complex factors that lead young people to run away from home or care. The definition and criteria for reporting absconding behaviours varies across the literature depending on location and types of care setting. Bowden, Lambie and Willis (2018) define absconding as "when whereabouts is no longer known, and when the young person has left the property" (p. 537). Absconding has previously also been referred to as 'running away', 'going missing' and 'Absence Without Leave (AWOL)' (Bowden & Lambie, 2015).

Causes of missing episodes

Research has attempted to identify push and pull factors that cause young people to abscond, and risks faced whilst away. Conclusive evidence for gender differences in absconding behaviours has not yet been provided. Some studies have indicated that females are more likely than males to abscond (Attar-Schwartz, 2013; Biehal & Wade, 2000; Bowden *et al*., 2018), whilst others have not found a significant association with gender (Bowden & Lambie, 2015). Similarly, research on age has differed despite being considered as a significant predictor of absconding, with various studies finding that older youth are more likely to abscond, and more regularly (Attar-Schwartz, 2013; Bowden & Lambie, 2015). Biehal and Wade (2000) found highest rates of absconding among young people aged 13-15 and identified two age subgroups with different motives for absconding; older individuals who run away to see friends or family, and younger individuals who abscond due to experiencing problems. Byers *et al*. (2023) more recently suggested age to be a significant predictor of runaway behaviours from foster care. In their study of 12-17 year olds, they found that for every year increase in an individual's age, youth were 29% more likely to have a missing episode. In terms of ethnicity, research suggests youth from minority groups are more likely to abscond from home or care (Courtney & Zinn, 2009; Nesmith, 2006). However, other studies conclude no association with absconding (Bowden *et al*., 2018; Kim, Chenot & Lee, 2013), requiring further exploration of new or existing absconding data.

Current research proposes a link between behavioural difficulties and missing episodes. The NSPCC collated information from RHIs and found significant parental

difficulties in managing children's behaviour to be the most prevalent key vulnerability factor for going missing, accounting for 70% of episodes (Hill *et al*., 2016). Bowden and Lambie (2015) summarised findings indicating associations between various behavioural difficulties and absconding. They suggested this broad link is not surprising given that absconding is a behavioural marker commonly used to diagnose conduct disorder (CD) which is also more prevalent in runaway youth (50%-60%; Booth & Zhang, 1997) than the general population (1-10%; Morewitz & Colls, 2016). Various links between facets of CD interlink with push and pull factors of absconding, such as familial abuse, low socioeconomic status, weak school attachment and poor mental health (Morewitz & Colls, 2016).

Additionally, mental health difficulties are reported to increase the risk of absconding (Guest, Baker & Stoorastli, 2008; Hill *et al*., 2016). Young runaways have been found to have higher rates of suicidal ideation (English & English, 1999) and self-harming behaviours (Eisengart *et al*., 2007) than non-absconders in international studies, but further research is needed to determine whether suicidal ideation and self-harm exist as associations in a UK sample. Similarly, Hunt (2021) explored motivational factors behind 61 missing episodes and proposed 36% to be related to mental health problems and 25% to suicidal ideations. However, Lin (2012) found that mental health, physical and cognitive difficulties reduce risk of absconding. Youth with physical disabilities and mental health difficulties were 29% and 17% less likely to abscond compared with individuals without such diagnoses. However, existing understanding of the impact of mental and cognitive difficulties requires further exploration. Extensive evidence suggests a relationship between substance misuse and absconding behaviours. Young absconders were rated higher on measures of substance misuse behaviours than youth who did not abscond (Eisengart *et al*., 2007) and McIntosh *et al.* (2010) found absconding behaviours rise as substance use increases. The current literature base could be expanded with further research of data that captures interventions missing youth may have completed, such as treatment or therapies history, which might be indicative of the presence of related problems that might otherwise be undetected by existing studies.

Research repeatedly shows that young people run away from caregivers to escape unpleasant or difficult environments including exposure to abuse, neglect, and family home dysfunction (Jeanis, Fox & Muniz, 2019). Broad findings from family research have implied family problems are linked to absconding behaviours,

and it is suggested that significant family stress is a vulnerability factor for 47% of runaway episodes (Hill *et al.,* 2016). However, Hunt (2021) found a higher rate of 79% of missing episodes to be driven by family problems. Similar research has suggested that simply having a family member with a criminal history increases the likelihood of youth antisocial behaviour, potentially including running away and involvement with crime (van de Rakt *et al.,* 2009). English and English (1999) suggested that risk of absconding increased with the number of social risk factors present in the home such as alcohol use or divorce. More research is needed to understand specific family factors that might be associated with absconding, including the influence of parental difficulties such as criminality or substance misuse. Staying connected with family and friends is important to young people and can lead to absconding to meet with significant others (Bowden *et al*., 2018; Karam & Robert, 2013). In terms of histories of abuse or neglect, Hutchings *et al.* (2019) proposed past harm predicted repeat absconding behaviours. However, Bowden and Lambie (2015) highlight more conflicting evidence regarding the relationship between abuse history and running away where they argued there is no clear pattern between the impact of child abuse and running away, with both evidence supporting and challenging the notion that abuse and neglect increases risk of absconding. They call for further research to determine whether a history of abuse is an important risk factor for absconding. In addition to history of abuse or neglect, additional indicators that might allude to the experience of trauma or major life stress that could influence absconding behaviours should be further studied, such as experience of youth pregnancy or being the victim of bullying.

Missing People (2019) illustrated a high prevalence of young people who run away being victims of past or current CSE and CCE, showing indicators of mental health issues and risk of self-harm or suicidal thoughts. They found that over half of young people who run away have concurrent issues with truancy, poor school attendance and exclusion, as well as indicators of low self-esteem, poor confidence and substance misuse. Incidents of absconding have a negative impact on school experiences and associated developmental aspects of education (McIntosh *et al.*, 2010), and further research exploring the association with schooling outcomes such as potential non-attendance and underachievement would strengthen these conclusions. Boredom has also been connected with absconding (Taylor *et al*., 2013), where individuals are seeking excitement or freedom (Biehal & Wade, 2000; Karam & Robert, 2013). In US research, Jeanis *et al*. (2019) created typologies of

young people who run away based upon key predictors including abuse, past trauma, antisocial peers, criminality, poor mental health, and problems at school. Specific vulnerabilities also increase likelihood of running away, for example, youth living in care are five times more likely to go missing than those from family homes and they are also overrepresented in populations of runaways (Biehal & Wade, 2000; Mitchell, Rees & Wade, 2002; Pona *et al*., 2019) possibly due to common experiences associated with living in care such as disruption of living arrangements, poor family environments or abuse and neglect. Additional investigation of the diverse care histories of youth who abscond could inform understanding of how living in care may increase risk of absconding, for example through exploring number of prior foster and institutional placements from archival data. In addition to living within the care system, risk factors of repeat missing reports include substance misuse, suspected CSE, being involved with Youth Offending Teams and past abuse and neglect (Hutchings *et al.*, 2019). Once in the care system, interactions within it are likely to be associated with absconding behaviours, such as living in a greater number of prior placements which contributes to risk of absconding (Bowden *et al*., 2018; Zimmerman *et al.,* 1997).

Behaviours whilst missing

Absconding research has also found considerable risk for becoming involved in offending, including in the context of criminal victimisation (Whitbeck, Hoyt & Yoder, 1999). Missing People (2019) found one fifth of young people who run away self-reported some involvement with criminality, fitting with suggestions that absconders are more likely to offend (Hyde, 2005). Often, offending behaviours whilst away include crimes considered to be opportunist to aid survival such as theft, burglary and violence (Biehal & Wade, 2000), however, existing literature does not appear to broadly investigate specific types of crime. Exploration of an extensive range of offences, including violent, sexual, driving, acquisitive and arson offences (i.e., from existing data such as police or care records), could inform understanding of youth runaways who become involved in crime. Research has consistently found that a younger age at onset of involvement with criminal activities, antisocial peers, poor mental health and impulsivity are linked to greater risk of running away and subsequent antisocial behaviours (Jeanis *et al*., 2019). Shalev Greene (2011) proposes that youth who run away repeatedly are seven times more likely to commit crime and found shoplifting, theft, battery, assault and GBH were common reasons

for arrest whilst away. Additionally, they are more likely to have a history of offending behaviours involving violent and property related crimes, but there is no such association with person related crimes or sexual offences (Zimmerman *et al*., 1997).

Associated risk of harm

When considering implications, research has identified a myriad of risks and harm faced by youth who abscond, whilst away and as a later long-term result. They are at increased risk of dropping out of education, engaging in risky sexual behaviours, experiencing poor mental health, using illegal substances earlier and more frequently, becoming victimised, attempting suicide and committing crimes during adolescence (Jeanis, 2017). They are also more likely to become involved in antisocial survival strategies whilst away, often including but not limited to, drug dealing, shoplifting, prostitution and theft (Jeanis *et al*., 2019). There are also high economic costs associated with absconding; The Children's Society (2011) reported a £82m cost to services dealing with absconding incidents. Additionally, events have a direct negative impact on care staff, carers and family involved in the lives of young people who abscond (Finkelstein *et al*., 2004).

Aims

The aim of this study is to explore factors associated with young individuals who abscond from care settings and to identify key links to aspects of family life, school experience, harm, health, and offending behaviours. A second objective of this study is to develop a set of risk factors to predict absconding, to be used to inform practice with young people at risk of offending whilst away from care. Penney *et al.* (2023) recently report that there are still few validated tools to assist clinicians in assessing risk of absconding, supporting the development of a tool within this research. Previous studies have explored live data collected upon assessing young people after missing episodes, making it possible some vulnerabilities were underreported due to lack of information shared by the young person, for example, if they do not feel trusting of the assessor at such an early stage. This study will utilise longer-term, arguably more concrete information collected by a residential service over time from multiple sources.

Hypotheses

It is hypothesised that young people with a history of absconding will be found to have recorded presence of individual, relational, and contextual risk factors. Specifically, it is hypothesised that associations will be found between absconding and demographic variables including age, gender and ethnicity. Having behavioural and emotional difficulties, mental health diagnoses including suicidal ideation and self-harm, and past substance misuse are hypothesised to be associated with absconding behaviours. Care history variables are also predicted to be identified as related to absconding. Absconding is expected to be more likely in those with reported criminality within the family as well as other social risk factors, such as parental substance misuse and past experiences of harm or abuse within the family. Problems within school such as truancy, exclusions and underachievement are hypothesised to be correlated to absconding behaviours, as well as relationships with general offending. Specifically, this study hypothesises that absconding will be significantly associated with offences related to theft, property crime and violence, and a younger age at onset of involvement with crime.

Methods

Materials

An existing database of young participants recruited through opportunity sampling, of individuals residing at a National Youth Treatment Centre Secure Unit in the UK between April 1994 and March 1999 was used for analysis. This service closed in April 1999. The dataset includes 'Absconding' as a categorical variable capturing data for individuals who arrived at the unit with a previous risk of absconding, or absconded from the unit during residence. Therefore, for the purpose of this study, 'absconding' refers to the behaviour in which young people run away from care (Bowden & Lambie, 2015).

Participants

The dataset includes 166 young people admitted to the treatment service, consisting of 126 males (76%) and 40 females (24%) between ages 11-17. A total of 138 (83%) participants had a history or record of absconding.

Age ranges on admission were 11-13 years old (*N* = 21, 13%), 14-15 years old (*N* = 117, 70%) and 16-17 years old (*N* = 28, 17%). Ethnic origin included 131 White (79%), 22 Black (13%) and 13 Mixed race/Other (8%) participants.

Specifically, breakdown of ethnicity included 131 White UK/European (79%), 7 Black Caribbean (4%), 2 Black African (1%), 13 Other Black/Unspecified (8%), 10 Mixed Race Unspecified (6%), 1 Indian (<1%), 1 Pakistani (<1%) and 1 Other ethnicity (<1%). Length of sentences for criminal offences requiring individuals to stay within the unit ranged from 2-35 years (N = 39, M = 9.24, SD = 6.96). Of all individuals included in the study, 140 had committed any type of violent offence (84%) and 49 had committed any type of sexual offence (30%).

Design

The study used a retrospective secondary analysis cohort study design to test for associations and predictions between 'Absconding' and additional categorical variables.

Procedure

Results were computed using SPSS, Version 26. The dataset was anonymised by the owner before it was shared with the researcher with permission to be used for research analysis. Of those within the participant population who had a history of absconding (N = 138) 102 were male (74%) and 36 were female (26%), representative of the total dataset. No statistical difference was found between the Absconding variable and Gender, justifying analysis of 166 participants collectively.

The dataset contained 257 variables. Ninety-two variables were excluded following consideration as to whether they would contribute to the study questions and aims and based on knowledge of the existing literature. This included variables deemed to be irrelevant to the remit of the study (i.e., detailed parental data, physical health) or recognised as identifiers, summary or duplicate variables (i.e., admission numbers, alternative breakdowns of ethnicity) (See Appendix H). Although some variables may appear consistent with the study aims, they were deemed beyond the main focus of this study given the number of variables already included. A repeated study could explore these broader factors, such as the number of schools attended (possible indicating school disruption), WAIS performance (possibly indicating cognitive difficulty) and parental psychiatric illness. The remaining 165 variables were screened and further categorised into seven groups for clearer analysis, based on author interpretation (see Appendix I). In their systematic review, Bowden and Lambie (2015) indicated three groups of factors to be considered in terms of why young people abscond: individual (i.e., specific

characteristics), relational (i.e., family or peer influences) and contextual, (i.e., wider contexts of the care system and society) which guided inclusion and categorisation of variables and informed discussion for this study.

Data were screened and dichotomised through recoding. For example, 'burglary in dwelling house' contained an error including a third value inconsistent with the dataset which was adjusted. Offending behaviour data including third values indicating the offence as 'Index offence' were transformed to be counted within the 'Yes' value. Additionally, fifteen variables with three or more values or scale measures were dichotomised based on researcher judgement (See Appendix J). Frequency analyses were run to confirm changes did not affect the dataset. It was recognised that sample sizes of the groups within some variables were unequal and demonstrated possibility of skewness but noted that data met assumptions for planned non-parametric testing (McHugh, 2013).

The raw data set had numerous instances of missing data (N = 45). Number of missing observations ranged between 0-27, accounting for up to 16% of data per variable. For dichotomous 'yes/no' variables, missing cases were handled by imputing the baseline category (0=no) in line with the null hypothesis, preventing false positive results of association or risk factors. For a smaller number of categorical variables (N = 3) where a value of 0 indicated a group quantity rather than a null value (i.e., for the age at first offence variable, a value of 0 indicated belonging to the age 5-10 group and 1 indicated 11-16 years), direct imputation was utilised to develop estimates of missing values. Missing data was replaced with the sample mean of the observed cases to reflect the existing split of data across groups. An additional multiple imputation was conducted and showed pooled result values were reflective of manually calculated means (i.e., replacement values were the same or similar), supporting the reliability of new data that replaced missing values. It is noted such methods and use of artificial cases reduce the variance in the data and affect the strength of the predictor, and so results are interpreted with caution. The most notable variables to consider with caution as a result of missing more than 5% of cases are 'Age at first offence' and 'Number of known offences'.

Data were analysed using 2x2 crosstabulation against the Absconding variable. Chi-square tests of association were performed examining the relation between 165 variables against the Absconding variable. For variables with cells with less than 5 observations and where chi square assumptions were violated, Fisher's Exact (FE) was measured (Peacock & Peacock, 2011). Alpha levels were adjusted

to account for the large number of variables included in analysis and reduce risk of Type I error. Bonferroni correction suggested adjustment of the alpha level from 0.05 to 0.0003. Guided by the low correction, results were interpreted using an alpha level of .005 (99.5%) to capture both highly significant (<.001) and significant (≤.005) relationships. The exact suggested Bonferroni correction of 0.0003 was not adopted due to a criticism of the correction that it is overly conservative and can fail to capture true significant results (VanderWeele & Mathur, 2019). The risk of spurious results is discussed in the study limitations.

A regression analysis was subsequently conducted using predictor variables based on tests of association results which identified significant and trend variables that may predict the Absconding variable. A logistic regression was employed due to the binary responses of the dependent variables.

Results

Tests of association

Twenty four variables were found to be significantly associated with absconding measured at alpha level $p \leq .005$ (see Table 5). An additional 25 non-significant trends were identified between variables and absconding measured at alpha level $p \leq .05$ and listed in Appendix K. These variables are not further analysed or discussed in this study to reduce risk of presenting false positive results. Fourteen and a half percent of variables analysed were found to be statistically significant despite the low number of non-absconders in the sample.

Demographics. The association between Age on admission and Absconding was found to be significantly associated ($N = 166$; $p = .001$ by two-tailed Fisher's Exact test). Data showed that of those admitted to the unit aged 11-15 ($N = 138$), 88% had absconded compared with 61% of 16-17 year olds ($N = 28$). Number of prior placements and Absconding was found to be highly significantly related, X^2 (1, $N = 166$) = 31.93, $p <.001$. Sixty one percent of individuals who had 1-5 prior placements ($N = 59$) absconded which showed an increase in absconding alongside number of prior placements – 95% of those with 6 or more prior placements ($N = 107$) absconded. The association between Number of institutional placements and Absconding was found to be highly statistically significant ($N = 166$; $p <.001$ by two-tailed FE). Of those who had been placed in 0-1 institutional placements ($N = 11$), 36% had absconded compared with 87% of individuals in two or more

placements (N = 155). Correspondingly, Number of foster placements was highly significantly related to Absconding X^2 (1, N = 166) = 17.43, p <.001. Of those who had been placed in no foster care placements (N = 61), 67% had absconded compared with 92% of individuals in one or more foster placements (N = 105).

Place prior to admission data was excluded from analysis due to categoric nature. In the interest of context, data illustrated residents had previously lived across a variety of settings with the highest percentage from local authority secure units (see Figure 4). A crosstabs analysis showed four individuals were placed in parental homes prior to residing at the secure unit, all of whom absconded. However, this is not adequate to apply findings to a wider population of youth missing from both home and care due to the size of the portion of the sample (2%), and the possibility they were rated as absconders due to absconding from the current care placement rather than home previously.

Figure 4

Distribution of participants' placements prior to admission

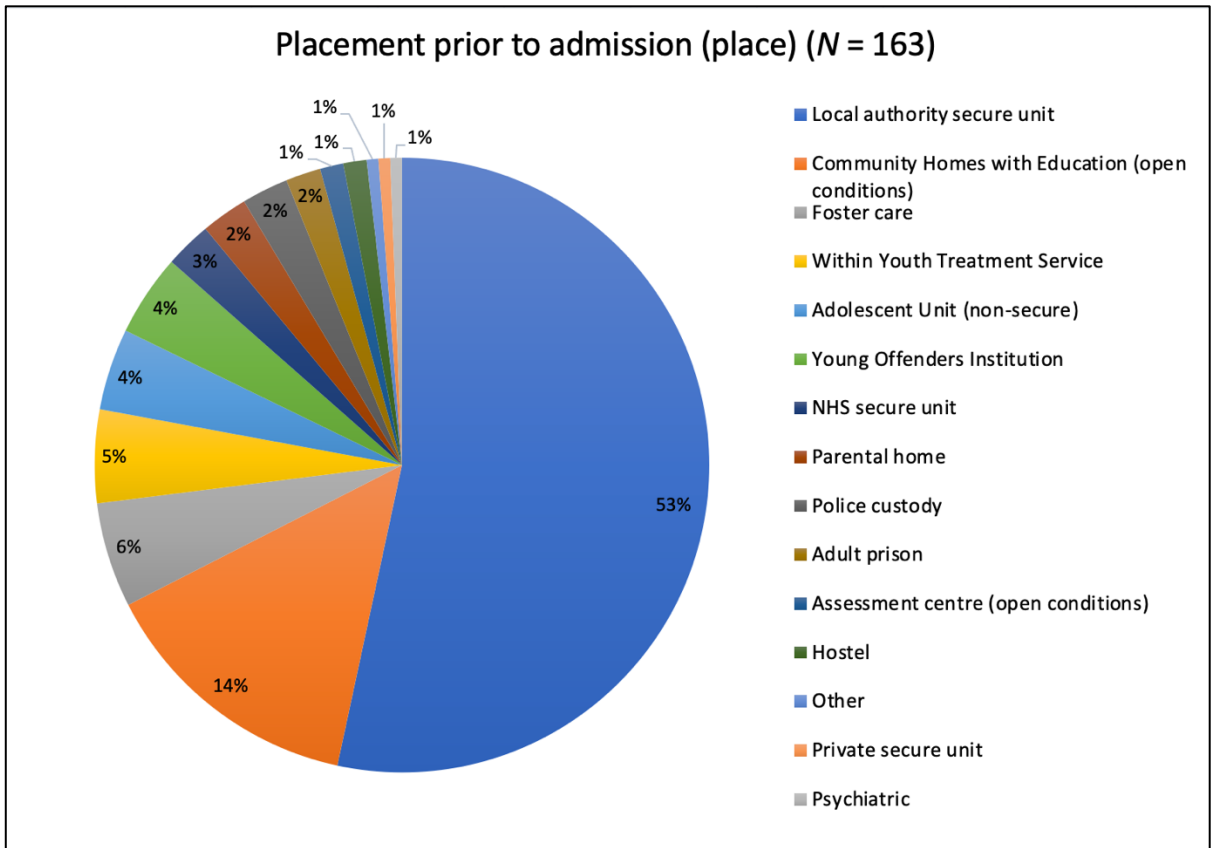


Table 5

Variables highly significantly (N = 10) and significantly (N = 14) associated with Absconding

Variable	Total *N*	Variable (*N*)	Have absconded		Test of statistical difference
			N	(%)	
Demographics					
Age on admission	166	-	-	-	p =.001 (two-tailed FE†)*
11-15 years	-	138	121	87.7	-
16-17 years	-	28	17	60.7	-
Number of prior placements	166	-	-	-	X^2 = 31.93, p <.001**
1-5 prior placements	-	59	36	61.0	-
6 or more prior placements	-	107	102	95.3	-
Number of institutional placements	166	-	-	-	p <.001 (two-tailed FE)**
0-1 institutional placements	-	11	4	36.4	-
2+ institutional placements	-	155	134	86.5	-
Number of foster placements	166	-	-	-	X^2 = 17.43, p < .001)**
No foster placements	-	61	41	67.2	-
One or more foster placements	-	105	97	92.4	-
Harm					
Self-harm – persistent problem	166	-	-	-	p <.001 (two-tailed FE)**
No	-	21	10	47.6	-
Yes	-	145	128	88.3	-
Alcohol abuse	166	-	-	-	X^2 = 8.44, p = .004*
No	-	89	67	75.3	-
Yes	-	77	71	92.2	-
Offending behaviours					
Persistent violent offender	166	-	-	-	X^2 = 8.26, p = .004*
No	-	56	40	71.4	-
Yes	-	110	98	89.1	-
Burglary – in a dwelling, house	166	-	-	-	X^2 = 10.32, p = .001*
No	-	97	73	75.3	-
Yes	-	69	65	94.2	-
Persistent theft	166	-	-	-	X^2 = 10.74, p = .001*
No	-	96	72	75.0	-
Yes	-	70	66	94.3	-
Taking and driving away (TADA)	166	-	-	-	X^2 = 9.13, p = .003*

No	-	100	76	76.0	-
Yes	-	66	62	93.9	-
Criminal damage	166	-	-	-	$X^2 = 12.21$, $p < .001$**
No	-	64	45	70.3	-
Yes	-	102	93	91.2	-
Persistent criminal damage	166	-	-	-	$X^2 = 12.96$, $p < .001$**
No	-	79	57	72.2	-
Yes	-	87	81	93.1	-
Total number of known offences	166	-	-	-	$X^2 = 20.55$, $p < .001$**
0-6 offences	-	57	37	64.9	-
7 or more offences	-	109	101	92.7	-
Age at first offence	166	-	-	-	$X^2 = 9.99$, $p = .002$*
5-10 years old	-	38	38	100	-
11-16 years old	-	128	100	78.1	-
Care and risk interactions					
Care history of young person	166	-	-	-	$p < .001$ (two-tailed FE)**
No	-	25	6	24.0	-
Yes	-	141	132	93.6	-
Risk of theft	166	-	-	-	$X^2 = 11.95$, $p = .001$*
No	-	81	59	72.8	-
Yes	-	85	79	92.9	-
Risk of property damage	166	-	-	-	$X^2 = 12.84$, $p = < .001$**
No	-	53	36	67.9	-
Yes	-	113	102	90.3	-
Health and Treatments					
Counselling for care history	166	-	-	-	$X^2 = 8.93$, $p = .003$*
No	-	94	71	75.5	-
Yes	-	72	67	93.1	-
Treatment for substance abuse	166	-	-	-	$X^2 = 9.59$, $p = .002$*
No	-	69	50	72.5	-
Yes	-	97	88	90.7	-
Treatment for self control	166	-	-	-	$p = .002$ (two-tailed FE)*
No	-	17	9	52.9	-
Yes	-	149	129	86.6	-
School					
Disruptive behaviour	166	-	-	-	$p = .001$ (two-tailed FE)*
No	-	16	8	50.0	-

Yes	-	150	130	86.7	-
Violence/aggression/fighting/bullying	166	-	-	-	p =.001 (two-tailed FE)*
No	-	23	13	56.5	-
Yes	-	143	125	87.4	-
Family					
Deemed beyond control of parents	166	-	-	-	p <.001 (two-tailed FE)**
No	-	15	5	33.3	-
Yes	-	151	133	88.1	-
Alcohol/drug abuse by father	166	-	-	-	X^2 = 10.27, p = .001*
No	-	111	85	76.6	-
Yes	-	55	53	96.4	-

† FE = Fisher's Exact

** highly significant (p <.001)

* significant (p <.005)

Harm. The association between Self-harm as a persistent problem and Absconding was found to be statistically highly significant (N = 166; p <.001 by two-tailed FE). Of individuals with reported self-harm as a persistent problem (N = 145), 88% were found to also abscond. Alcohol abuse and Absconding were also found to be significantly associated, X^2 (1, N = 166) = 8.44, p = .004. Ninety two percent of individuals with reported alcohol abuse (N = 77) absconded.

Offending behaviours. Eight statistically significant associations were found within the offending category. This alluded to a link between violence and absconding, where being deemed a Persistent violent offender was significantly correlated with Absconding, X^2 (1, N = 166) = 8.26, p = .004. Results also highlighted acquisitive offending, with significant relationships between Burglary of a dwelling or house and Absconding, X^2 (1, N = 166) = 10.32, p = .001, Persistent theft and Absconding, X^2 (1, N = 166) = 10.74, p = .001 and Taking and driving away and Absconding, X^2 (1, N = 166) = 9.13, p = .003. All three showed higher percentages of absconding behaviours amongst those who had committed these types of offences. The analysis also found Criminal damage and Absconding to be highly significantly associated, X^2 (1, N = 166) = 12.21, p <.001 as well as Persistent criminal damage and Absconding, X^2 (1, N = 166) = 12.96, p <.001. Of those who committed criminal damage, 91% also absconded, similar to 93% of

persistent criminal damage offenders. Of descriptive offending variables, significant interactions were found between Total number of known offences and Absconding and Age at first offence in years and Absconding. Of those who had offended between the age of 5 to 10 years old (N = 38), 100% had absconded compared with 78% of 11-16 year olds (N = 128), X^2 (1, N = 166) = 9.99, p = .002. Sixty five percent of young people who had committed 0-6 offences (N = 40) also absconded, whilst 93% of those who committed seven or more offences (N = 109) had reported incidents of absconding, X^2 (1, N = 166) = 20.55, p <.001. It is noted these two descriptive variables had more than 5% of cases imputed, therefore should be interpreted with particular caution.

Care and risk interactions. The association between Care history of the young person and Absconding was found to be highly statistically significant (N = 166 ; p <.001 by two-tailed FE). This was a positive correlation, with a high prevalence of 94% of those with a care history (N = 141) having engaged in absconding behaviours. Risk of theft was statistically significantly associated, X^2 (1, N = 166) = 11.95, p = .001 with 93% Risk of theft individuals (N = 85) reported to have absconded compared with 73% not at risk (N = 81). Similarly, Risk of property damage and Absconding were correlated, X^2 (1, N = 166) = 12.84, p < .001, where 90% of individuals deemed at Risk of property damage (N = 113) were reported to have absconded compared with 68% not at risk of criminal damage (N = 53) who absconded.

Health and treatments. Three statistically significant results were found within this category – Treatment for substance abuse and addiction and Absconding, X^2 (1, N = 166) = 9.59, p = .002, Treatment for self-control and Absconding (N = 166; p = .002 by two-tailed Fisher's Exact test), and Counselling for care history and Absconding, X^2 (1, N = 166) = 8.93, p = .003. All of such relationships were positively correlated.

School. The association between Violence/aggression/fighting/bullying and Absconding was found to be statistically significant (N = 166; p = .001 by two-tailed Fisher's Exact test). A positive correlation was found in that 87% of those involved in challenging behaviours whilst at school (N = 143) also absconded at some point.

In parallel, Disruptive behaviours and Absconding were significantly correlated, (N = 166; p = .001 by two-tailed FE).

Family. The relationship between Deemed beyond control of parents and Absconding was found to be highly statistically significant (N = 166; p <.001 by two-tailed FE), showing 88% of those deemed beyond control (N = 151) also absconded. Alcohol/drug abuse by father was also significantly correlated with Absconding, X^2 (1, N = 166) = 10.27, p = .001.

Further analyses were conducted to break down key statistically significant findings by adding layers in initial family Chi-square analyses. For Criminality by father, a further analysis of Absconding was conducted with Gender as an added layer and found non-significant individual differences in associations for both males and females. For Alcohol/drug abuse by father and Absconding broken down further by Gender, a trend association remained present for males X^2 (1, N = 110) = 5.26, p = .022 but no association was found for females.

Predictive tests

Original data showed 83% of the population absconded, based on historical records of missing episodes. Further analysis was conducted to understand and predict the absconding variable. Of 24 significantly correlated variables, 16 were included in logistic regression analyses to assess the impact variables have on the likelihood individuals would or would not abscond from care. Eight variables were excluded based on relevance and multicollinearity (see Appendix L).

The full model containing 16 predictors was statistically significant, X^2 (16, N=166) = 95.13, p = <.001, indicating ability to distinguish between those who did and did not abscond. Analysis of Hosmer and Lemeshow goodness of fit tests indicated the model fitted the data X^2 (8, N=166) = 2.94, p = .938.

Classification accuracy tables showed the model had validity and suitability. Tests revealed concordant association of predicted probabilities of absconding and observed responses with 94.6% classification accuracy. However, of those who did not abscond, the model predicted incorrect classifications for 25% resulting in 7 false positives (Type I error), and 1.4% of absconders were incorrectly predicted, indicating 2 false negatives (Type II error) (see Table 6). It predicted 86.1% of cases in the absconding category, compared to the observed rate of 83%, and 13.9% in the non-absconding category compared to observed 17%.

Table 6

Classification table of predictive logistic regression model for absconding

Observed	Predicted		Percentage correct (%)
Absconding	No	Yes	
No	21	7	75.0
Yes	2	136	98.6
Overall			94.6

Five predictor variables were found to be making statistically significant contributions to the full model. Care history of young person was highly predictive of absconding and suggested young people with a care history are 126x more likely to abscond than those without a history of residing in care (Exp(*B*)=4.84, 95% CI [5.38, 2957.86], *p* = .003). This predictor contributes the most to the model, and indicates other variables are less predictive as a result.

Four further variables were observed to make a significant contribution to the model, where estimated odd ratios favoured increases for absconding with increases in predictor variables. These included Disruptive behaviours in school (Exp(*B*)=60.27, 95% CI [1.17, 3095.04], *p* = .041), where disruptive pupils are 60x more likely to abscond, and Violence/aggression/fighting/bullying in school (Exp(*B*)= -5.18, 95% CI [0.00, 0.36], *p* = .015), although results suggest this variable is highly correlated and negatively impacted by another variable. It was predicted and demonstrated in the analysis that this variable is indeed highly correlated with Disruptive behaviours in school *r*(15) = .82, the most highly correlated pair of variables in the model. However, it does not exceed assumptions of multicollinearity (Tabachnick & Fidell, 2012) to remain included. Significant contributions were also noted from Alcohol and drug abuse by father (Exp(*B*)=2.72, 95% CI [1.29, 177.05], *p* = .031), where individuals with fathers who use substances are 15x more likely to abscond than those without substance using fathers, and Young person deemed to be beyond control of parents (Exp(*B*)=2.57, 95% CI [1.12, 151.80], *p* = .040), indicative that young people beyond the control of their parents are 13x more likely to abscond. Additional factors predictive of absconding are shown in Table 7.

Table 7

Binary logistic regression analysis of maximum likelihood estimates for 16 predictor variables against the Absconding variable

Predictor	*B*	S.E.	*p*	Odds ratio Exp(*B*)
Care history				
Number of foster placements	-1.66	1.22	.173	0.19
Number of institutional placements	-.003	1.43	.999	1.00
Care history of young person	4.84	1.61	.003*	126.08
Harm				
Self harm as a persistent problem	0.53	.94	.576	1.69
Alcohol abuse	1.29	.93	.168	3.63
Offending				
Total number of known offences	0.08	1.06	.940	1.08
Age at first offence	-18.90		.997	0.00
Persistent violent offender	1.52	.98	.122	4.57
Persistent criminal damage	0.07	.91	.938	1.07
Persistent theft	1.44	1.06	.174	4.23
Burglary in a dwelling or house	2.07	1.18	.078	7.95
Taking and driving away	-.12	1.02	.907	0.89
School				
Disruptive behaviours	4.10	2.01	.041*	60.27
Violence/aggression/fighting/bullying	-5.18	2.13	.015*	0.01
Family				
Deemed beyond control of parents	2.57	1.25	.040*	13.06
Alcohol/drug abuse by father	2.72	1.26	.031*	15.10

* indicates statistical significance at $p \leq 0.05$

Discussion

This study explored a multitude of variables and their relationship with absconding behaviours reported in relation to young people in a care setting. As a large number of fifty significant relationships were identified, alpha levels were adjusted to narrow focus on variables that were most significantly associated with absconding from the current sample. Significant relationships found amongst

individual, relational and contextual factors will be discussed, integrating consideration for common themes identified within discovered trends but acknowledging that associations cannot provide inferences about causation in this study. The current study also identified variables that showed some association with absconding at a level below the adjusted alpha level, which are discussed, but it is noted that these should not be interpreted as significant findings.

Individual factors

Despite mixed existing research, this study found no difference in risk between ethnic identities. This differs with Lin (2012) who found that ethnic minority youth within foster care were more likely to abscond than white individuals. Further research focusing on race and ethnicity is needed to explore why such figures might exist as risk or protective factors, also accounting for environmental and systemic factors. It is noted, however, that the dataset is heavily weighted by white participants not representative of the current UK population. Further, ethnic groups recorded in this dataset lacked depth compared with more recent research, and people from ethnic minority backgrounds could have pre-existing risk factors that confound the relationship between ethnicity and absconding such as socioeconomic status and poverty (Courtney & Zinn, 2009).

Ethnicity was also simplified into 'White' and 'BAME' categories for analysis, overlooking differences between individual ethnic minorities. As anticipated, no significant difference between gender was identified, but some association was found for age on admission to the unit and absconding. The non-significant relationship showed that absconding behaviours were more likely by those who were admitted to the secure unit at a younger age. This contrasts findings that running away typically occurs during adolescence and that it is uncommon for youth below the age of 12, but peaks at age 16 and later declines (Sunseri, 2003, as cited in Bowden *et al*., 2015). However, the variable measures age on admission and fails to specify age at which absconding behaviours were conducted. Further investigation is needed to specify if this association is influenced by admission age specifically or related more heavily towards the criminal offending aspects of participants' admission to the unit.

The study also hypothesised links to emotional and mental health difficulties. Whilst a number of variables such as mental illness and receiving treatment for psychological problems and emotional functioning were not found to be associated,

a highly significant relationship with self-harm as a persistent problem was found as well as evidence of it contributing to predicted likelihood of absconding. Whilst there are no specific patterns identified, this could be indicative of longer-term emotional or mental health issues that have been found to have a negative effect on absconding (Kim *et al*., 2013). This is parallel to previous research by Hunt (2021) who found over a third of studied missing child episodes to be motivated by mental health problems and a quarter to be linked to suicidal ideations, and Hill *et al.* (2016) who identified emotional health as a prevalent need and vulnerability factor in over half of missing cases. However, it is noted that similar and possibly overlapping variables of 'harms self', 'self-cutting', 'self-strangulation' and 'self-harm – other' did not show as significantly associated with absconding, which would be expected alongside the relationship found with persistent self-harm, and therefore, this finding lacks reliability. Results are similarly limited in that the dataset did not measure suicidal ideation or attempts, an important factor as those who run away are three times more likely than others to have considered or attempted suicide (Meltzer *et al*., 2012). In addition, data for conduct disorder or neurodivergent needs such as attention deficit hyperactivity disorder (ADHD) were not specifically measured.

Relational factors

The study broadly hypothesised that absconding would be more likely in those with reported family problems and other social risk factors such as parental substance misuse and past experiences of familial harm or abuse. The relationship found between absconding and father criminality fits with the proposal that having a family member with a criminal history increases chances of an individual engaging in antisocial acts due to intergenerational transmission (van de Rakt *et al.*, 2009), although this was a non-significant association according to the adjusted alpha level in this study. It also fits with Stein *et al*. (2009) who found attachments to families were often strained amongst adolescent runaways, and negative paternal relationships predicted further behaviours such as substance misuse and crime. They also found the more time spent away from home was significantly related to poorer paternal relationships in female runaways. However, no such findings were present for mothers, stepfathers or stepmothers in the current study. Having a father who misuses substances was also significantly linked with tendency to abscond, as well as appearing to be a significant predictor in the proposed model

illustrating likelihood to abscond. This is parallel to Thompson *et al.*'s (2007) finding that living with a father who used alcohol or drugs was one of three factors found to increase trauma symptomology in youth runaways. It might be loosely understood in the context of existing research into familial risk factors for gang or group memberships, possibly while away from home or care, that entwine with the father-absence paradigm (Decker & Winkle, 1996), where having a father who uses substances might result in absence from children, leading them to abscond to seek familiarity of family structure elsewhere. It is also possible this variable captures unreported data indicative of maltreatment, reflecting statistics illustrating exposure to childhood physical and sexual abuse is more than twice greater for youth with parents who misuse alcohol or drugs (Walsh *et al*., 2003), driving youth to continue absconding. This idea is supported by Thompson *et al*. (2007) who propose parental substance misuse contributes to arguments and violent conflicts that can lead to absconding. Similarly, they emphasise that attachment and trust are often compromised when parents misuse substances. As a relational factor likely not picked up in individual assessment and intervention of young runaways, this is an element that should be considered by professionals working with young people and particularly those engaged in systemic family intervention. Risk factors of father behaviours were not replicated in variables measuring that of mothers, however. It was further hypothesised that, with the sample heavily dominated by males, father influences have more of an effect on male children and therefore contributed to the significant findings. However, this suggestion is not specifically supported by current literature. Further analyses from this found that once broken down by gender, neither associations of criminality were significant, but in line with the hypothesis, the effect of father behaviours were more associated with male absconding, possibly being more influential on male children than on females. For father drug and alcohol misuse, results broken down by gender suggested a significant relationship with males but not females. Largely, these findings suggest that father influences are more associated with the behaviours of male children fitting with evidence of intergenerational resemblance where fathers are the most important relative in terms of predicting criminal behaviours of sons (Farrington *et al*., 2001) and assumably antisocial behaviours such as absconding that can lead to crime.

Relationships were not consistently identified regarding violence within the family amongst nine variables. Despite this, analysis found a highly significant positive correlation between absconding and the young person being deemed

beyond control of parents, as well as this being a significant predictive factor of absconding. This replicates existing research proposing significant parental difficulties in managing children's behaviour is a principal vulnerability factor for missing episodes with this being identified in 70% of missing cases (Hill *et al.*, 2016), and similarly 88% of absconders in the current study. This might be directly and physically related to absconding in that parents feel they no longer have control of children once they have run away, where parents might lose sense of behaviours children are consequently involved in.

Overall, relational factors were not particularly highlighted as associated with absconding in the current study. This contrasts with recent suggestions by Hunt (2021) who explored motivational factors behind missing child episodes of which they found 79% to be related to family problems. The study did not examine the functional behaviours of absconding to stay connected with family and friends but following previous evidence it can be proposed that this remains important to young people.

A significant correlation was found between absconding and alcohol abuse, as well as it being a predictive factor of absconding behaviours. This partly follows conclusions that substance misuse is a predictive factor of repeat runaways (Hutchings *et al*., 2019), although drug use was not significant in this study. It might be understood that absconders are further using or accessing alcohol as a coping mechanism or as a motive to abscond from care (Bowers *et al.*, 1998). No associations were identified for drug abuse, overdose or solvent abuse as suggested by previous research.

In terms of harm experienced, links were found amongst people who had been emotionally abused within the family as well as sexually abused outside of the family, although it is not clear whether victimisation would have occurred before, during or after absconding incidents. Some association, although non-significant, was also found for young people on the Child Protection Register (more recently known as being made subject to a Child Protection Plan), indicating young people considered to be suffering from, or at risk of, significant harm (Children Act 1989). This suggests that absconding is linked to risk of harm, which is unsurprising. It might be argued a history of abuse or neglect, as found to be predictive of repeat runaway behaviour in existing research (Hutchings *et al*., 2019), was not accurately captured in this study due to several variables addressing specific harms within and

outside the family (see Appendix I). Amalgamation of these indicators to create a 'history of abuse or neglect' variable may have offered different results.

Contextual factors

Contextual factors consider the wider context of society and the care system. This will also reflect on contextual findings within the School and Offending variables. As hypothesised and reflecting existing research, the study found a relationship with care histories of young people. The pattern for number of prior placements, institutional placements and foster placements was found to be the same, indicating that with an increase in number of previous care placements, absconding also increased. Care history was also found to be a highly significant predictor of absconding, in line with previous research that concluded being a Looked After Child predicted repeat absconding (Hutchings *et al*., 2019). This pattern might be linked to desire for escapism and independence as means of coping with difficult experiences. However, no association was found between number of years in care and absconding behaviours, possibly due to the high rates of absconding in both groups (0-4 years: 88%; 5+ years: 87%), suggesting that any number of years spent in care increases risk of absconding. Further research should explore this variable including and comparing those who have not spend time within the care system. It is suggested that inconsistency and instability in care placements can have a negative impact on young people in terms of their sense of safety and wellbeing (Rubin *et al*., 2007). This study proposes that this can lead to poorer outcomes, such as absconding from care settings. Practitioners should therefore be alert to risk outcomes of those who run away for individuals with complex care histories.

The study hypothesised wide-ranging problems in school would be linked to absconding. Results were diverse within this category; significant relationships and positive correlations were found with violence, aggression, fighting and bullying, and disruptive behaviours in school. Both the school violence variable and the disruptive behaviour variable were also found to be significant predictors of absconding behaviours. Evidence of underachievement was found to have some association with absconding, although this was non-significant, reflective of suggestions that general problems in school is a vulnerability factor in over half of missing episodes (Hill *et al*., 2016). Persistent non-attendance was found to have some relation, again non-significantly, but parallel to findings that truancy is

common among runaway groups, with one third having skipped school before the age of 13 (Meltzer *et al*., 2012). It is possible school behavioural factors are interlinked and might be causal and consequential factors of both absconding and associated measures. For example, underachievement might cause a young person to feel excluded, inadequate and misunderstood in educational settings, linking to disruptive behaviours to cope or eventually providing them with motivation to escape to seek alternative lifestyles. On the other hand, underachievement is likely to follow as a result of absconding behaviours in that young people become distracted by happenings whilst away, losing educational focus and motivation.

In terms of offending behaviours, two key themes were identified amongst the significant results as hypothesised – theft and criminal damage. Persistent engagement in both types of offending were also found to be predictive factors of absconding. A relationship was found between absconding and acquisitive crimes including burglary of dwellings, taking and driving away and persistent theft. Additional related trends of burglary (other), persistent burglary, theft from the person, theft from motor vehicle and shoplifting were also found, supporting the proposed link between absconding and theft-related offences. These links might be understood according to theories of survival of young people when away for longer than one night, and beyond help from friends or relatives; those away, and especially individuals sleeping rough, may resort to other means of surviving including by stealing, for which Wade (2001) reported one in seven young people doing so.

Criminal damage was also highlighted as a variable significantly associated with absconding behaviours, showing that those who committed criminal damage were more likely to abscond. This is important to acknowledge given a key social risk of vandalism is that such deviant and often illicit behaviours often take more severe and complex forms or are interlinked with more dangerous behaviours (Agapov & Malkov, 2006, as cited in Kruzhkova *et al*., 2018). The literature suggests that a link between these behaviours might be plainly acquisitive or instrumental in that objects are damaged in an attempt to obtain others. Criminal damage might be for enjoyment, reward or a display of skills such as graffitiing. Alternatively, it might be driven by feelings of anger or to assert control (McGuire, 2004). In the context of vehicle-related crimes, links were found for being carried (allowing oneself to be carried in a stolen vehicle) and nonspecific auto-crime, variables that might be considered as antisocial behaviour in relation to absconding. A significant

relationship was identified for persistent violent offenders, along with some association with violent acts including rape, murder, ABH, assault and other violent crime. However, these more definitive violent crime variables were not identified as significant, meaning the analysis cannot expand on findings in Chapter Two to suggest which types of violence are associated with absconding. However, it can be concluded that consistent involvement in violent offending is linked to absconding, and further research could explore whether involvement is a predictive risk factor.

Additionally, offending behaviours less strongly linked to absconding included variables in themes of further violent crimes, further acquisitive offences, auto-crimes and fire related offences. Whilst definitive violent offences were not highlighted within the significant findings, over half of the violent crime measures showed some association and could suggest a consistent link between absconding and violence, as hypothesised. Within the same context, records of arson and risk of fire setting were found to be related to increased likelihood of absconding, also supporting previously stated findings of the link with property damage. The high association with arson may be attributed to the fact young firesetters are already frequently represented within mental health, particularly forensic settings (Kolko *et al.*, 2001). Similarly, existing theory suggests arson is influenced by other general factors found in both absconders and firesetters such as emotional difficulties, poor psychosocial functioning and behavioural problems (Martin *et al.*, 2004) as well as being a response to stressful circumstances, a displacement activity for anger and as part of wider antisocial behaviour (Tiffin & Cooper, 2006). It was expected that variables such as weapons offences and drug related offences might have been associated with absconding based upon evidence young people are likely to become involved in such offending in the context of exploitation or gang-related activity whilst away from home or care (Jeanis *et al*., 2019; Spicer, Moyle & Coomber, 2020; Sturrock & Holmes, 2015). However, these variables were not found to be associated with absconding.

Aside from some non-significant association between rape and absconding, nine variables within a sexual offending subcategory did not show as significant in the current study, suggesting no relationship as hypothesised. It is suggested that the difference in result for rape may be due to the violent nature of the offence, in line with consistent research suggesting a link between violent offending and absconding.

In support of evidence advocating a link between younger age on onset of involvement with crime and absconding (Jeanis *et al*., 2019), the current study identified absconding was more likely in those who had first committed a criminal offence at a younger age. Lastly, absconding behaviours were found to be more likely as total number of known offences increased. This finding supports the hypothesis that general involvement with criminal offending is linked to running away from care settings. However, surprisingly, the association with total number of known convictions was found to be non-significantly related, where consistency between the variables would have offered opportunity to reliably conclude that recorded offences are linked to absconding.

Of a variety of variables measuring whether the participants were involved in treatment or counselling, the results showed significant associations between absconding and those engaged in treatment for self-control, substance misuse and counselling for care history, all of which showed absconding is more likely in the presence of the need for treatment. These interventions might have been found as associated as they are directly linked in being offered to improve behavioural problems such as absconding.

Practical application in predicting runaways

Results of the predictive analyses in this study suggested several variables that contribute meaningfully to a model that can be predictive of absconding behaviours in young people. To explore this possibility further, contributing variables were entered into a simple summation model, to create a new total score variable. Results indicated that a 13-factor model, with a cut-off score of 7 or above, could predict outcomes of risk of absconding or no risk of absconding in 85.5% of cases (see Table 8).

More specifically, the model correctly specified 120 of 138 of the sample who absconded (87.0% sensitivity) and 22 of the 28 who did not abscond (78.6% specificity). However, just over one in five (21.4%) of those who did not abscond were incorrectly classified, resulting in 6 false positives (where individuals are expected to abscond but did not). Similarly, 18 cases who did abscond were incorrectly assigned, resulting in 13% rate of false negatives (where individuals not expected to abscond did and were indeed missed).

Table 8

Classification table showing the accuracy of the 13-factor risk factor checklist with a simple summation score and a cut off score of 7 or more in classifying young people who abscond from care (N = 166)

Observed	**Predicted**		
	Abscond	Did not abscond	Actual Total
Absconded	120 (87.0%)[a]	18 (13.0%)[c]	138 (100%)[(a+c)]
Did not abscond	6 (21.4%)[b]	22 (78.6%)[d]	28 (100%)[(b+d)]
Predicted total	126[(a+b)]	40[(c+d)]	166

**85.5% correct classification*

Predictor variables (IVs) within the model included care history, two or more institutional placements, history of self-harm, alcohol misuse, alcohol abuse by father, disruptive behaviours in school, being deemed beyond control of parents, seven or more criminal offences, persistent violence, persistent criminal damage, persistent theft, past burglary in a dwelling or house and past taking and driving away offences.

From this model a checklist has been developed that can be used as a risk assessment to predict young people who abscond from care placements, placing themselves at high risk of further harm (see Figure 5). The checklist uses a simple summation method where each risk factor is assigned a score of 1 if present and 0 if absent, and the number of present risk factors are totalled, giving a score between 0 and 13. This could be used to inform intervention methods with those identified as at risk of absconding who may require more comprehensive support whilst living in care, as well as guide local assessment in care settings and local authority risk assessment such as during RHIs.

Figure 5

Proposed risk factor checklist for young people who abscond from care placements

Using collateral data and knowledge of the young person, review the following criterion and tick those that are present for the individual. Each ticked factor contributes a score of 1.

History of care	☐
Two or more institutional placements	☐
History of self-harm	☐
Alcohol misuse	☐
Alcohol abuse by father	☐
Disruptive behaviours in school	☐
Deemed beyond control of parents	☐
Seven or more criminal offences	☐
Persistent violence	☐
Persistent criminal damage	☐
Persistent theft	☐
Past burglary in a dwelling or house	☐
Past taking and driving away offences	☐
Total	

Scoring
0-6 = low risk of absconding
7 or above = high risk of absconding

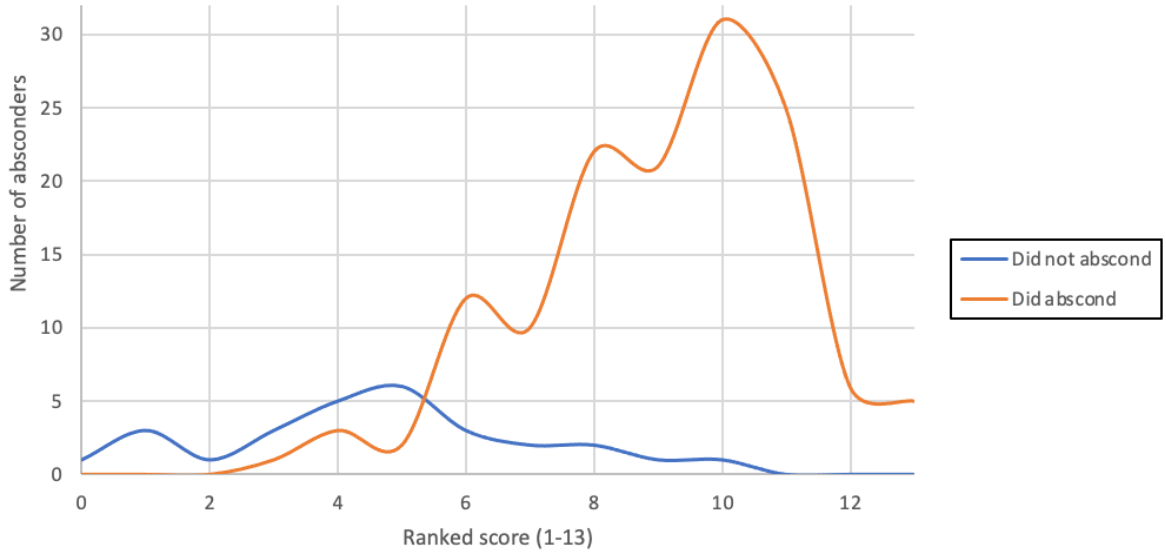
The feasibility and practical efficacy of the checklist was tested to determine if scores could discriminate between those who absconded versus those who did not abscond. The performance or 'operating' characteristics of the checklist tool can be calculated using guidance by Leventhal (1988, highlighted in Table 8):

- Incidence of absconding $^{(a + c)/N}$ = 83.1%
- High risk for absconding $^{(a + b)/N}$ = 75.9%
- Positive predictive accuracy of 13 factor model $^{a/(a + b)}$ = 95.2%
- Negative predictive accuracy of 13 factor model $^{d/(c + d)}$ = 55.0%
- Risk Ratio (RR) = $^{a/(a + b)/c/(c + d)}$ = 2.11
- Sensitivity = $^{a/(a + c)}$ = 87.0%
- Specificity = $^{d/(b + d)}$ = 78.6%

Figure 6 displays the total checklist score calculated for each participant based on their present recorded risk factors. The range of data for absconders and non-absconders were then compared to establish the most effective cut-off point to distinguish the two groups, which was found to be 7 or above. Therefore, 22 of the 'low risk of absconding' individuals (who did not abscond) were found to have between 0 and 6 risk factors, and 120 'high risk of absconding' youth (who did abscond) had between 7 and 13 risk factors.

Figure 6

Simple summation model predicting risk of absconding based on 13 predictor variables



The predictive accuracy of the simple summation checklist (95.2%) might be improved by weighting the factors according to the strength of their predictive value, using odds ratios computed in the logistic regression of Chapter Three. For example, weighted scores between 1-4 could be applied to risk factors as outlined in Table 9, accordingly to the size of each factor's odds ratio and contribution to the predictive model. A wider range of scores may increase the ability to discriminate between absconding and non-absconding behaviours, based on a potential score which ranges from 0-28.

Table 9

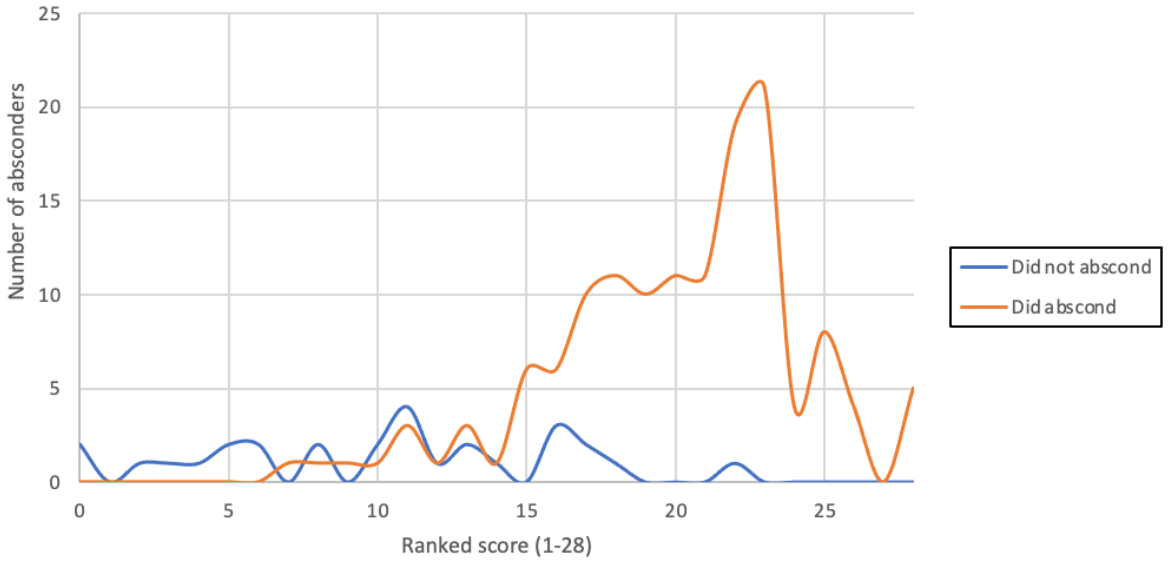
Risk factors for absconding criteria and proposed allocated ranked scores

Criteria	**Score**
History of care	4
Disruptive behaviours in school	4
Deemed beyond control of parents	3
Alcohol abuse by father	3
Past burglary in a dwelling or house	3
Alcohol misuse	2
Persistent violence	2
Persistent theft	2
Seven or more criminal offences	1
Persistent criminal damage	1
Past taking and driving away offences	1
Two or more institutional placements	1
History of self-harm	1

Following the same methods, exploration of a weighted model, with a cut off of 17 or above, correctly predicted absconding behaviours in 83.1% of cases, slightly less than the summation model. Additionally, it identified a reduced rate of 14.3% false positives but a higher rate of 17.4% false negatives (see Figure 7).

Figure 7

Alternative weighted model predicting risk of absconding based on ranked predictor variables



Of the two predictive models, simple summation and weighted summation, the simple summation was chosen as it had a higher proportion of false positives. This approach is more favourable in this circumstance, where assessment or intervention is positive to the young person and can be offered to all those assessed as high risk who are expected to abscond. A positive intervention would not disadvantage the one in five false alarms who do not abscond. It is important to reduce the rate of false negatives as young people who are missed (as low risk) or 'fall through the net' may be placing themselves at risk of criminal exploitation by absconding. Therefore, the model outlined earlier in this discussion best fulfils the criteria of a reasonable predictive screening tool with positive predictive accuracy of 95.2%, sensitivity of 87% and specificity of 78.6%. The positive predictive accuracy and sensitivity compares favourably for a screening tool according to Leventhal (1988, p. 156), who defined the minimum criteria at positive predictive accuracy = 25%, sensitivity = 60%. However, it does not equate so well for specificity, of which Leventhal defined the minimum criteria to be 90%, suggesting an increased risk of false positives. The risk ratio suggests that the group at high risk of absconding are two times more likely to abscond than the low risk group. The model will also be applied to the live case study presented in Chapter Five to test prediction for absconding.

Whilst the practical application can begin to contribute to the composition of a measure for risk of absconding, a dataset capturing more non-absconders is needed to make a stronger comparison between both predictors and reduce Type I and Type II error rates to improve the model. The very high positive predictive accuracy (95.2%) was achieved in this study because of a bias sample of young people in a secure setting with the majority having a history of absconding. Nevertheless, risk significant factors of predictive value emerged when compared to a minority with no history of absconding. Further research applying the risk assessment checklist to more diverse groups of young people in the community would be welcomed to evaluate and improve the measure. Additionally, a limitation of the checklist exists whereby the criteria relies on evidence of behaviours from case information which may not always be accessible or comprehensive. This could lead to individuals being scored lower due to lack of evidence, resulting in false negatives where young absconders are rated low risk and miss opportunity for appropriate safeguarding or intervention.

Limitations

Identifying relationships between absconding and variables representing family, schooling, health and offending poses some limitations to consider before assuming causal relationships. Firstly, the current study uses secondary data from existing records which does not indicate temporal order of experiences and absconding incidents. This could pose as a limitation as factors identified and presented as linked with absconding behaviours may not be connected to a specific missing episode. The data is not recent and therefore arguably not accurately representative of the current general UK population, particularly when considering factors such as ethnicity, mental illness and the exclusion of more modern offence types such as cybercrime. It is recommended that the study is repeated with newer data to identify differences in contemporary risk factors and to increase validity and replicability of findings. Data was also manipulated for analysis and potentially simplified, notably in Demographic and Offending categories, resulting in a loss of detail in conclusions made.

A degree of caution should be taken when applying results from the study. As outlined, only 17% of the sample did not have a history of absconding and therefore such individuals were underrepresented. Data was collected from a unique group of individuals who, at the time of data collection, were residing in a secure

unit, and therefore it might be argued that results are biased and lack generalisability to wider youth populations. However, Attar-Schwartz (2013) explored the relationship between absconding and type of care setting through thirty-two Israeli residential placements and found that despite differences in structure, there was no difference in absconding behaviours. Whilst also considering that absconding episodes might have happened in previous settings and due to other factors, results are therefore likely to hold some weight in applicability to individuals from alternative care backgrounds. It was also highlighted in the method that the chosen alpha level for interpreting significance was lowered to eliminate spurious results that may be generated due to multiple comparisons in the study analysis. The chosen alpha level was not as stringent or conservative as the suggested Bonferroni correction, which increases risk of Type I error and presentation of false results. Therefore findings, particularly results that were deemed significant as opposed to highly significant, should be interpreted with caution.

Future research could repeat the methods of this study using a mixed methods design including qualitative study of content to gain richer understanding of associated variables and begin to ascertain the nature of risk factors. Despite 166 included variables, the study did not comprehensively cover all potential risk factors linked to absconding. For example, Hutchings *et al*. (2019) found suspected CSE and being known to Youth Offending Services to be predictive of repeat runaways and so could be expected as predictors of absconding from care, however, these were not measured in the current dataset. Longitudinal studies would also strengthen evidence by studying the effect of different factors over time. Future studies should also explore associations in young people who repeatedly run away as well as in those who spend longer periods of time away from care – factors that have been found to increase related behaviours such as offending whilst away (Hutchings *et al.*, 2019; Rees & Lee, 2005; Shalev Greene, 2011).

Implications

Findings from this study support Jeanis *et al*.'s (2019) conclusion that young runaways are not a homogenous group but have complex histories and backgrounds that might lead to behaviours including absconding. They argue against relying on simplistic typologies and instead propose that various aspects intertwine to shape likelihood of runaway behaviours. Therefore, practitioners and services offering

intervention and shaping of policies should adopt a multifaceted approach and aim to consider the complexities of each individual when working with youth at risk of absconding for effective practice. This should include thorough exploration of variables explored in this study to attempt to identify possible factors at home or school contributing to risk of absconding that may be unidentified in reports. Understanding factors that might lead to absconding aids ability to develop appropriate policies, care protocols and interventions that can prevent and effectively reduce levels of absconding, repeat incidents and associated risk of harm and offending.

Conclusion

This research aimed to explore a multitude of variables measured from young people and provides insights into risk factors for absconding from a care setting. Associations with absconding include individual factors such as care history and emotional and behavioural difficulties including self-harm. Relational factors such as being beyond control of parents and experiencing problems within school are also associated with youth who abscond from care settings. Similarly, intergenerational factors are important and youth of fathers with histories of substance misuse are at higher risk of absconding. Contextual offending behaviour variables such as the age at first offence and types of crime including theft and property crime are also associated with propensity to abscond. Lastly, results highlighted a 16 variable regression model predictive of absconding from care. It is hoped these findings provide guidance for care services or practitioners to build on understanding what young people might have experienced in the past increasing their likelihood of absconding from care settings and strengthen practice contributing to the reduction in such behaviours and consequent risks of harm or involvement with crime.

Chapter Four

Research Study Two

Uncovering harm and trauma outcomes of young people who run away and are criminally exploited

Link to previous chapter

A lack of studies addressing the association between length of missing episodes and offending outcomes in youth runaways was highlighted in Chapter Two, shaping further study of the consequences of missing episodes and particularly what occurs when young people are away for increased periods of time where their risk of exposure to challenges might be amplified. The next chapter introduces a second empirical study to investigate characteristics of missing episodes and their potential relationship with adverse outcomes such as trauma symptomology. Whilst Chapter Three summarised existing factors associated with youth absconding, the following chapter looks at outcome factors that occur following a missing episode.

Abstract

Young runaways are exposed to various risks and events liable to cause harm and possible longer-term effects of trauma. This study aimed to explore associations between young people's backgrounds and experience of events during missing episodes, and their experience of consequent psychological difficulties through trauma symptoms.

Method

A sample of 83 youth runaways completed an online missing experience survey including measures of indicated exploitation and current symptoms of Posttraumatic Stress Disorder (PTSD).

Results

The study identified initial significant differences in mean trauma scores between groups of the past abuse history, length of time away, substance misuse, and Child Criminal Exploitation variables. It went on to identify a possible relationship between criminal exploitation and trauma, as well as length of time missing and trauma. The final analysis model shows a mediating effect of exploitation in the possibly causal pathway between length of time away and experience of trauma symptoms.

Conclusion

It is proposed indicators of involvement with criminal exploitation account for a proportion of the relationship between length of time away during a missing episode and experience of trauma in young people. The impact of study limitations are considered.

Introduction

Existing studies and findings outlined in Chapter Three illustrate current understanding around why young people go missing from home or care. The limited available evidence suggests incidents are also a risk indicator for young people to experience harm (Pona *et al.,* 2019), including physical harm, CSE, self-harm and substance misuse (Hill *et al.,* 2016; Missing People, 2019a). Young people are also at risk of harm related to criminal offending, since 1 in 5 children who go missing become involved in some offending (Pona *et al.,* 2019). Shalev Greene (2011) highlights young people who go missing repeatedly are seven times more likely to commit crime, which has the potential to expose young people to violence, physical harm, threat and even offence-related trauma. Involvement with offending behaviours whilst away may often be viewed as 'survival crimes' but relate to a low probability of young people seeking support given the fear of consequences. It is argued this further marginalises individuals in that without adequate support, they can become vulnerable to antisocial or predatory tendencies of peers (Browne & Falshaw, 1998). Bowden and Lambie (2015) argue there is no pattern to the types of risk young individuals might face during missing episodes, and the impact of incidents, including the frequency of them, is unknown. Given the wide array of risks that do exist, it remains important to understand the longer-term harm they could contribute to.

Missing episodes and criminal exploitation

One understudied risk faced by young runaways is exploitation that can lead to involvement in criminal behaviours, known as CCE, and introduced in Chapter One. As highlighted, modes of criminal exploitation include organised county lines drug trafficking which can include coercion, intimidation, and violence (Rescue and Response Project, 2019). Chapter One also introduced tactics such as debt bondage to keep youth involved in crime. This can lead to further risk of harm, including threats to the young person or their family, injury from violence or robbery and sexual exploitation through paying off debts with sexual favours (Rescue and Response Project, 2019), in turn increasing both their vulnerability and risk of further exploitation. In a ten year follow up of missing young persons, Stevenson and Thomas (2018) found high levels of victimisation but noted it remains unclear whether such happened before or after running away, and therefore called for more cause-and-effect research in the area. Similarly, The National Crime Agency (NCA,

2017, p. 15) admits the "true correlation between missing persons and county line drug dealing is reported by many forces as an intelligence gap, as it has not yet been fully established or understood".

Vulnerability

An array of additional risk factors can increase potential vulnerability to CCE. Areas include poverty, abuse or neglect, behavioural difficulties, school exclusions, special educational needs, substance misuse, domestic abuse, and existing physical or mental health problems (Maxwell *et al*., 2019; Turner *et al.*, 2019), as well as risk factors regarding parental characteristics including poor parental supervision, poor mental health, substance misuse or criminality (Maxwell, 2022). For example, a third of youth involved in county lines were found to have been excluded from school, with evidence to suggest those from Pupil Referral Units (PRUs) are disproportionately represented in drug dealing networks and missing youth (Bonning & Cleaver, 2021). It has also been suggested that association with someone who is already involved increases risk, either directly through gang affiliations or indirectly through a friend of a friend (Rescue and Response Project, 2019; Turner *et al.*, 2019). Reid *et al*. (2017) proposed that experiencing multiple Adverse Childhood Experiences (ACEs) increases the risk of becoming a victim of sexual exploitation, which is potentially applicable also to CCE. Additionally, academics have previously proposed a connection between gang membership and Maslow's (1943) hierarchy of needs, suggesting that involvement offers aspects of basic needs including protection for safety, belonging, esteem and, indirectly, financial stability to provide physiological needs. It could be argued Maslow's hierarchy of needs can be applied as a theoretical framework to the existence and maintenance of criminally exploitative relationships.

Particularly vulnerable groups tend to be exploited, including looked after children (Windle *et al.*, 2020), with suggestions youth care homes have been actively targeted by exploiters (Williams & Finlay, 2018). This proposes a triangular link between care history, missing episodes and criminal exploitation, given two thirds of repeat missing youth are found to be in local authority care, and two fifths of a group involved in county lines trafficking have been identified as looked after (Bonning & Cleaver, 2021). However, there is a reported lack of robust evidence supporting proposed associations (Maxwell, 2022), prompting the current study to investigate these relationships.

Note on gangs

Whilst risk factors and models of exploitation have been found to be reflective of gang membership (Robinson, 2020; Windle & Briggs, 2015), existing understanding also highlights that the two do not always co-occur. The pull towards exploitative activity may mirror benefits of gang membership, such as 'street capital', money, substances and accommodation, as well as sensed affection, social significance, success and structure (Knowsley Safeguarding Childrens Board, 2017, as cited in Spicer *et al*., 2019; Shancey *et al*., 2011). However, street gangs differ from organised criminal groups, and not every gang is criminal (Hallsworth & Young, 2004). However, it has been argued the overlap between exploitation and gangs is observed in a small proportion of cases associated with criminal exploitation, as whilst involvement with criminality through exploitation does not imply one has membership to a gang, gang members remain more likely to be associated with such criminal endeavours (Bonning & Cleaver, 2021). The framework for gang cultures can be helpful to understand the context of criminal exploitation (see Robinson, 2020), however, specific exploration is not within the remit of this thesis.

Harm

Young people involved in criminal exploitation are at risk of "extreme physical and/or sexual violence, gang recriminations and trafficking" (HM Government, 2018, p. 8), increasing risk to estimates of 25% of youth who go missing and face significant harm (DfE, 2014). It is well established that trauma or stressful events can lead to adverse psychological effects (Maschi *et al*., 2010), and it is therefore important to understand how young people's mental and physical wellbeing might be impacted by CCE.

In terms of violence, it is recognised young people recruited into exploitation can become exposed to hazardous and often violent situations (Bonning & Cleaver, 2021), where physical, psychological (i.e. threats and extortion) or sexual violence (i.e., use of the body to store goods being transported) might be used, for example as a control mechanism for compliance. There is also a reported risk of violence from retaliation (i.e., from competing criminal groups) (Turner *et al.*, 2019) or through robbery for their stock in debt bondage strategies (Windle *et al.*, 2020), where drugs are expected to be repaid. This may be reflected in the MoJ (2020) findings which reported that the largest percentage increase in offence types over

ten years included possession of weapons and violence against the person as well as Chapter Two conclusions that violence is one of the most common runaway crime types. It is however argued that whilst violence is a key feature of exploitation models such as county lines, the true reality is likely more complex. A qualitative study of youth voices by Moyle (2019) argued for the recognition of a 'spectrum of harm' where young people are exposed to a variety of dangers, rather than homogeneous experiences of violence, to inform harm reduction focused approaches to tackling CCE.

Trauma

Youth who run away in general often experience situations that put them at greater risk of developing trauma symptoms than non-runaways. One US study by Thompson *et al*. (2007) studied youth in emergency accommodation services or youth detention and found high levels of trauma symptomology, often related to family factors. They concluded distressing family life experiences may produce complex emotional responses linked to trauma. The psychological and physical impact of CCE including county lines drug trafficking on youth has been described as "enduring, insidious and brutal" in a recently published study considering the parental experiences of the impact of CCE (Dando *et al*., 2023, p. 359). Parents described near-death experiences requiring extensive medical responses as common following stabbings, shootings and beatings. They also described their children as experiencing trauma symptomology including hypervigilance and anxiety (Dando *et al*., 2023). It is possible young people may use maladaptive coping mechanisms following trauma which may reinforce causes for going missing repeatedly and becoming further involved or at risk of behaviours whilst away including offending.

The aforementioned connection between missing episodes and harm includes the suggested link between exploitation and longer-term effects of related trauma. Although current literature is limited, young people engaging with support services have shown signs of trauma and fear (Rescue and Response Project, 2019) following experiences of exploitation. Similarly, it is proposed simply being around drug markets, violence and coercion can lead to longer term effects of trauma, such as the normalised use of Class A substances and witnessing ill effects or overdoses (Robinson, 2020).

In regard to mental and physical health, it has additionally been suggested young runaways are exposed to work and living environments that do not allow access for basic health and hygiene (Robinson, 2020). Robinson also argued that such effects contribute to a level of stress that outweighs a young person's emotional capacity or coping ability, possibly leading to longer term consequences. Therefore, it could be suggested involvement with activity through exploitation may have longer term effects linked with experiencing cumulative ACEs (Windle *et al.*, 2020) or symptoms of posttraumatic stress disorder (PTSD). Whitbeck *et al*. (2007) explored prevalence of general PTSD among homeless and runaway adolescents and found one third of youth met criteria for PTSD. They also found correlates of PTSD amongst runaways were age, being female, past physical or sexual abuse from a caregiver and being victim of weapons assaults when away. Current understanding from offence-related trauma literature could also provide indications of negative longer term effects young people may experience from exploitation, such as symptoms of PTSD (Collins & Bailey, 1990; Steiner *et al.,* 1997) and the perpetration of a crime itself eliciting trauma (Pollock, 2000), in line with theories of trauma and memory such as Shapiro's (1991) adaptive information processing (AIP) model. After all, it is well established trauma or stressful events are linked to risk of adverse psychological and emotional effects (Maschi *et al*., 2010), highlighting the importance of attempting to understand how young people are impacted by trauma that might be related to missing episodes. Robinson *et al.* (2019) draw attention to the need to understand what emotional, physical and social harms young county lines workers experience, further adding to the rationale for this area of study.

Aims

CCE is a problem entitled to greater attention due to an increase in UK missing child reports (NCA, 2019) and the consequent harm on young people. Academic evidence has been dominated by CSE research and little is acknowledged regarding offending behaviours in the context of CCE and harmful effects, as well as there being scarce academic research and data relating specifically to CCE (Maxwell *et al.,* 2019) despite recent attention across media. This study therefore seeks to understand the effect of young peoples' experiences whilst away from home or care, and involvement in exploitation related activity. It is an important area of research given young people involved in crime whilst away are often viewed

as criminals and not always victims of their experiences, often related to why they have gone missing or become exploited.

Further exploration has potential to inform and modernise police strategy, practitioner intervention and wider government policy. Given links between adverse experiences and long-term difficulties, it is important to uncover the source of such for services to guide the identification of experiences, offer appropriate intervention, and support prevention when working with young people who indicate early signs of missing episodes or exploitation. Knowledge of the impact of missing experiences could strengthen assessment and understanding of risk of harm to self and others, and aid police and healthcare workers to understand aspects of missing episodes that may be of importance to identify during legal investigation or target in psychosocial intervention. Improved knowledge could additionally contribute to building trauma-informed approaches to immediate and longer-term engagement with young people (Maschi *et al*., 2010). Stakeholders include services accountable for the care and support of young people who may be vulnerable to missing episodes, such as police forces, local councils and social services. It is hoped findings encourage further research on CCE parallel to the existing heavy literature base on CSE.

Existing literature has outlined why young people run away, reflective of predictive factors highlighted in Chapter Three, and what happens whilst away, including the types of crime identified in Chapter Two. Little empirical research exploring county lines has been conducted and the current literature base seeks to understand the exploitation model as well as how networks operate in different locations (Bonning & Cleaver, 2021) rather than look beyond to the longer-term effects on victims. The development of existing policies and interventions have also relied primarily on qualitative research without the contribution of more robust measures of adverse effects, which this study seeks to address. This chapter therefore aims to identify factors related to missing children and indicators of exploitation. It will specifically investigate:

1. Does involvement in criminal exploitation impact experience of trauma?
2. Does the number of times missing (single vs repeat) increase experience of trauma?
3. Does length of time away increase experience of trauma?
4. Is there evidence to suggest a causal effect of CCE on trauma?

It is hypothesised there is a positive linear relationship between frequency and duration of time away and risk of involvement with CCE. The study expects to find evidence of young people experiencing trauma as a result of harm from CCE and predicts that those involved in higher levels of CCE will report higher measures of trauma, with a positive linear relationship between time away and trauma score.

Methods

Procedure

The study initially intended to collect data through direct access to youth runaway populations via face-to-face RHIs. However, the impact of the Covid-19 pandemic and consequential restrictions on contact and interviews were considered in consultation with service organisations (see Appendix M). The use of existing data from professional services was also restricted, as it is estimated that only 1 in 20 children seek help from organisations when away from home (Rees, 2011). Therefore, the methodology was adapted to online data collection.

An online survey was published and disseminated using social media outlets (i.e., Reddit, Facebook, Twitter, TikTok, forums) and a link invitation was sent to gatekeepers from relevant agencies. Organisations (i.e., children's services, housing, police and voluntary organisations) were contacted by email, requesting to display an advert poster in areas reaching young people or organisational newsletters and communications (see Appendix N). Participants were able to take part any time, in any location using Jisc Online Surveys software.

Participants

Teenage (13 to 17 years, n = 58) and emerging adult (18 to 25 years, n = 30 participants were recruited voluntarily through convenience samples sought through relevant websites. An a priori power analysis was conducted using G*Power (Faul *et al.,* 2007) to determine the minimum sample size required to test the study hypotheses. Results for bivariate analyses specified that the required total sample size to achieve 80% power for detecting a medium effect (Cohen, 1988), at a significance criterion of α = .05, was N = 128. A medium effect size was chosen based on a similar study by Stevenson and Thomas (2018) who found a large effect size between crime and going missing but based on a larger sample. In addition, studies on effect size in social psychological research have suggested it is reasonable to assume a medium effect size (Cooper & Findley, 1982, as cited in Sedlmeier &

Gigerenzer, 1989). Participants did not receive any incentives for taking part. Common to online data collection methods (Reips, 2002), study attrition was high, and only 88 (34.5%) of 255 participants who began the survey completed and submitted it. All 88 respondents had answered over 75% of the questions posed and were deemed valid participants, as they had less than 25% of missing information (Lovell & Brown, 2017). Demographics of the 88 participants were screened to ensure respondents met inclusion criteria. Five participants were excluded as they were suspected not to have gone missing and their responses were judged to be false (see Appendix P). These exclusions were based on judgements by two independent raters (see Appendix O). The inter-rater reliability was very high (Koo & Li, 2006), with ratings indicating an Inter-rater Correlation Coefficient (ICC) of 0.94, $p < .001$, and rare disagreements were resolved through discussion. The final sample used for analysis was 83. The obtained sample size has reduced statistical power for a medium effect size and results should be interpreted with caution.

Measures

Survey. Participants were presented with an information page which outlined the study's purpose, data collection proceedings, ethical considerations, and researcher contact details. Participants were required to provide electronic consent. They were prompted to respond to all survey questions to the best of their capacity relating to their most recent missing episode experience. Upon completion, participants were presented with debrief information. Information for relevant support services relating to missing youth and victim support were offered given the lack of opportunity for the researcher to identify risk areas and support needs in anonymous methods.

Missing experience measures. The survey questions were developed based upon common behaviours during missing episodes (as in Hunt, 2021). Behaviours were identified based on previous research and existing tools used by services to gather information on individuals upon return. Most questions offered multiple choice (single answer) questions using a dichotomous scale (yes or no) for participants to choose the most appropriate answer, such as questions regarding motivation for going missing, whether they planned or prepared to go, types of harm experienced and activities performed. Additional questions prompted

participants to input free text information such as to clarify the specific number of times they had gone missing, the age they were when they first went missing, and estimated length of time away (see Appendix R).

Child Criminal Exploitation measure. Given the sample age, probable lack of insight into exploitation, and sensitive and potentially incriminating nature of information they were asked to provide, respondents were unlikely to clearly disclose involvement in CCE. Similarly, there are no current published direct measures of CCE. The UK Government uses the National Referral Mechanism (NRM) to identify and refer potential victims to support, however, this is restricted to use by 'first responders' (i.e., police forces, Home Office sectors and select support organisations) and as it is part of an active referral, it cannot be used as a standalone tool. Therefore, this study utilised pre-identified behavioural indicators of criminal exploitation established from existing policies, guidance and literature to code responses and attempt to determine the presence of CCE (see Appendix S). Quantitative and qualitative responses were screened for indicators of exploitation. The trauma measure was also cross-referenced and items 11, 13 and 15 (Appendix W) were consulted to identify emotional difficulties and withdrawal as an indicator. Each participant was then rated as being indicative of 'criminal exploitation present/yes' or 'criminal exploitation absent/no' based on number of indicators identified. Responses with six or more indicators were initially rated as 'exploitation present'. This number was decided using clinical judgement, where a very small number of indicators could signify exploitation, but the minimum was increased to account for Type I error where reported behaviours could be attributed to other activity (i.e., choice to use substances for coping, self-harm related to alternative mental health difficulties). It also acknowledged that one indicator 'going missing from home or care' will have been present in all survey responses, prompting the criteria to be increased by one. This figure was finally compared to descriptive analyses of the current sample that showed average CCE present scores ranged from 4-11 (M = 7.38, SD = 1.87) and CCE absent to ranging from 1-7 (M = 3.77, SD = 1.70), justifying the cut-off point of six as it appears to fall between both CCE present and CCE absent score ranges.

Clinical judgement was also utilised where a response with less indicators but clear evidence of CCE, or a response with a high number of indicators but a clear indication the individual was involved in activities distinct from CCE (i.e., sexual

exploitation or camping alone) were rated accordingly. To create a clear criterion for both raters, it was agreed ambiguous responses needed to have at least one element of criminality (i.e., positive response to 'have you done anything you think is a crime, or illegal, whilst away?' or disclosure of offending behaviours such as theft or drug dealing) to be deemed indicative of CCE.

To ensure greater consistency in coding, rating of the whole sample was conducted by two independent raters (see Appendix U) where inter-rater reliability for number of indicators score was excellent, with ratings indicating an ICC of 0.99, $p < .001$. Inter-rater reliability for presence of CCE was good, with ratings indicating an ICC of 0.86, $p < .001$. Disagreements were resolved through discussion.

It is acknowledged a number of the listed indicators will not be evidenced in this study due to the nature of them being observable signs young people are unlikely to self-identify and/or disclose. Similarly, not all indicators were directly prompted in the survey, and limitations of such are discussed later. As above, it is also recognised several indicators, which are early signs and not direct evidence of exploitation, will be present in young runaways who have not been criminally exploited, due to the nature of other possible causes and effects of missing episodes. Therefore, all cases flagged as evidencing at least one indicator of CCE were reviewed in a second screening using clinical judgement to determine if the indicators identified are sufficient to distinguish CCE from the circumstances. No ratings were adjusted.

Child Sexual Exploitation measure. Although not a primary focus of this research, an additional measure of potential child sexual exploitation was produced utilising a similar technique to the measure of CCE, based upon indicators from existing literature (see Appendix T). The trauma measure was also cross-referenced and items 7, 9, 13 and 15 (Appendix W) were consulted to identify fear associated with people, places or situations, emotional difficulties, self-esteem and withdrawal. Rating was conducted by two independent raters (see Appendix V) where inter-rater reliability for number of indicators score was excellent, with ratings indicating an ICC of 0.99, $p < .001$ and inter-rater reliability for presence of CSE was very high, ICC 0.96, $p < .001$.

Again, clinical judgement was also utilised where a response with less indicators but clear evidence of CSE was rated accordingly. To create a clear

criterion for both raters, it was agreed ambiguous responses needed to have at least one element of sexual behaviour or exposure.

Trauma measure. The survey incorporated The Posttraumatic Stress Disorder Checklist (PCL-5) measure of Posttraumatic Stress Disorder (PTSD) (Weathers *et al.,* 2013). The PCL-5 is a 20-question self-report instrument which assesses the presence and severity of post-traumatic stress symptoms. Whilst based on The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria for PTSD, the PCL-5 has a variety of purposes including to screen individuals for the presence of post-traumatic stress, quantify and monitor symptoms over time, and assist in formalising clinical diagnoses. It is used in this study to screen for indicators of present post-traumatic stress symptoms. It is noted this screening tool alone does not determine a formal diagnosis (McDonald & Calhoun, 2010) in this study.

The PCL-5 questionnaire comprises four domains correlating to the four criterion of PTSD in diagnostic manuals: re-experiencing, avoidance, hyper-arousal and negative alterations in cognition and mood. Questions are rated on a 5-point Likert scale ranging from 0 (Not at all) to 4 (Extremely). Participants were required to indicate the extent to which they felt they have been bothered by each of the statements in the last month. The wording of the measure was deemed applicable to the focus of the study and targeted population and was not altered in any way. The PCL-5 has demonstrated high internal consistency and test–retest reliability, and strong convergent and discriminant validity, structural validity and diagnostic utility (Blevins *et al.,* 2015; Bovin *et al.,* 2016; Sveen *et al.,* 2016; Wortmann *et al.,* 2016).

PCL-5 total scores were calculated if no more than three values among the 20 items were missing, as in Wittmann *et al*. (2021). Using the PCL-5 tool scoring (see Appendix W), items were summed (range 0-80) using a Microsoft Excel database and initially rated as 'trauma present' or 'trauma absent' using a cut off score of 32 (Weathers *et al*., 2013), although this study uses the continuous variable for analysis.

Self-report responses are subjective and therefore sensitive to the respondents' own insight into symptoms, and willingness to provide accurate reports of experiences, so scores are vulnerable to response biases. The PCL-5 assesses symptoms of PTSD but disregards whether symptoms are related to previous trauma

or functional impairment (Kramer *et al*., 2022). In addition, optimal cut off scores may vary across studies and populations, with general guidelines suggesting a range which is subject to interpretation (Kramer *et al*., 2022).

Young people tend to be reluctant to disclose information to others outside a trusted circle including professionals (Robinson, 2020). The sensitive nature of research and difficulty expecting young individuals who may have been involved in exploitation, knowingly or unknowingly, to disclose information will be heavily considered throughout this study.

Data cleaning

Data were inputted into SPSS and scale independent measures were dichotomised. The dependent variable, PCL-5 score, was a continuous scale variable. Interval data were screened for missing cases, and five variables were identified with missing values for 18 cases. These were assigned a value based on imputation using mean substitution methods (Tabachnick & Fidell, 2007). For nominal data, from dichotomous yes/no variables, the category (0=no) was imputed for missing values in line with the null hypothesis, reducing risk of false positive results.

The dataset met assumptions for analysis and no independent variables were found to be too highly correlated using Pearson's correlation analysis. Variables were grouped into three categories for reporting results and discussion: demographics, history and missing episode. The dependent variable (DV), trauma score, was found to be normally distributed. The final dataset contained 19 variables (see Appendix X).

Bonferroni correction suggested adjustment of the alpha (α) level from 0.05 to 0.003. Results were therefore interpreted using alpha level of .003 (99.7%) to capture significant relationships. Additional variables that showed some association ($p<.05$) are also noted.

Ethics

Ethical considerations for this study included asking young and vulnerable participants to complete a questionnaire on sensitive issues, which has a risk of retraumatisation. Hence, the participant information sheet gave a clear description of the aims and purpose of the study. Consent was obtained by the participant completing and submitting their responses. No information was recorded on those

individuals who did not hit the 'submit' button on the last page. These individuals were deemed not to have consented. Participants were informed that they could withdraw from the study at any time, but their data could not be deleted after they had submitted their data unless they wrote to the researchers with their questionnaire case reference number asking for their information to be deleted. No such requests were received. Researcher contact details and post-survey support information were provided. Questions were carefully composed to avoid direct reference to detailed adverse experiences (i.e., 'were you criminally or sexually exploited'). The study was reviewed by the FMHS Research Ethics Committee at the University of Nottingham (FMHS 08-0420).

Results

Univariate analyses

Demographic and historical factors. Obtained data is summarised in Table 10. Original data is presented followed by group categories created from the data presented in italics for the purpose of binary analysis.

Table 10

Demographic, recent missing episode, and trauma measure data of the study sample

Variable	Total *N*	Percent (%)
Demographics		
Age at last missing episode	83	-
10	2	2.4
11	3	3.6
12	4	4.8
13	5	6.0
14	8	9.6
15	11	13.3
16	15	18.1
17	9	10.8
18	26	31.3
Grouped age at last missing episode	*83*	-
10-15	*33*	*39.8*

16-18	*50*	*60.2*
Ethnicity	83	-
White/English/Welsh/Scottish/Northern Irish/British	29	34.9
Any other White background	21	25.3
Any other Mixed/Multiple ethnic background	6	7.2
Asian Indian	5	6.0
Black African	4	4.8
Any other ethnic group	4	4.8
Mixed White and Asian	3	3.6
White Irish	2	2.4
Mixed White and Black Caribbean	2	2.4
Any other Asian background	2	2.4
Arab	2	2.4
White Gypsy or Irish Traveller	1	1.2
Asian Pakistani	1	1.2
Black Caribbean	1	1.2
Grouped ethnicity	*83*	-
BAME	*27*	*32.5*
White	*56*	*67.5*
Gender identity	83	-
Male	39	47.0
Female	36	43.4
Transgender male	4	4.8
Transgender female	2	2.4
Non-binary	2	2.4
Grouped gender identity	*83*	-
Male	*44*	*53.0*
Female	*39*	*47.0*
Sexuality	83	-
Heterosexual	35	42.4

Bisexual	28	33.7
Gay or lesbian	9	10.8
Pansexual	4	4.8
Unspecified/uncertain	7	8.4
Grouped sexuality	*83*	-
Heterosexual	*42*	*50.6*
LGBTQIA+	*41*	*49.4*
Disability	83	-
Disability	14	16.9
No disability	69	83.1
Learning differences	83	-
Learning difficulty	23	27.7
No learning difficulty	60	72.3
Living at home or in care	83	-
At home	66	79.5
In care	17	20.5
History		
History of abuse or neglect	83	-
Yes	47	56.6
No	36	43.4
Number of missing episodes	83	-
One missing episode	31	37.3
Repeat missing episodes	52	62.7
Recent missing episode		
Time of recent missing episode	83	-
Historical (over 6 months ago)	54	65.1
Recent (within the last 6 months)	29	34.9
Planned to stay away	83	-

Yes	49	59.0
No	34	41.0
Length of time away	83	-
Less than one week	47	56.6
A week or more	36	43.4
Location visited	83	-
A friend's house	13	15.7
A public park	12	14.5
A stranger's house	8	9.6
Bedsit, hostel or hotel	7	8.4
Shopping centre or high street	5	6.0
Other (including school or train stations)	5	6.0
Family address	4	4.8
Nearby town or city	4	4.8
Abandoned or empty house	4	4.8
Hospital	2	2.4
Partner's address	2	2.4
Countryside	0	0
Undefined	17	20.5
Grouped location visited	*83*	-
Local location	*67*	*80.7*
Out of town	*16*	*19.3*
Alcohol use	83	-
Yes	38	45.8
No	45	54.2
Drug use	83	-
Yes	34	41.0
No	49	59.0
Involvement in criminal offending	83	-

Yes	40	48.2
No	43	51.8
Trauma (PLC-5 score)	83	-
Yes	57	68.7
No	26	31.3
Child Criminal Exploitation	83	-
Yes	17	20.5
No	66	79.5
Child Sexual Exploitation	83	-
Yes	8	9.6
No	75	90.4

Respondents ranged from ages 13-25 with reports of last missing episode at age 10-18. One third of the sample had last gone missing at the age of 18. Around two thirds of the sample were white and one third BAME. This compares to figures reported that 73.9% of 10-17 year olds are white and one quarter (26.1%) are BAME (Office for National Statistics, 2023a). The sample was roughly half male and half female. For the purposes of binary analysis, transgender individuals were categorised according to their chosen gender identity and the two non-binary individuals were split across groups. Sexuality was also divided into heterosexual and LGBTQIA+ groups, for which the sample was evenly distributed. Almost half of this sample identified as LGBTQIA+, compared with only 9.2% of youth aged 16-24 in the UK who consider themselves part of LGBTQIA+ groups (Office for National Statistics, 2023b). Fourteen participants (16.9%) reported to have a disability and one quarter reported to have a learning difficulty. Kirk-Wade (2023) described similar general population statistics, reporting 11% of children (up to the age of 16) to have a disability. However, the rate of learning difficulties appears higher in this study sample than population statistics of which only 2.5% of children in the UK reportedly have a learning difficulty (Mencap, 2023; Office for National Statistics, 2020). Most participants reported to be living at home or with family, compared to

one fifth in care. Just over half reported to have a history of abuse or neglect compared with less than half who did not. More participants reported to have experienced repeat missing episodes than those who reported one episode, ranging from self-reported estimates of 1-360 episodes.

Recent missing episode. More episodes were reported to be historical than recent. More participants planned to stay away compared to those who did not. Just over half of the participants were away for less than one week and less than half for a week or more. Locations whilst missing were categorised according to places cited by Hunt (2021), and two category labels, 'undefined' (i.e., no response, indication of unspecified variety of locations or stating they do not remember) and 'strangers address', were added to category options. Responses were dichotomised into 'local' and 'out of town' (i.e., nearby town or city, abandoned or empty house, countryside, strangers address) groups (Hunt, 2021). A few responses met more than one category (i.e., '*down south in a city in a trap*') and were therefore coded according to the most dominant detail in interview (as in Boulton *et al*., 2022). Those in the undefined group were categorised as local to meet the null hypothesis. Most respondents reported to have visited or been taken to a friend's address, followed by a public park, or a stranger's house. Four fifths of individuals were deemed to have visited 'local' locations compared to one fifth who went 'out of town'. Regarding substance misuse whilst away, just under half of the participants reported to have used alcohol whilst away compared to just over half who did not. Similarly, under half used illicit drugs compared to 60% who did not. Just under half of respondents reported to have been involved in some form of criminal activity whilst away, and just over half had not.

Trauma. Scores on the PCL-5 measure ranged from 6-80 (N = 83, M = 44.0, SD = 19.85) and data were normally distributed. Participants were categorised as experiencing trauma (N = 57, M = 55.32, SD = 11.24) versus no or low trauma (N = 26, M = 19.12, SD = 8.14), described previously for categoric analysis. Findings demonstrated trauma symptoms among runaways were greater than scores of an English normative sample (N = 838, M = 20.9, SD = 17.7; Ashbaugh *et al*., 2016) and more prevalent (68.7%) than found by other researchers such as Whitbeck *et al*. (2007) who reported one third of runaways met lifetime criteria for PTSD.

Measures of exploitation. Coding for the presence of CCE identified one fifth of participants had indicators for CCE and the remainder were not considered to have been criminally exploited. Prevalence roughly matches rates of 15% confirmed or suspected in Boulton *et al.*'s (2022) study of RHIs. Much fewer had indicators for CSE compared to most of the sample who had no signs of sexual exploitation. Again, rates are close to matching those of 11% confirmed or suspected in Boulton *et al.* (2022).

Bivariate analyses

T-tests. Initial analyses compared 18 dichotomous nominal variables (see Appendix Q) against the scale dependent trauma variable (where PCL-5 indicated trauma is conceptualised by score rather than diagnostic cut off group) to test for differences between the means of the two groups using independent two-sample *t*-tests.

Differences in the scores for five of the 18 variables were found. One significant difference was found measured at alpha level $p \leq .003$ (see Appendix Q with all 18 variables). Table 11 shows those five variables that were associated with experience of trauma.

Demographics. No variables in the demographics category showed significant differences in PCL-5 score between groups using independent two-sample *t*-tests.

History. Individuals with a reported history of abuse or neglect were found to have higher PCL-5 trauma scores (M = 48.7, SD = 17.5) than those without a history of abuse (M = 37.8, SD = 21.2), $t(81) = -2.56$, $p = .012$, identifying only some association that is non-significant. The effect size for the difference between the groups was calculated using Cohen's d, resulting in a value of 0.57, which is considered a medium effect (Cohen, 1988). Whilst the difference was anticipated, the association between history of abuse or neglect and trauma was not as strong as expected, which is surprising given the known causal pathway between a history of past abuse and later trauma (Kendall-Tackett, 2002; van der Kolk, 2003). Therefore, this variable was not further explored in this study aiming to understand events that occur whilst missing. However, history of abuse was found to relate to running away as it was correlated with length of time away ($r(81) = .275$, $p = .012$).

Missing episode. Of variables exploring what happened to young people whilst away, two variables were found to be correlated with the trauma group. Length of time away was the most significant variable. Individuals who reported being away for a week or more scored significantly higher on the PCL-5 measure (M = 52.3, SD = 18.9) than those who stayed away for less than one week (M = 37.6, SD = 18.4), $t(81) = -3.55$, $p = .001$. The effect size was medium, 0.79. Young people who met criteria indicative of CCE were also found to have higher PCL-5 scores (M = 55.7, SD = 18.0) compared with those who did not met criteria suggestive of CCE (M = 41.0, SD = 19.3), $t(81) = -2.85$, $p = .006$, again noting some association, although this is deemed to be non-significant. A medium effect size of 0.77 was found using Cohen's d.

Two factors concerning substance use during missing episodes were found to be related to experience of trauma. Results suggested individuals who used alcohol whilst away scored higher trauma scores (M = 50.5, SD = 19.5) compared with those who did not consume alcohol (M = 38.4, SD = 18.7), $t(81) = -2.88$, $p = .005$, with a medium effect size of 0.64 for the non-significant association. This was the second strongest effect in the analysis, nearly meeting significance level with Bonferroni correction. Similarly, youth who used illicit drugs whilst missing had higher trauma scores (M = 50.9, SD = 20.4) compared with those who did not, although this did not meet a level of significance when applying Bonferroni correction (M = 39.2, SD = 18.2), $t(81) = -2.76$, $p = .007$. This relationship showed a medium effect size of 0.62.

Further exploration of the independent variables found drug use whilst missing and alcohol use whilst missing to be the most highly positively correlated, $r(81) = .513$, $p < .001$. Therefore, these two substance related variables were excluded from further analyses due to multicollinearity.

Table 11

T-test results comparing dichotomous groups of five variables with PCL-5 trauma score (see Appendix Q for full results)

Variable	Total *N*	Variable (*N*)	PCL-5 score *M*	PCL-5 score *SD*	*t*(81)	*p*	Cohen's *d*
History of abuse or neglect	83	-	-	-	-2.56	.012*	0.57
Yes	-	47	48.7	17.5	-	-	-
No	-	36	37.8	21.2	-	-	-
Length of time away	83	-	-	-	-3.55	.001**	0.79
Less than one week	-	47	37.6	18.4	-	-	-
A week or more	-	36	52.3	18.9	-	-	-
Alcohol use whilst missing	83	-	-	-	-2.88	.005*	0.64
Yes	-	38	50.5	19.5	-	-	-
No	-	45	38.4	18.7	-	-	-
Drug use whilst missing	83	-	-	-	-2.76	.007*	0.62
Yes	-	34	50.9	20.4	-	-	-
No	-	49	39.2	18.2	-	-	-
CCE whilst missing	83	-	-	-	-2.85	.006*	0.77
Yes	-	17	55.7	18.0	-	-	-
No	-	66	41.0	19.3	-	-	-

** significant at $p \leq .003$
* some association at $p \leq .05$

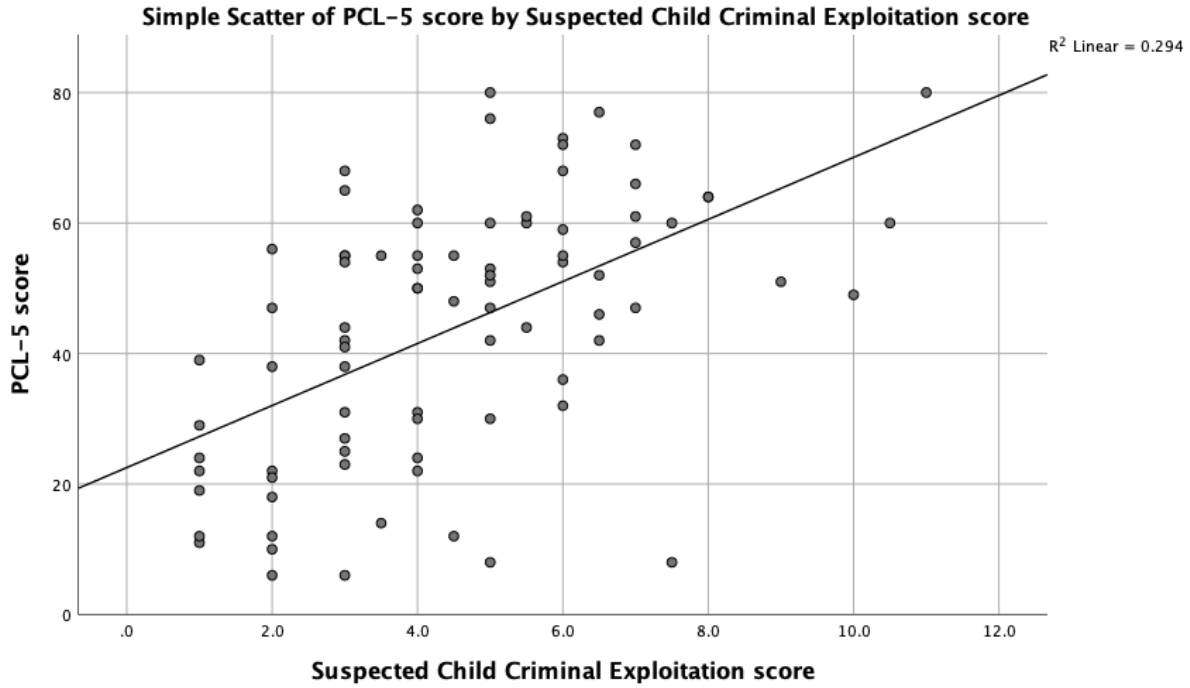
Multivariate analyses

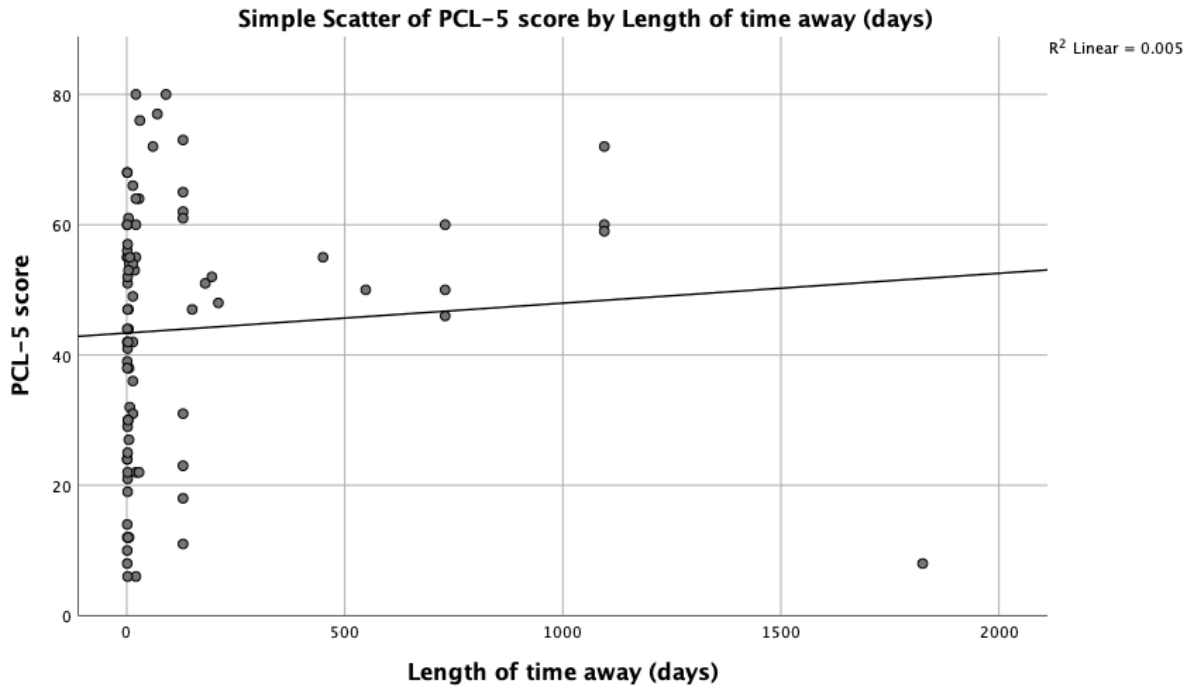
Predictive analyses were conducted to explore the effect of relevant independent variables on PCL-5 trauma score. These variables were chosen because they reached $p<.05$ and showed some association in bivariate analyses. When a Bonferroni correction is applied, four variables would not be regarded as significant, nevertheless, they were deemed to be important to recognise in the following development of a model. Key variables were converted to continuous scales for more accurate testing. Length of time away that had previously been categorised

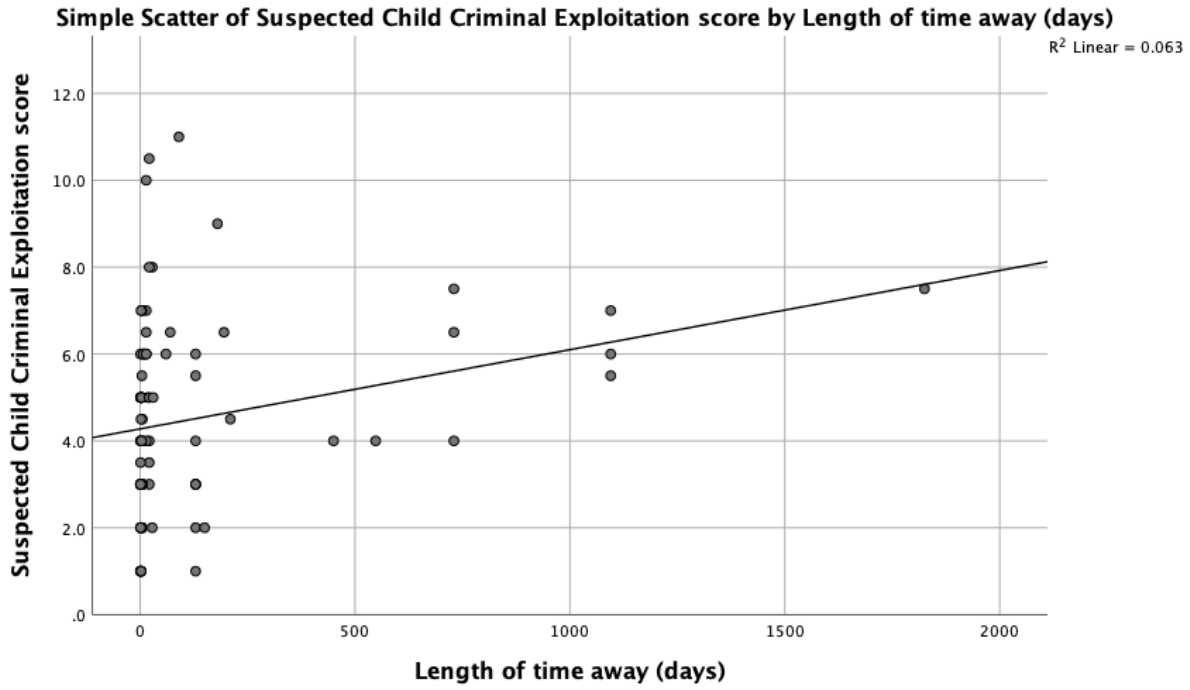
from qualitative survey data recorded in days, months or years, was converted to a continuous scale of days (*M* = 129.0 days, *SD* = 311.23), where 'one month' accounted for 30 days. Data were not normally distributed with a positive skew (see Figure 8). Suspected CCE group was transformed to a continuous raw scale of number of indicators averaged from both raters (see Appendix S; *M* = 4.51 indicators, *SD* = 2.26) where data were normally distributed.

Figure 8

Three scatterplots illustrating linear relationships between continuous CCE score variable, continuous length of time in days variable and PCL-5 trauma measure







Is there an effect of CCE on trauma? A simple linear regression was conducted using the continuous scales to predict PCL-5 score based on number of CCE indicators. A significant regression equation was found (F(1,81) = 33.70, *p*

<.001), with an R^2 of 0.294, 95% CI [3.13, 6.39]. Participants' predicted PCL-5 trauma score is equal to 22.521 (the unstandardised constant coefficient) + 4.755 (the β regression coefficient) units of CCE when CCE is measured in number of indicators. This indicates that trauma score increased 4.76 units for each indicator of CCE based on a crude association.

The original dataset also measured variables suspected to have a confounding effect on trauma score in the relationship between exploitation and trauma. Use of the continuous CCE score, as opposed to earlier categoric grouped variable, was justified due to the unbalanced group quantities based on an unstandardised cut off point, enabling the scale variable to provide more precise outcomes. The dichotomous categoric variable was also deemed too binary, with a high level of opportunity for false positive results. The use of the continuous score assumed a linear relationship (see Figure 8). Due to the small number of variables, all were individually entered into a multiple linear regression model. It was hypothesised that living in home or care, history of abuse and involvement in criminal offending would act as confounders.

Based on the β regression coefficient of 4.755 for the unadjusted effect of CCE on trauma score, variables with parameters that increased or decreased by >10% of 4.755 were identified as confounding factors. Two confounding factors were found: number of missing episodes and involvement in crime whilst away. A linear regression was conducted adjusting for the effect of these two confounding factors, which significantly predicted trauma score, β = 6.49, $t(3) = 6.03$, p <.001, CI [4.35, 8.64]. The adjusted model also explained a significant proportion of variance on trauma scores $R^2 = 0.342$, ($F(3,79) = 13.70$, p <.001). Participants' predicted PCL-5 trauma score, when adjusted for number of missing episodes and offending whilst missing, increased 6.49 units for each indicator of CCE, retaining a highly significant positive association between CCE and trauma (see Table 12).

Table 12

Final adjusted regression coefficient for the relationship between CCE and trauma when adjusted for confounding factors

	Unstandardised coefficient				95% CI	
Variable	β	SE	*t*	*p*	Lower	Upper
Child Criminal Exploitation	*6.49*	*1.08*	*6.03*	*<.001**	*4.35*	*8.64*
Estimated number of missing episodes	-7.25	4.37	-1.66	.101	-15.95	1.46
Involvement in offending whilst away	-7.50	4.32	-1.74	.087	16.11	1.10

* significant at $p < .05$

Does length of time away increase trauma? To explore whether length of time away increases level of trauma in a predictive manner, length of time in days data were split into three equal size categories using visual binning which created low, medium and high groups outlined in Table 13, each of which was normally distributed.

Table 13

Tertile categories of length of time away

Group	Quantity	Label	*N*	*M*	*SD*
Low	≤2 days	two days or less	29	38.00	19.21
Medium	3-21 days	three days to three weeks	27	42.78	17.98
High	22+ days	more than three weeks	27	51.59	20.52

A one-way between-subjects ANOVA was conducted to compare the effect of grouped length of time away on trauma score for each group. There was a significant effect of time away on trauma score for the three groups ($F(2,80) = 3.559$, $p = .033$). Post-hoc comparisons using an LSD test indicated a significant difference

between low and high where young people who spent more than three weeks away scored significantly higher PCL-5 trauma scores than the group away for two days or less (p = .010, CI [3.34, 23.84]). There were no statistically significant differences between the remaining groups (see Table 14).

Table 14

Multiple comparison ANOVA results comparing length of time away 3-level grouped variable against trauma score using LSD post-hoc comparisons

Comparison	β mean difference	p	95% CI Lower	95% CI Upper
Low (2 days or less) v medium (3 days to 3 weeks)	-4.78	.356	-15.03	5.47
Low (2 days or less) v high (3 weeks or more)	-13.59	.010*	-23.84	-3.34

* significant at p <.05

The grouped length of time variable was therefore used for the remainder of statistical analysis due to the weak linear relationship between continuous length of time away and trauma score.

All potentially confounding variables were individually entered into a multiple linear regression model. Based on the β regression coefficients of -13.59 for the low vs high length of time away post-hoc comparison group, and -4.78 for the low vs medium comparison group (when analysed against PCL-5 trauma score), confounding factors were again detected by identifying variables with parameters that increased or decreased by >10% of these coefficient values.

Three confounding variables were detected; missing from home or care, drug use and alcohol use. A linear regression adjusting for the effect of these three variables showed the two beta coefficients reduced slightly (13.59 to 8.79 for low vs high, and 4.78 to 1.48 for low vs medium; see Table 15) and the statistical significance was also reduced (p = .033 to .099), although there was still some weak evidence of association following adjustment (less than 1 in 10 probability the observed association arose by chance alone). It is noted the beta coefficient also

reduced when controlling for CCE, but in this analysis, it is considered a mediator rather than a confounder, as it is likely to be on the causal pathway.

Table 15

Adjusted regression coefficient for length of time and trauma

	Unstandardised coefficient				95% CI	
Variable	β	SE	*t*	*p*	Lower	Upper
Length of time	-	-	-	.099	-	-
Low vs high	8.78	-	-	-	-2.09	19.66
Low vs medium	-1.48	-	-	-	-12.62	9.65

Note: Results adjusted for missing from home or care, drug use and alcohol use.

Is CCE on the causal pathway in the relationship between time away and trauma? The relationship between 3-level length of time away (as in Table 13) and CCE in the prediction of PCL-5 trauma score was tested using a mediation regression analysis. The analysis specifically tested for any variance shared by the predictor (length) and outcome (trauma) that might be explained by the mediator (exploitation). Previous analyses addressing the requirements of mediation indicated unadjusted length of time missing (low vs high) significantly predicts PCL-5 trauma score, $p = .033$, which falls slightly less than significant when adjusted for confounding variables, $p = .099$, but deemed close enough to be included in further analysis. However, this may affect the possibility that mediation through a*b will be significant.

To test for mediation, the indirect effect of length of time away on trauma via CCE was explored for significance. The multicategorical variable length was tested listing the 'low' group as the control, allowing for low vs medium and low vs high group comparisons. A bootstrap estimation with 5,000 simulated datasets using re-sampling with replacement was used to increase power and accuracy (Hayes, 2013). The results of the indirect regression analysis, including both paths due to pairwise comparisons, are reported in Table 16.

Table 16

Summary of mediation indirect effect regression analysis

						Confidence Intervals	
		β	SE	*t*	*p*	Lower	Upper
Indirect effect (a path)	X_1	2.11	.55	3.82	<.001*	1.01	3.20
	X_2	2.01	.55	3.65	<.001*	.92	3.11
Indirect effect (b path)		4.86	.90	5.411	<.001*	3.07	6.65
Direct effect (c' path)	X_1	-5.45	4.81	-1.13	.261	-15.03	4.13
	X_2	3.81	4.78	.80	.428	-5.71	13.33
Total effect (c path)	X_1	4.78	5.15	.93	.356	-5.47	15.03
	X_2	13.59	5.15	2.64	.010*	3.34	23.84

Note: X_1 compares low vs medium, X_2 compares low vs high categories of length variable
* significant at p <.05

The total effect (c path), which does not account for any mediation effect, matches findings from earlier regression analyses.

The indirect effect (a path) shows a significant difference in CCE for low vs medium length of time away. The positive coefficient suggests medium time away has a higher CCE score, which is also observed in split means, where low M = 3.17 and medium M = 5.28. Similarly, there is a difference in CCE score between low and high length of time away, with a positive coefficient, where high M = 5.19. The b path shows a simple positive coefficient to suggest as CCE increases, trauma score also increases, which is expected.

The direct effect (c' path) showed no significant direct effect of CCE for low vs medium or low vs high length groups. This matches descriptive means of trauma score where low M = 38.00, medium M = 42.78 and high M = 51.59.

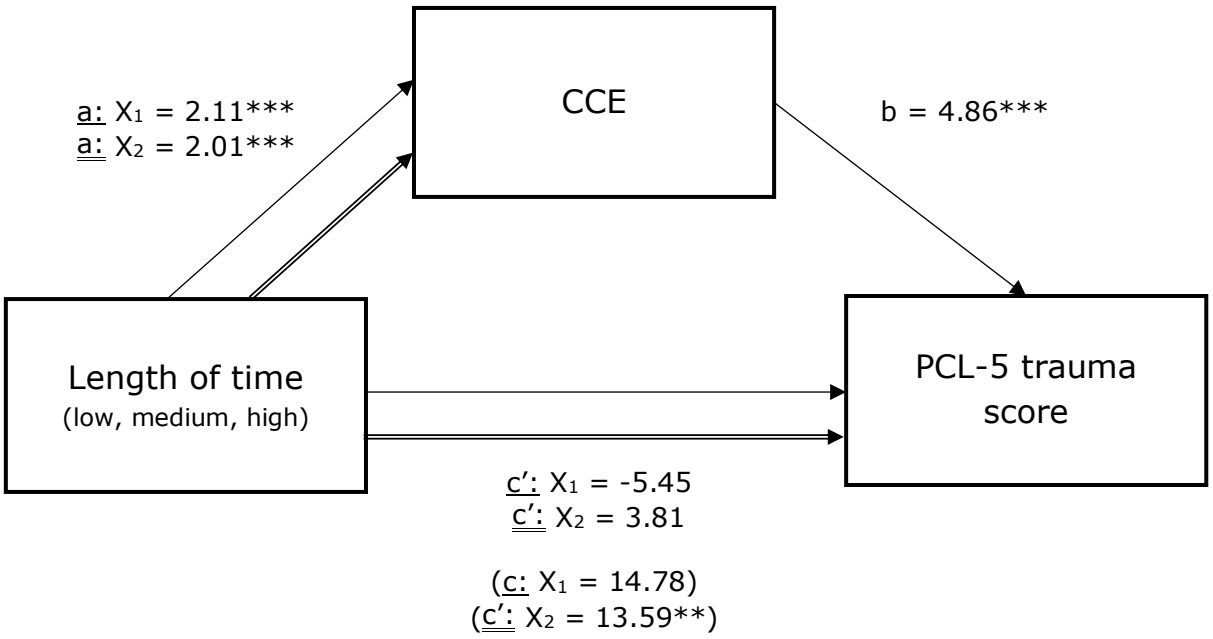
Results indicated an indirect coefficient *ab* for low vs medium groups = 10.23, SE = 2.91, 95% CI [5.05, 16.21]. The analysis revealed 95% of generated samples fall between the confidence intervals. As zero does not fit within this interval, the outcome suggests there was some mediating effect for the low vs medium group comparison. It also showed an indirect coefficient *ab* for low vs high

groups = 9.78, *SE* = 2.85, CI [4.42, 15.53]. Since this does not include zero, it is suggested mediation has occurred for this group comparison.

The mediator, CCE, accounted for a proportion of the total low vs medium effect (percent mediation (P_M) = 2.14), calculated by the ratio of the indirect effect to the total effect. It accounted for P_M = .72 of the total low vs high effect. As displayed in Table 16 and Figure 9, all paths to trauma outcome are significant except for the non-significant direct effect length has on predicting trauma (c' path).

Figure 9

Regression coefficients for the causal relationship between length and trauma as mediated by CCE. The total effect regression coefficient between length and trauma, controlling for CCE, is in parentheses.



X_1 compares low v medium and X_2 compares low v high categories of length variable
**p < .05, **p < .01, ***p < .001*

Discussion

Study results found initial significant differences in mean trauma scores between groups of the past abuse history, length of time away, substance misuse, and Child Criminal Exploitation variables. It went on to identify possible relationships between these variables, including a mediating effect of exploitation in the pathway between length of time away and trauma.

Findings are discussed with regard to mean differences in the tested variables. Commentary is also given to non-significant findings in relation to existing literature. Finally, variable relationships that allude to causal pathways are discussed, including CCE and trauma, length of time missing and trauma, and lastly the mediating effect of CCE.

Mean differences

In support of hypotheses, some relationship between history of abuse and trauma was identified, where a history of abuse or neglect was related to higher PTSD symptoms. It was, however, expected to be a stronger significant effect, and therefore for those who run away, it is theorised they are vulnerable to further exposure to harm and retraumatised, which contributes to trauma through enhancement of adverse psychological effects.

The alternative hypothesis that longer periods of time missing links to trauma levels was accepted due to a significant difference in PTSD symptoms between groups who were away for a short period of time versus those away for more than one week. It is possible more time away from home or care links to increased opportunities to become exposed to, or involved in harmful experiences.

Similarly, substance misuse may lead to exposure to adverse events due to disinhibition, as well as substance use being illegal and linking to escalating offending behaviours. Although non-significant, the relationship between trauma and alcohol use was expected, primarily based on decades of research finding strong links between exposure to trauma and later substance misuse and addictions (Ouimette & Brown, 2003) but also possibly explained by 'high-risk hypothesis' of lifestyle choices, due to increased disinhibition and risk of individuals becoming involved in or witness to events that cause fear or emotional responses, particularly assaultive violence, when under the influence of alcohol and illicit drugs (Haller & Chassin, 2014).

Lastly, individuals deemed to be criminally exploited reported significantly higher rates of trauma. This result was expected given evidence that individuals who are criminally exploited have reported experiences of threatened and real harm, exposure to frightening situations and involvement in criminal offending (Bonning & Cleaver, 2021; Moyle, 2019).

Linked to CCE, it is noted analyses did not find a significant association between general offending behaviour and trauma. It was expected involvement with criminal offending would directly link to trauma given possible exposure to harm, violence, threat, coercion and weapons. However, in line with findings from Chapter Two's systematic review of the runaway offending literature, it may be that offending behaviours are typically lower-level, less impactful crimes such as those listed in the review synthesis: theft, violence, property crime and drug offences. The current study's small sample size may not have captured more severe offending.

Additional non-significant results were surprising. For example, it was expected those who identified as belonging to LGBTQIA+ groups would be more vulnerable to adverse experiences (Livingston *et al.*, 2020), resulting in higher trauma scores. However, such effect was not captured in this study, possibly due to the variation within the LGBTQIA+ group, which included bisexuality and questioning identities, which may have diluted effects. In addition, this demographic group reflected an over-representation from that found in the general population, where 9.2% of youth aged 16-24 in the UK belong to LGBTQIA+ groups (Office for National Statistics, 2023), possibly indicating group membership to be a risk factor for missing episodes.

Individuals living in care were also anticipated to score significantly higher than those at home, due to higher levels of repeat missing youth, and exploited youth, in local authority care (Bonning & Cleaver, 2021), as well as research that young people in care are vulnerable to poorer psychosocial outcomes related to instability and poor attachments (Meltzer *et al*., 2003; Newton, Litrownik & Landsverk, 2000). This was also expected following findings from Chapter Two, where reviewed literature suggested youth in care are more likely to offend whilst missing, and proposals from Chapter Three, that youth with care histories and offending backgrounds are more likely to abscond, which is expected to lead to exposure to adverse events. However, it may be that those in care who have been

exposed to harm are less affected as measured in the PCL-5 due to desensitisation and normalisation of experiences, compared with those from home who may experience a stronger impact of possibly infrequent experiences.

Similarly, number of missing episodes was also expected to relate to level of trauma where it was hypothesised more episodes would link to more exposure to dangerous events. However, no such effect was detected, contrasting with Thompson *et al*. (2007) who found three factors that increase trauma symptomology in runaways, including greater runaway episodes and Windle (1988) who reported criminality rates are twice as high for repeat runaways. Again, it is possible the opposite effect occurs where repeat runaways become desensitised to the impact of harmful events, but further research is needed to explore the direction of this relationship. Reporting a recent missing episode was anticipated to be related to higher trauma scores from recent exposure to harm (Schock *et al*., 2016), however, it is possible the results of the current study too picked up the longer-term impact of complex traumatic stress from those who went missing repeatedly, or some time ago (Center for Substance Abuse Treatment, 2014; Courtois & Ford, 2009). The study was therefore unable to further explore the study question asking whether the number of times missing (single vs repeat) increases experience of trauma due to this early lack of relationship.

Lastly, the study hypothesised those who travelled out of town whilst missing would experience higher trauma due to the relationship between distance and CCE. Whilst out of town mean scores were higher, the difference was not significant. Findings loosely reflected those of Hunt (2021) who explored 61 missing episodes and found the majority (52.5%) visited a friend's address, followed by visiting a public park (45.9%), a family address (24.6%) or a nearby town or city location (24.6%). This study identified the same two most visited locations, but a higher number of individuals visiting strangers' houses and hotels. However, it is possible the small proportion of the sample who went out of town did not allow for significant effects to be observed. Similar lack of significance was observed for individuals deemed to be sexually exploited, however, it is noted the current study did not specifically target CSE victims to gather a sufficient sample for such results.

Causal relationships

Linear regression analyses showed a significant effect of level of criminal exploitation on resultant trauma score, even when accounting for confounding

effects of number of missing episodes and involvement in crime whilst away. Predicted PCL-5 scores increased 6.5 units for each score on the CCE measure, suggesting for every CCE-related outcome a young person is exposed to, their risk of experiencing effects of trauma greatly increases.

The hypothesis that involvement with criminal offending would have a confounding effect was met, where it was theorised that criminal behaviours expose young people to frightening and dangerous situations likely to impact them physically and emotionally, leading to symptoms of trauma. In addition, number of missing episodes was found to impact trauma score. It is possible that with an increase in missing events, young people are exposed to a wider variety of emotionally disturbing events that can cause symptoms of trauma and effects of retraumatisation. It is noted the confounding variables differed from those expected. Living in home or care did not act as a confounder, where it was anticipated those living in care would have higher trauma scores related to factors of instability, such as placement disruption and loss of attachment relationships. However, this was not found, possibly due to the unequal sample split, with those living in home more highly represented. History of abuse was more evenly distributed, but surprisingly not found to be a confounding variable despite the variable being a clear indicator of past potentially traumatic experiences and significantly associated with trauma score independently. This is possibly due to past abuse or neglect no longer actively impacting participants, or CCE having a retraumatising effect which may act as a replacement towards symptoms of trauma measured on the PCL-5.

The study similarly explored the effect of length of time away on trauma. The adjusted regression results suggest length is associated with trauma score overall, where trauma scores are higher for individuals away for more than three weeks compared with two days or less, and slightly higher for youth away for between three days and three weeks compared with less than two days.

Quite different confounding effects were identified compared with the analysis of CCE on trauma, where missing from home or care, and drug and alcohol use, had an effect on the overall relationship between length of time away and trauma. As before, it is theorised that young people missing from care experience difficult factors of their placements that contribute towards trauma outcomes. For drug use and alcohol use, it is suspected that exposure to substances puts youth in more

vulnerable and dangerous situations and environments that may contribute to experiences of trauma. When adjusted for these confounding variables, the length and trauma relationship remained the same, where trauma scores appeared to be almost 9 units higher for those away for more than three weeks compared with two days or less, but only slightly lower (1.5 units) for youth away for between three days and three weeks compared with less than two days. This suggests the only noteworthy effects appear to occur in individuals who are away from home for a considerable length of time, who are therefore likely to experience higher levels of trauma than those who are somewhat exposed to trauma when away for shorter periods of time.

The study tested CCE as an intermediate variable, to investigate how it influences the outcome of trauma. Results show the relationship between groups of length of time away and PCL-5 trauma score is significantly mediated by indicators of CCE. Overall, the mediation shows the direct effects of both length groups are non-significant. The indirect effects (a and b) for both length categories are significant, suggesting that CCE accounts for a proportion of the relation between length of time away and experience of trauma. As illustrated in Figure 9, the regression coefficients between length and CCE, and CCE and trauma history, are statistically significant. Analysis found the indirect effect to be statistically significant, establishing some mediating effect where CCE underlies the relationship between length of time away, for both groups individually, and PCL-5 trauma score. It was hypothesised that experience of CCE whilst missing would contribute to effects of trauma, which is accepted as CCE has been found as a mediator accounting for a proportion of the total effect. It is therefore concluded that whilst length of time away increases experience of trauma, additional exposure to difficult events through criminal exploitation, identified through consequential indicators such as withdrawal, sudden changes in mood, problems with offending or unexplained acquisition of possessions for example, further increases trauma score.

This finding synchronises with previous research suggesting criminally exploited youth are at risk of extreme violence, trafficking and face significant harm (DfE, 2014), which has also been identified by support services reporting signs of trauma and fear following exploitation whilst missing (Rescue and Response Report Analysists, 2019). However, as per Cockbain and Brayley's (2012 p. 699) study on CSE, it can be concluded that the cause and effect relationship of CCE and missing

episodes is unlikely to be simple, universal and linear. Both factors are likely to "coexist in a state of twisted symbiosis", whereby they both affect each other. Understanding the relationship between exploitation and criminality with a view to determine causality requires time-stamped data on criminal exploitation indicators and offending behaviours for each individual, which could be explored in future studies.

Limitations

Whilst the present study provides a novel understanding of how trauma might link with young people's experiences of going missing from home or care, there are limitations to the study design, sample and outcomes.

In terms of methods, data derived first hand from missing young people, which whilst offering unique insight into experiences, cannot be verified. Use of additional materials such as police records would be beneficial to authenticate information. As in the original study proposal prior to the Covid-19 pandemic, future research could replicate the study using face to face methods surveying young people during RHIs, comparing results to those captured in this study.

The study uses an invented coding system to identify presence of CCE based on self-report data. This method is not as concrete as use of empirical data such as that derived directly from police databases as in Bonning and Cleaver (2021), who relied upon arrests for drug trafficking in locations distant from one's home town, missing reports identifying exploitation and intelligence reports as specific criteria for CCE. The survey questions did not directly reflect CCE indicators, meaning some indicators were not identified at all due to restricted opportunity for reporting. Future studies could include additional questions, specifically measuring interpersonal signs such as withdrawal from others, absence from school and use of social media. Alternatively, respondents could have been asked to mark indicators as present or absent. The study calls for the development of empirical tools and checklists to identify young people at risk of CCE, as well as research to explore variation across future tools, reflective of CSE research by Brown *et al.* (2017).

Within the regression exploring length of time away on trauma scores, a lower level of statistical significance was accepted after adjusting for confounding variables due to showing some association. Limitations of this include a higher chance of falsely rejecting the true null hypothesis. Similarly, the final multivariate analyses were based on associations that would not be regarded as significant when

the suggested Bonferroni correction is applied. Whilst it is not necessary to use a Bonferroni recommendation in the development of a model, it is acknowledged that the use of variables with only some association could weaken validity of results and again risk presenting false positive conclusions.

This study adjusted results for some harm or trauma experienced before missing episodes, although it could be argued confounding measures were limited. If repeated, this study could utilise design methods to measure prior exposure, such as in Hussain *et al*.'s (2010) study on sexual exploitation which notes exploited women were also commonly found to have experienced violence prior to being trafficked, which may have put them at greater risk of later psychological harm. This trajectory could possibly be applied to criminal exploitation considering potential push factors that cause young people to go missing, such as low warmth–high conflict home environments (Rees, 2011; Sturrock & Holmes, 2015) or feeling unsafe due to experiencing bullying, assaults, abuse, or racial harassment in residential care (Finkelstein *et al.,* 2004). Additionally, given that greater risk taking and impulsivity have been shown to be risk factors for exposure to violence and other traumatic stimuli (Netto *et al.,* 2016)*,* research should consider the impact and potentially mediating effects diagnostic traits of neurodiversity may have, such as attention deficit hyperactivity disorder (ADHD). Such research could expand on metanalysis findings that both ADHD and PTSD increase the risk for the other (Spencer *et al*., 2016).

Compared to the reported 320,000 missing persons per year in the UK (NCA, 2020), the sample employed in the current study is small and has reduced statistical power. Future research would benefit from a larger, more diverse sample. Repeated studies using methods already suggested should aim to collect more fruitful case examples of exploitation and use similar methods to rate exploitation using wider criteria to allow for 'absent', 'low level' and 'high level' categories to further explore relationships. Future research could alternatively aim to survey wider populations and match non-runaways for close comparison of effects.

As mentioned in Moyle (2019), who found that many suitable participants choose not to take part through fear of reprisals, it is possible despite assurances regarding anonymity in data collection, potential participants feared addressing their circumstances and/or submitting information. They may have feared what the information would be used for, who it might be shared with and whether it would

be traced back to them or saved on their computers. General limitations on youth studies also apply to the current study, including ethical implications of asking young people to recall traumatic experiences, and authenticity of responses which was demonstrated in a number of survey responses deemed to be false. Given the online nature of the study, it is not possible to determine if respondents accurately met the target population and whether such demographics were honestly reported.

Successful methods of reaching young people could be replicated in future studies, such as Rees (2011) who was able to recruit over 7,000 participants by sharing a survey in a representative sample of 85 mainstream secondary schools. Mixed methodology could also be considered, reflective of partnership studies such as Sturrock and Holmes (2015) and Turner *et al.* (2019) who also drew upon surveys, interviews and Freedom of Information requests recruiting young people as well as professionals, staff and parents and carers. Taylor *et al*. (2014) alternatively used young people trained as peer researchers to collect data in focus groups, which would have been an interesting method to adopt and increase engagement, trust and willingness to detail experiences.

In terms of ethnicity, Rees (2011) proposed young people of mixed ethnic heritage have the highest rates of going missing, which has not been captured in the current study, possibly due to only 13.2% of the sample being participants of mixed ethnicity. Findings reflecting a more diverse population is important given marginalisation is a key theme of involvement with exploitation. It has previously been acknowledged marginalisation may give rise to some of the structural and existential problems that young individuals have experienced throughout life, including ACEs and factors outlined earlier in Chapter Three. These, along with additional forms of deprivation and exclusion experienced by young people (Robinson, 2020), have been offered as partial explanations for involvement in criminal behaviour which might be committed when away from home.

Wider experiences of missing episodes could have been captured with the inclusion of additional measures, for example, internal experience could have been explored using the emotional experience questionnaire developed by Canter and Ioannou (2004). Whilst designed for offenders during episodes of criminal activity, such was modified and utilised by Hunt (2021) with a population of individuals describing missing episodes which could have been adopted in the current study.

In terms of missing outcomes, the survey focused narrowly on the missing episode in question and could have explored the outcome, such as if the individual returned on their own accord, or were found by police, family, a friend, or someone else (Hunt, 2021). Such might have allowed for inferences to be made considering intentions to remain away (i.e., if found and returned by someone else) or whether circumstances changed during the episode (i.e., if returned on their own accord). This could have been further understood in the context of the level of trauma they experienced during their time away. For example, Hunt (2021) reported 59% to return on their own accord, indicating a proportion of individuals who return for reasons that the current study cannot suggest intentions behind. Similarly, the current study does not measure positive impacts of being away from a home or care environment. For example, Rosenthal *et al.* (2006) highlighted that whilst periods of time away may cause fear and anxiety, they may also instil resourcefulness and independence.

Given the main limitations of small sample size and use of online methods, findings should be applied and compared to a case study more broadly exploring a young person who meets the sample criteria.

Implications

Despite several study limitations, the findings of this study have important applications to awareness and practice related to youth who go missing. The development of policies and interventions have relied primarily on qualitative research without the contribution of more robust measures of adverse effects. This study introduces quantitative insight of the impact of harm which can influence focus of future policy or practice guidance development.

In terms of practical application, the findings can help shape assessment and intervention for youth broadly at risk of missing episodes or specifically, exploitation. Whilst experiences related to exploitation are not explicitly explored in RHIs, references to ones' potential risk of vulnerability to exploitation are common (Boulton *et al.,* 2022). The results of the current study argue for more defined open-ended questions addressing CCE to be included in RHI forms. This could capture indicators and contribute to standardisation of measures to understand risks faced and interventions offered to young people more effectively.

The findings may provide opportunity for future research to develop practical or investigative tools that would allow for a direct measure of missing-related

experiences of trauma, measurable by professionals in contact with individuals upon return such as during an RHI. The development of an instrument could have the potential to increase awareness of harm experienced by young people and decrease the risk of them facing repeated physical and psychological harm, ultimately reducing the resources, time and finances required in preventing and treating individuals.

Conclusion

The study draws attention to factors of youth missing episodes that contribute towards negative physical and affective outcomes categorised by trauma. The study supported existing proposals including finding higher trauma effects for individuals away for longer periods of time, who use substances whilst away and who were criminally exploited. It did not replicate findings that youth in care are particularly vulnerable to trauma-related outcomes, or match hypotheses that involvement in offending behaviours, recent episodes, number of missing episodes or travelling out of town whilst missing would link with higher trauma.

The study highlights novel findings whereby criminal exploitation was found to increase trauma scores, as did length of time away. Within these relationships, indicators of CCE were found to have an intermediary influence on trauma, suggesting that CCE accounts for a proportion of the relation between length of time away and trauma. Conclusions are subject to interpretation with consideration of the limitations, but the study addresses a gap in the research literature concerning trauma among runaway youth and calls for more practical focus on the longer-term impact of potential CCE in youth runaways including trauma and possible symptoms of PTSD.

Chapter Five

Case assessment

An investigative assessment of the experience and impact of missing episodes and suspected Child Criminal Exploitation in a single youth runaway case study

Link to previous chapter

The findings of Chapter Three and Four's empirical studies provide interesting prediction and relationship models for going missing and the trauma symptomology experienced as a result of missing episodes. Further to acknowledging both studies lack some generalisability due to narrow and small samples studied, the following case example takes opportunity to apply findings and developed tools to a known case of a young person who has been reported as missing. This includes providing context through a psychological formulation of a single case, as well as comparing found factors for risk of absconding, utilising the proposed CCE indicator tool, and commenting on the application of the predictive model of trauma.

Abstract

The case of a young male with frequent missing episodes from a semi-independent care provision is presented. The main themes consider issues typically affecting young people in care, including instability and poor attachments, that are extracted from case history analysis and psychological formulation. Outcomes of clinical interview exploring factors related to running away, a refused Return Home Interview and measures of distress are presented to triangulate links between the youth's experience of absconding from care, potential criminal exploitation and the psychological impact of harm whilst missing. Recommendations are made for future assessment and intervention of young people at risk of absconding and exposure to harm in the context of exploitation.

Introduction

Context

The individual presented was residing in a specialist support and accommodation service for young people in care. The unit housed six young individuals aged 16-21 who receive care through full time support staff alongside external and third sector agencies including social services, psychological services and youth support organisations. The service aims to empower young people to transition into independent living. The individual was drawn to the attention of professionals due to frequent missing episodes and suspected involvement in criminal activity, both of which were negatively affecting staff and professionals' ability to provide adequate monitoring, support and care for the individual, and increasing risk of the young person exposing themselves, or others to harm.

Issues affecting young people

The service works holistically to address primary issues affecting young individuals living in care, including instability, emotional needs, and problems with mental health and education, that lead to further problematic cognitive and behavioural patterns. Prior to this, it is acknowledged the majority of children in care systems come from backgrounds of deprivation, poor parenting, abuse and neglect. These are factors that combined can become risk factors for emotional, relational and behavioural difficulties such as offending behaviour (Schofield *et al*., 2014).

The prevalence of Looked After Children consequently places strain on the UK care system, which can lead young people to feel uncared for and become withdrawn if they are not able to access adequate resources. They can feel they have no control over their lives, which leads to low aspirations, and disruption through numerous often failed placements is associated with instability and difficulties trusting adults or forming attachments with others (Newton, Litrownik & Landsverk, 2000). Newton *et al.* (2000) argue behavioural problems are both a cause and a consequence of disrupted care placements. Youth living in care are at greater risk than other children of developing attachment disorders, leading to difficulties in social and interpersonal interactions. Such are often attributed to early or severe abuse from parental attachment figures or frequent disruptions in caregiver in early childhood (Meltzer *et al*., 2003).

Youth in care also face situations that negatively affect their mental health and wellbeing, linking with anxiety, depression and post-traumatic stress disorder (Meltzer *et al*., 2003; Mount, Lister & Bennun, 2004; Morris *et al*., 2015). They have been found to be at higher risk of poor psychosocial outcomes including higher prevalence of psychiatric disorder, educational difficulties, and neurodevelopmental disorders than those living in family homes (Ford *et al.*, 2007). In a national survey of youth looked after by local authorities in England, Meltzer *et al*. (2003) found nearly half of children to have mental disorders, 37% clinical conduct disorders and 12% emotional disorders including anxiety and depression.

Looked after children also present with high rates of educational difficulties, with 60% of one studied population displaying difficulty with reading, mathematics or spelling and 62% reported to be at least one year delayed in intellectual development (Meltzer *et al*., 2003), potentially leading to disengagement in school as a result of struggling to keep up with academic expectations. In line with this, they are five times more likely to be excluded from school, placing them on pathways less likely to be towards success (DfE, 2015), and correlating with involvement with crime (Home Office, 2018b).

Young people in care have consistently been found to be more likely to go missing from care than home (Pona *et al.*, 2019; Rees & Lee, 2005). Missing People (2021) reported one in ten looked after youth will go missing, which is more common than an estimated one in every two hundred children who are not looked after (DfE, 2021). This is unsurprising considering the adverse experiences youth within the care system have been exposed to, such as disrupted living environments, neglect, abuse, or chaotic family dynamics (Courtney & Zinn, 2009, as cited in Bowden & Lambie, 2015). Factors related to looked after children also accumulate and interact to coincide with risk factors for youth offending, such as mental health and problems in school (Schofield *et al*., 2014). They are also regarded to be at higher risk of criminal exploitation, with police forces providing evidence county lines labourers actively target care homes to recruit vulnerable individuals (Williams & Finlay, 2019).

Aims

This study will explore a single case example in the context of existing literature on issues affecting young people in care, and findings from previous study chapters, considering absconding behaviours, indicators of CCE and experience of

trauma. The aim of this case assessment is to present a live example and understanding of a young individual who has gone missing from care and their reported and observed experience of harm. The study aims to reflect findings in previous chapters by applying the proposed risk of absconding model formed in Chapter Three and employing screening criteria for exploitation from Chapter Four to comment on applicability. It aims to follow up on conclusions and limitations from previous chapters by applying outcomes and commenting further on findings related to youth exposure to harm whilst away.

Consent has been gained from the individual participating in the case assessment to share anonymised information (see Appendix Y). The individual will hereafter be referred to as pseudonym 'G' at his request.

Methods

Clinical assessment

Background. G is a 17-year-old Black Caribbean cisgender male residing in specialist support accommodation for young people under a Full Care Order (Children Act 1989). G moved to the service seven months prior to the assessment and his placement was available until he would be expected to transition to independent living at the age of 21. G had been identified by service staff as an individual who had frequent missing episodes and suspected involvement in criminal activity whilst away, for which intelligence is gathered at regular multi-disciplinary Missing Strategy Meetings.

Interview. G agreed to engage in a single session interview lasting 50 minutes focused on eliciting current and historical information to understand G's individual circumstances and experience of missing episodes. Clinical interview was adapted for a young adult by simplifying language used throughout, carefully explaining aims and consent and acknowledging the activity might be a first experience of clinical assessment. Questions focused on G's history including accommodation, family, missing episodes, and offending history. It also explored his most recent missing episode, where questions were based on both risk factors for absconding identified in Chapter Three and survey questions presented in Chapter Four (see Appendix Z). Case files and professional communications were also accessed to identify case history information and corroborate data collected in interview.

Case history.

Early experiences. G was born in the UK and lived with his mother until the age of 3, when she was no longer able to care for G due to difficulties managing symptoms related to bipolar disorder that led to hospitalisation. There is evidence to suggest G was exposed to domestic violence between his parents and neglected due to his mother's mental health. G was subsequently removed from his parental home under a Child Protection Plan and cared for by his maternal grandmother. It is believed he had a good upbringing with his grandmother. At the age of 12, G returned to the care of his father and his new partner, however it is alleged G again witnessed domestic abuse between them. G became aware from a young age that his father was a drug dealer selling cannabis. His father also had bail conditions not to see his stepdaughter due to previous assaults, and made malicious allegations against G's grandparents. G admitted he was "maybe neglected or abused" from the perspective of the "outside looking in", however, he stated he did not view his early experiences or punishments in such a way at the time, and highlighted cultural differences between his experience and that which might be deemed as neglectful by wider society. It is possible he shows lack of insight into the level of abuse or neglect experienced.

Family relationships. At the time of assessment, G reported to have a strong relationship with his maternal grandmother who he continues to visit every other Sunday to get his hair braided. This is also evident in his presentation observed by staff. He is in occasional contact with his mother, older sister and younger half-brother, but has lost contact with his father.

Social relationships. G is a quiet but sociable and outgoing individual and reports to have many friends in the local area who he spends time with. It is not possible to confirm whether G's social connections are entirely positive, and reports have repeatedly stated he has been seen associating with a young person "associated with the county lines and gangs scene". He tolerates other young people living in the residential unit, but in the past has had verbal arguments and damaged their property. It is understood conflict has arisen from ruptures in intimate relationships and disagreements related to substance misuse.

Care history. G has been deemed as in care from the age of three, when he began to be cared for by his maternal grandmother. However, G is now under a Full Care Order and subsequently has a two and a half year history of non-family care placements. He was first placed into local authority care following admission to a Young Offenders Institution secure unit for one week at the age of 13 for possession of a weapon. He then remained in care placements alternating between five residential care homes for young people and two foster care placements.

His last residential placement broke down due to behavioural concerns and safeguarding risks, where it was reported G caused damage to property, used and provided other young people with cannabis and assaulted staff and residents. Following this, his most recent foster placement ended after he verbally threatened to attack carers with a knife. Such behaviours have not been reported in his current placement, but it is noted he has been verbally abusive towards other residents, particularly one female who he is suspected of having a casual intimate relationship with, and damaged property in his bedroom and possessions of others.

Missing episodes. G has had frequent (he reports 10+) missing episodes where he does not return to his supported accommodation, and typically does not respond to communication attempts from staff. It has been reported he sometimes responds with short answers, and is seen offline on messenger apps for multiple days. G characteristically goes missing Thursday-Sunday, and often states he is at his mother's house. However, he has also been seen with known local drug dealers and people involved in county lines networks. It is reported G is at risk of harm and witnessing traumatic and frightening situations if this is the case.

It has been reported in accommodation service reports G is typically "illusive" and "reluctant to give too much detail in relation to where he has been and what he has been up to", however, police have triangulated his moves via his mobile phone and recognised presence in an area 60 miles away from his home area. Similarly, other young people in his current accommodation have provided intelligence to suggest G has "flown OT" (reference to county lines drug dealing where various meanings include 'out trapping', 'out there' and 'out of town') and will "be in a bando" (meaning an abandoned house, often used to sell drugs).

G was able to identify circumstances surrounding his initial missing episodes, where he described previously being "kept locked away" by foster carers who deemed him to be too young to leave the house by himself. G felt trapped and that

he was not taken anywhere exciting. He described that he was expected to return home by 5pm after secondary school which he believes led him to go missing for freedom and "to get money". G shows lack of insight into the push and pull factors that lead to his missing episodes, simply stating episodes are fuelled by boredom, a disregard for rules and to give him time to himself. He minimises the seriousness and risk associated with episodes, stating that he is just spending time with friends he does not often get to see.

Education and employment. G is reported to have succeeded academically but been inhibited by disruptive behaviours, property damage and occasional violent outbursts during his education. He also described regular fighting, but justified such by stating he would "bully the bullies". He had periods of nonattendance from Year 7, did not complete his GCSEs, and later intermittently attended college to study construction. He is not currently in education, but waiting to complete an introductory construction scheme that will allow him to find employment in the area. He has not had previous employment.

Physical and mental health. G reports no difficulties with his physical health, disabilities or neurodivergent needs. He denies any history of suicidal ideation or self-harm and reports his mental health to be adequate. G has in the past engaged loosely with psychological teams as part of his YOT orders, but there is no evidence of mental health or personality diagnoses, or current emotional difficulties from his report.

Substance misuse. G is an active cannabis user and reports to smoke two joints a day, funded through his personal allowance. He denies using other substances but admits to having experimented with recreational drugs in the past, namely ketamine and MDMA. He uses alcohol but states this is solely social, and he drinks alongside cannabis use rather than to get intoxicated.

Forensic history. G has a history of offending from the age of 11, when he first stole a bike. He reported to have approximately twenty previous offences including being in possession of cannabis and weapons, criminal damage, robbery, theft, assault, grievous bodily harm and kidnap. The majority of his previous charges have been dropped or resulted in the issue of a warning, where G believes

he was let off due to his young age. He has been subject to electronic tagging four times, which he described as "more intense" involvement with Youth Offending Teams, where he was expected to attend more regularly and for longer sessions. He shared that these did not help stop his criminal activity, but he feels he grew out of it as he got older as he began to view such behaviours as "dumb and stupid". Professionals have stated G is "easily impressionable" and "easily led into criminal activity", which may have had an adverse impact on him. For example, G was recently present during the murder of another young person in a nearby area.

***Most recent missing episode*.** G reported to have gone missing one month prior to the assessment, where he stayed away for two weeks. He initially shared vague details of this episode and appeared wary of the intentions of such questions being asked. For example, he described wanting to get out of his accommodation and spend time with friends, describing some of the activities they got up to, such as dirt biking and playing football. However, he indicated various pull factors that contributed to this episode, including wanting to be around peers, substance misuse and offer of money. Push factors appeared to include disliking his accommodation due to rules and curfews, conflict with other residents and weak family ties.

G stated he stayed at a friend's house but did not elaborate on the individual to determine the positive or negative influence of this relationship. The friend's house was "quite far, about an hour away", where he made his own way by public transport. He began to illustrate the area as "peaceful" where he did not feel he had to "look over (his) shoulder" as there was little suspected crime and "not much knives". However, he felt he received "dodgy looks" from others which made him feel judged and racially profiled. He had not planned to be away for such a length of time but anticipated that he might have stayed for a few days. Therefore, he had not packed adequate belongings. However, G stated that he and his friend wear the same sized clothing, allowing him to borrow and keep some tracksuits. He said he was bought anything else he needed, including clothes, food and money, but did not specify who was able to fund this. He denied being kept against his will and described that his friends suggested he should stay for longer. He briefly described feeling "calm" and "safe" when away. He also reported to have been offered and used cannabis, and he gave his friends cannabis. He admitted this could have been "seen as dealing from the outside in" but denied criminal activity. They also used alcohol, particularly vodka, whiskey and tonic wine. He said he was not and did not

feel threatened during this missing episode, and denied adverse experiences stating "it is normal". He returned as he felt ready to come back and he missed his own space.

In terms of consequences, G showed lack of insight into the effect his missing episode had on himself and professionals working to support him. He stated he was visited by police who asked questions such as whether he was safe, who he was with and what he got up to, but that this did not feel supportive. He did not talk to family or staff about the episode as he felt they did not need to know, already knew enough and he wanted to keep control of what was going on in his life.

Psychometric measures

G's experience of harm was measured using a variety of psychometric tools:

Trauma. The Posttraumatic Stress Disorder Checklist (PCL-5) measure of Posttraumatic Stress Disorder (PTSD) (Weathers *et al.,* 2013), a 20-question self-report instrument, was utilised to capture presence and severity of posttraumatic stress symptoms. As in Chapter Four, the PCL-5 can be used to screen individuals for the presence of posttraumatic stress, quantify and monitor symptoms over time, and assist in the formal diagnosis of trauma-related difficulties. It captures domains related to trauma including re-experiencing, avoidance, hyper-arousal and negative alterations in cognition and mood, and statements are rated on a 5-point Likert scale based on experiences within the last month. The PCL-5 has demonstrated high internal consistency and test–retest reliability, and strong convergent and discriminant validity, structural validity and diagnostic value (Sveen, Bondjers & Willebrand, 2016; Blevins *et al.,* 2015; Bovin *et al.,* 2016; Wortmann *et al.,* 2016).

G scored 39 on the PCL-5 (Weathers *et al.,* 2013), indicating presence of symptoms related to posttraumatic stress. G scored one to two points across all DSM-5 symptom clusters but scored a particularly high number of six in cluster D relating to negative alterations in cognitions and mood. This could include negative beliefs or expectations about oneself, others, or the world, persistent negative emotions, inability to experience positive emotions, weakened interest in activities and feelings of detachment and isolation.

The Impact of Events Scale Revised (IES-R; Weiss & Marmar, 1996) was completed to measure subjective distress caused by G's most recent missing

episode. The IES-R is a 22-item self-report questionnaire that assesses distress caused by recent events using a 5-point scale. Similarly to the PCL-5, items correspond directly to The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria for PTSD. The scale has high internal consistency and test-retest reliability (Creamer *et al*., 2003; Weiss & Marmar, 1997).

G scored 43/88 on the IES-R (Weiss, 2007; Weiss & Marmar, 1996), strengthening the above suggestion of presence of symptoms related to posttraumatic stress, with a score high enough to suppress immune system functioning. Mean subscale scores showed G scored highest on the Hyperarousal scale (2.17), suggestive of symptoms such as anger and irritability, increased startle response, hypervigilance and difficulty concentrating. Scores were followed by Intrusion (2.13) (intrusive thoughts, nightmares, intrusive feelings and imagery, dissociative-like re-experiencing) and Avoidance (1.63) (numbing of responsiveness, avoidance of feelings, situations, and ideas), and his total mean IES-R score was 5.93. G gave maximum scores for three items: experiencing trouble falling asleep, trouble staying asleep and feeling watchful and on guard.

Wellbeing. The Clinical Outcomes Routine Evaluation (CORE-10; Evans *et al*., 2000) was completed. The tool measures psychological distress in adults and young people aged 16 years and over by assessing items related to anxiety, depression, trauma, functioning and risk to self. It is an accurate and robust screening tool with strong psychometric properties including convergent, discriminant and construct validity and good internal and retest reliability (Barkham *et al*., 2013; Lewis, 2016). It has good correlations with other measures of anxiety, depression and general mental health (Connell & Barkham, 2007).

G scored 15/40 on the CORE-10 indicating moderate psychological distress (Evans *et al*., 2000). However, the aim of the interview was to elicit additional information to understand G's experience of psychological distress identified contrasting information, such as that G does not experience mental health difficulties, engage in self-harming behaviours or have any suicidal ideation. It is possible G lacked insight into his experiences or did not disclose such information due to influences of views related to intersections of masculinity, his cultural identity and mental wellbeing (Southby, Keating & Joseph, 2021). For example, G is a young Black Caribbean male, and there is a known stigma surrounding mental health difficulties within Caribbean culture (Gary, 2005). More widely, Black males have

been found to be less able to identify presence of mental health problems (Keating, 2009), providing possible suggestion that G did not identify himself as experiencing difficulties and consequently would not necessarily seek help.

Exploitation. Using tools created in Chapter Four, indicators of exploitation were identified to determine potential exposure. Both quantitative and qualitative data collected throughout the case assessment were screened against criteria developed for CCE and CSE as described in Chapter Four (see Appendix S and T). Whilst this unstandardised tool lacks testing for psychometric quality, in the absence of existing evidence-based measures, it may provide an initial indication of the detection of behaviours related to exploitation.

G was considered to meet criteria for suspected CCE, based on indicators of exploitation from existing literature which was developed into a screening tool in Chapter Four (see Appendix AA). Evidence from case records indicated presence of 12 indicators as well as verification of a criminal element to his involvement with exploitation (see Table 17).

Table 17

Indicators of CCE present in G's case history (see Appendix AA for evidence and Appendix AB for full list)

Indicators of CCE	
Not mixing with usual friends	1
Gang association	1
Appearing isolated or withdrawn, or emotionally switched off	1
Going missing from home or care	1
Frequent missing episodes	1
Being found in a different area to where you live	1
Travelling for unexplained reasons	1
Staying out late	1
Unexplained acquisition of money, items, or buying new things	1
Using alcohol or illicit drugs	1
Missed appointments with professionals	1
Unexplained or frequent absences from place of education	1
Total	12

G did not meet criteria for potential presence of CSE, due to no direct indication of sexual elements to his behaviours. It is possible G scored higher than average on the CCE screening tool than in Chapter Four's research study due to access to more comprehensive information from interview and historical records. The implication of such finding is that G's involvement in absconding from his care setting, criminal offending whilst away and subsequent experience of adverse effects can be formulated in the context of exploitation, which may alter the motivations behind behaviours and intervention approach. However, this conclusion is limited as it relies on an unstandardised measure of exploitation created by the author. In addition, the possibility is not corroborated by the individual in question given G did not accept or admit he was criminally exploited, either due to insight, denial or fear of consequences disclosing such information. This affects the validity of the suggestion. However, there is a gap in evidence-based tools directed at assessing the presence of CCE which would help tackle the problem of young people failing to disclose what happens to them whilst away, and therefore exploration of this area is inevitably likely to attract weaknesses in evaluative properties.

Formulation

Presenting problem. G regularly absconds from his supported accommodation, resulting in reports of missing episodes requiring police response and subsequent involvement in criminal activity, particularly drug dealing.

Predisposing factors. G was exposed to factors from a young age that might have impacted how he currently thinks and behaves, including growing up in a home environment that possibly accommodated a non-mentalising culture. His mother experienced difficulties managing bipolar disorder and was unable to provide adequate responsive care as a result of being hospitalised. His father was intermittently present at this time in his life but engaged in domestic violence towards G's mother. These experiences may have contributed to G developing avoidant or disorganised attachments with his primary caregivers (Bowlby, 1988; Main & Solomon, 1990). His father's violence possibly introduced G to violent ways of communicating and coping as well as contributing to further neglect of G's social and emotional needs. His feelings of safety and security were likely impacted from the perceived rejection and sensed fear in his parental relationships, and G may have learnt to become self-reliant and not to trust others. It is likely G had a further

confused sense of belonging as he transferred to the care of his grandmother due to this reported neglect. He may have felt inadequate and unimportant, believing that his parents did not want to look after him. Throughout his childhood, G experienced periods of suspected neglect and abuse (the type and nature of abuse being unclear) which was normalised within his family and his culture, but may have been experienced as punitive and did not allow for G to safely express his needs and emotions.

Precipitating factors. As G got older, his unsettled upbringing intensified across fragmented care placements consisting of shared placements, secure units and foster care. Whilst living in care, levels of nurture and independence would have fluctuated significantly, further impacting G's sense of identity, place and belonging. It is possible he continued to feel unimportant and alienated as he was unable to settle into a stable provision of care or feel meaningfully connected to consistent caregivers. It is inevitable his social connections would have also been disrupted as he moved across the country, losing friends and attachments to professionals, contributing to increased isolation. Further to this, G returned to the care of his father at the age of 12 where he witnessed continued domestic abuse towards his father's partner, reinforcing G's beliefs about the world and others which were likely negative and related to the world being frightening, violent and dangerous. When he soon returned to local authority care G reports to have felt trapped and deprived of independence that he had under the care of neglectful parents, fitting with Taylor *et al.*'s (2014) theory whereby themes of authority and power contribute to youth runaway behaviours. G developed a lack of respect for rules and boundaries, having not been adequately taught to maintain them in earlier familial care. In line with his unstable environment at home, G had fragmented connections to education due to disruptive and violent behaviours in school. It is possible such behaviours link to his inability to tolerate emotional distress and communicate his needs in prosocial ways, ultimately leading to disengagement and a drive to seek purpose, success, acceptance and community elsewhere. Disruption in his schooling may also reflect strained relationships with teachers, who otherwise might have provided G with stability, guidance, and met core needs such as providing a role model and opportunity to express emotions. He began to abscond from care placements, placing himself in vulnerable positions where he was alone but needed financial support to fund his independent lifestyle. It is possible G subsequently became

involved in criminal activities or criminal coping whilst away from care, due to increased individual level strains as a result of living within a community characterised by a combination of environmental stress and systemic difficulties (Walsh, 2022). The interaction of G's disrupted and chaotic home and school environments therefore may have precipitated his absconding and criminal behaviour, whereby, as Walsh (2022) highlighted in their strain and ecological stress model of CCE, crime is made "even more possible in the absence of positive social supports and in the presence of organised crime groups" (p. 39). G is an individual at elevated risk of criminal exploitation, possibly causing further strain and increased vulnerability.

Perpetuating factors. A number of factors have maintained G's cycles of seeking freedom and independence, and fulfilling his sensed need to look after himself without relying on others. He may experience a lack of autonomy or control whilst residing in care, leading to missing episodes to meet his needs. His involvement with criminal activity and consequent convictions have led him to internalise a view of himself as a bad person, driving him to spend time in areas and social circles he feels he belongs to and affecting his self-worth and esteem. As a result, he has negative peers and suspected involvement with gangs or group offending, which may provide a constant and a sense of acceptance and belonging to G, but increase his risk of exposure to harm and involvement with criminal activity. There are also present indicators of potential criminal exploitation (i.e., drug dealing, staying away and receiving gifts), of which G might have been recruited into, through vulnerability. In these cases, exploitative adults may provide a sense of belonging and protection in the absence of 'capable guardians' (i.e., parents or key professionals; Maxwell *et al*., 2019, p. 46). It is possible he is exposed to traumatic or frightening situations whilst away from care or possibly involved in drug market networks, perpetuating his negative and mistrustful views of the world and others. For example, he witnessed another young person being stabbed and killed. His experiences whilst away from care also increase his propensity to protect himself through violence and crime if faced with threat when alone and in unstable and unsafe environments. This is likely to be an automatic physiological fight-or-flight response to perceived harm or threat to survival, where in this case G is using a fight response, because in the past violence has been a successful way for him to control his environment (Archer & Browne, 1989). His

disrupted home life meant he lacks positive attachment relationships to family, friends or staff, and he subsequently has poor trust in professionals who he reports do not care. These beliefs may be further exacerbated through non-mentalised thinking (i.e., psychic equivalence in views of others). He views support services in a similarly unmentalised and rigid manner such as Youth Offending Teams as unhelpful and that their rules and expectations further deter him from engaging.

Protective factors. Despite feelings of rejection and isolation, G maintains some positive relationships such as that with his maternal grandmother who he sees fortnightly and offers structure to help monitor G's wellbeing and behaviour. He is a sociable and independent individual who can communicate with staff when needed. He holds onto some hope of gaining education and qualifications that will allow him to work, earn money pro-socially, and build a more settled lifestyle.

Recommendations for intervention

G would likely benefit from psychological treatment addressing the areas highlighted in his formulation. Intervention should aim to address G's underlying sense of instability and lack of belonging and acceptance. It should also target symptoms related to experience of trauma and behavioural outcomes including substance misuse.

Cognitive behavioural therapy (CBT)-based interventions have been identified as a key psychological intervention for runaway youth in a systematic review by Noh (2018). A programme of 10-18 sessions could include psychoeducation with regard to runaway experiences, some element of exposure (i.e., developing a trauma narrative about victimisation), cognitive exploration and reframing of causation and responsibility for criminal activity, coping and relaxation skills training, and behavioural intervention addressing aggression, property damage and/or substance misuse (Cohen *et al.,* 2003).

Psychological intervention could also include Seeking Safety (Najavits, 2002) to develop skills for managing threat and increasing his sense of control of his environment. Seeking Safety is an evidence-based integrated model of treatment based on cognitive behaviour principles addressing co-occurring trauma or PTSD and substance misuse, focused on attaining safety in relationships, thinking, behaviour, and emotions (Schäfer *et al*., 2019).

G may also benefit from a programme of psychoeducation to increase his awareness of CCE and related experiences including risk. This could be formatted through group psychoeducational forums or focus groups that provide opportunity for critical conversations on the issues that affect youth related to CCE (Walsh & Harland, 2021). Young people often demonstrate attitudes that normalise violence, intimidation and substance misuse, but their beliefs commonly do not reflect this, which could be an area to focus intervention (Walsh, 2022).

To address wider contextual features of G's life, it would also be recommended for G to be placed in carefully planned care provisions that can offer relational intervention, flexibility and agency, and opportunity for G to build meaningful professional relationships. This would be further supported by Mentalisation Based Therapy (MBT; Bateman & Fonagy, 2004) to build his ability to recognise the internal mental states of himself and others, to interpret actions as meaningful and in turn strengthen his sense of support and trust within relationships. MBT may subsequently contribute to improvement in G's negative mood, interpersonal problems, and social adjustment (Bateman *et al*., 2016). Access to safe spaces and positive role models is key in the positive development of youth at risk of exploitation, also argued to be one of the most cost effective interventions for victims of CCE (Walsh, 2022). G should also be encouraged to maintain purposeful activity or further education to reduce his engagement with antisocial activity during missing episodes and further boost his sense of stability and belonging.

Discussion

This case assessment has provided exploration of an individual with a history of missing episodes, with possible links to harmful effects and potentially mediated or at least perpetuated by suspected involvement in CCE. The main findings are discussed in relation to G's psychological formulation of frequent missing episodes, the missed opportunity for a RHI, factors linked to risk of absconding, suspected CCE and the impact of harm.

Risk assessment and intervention

Return Home Interview. G was offered a RHI at his supported housing unit upon his return from his recent missing episode. The aim of the RHI was to identify risks and harm to inform police investigation and wider safeguarding (Missing

People, 2019) to better support G and reduce risk of future episodes. However, G declined the RHI whilst present at the unit, stating he did not wish to speak to professionals as he felt they could see he was safe and well. Given indications of exposure to potential risk and harm including substance misuse, CCE, and criminal offending, it would have been important for G to engage with the RHI for professionals to formally identify and assess risk of harm and exploitation. Information would have helped services to collaboratively build a fuller picture of his involvement in problematic activity and be able to offer bespoke support addressing his missing episodes and the impact of harm whilst away. Refusal to engage, however, highlights one of the earlier problems with RHIs as an intervention and their ability to provide effective support to young individuals, which will be further discussed in a critical review within the current research.

Risk of absconding. The case assessment of G is a known case of absconding from care, and therefore was retrospectively utilised in the application of the proposed risk of absconding model introduced in Chapter Three. The model proposes that a score of 7 or more gained from set criteria indicates whether the individual is at risk of absconding. Based on existing understanding from his case history and formulation it was found G scored 8, meeting the high risk level for absconding, which matches observed missing behaviours (see Figure 10). This provides one case of evidence for the applicability of the risk factor screening. Furthermore, the case meets Bowden and Lambie's (2015) suggestions that absconding can be motivated by relationships (i.e., leaving to connect with significant others, or to avoid difficult relationships with staff or residents) as well as boredom and a sense that freedom or autonomy is restricted in care.

Figure 10

Risk factors for absconding checklist applied retrospectively to G's background information (see Chapter Three for development of tool)

Using collateral data and knowledge of the young person, review the following criterion and tick those that are present for the individual. Each ticked factor contributes a score of 1.

History of care	☑
Two or more institutional placements	☑
History of self-harm	☐
Alcohol misuse	☑
Alcohol abuse by father	☐
Disruptive behaviours in school	☑
Deemed beyond control of parents	☑
Seven or more criminal offences	☑
Persistent violence	☑
Persistent criminal damage	☑
Persistent theft	☐
Past burglary in a dwelling or house	☐
Past taking and driving away offences	☐
Total	8

Scoring
0-6 = low risk of absconding
7 or above = high risk of absconding

It is noted the criteria relies on evidence of G's behaviours which may not comprehensively include diverse indicators. For example, G had late and intermittent contact with his father, and existing case records may not have considered his father's drug or alcohol use.

If G's risk of absconding had been assessed upon transferring to his current placement, individualised safeguarding and preventative support could have been offered to G, within the unit or through third party organisations to address the push and pull factors contributing to his missing episodes and involvement in activity whilst away.

The implications of the psychometric measures correspond in suggesting G experienced psychological effects following his missing episodes, possibly linked to harm exposed to during time away, although a direct correlation was not measured in this study. However, the IES-R was measured with respect to the impact of his most recent episode, indicating some association between missing and difficulties related to trauma.

In terms of how G's behaviour has been understood, the case assessment highlights links between instability and disrupted attachments, and missing and criminal outcomes. G had insecure attachments and lacked a sense of belonging throughout his life. He also experienced continuous instability, from his family structure, unsettled accommodation and disrupted connection to school provisions. Although is it not clear if G was excluded from school, his fragmented schooling experience is expected from known educational difficulties for children in care (Meltzer *et al*., 2003; DfE, 2015). Arnez and Condry (2021) also argued criminal outcomes following exclusion are also influenced by intersecting forms of structural disadvantage and discrimination which were identified in G's history. His background and subsequent behavioural outcomes fall in line with literature suggesting youth in care who experience frequent placement moves and disrupted education are less likely to maintain consistent and meaningful relationships with adults, making them vulnerable to exploitation and substance misuse, and becoming more than twice as likely to be cautioned or convicted of a criminal offence compared to peers (MOPAC, 2021). Outcomes of this case also follow Stein *et al*.'s (2009) findings that negative paternal relationships significantly predict substance use and criminal behaviour in adolescent runaway populations, which appears to be the case in this study. MOPAC (2021) also highlight looked after individuals from Black and minority ethnic backgrounds are at an even greater disadvantage. Children living in care who also have histories of abuse, resultant emotional and behavioural problems, and lack of stable placements with suitable caregivers fall at risk of various poor outcomes, including risk of involvement with offending (Schofield *et al.,* 2014). In G's case, offending may have been a precipitating and perpetuating factor in his missing

episodes. In this case assessment, findings highlight the importance of appropriate and trained placement staff who are able to build rapport with young residents and focus on the strengthening relational experiences, parallel to MOPAC's (2021) statement that ensuring youth in care are offered appropriate placements meeting their identified needs will significantly contribute to prevention of crime.

The study also identified G was deemed as high risk of absconding due to factors such as having a history of care, alcohol misuse, disruptive behaviours in school, violence and a criminal offending history. Factors that may have protected G from such risk include that he has no history of self-harm. The current case assessment not only provides evidence for the use of the risk assessment tool proposed, but also provides insight into reasons G, and perhaps other young people, begin to go missing from care.

This leads to further difficulties such as the highlighted proposed involvement in CCE. The current study found a variety of indicators to suggest G was involved in criminal exploitation, some of which are linked to his past experiences such as his poor sense of belonging, need to manage his independence and lack of purpose and community. The case study matches previous proposals that children in care who run away are vulnerable to exploitation as they are known to have unmet needs. This could include lacking close family relationships or adequate supervision, and they often have histories of traumatic experiences which traffickers may take advantage of (Landers *et al*., 2017). The case provides wider context which may be applied to other individual cases.

It was initially surprising G reported no psychiatric or mental health issues given the common link in current literature between residential care and mental health difficulties. It was discussed that G may not have expressed indications of difficulties for various reasons including sense of masculinity or culture. Alternatively, he may adopt a detached protector means of coping with distress (Young, Klosko & Weishaar, 2007) by numbing his experienced response to emotional experiences, or self-soothing through stimulating coping mechanisms such as using cannabis and involvement in thrill-seeking activity potentially in the context of gang affiliation. However, psychometric measures tell a different story, and draw attention to a presence of symptoms related to trauma, particularly hyperarousal related to his last missing episode, and indications of moderate psychological distress. In line with aims of the case study to explore the impact of harm following missing episodes in the possible context of exploitation, the present

study provides initial evidence for a triangulated link between missing episodes, exploitation and harm.

Limitations

Limitations of case assessment designs consider that implications are not universal and lack external validity whereby they cannot be generalised to wider populations of young people who go missing from care. The study may also carry some researcher bias, where the focus throughout this assessment has been narrowly defined by research topics of exploitation and trauma. This case assessment lacked undeniable evidence of CCE since G did not disclose clear information regarding his experiences, creating theoretical issues in the conclusions made. Similarly, a practical issue is noted whereby the study lacked robust intervention as G declined the offer of an RHI.

Further study should consider a case study with a young person who acknowledges involvement with exploitation and has engaged with intervention such as an RHI with transparent outcomes and actions which have potential to be followed up over time for richer evaluation. The evidence base would benefit from future research on understanding and measuring CCE and harm that does not rely on disclosure of activity given young people are consistently reluctant to share their experiences due to fear of consequences such as incrimination. Parallel to themes identified in case formulation, repeated case studies should measure facets of emotion such as hopelessness, using the Beck Hopelessness Scale (BHS; Beck & Steer, 1988) as in Koçtürk and Bilginer's (2022) runaway research, to strengthen conclusions and compare with existing research.

However, the case assessment relates to forensic issues such as the ability to accurately risk assess potential for absconding behaviours and provide further insight into criminal exploitation and experience of harm. It also highlights when opportunity may arise to offer intervention. For example, G experienced harm following his most recent missing episode, but maintained some lack of insight into the psychological impact of what happened to him whilst away, providing an arguably prime time to intervene through an offer of psychoeducation addressing awareness of his mental health and prevention of future missing episodes and offending in the context of exploitation.

Chapter Six

Methodological Critique

A critical review of the use of Return Home Interviews (RHI) in response to young people who return from missing episodes

Link to previous chapter

The previous case example provided insightful context of a young person who goes missing repeatedly and drew attention to the information that can be elicited about their episodes. A critical finding was that the case refused to attend an assessment interview upon return, creating a barrier to support services understanding the full picture of his missing behaviours and being able to offer appropriate support. The study revealed a potential flaw in current practice, which deserves to be explored more fully for commentary on its use and practicality. The following chapter zones in on the practical assessment interview offered to young people on return from missing episodes to explore its effectiveness in tying in with the themes outlined throughout the thesis so far, such as runaway risk factors, criminal exploitation, and psychological harm.

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Abstract

This chapter introduces the Return Home Interview, a methodological tool utilised to assess contextual factors and safeguard young people who have returned home from missing episodes. It considers the reliability and validity of the tool itself, and comments on the practical application of return interviews as they are currently conducted. It discusses guidance for best practice and calls for review of the tool design, response rate, professional contribution and information sharing to increase consistency and successful engagement of young people who are likely to be vulnerable to exploitation, harm, or future missing episodes.

Introduction

A Return Home Interview (RHI) is an interview offered to young people who return from missing episodes across the UK, as part of contextual safeguarding. Under Section 11 of the Children Act 2004, local authorities have a statutory duty to safeguard and promote the welfare of individuals under 18 years old. Missing persons are defined by statutory guidance and local authorities as "anyone whose whereabouts cannot be established and where the circumstances are out of character, or the context suggests the person may be subject to crime or at risk of harm to themselves or another" (DfE, 2014, p. 7). Upon return a 'Safe and Well check' is conducted at the person's home, typically by a police officer, to determine initial risk of harm, why the person went missing and what happened to them (Phoenix & Francis, 2022). It is then a requirement to offer a RHI (Department for Education (DfE), 2014), which falls to the responsibility of the local authority.

Whilst RHIs are key in identifying risks and harm of young runaways, alternative methods of information gathering might include police custody interviews, or wider approaches such as the Common Assessment Framework (CAF) tool used alongside RHIs by the NSPCC (Department of Health, 2003) to capture information on the missing incident and one's welfare (Hill *et al*., 2016).

Author

There is no singular author of an RHI protocol. Indeed, local authorities have their own processes and policies for fulfilling this duty. Several tools have evolved over time since good practice guidelines by the Local Government Association and Association of Chief Police Officers (ACPO) suggested young people should be offered a return interview in 1997. The progression of RHIs and information sharing is illustrated by Pona *et al.* (2019; see Appendix AC).

Purpose

Investigating missing youth is prioritised due to evidence that going missing is an indicator of underlying vulnerabilities as well as a risk factor for experiencing abuse, harm, and offending (Sidebottom *et al*., 2020). Therefore, existing guidance argues young runaways must be offered meaningful opportunities to be listened to, with aims to understand the context and circumstances around the missing incident, address safeguarding issues and reduce risk of repeat episodes (Boulton *et al*., 2022; Hill *et al*., 2016; McIver & Welch, 2018). They also help build intelligence

around risks young people are exposed to, can provide evidence for prosecution, and can contribute to public services financial savings (The Children's Society, 2013). They are important in regarding each missing episode as a unique and distinct event, where understanding the way young people interact with their environment is vital to comprehend their behaviours whilst away (Woolnough *et al.,* 2016). Potential vulnerability, such as CSE and CCE, are explored with a view to better understand risks and offer support (Puffett, 2018).

Missing episodes literature

In line with themes focused on throughout this research, current literature illustrates the prevalence of issues affecting young people who go missing that require investigation through RHIs to inform responses. In England and Wales an estimated 300,000 people go missing each year, and two thirds of these are under the age of 18 (Missing People, 2018; National Crime Agency, 2021). Approximately one in nine children run away from home or care before age 16 (Hill *et al.*, 2016), but despite estimates of missing reports, there are no accurate statistics for the number of RHIs conducted (Boulton *et al*., 2022). In terms of experiences whilst away, one in 11 young people report experiencing harm whilst away (Hill *et al.*, 2016) and one in five engage in survival crimes, such as stealing (Rees, 2011), raising concerns around what happens to young people and potential longer term adverse effects.

Rationale

Despite statutory guidance and policy, youth who go missing remain a hidden group in child welfare provision despite having vulnerabilities and facing significant harm (Hill *et al*., 2016; Radford *et al.,* 2011; Taylor *et al.,* 2014). The diversity in motivation and context of missing episodes creates complexity in determining an adequate and accurate police response (Fyfe, Stevenson & Woolnough, 2015). Importantly, despite current understanding and wide practice in the UK, there is limited evaluative research on how RHIs are conducted and the quality of information they elicit (Boulton *et al*., 2022; Hill *et al.,* 2016). There are no existing published psychometric properties of RHIs which have been sparsely explored, possibly due to poor data quality and accessibility. Responding to excessive numbers of missing youth creates a major demand on police resources (Babuta &

Sidebottom, 2020) and therefore it is imperative to determine efficacy of assessment and intervention tools.

In line with Boulton *et al*. (2022), this critique will focus on both the conduct and value of RHIs, and it will also explore reliability, validity, and practicality of the tool itself. It will examine assessment properties, applicability to returned youth and utility in identifying exposure to risk and harm, building on existing literature exploring the scope, scale and effectiveness of RHIs as an assessment tool. It will acknowledge the complexity of responses in considering whether the RHI meets its aims, and more widely and related to the previous chapters, comment on whether the RHI stretches to adequately address issues related to CCE given their link to missing episodes. It will focus internally on the methodology itself but also wider external application of the RHI within and across services. This evaluation is informed by existing academic and grey literature as well as sight of RHI template examples published online and shared by local authorities.

Methodology

RHIs vary across authority but typically take the form of a voluntary unstructured interview or conversation between a young individual and a trained professional. Interviews capture information including previous missing experiences, reasons for the most recent episode, and how long it lasted. Questions also address what happened whilst missing including where they went, who they were with, and if they were exposed to or experienced any harm. Return interviews are typically conducted by police officers (Harris & Shalev Greene, 2016) or independent child welfare services (Pona *et al*., 2019), but are often undertaken by support workers and voluntary agencies (HMIC, 2016).

Current research has broadly proposed children's reasons for going missing, including behavioural, relational and mental health difficulties. It has also identified types of harm young people are exposed to whilst away, such as abuse, sexual harm and violence, linking to increased likelihood of longer-term negative outcomes including future substance dependence, self-injury, and suicide (Stevenson & Thomas, 2018). As addressed in previous chapters and existing research, it has been inferred that going missing could be the cause of first instances of crime (Hutchings *et al.*, 2019), highlighting the importance that RHIs address offending behaviours. In addition, young people may become criminalised for behaviours in the context of exploitation. To combat this, RHIs may identify early warning signs

for further intervention. For example, the National Referral Mechanism (NRM) is a framework utilised in identifying suspected victims of modern slavery and directing them to appropriate support, aiming to protect rather than prosecute for behaviours linked to exploitation (Hunter, Dickson & Allan, 2019). Young runaways often repeatedly run away due to a lack of appropriate support resolving the underlying cause of absconding behaviours (Hutchings *et al.*, 2019), therefore, support available should be reviewed so recommendations for improved prevention and intervention tools can be proposed.

RHIs aim to explore these factors to identify risk, address issues raised or prevent repeat episodes and further harm (Pona *et al*., 2019). Their purpose is to "provide an opportunity to uncover information that can help protect children from the risk of going missing again, from risks they may have been exposed to while missing or from risk factors in their home" (DfE, 2014, p. 14). Despite the interview being designed primarily for safeguarding purposes, Pona *et al*. (2019) stated they can also be a source of intelligence for operational work by local authorities and police. Maxwell *et al*. (2019) add consistent use can contribute to rectifying intelligence gaps such as the relationship between missing youth and CCE.

Critique as an interview tool

Reliability

Consistency. General protocol and interview forms vary between local authorities and across services (Taylor *et al.*, 2014) and a limitation, which also contributes to the barriers of accessing expansive data across the country, is that local authorities lack a standardised template or method of collecting and reporting data (Baker & Hunter, 2018; Boulton *et al*., 2022). In their study, Boulton *et al*. (2022) describe differences such as one local authority utilising a form comprising of yes/no tick boxes while another asks only free-text questions, and questions generally differed across services. This results in inconsistent quality and comprehensiveness of RHI information across areas (The Children's Society, 2013), indicative of flawed interrater and test-retest reliability. Interviews can also differ based on external confounding factors. Hill *et al*. (2016) observed that the involvement of parents, guardians or appropriate adults increased barriers to rapport building which consequently can affect the quantity and nature of information obtained in interview.

Alongside the lack of published psychometric evaluations of RHIs (Boulton *et al*., 2022), this review therefore cannot comment on properties of a singular interview. However, when considering the tool more widely, it is reassuring that the use of RHIs is commonplace across the UK with all local authorities following some similar guideline.

Interrater. There is marked variation in content and approaches used to complete RHIs (Boulton *et al*., 2022), which comes with its own implications regarding the strength of test-retest and interrater reliability. Firstly, it is suggested that disparity in professionals who conduct RHIs can lead to different approaches to data collection, such as police aiming to gain intelligence versus social services who might adopt a more supportive information seeking role. Such differing angles could affect the construct validity of the RHI tool, and decision-making processes in police responses have been found to be subjective and inconsistent between professionals (Smith & Shalev Greene, 2014). Content recorded has also differed between interviewers, for example, social workers focus more on relationships whilst designated RHI interviewers prioritise details of the missing incident (Pona *et al*., 2019), and police have reported being more risk-adverse compared to social workers (Hayden & Goodship, 2015). More specifically, variation has been detected in the types of questions asked in RHIs between services, particularly information regarding prior trauma and vulnerabilities (Harris & Shalev Greene, 2016). Not only does this create difficultly comparing RHI results across providers to generate meaningful conclusions, but the inconsistency contributes to poor internal reliability. In addition, approaches may differ between interviews offered to young people depending on their circumstances, for example, Boulton *et al.* (2022) found a significant association between the interviewing agency and whether the young individual went missing from home or care, with social care teams responding to those from care and commissioned services typically responding to children missing from home. It is possible this leads to inconsistencies in the outcomes between youth missing from different backgrounds, impacting the strength of the reliability of RHIs. Further comment on professionals' suitability to conduct RHIs is later discussed.

RHIs can range in duration from under 30 minutes to more than 90 minutes, with one study reporting 72% were completed in under an hour. However, one study found no differences in the time spent conducting RHIs by interviewers in different

teams (Mitchell, Malloch & Burgess, 2014), suggestive of some contribution to consistency and reliability.

Validity

Suitability. Generally, RHIs have been found to be appropriate and feasible for the target age. Young people have described them as informal, easy to answer and not over intrusive and reported appreciating questions about safety and risk due to them helping youth to understand someone was concerned about them (Mitchell *et al*., 2014). RHIs also have potential to be adequately comprehensive, where they address a broad range of topics related to missing episodes and explore those areas in more detail than simply measuring the presence or absence of events, increasing chances they meet suitable content validity. However, it is noted this is likely determined by interviewees willingness to engage. In addition, the standard approach may not necessarily suit diversity in interviewees, for example, RHIs have been found to benefit young people not already involved with services (Rees, 2001; Mitchell *et al*., 2014). This is interesting given Sidebottom *et al*. (2020) reported 75% of missing events were repeat episodes, and a small percentage of repeat missing youth accounted for nearly one third of all incidents, raising questions around the utility of RHIs for a considerable remainder of recipients.

Concurrent. In terms of content validity, the RHI has evolved over years of revision. Although there is no clear publication date of the RHI, it is understood the concept began to be shared in 1997 and strengthened through policy and guidance revisions over time. For example, an All-Party Parliamentary Group (APPG) for Runaway and Missing Children and Young People was established in 2006, with aims to improve support by addressing the disparity of local responses, particularly differences between those missing from home versus care. This enhances the tool's power in that it has been produced from ever-growing practice and research.

Face. Existing evidence on successful outcomes of RHIs might suggest the tool measures what it intends to, assisting appropriate actions. For example, RHIs reportedly have the potential to elicit new information (Beckett *et al*., 2015; Missing People, 2019; Mitchell *et al*., 2014). Furthermore, Ofsted (2013) found a 30% reduction in missing episodes whilst The Children's Society (2013) report RHIs, albeit paired with intervention, stopped or reduced missing episodes. An evaluation

by Grampian Police found RHIs to be a useful intervention in identifying those who require further support and making referrals to appropriate services, particularly for those not already known to services. They additionally argued that the interview itself can help interviewees to appreciate the value of talking about their circumstances as opposed to resorting to missing behaviours (Burgess *et al.,* 2010). RHIs are also effective in building on existing information. For example, social workers described information provided by RHIs as detailed and useful, providing a different perspective, and as often helpful to understand young people's relationships (Burgess *et al.,* 2010). Similarly, if police have some involvement, services can access sensitive, historical, and familial information unlikely to be disclosed in a short, one-off interview, but which could more broadly contextualise causes of going missing and help to detect potential need (Mitchell *et al*., 2014).

However, given RHIs aim to identify information to protect youth from risks, it is concerning that factors relating to experience of harm whilst away are often poorly reported in RHIs (Boulton *et al*., 2022). This may partly be due to young people's choice to engage, reflected in suggestions that youth will share only what they perceive professionals want to hear, or will respond with broad, vague or false information during RHIs (McIver & Welch, 2018). Further to critique of the suitability of RHIs, Taylor *et al.* (2014) found youth were critical of a lack of support and boundaries on return from missing episodes, and emphasised the value of being listened to, treated with respect, able to exercise autonomy and feeling that someone cares.

Missing information. Common to many assessment tools, interviews lose value when met with high rates of incomplete information, noted to be common in RHIs (Boulton *et al*., 2022; Hedges, 2002; Hutchings *et al*., 2019). Studies have found areas of interviews that are not recorded clearly and need to be more accurate and consistent for effective responses such as reasons for absconding, individual vulnerabilities, and types of harm experienced (Boulton *et al*., 2022; Vo, 2015). Information collected in RHIs often lacks comprehensive detail about what happens to young people and where they go (Harris & Shalev Greene, 2016).

In addition, complete information collected may not be sufficient to meet the aims of interviewing or identification of modern day issues. For example, Boulton *et al*. (2022) found experiences of harm, victimisation and exploitation whilst missing to not be clearly recorded in a large proportion of RHIs. Interviews typically fail to

explicitly gather critical information on CCE but may ask questions related to indicative behaviours. These factors are important in identifying support needs, and are factors linked with risk of absconding or experiences of trauma as outlined in Chapters Three and Four. Some vulnerability factors are identified during RHIs (i.e., parental difficulties in managing children, problems at school, emotional health and family stress), but given children are only seen once or twice at this stage of intervention it is probable further, perhaps more sensitive vulnerabilities, such as substance misuse or sexual relationships, are underreported (Hill *et al*., 2016). This suggestion may also be applied to criminal activity, considering young people may be concerned about consequences of disclosing such information. Therefore, RHIs may be best utilised as part of a wider package of services that facilitate further action (Rees, 2001).

Critique of the practical application

Critique of RHIs can be extended beyond consideration of the reliability and validity of the tool itself to the wider practical application including the offer of interviews, interviewer impact, data collected and how it is used and shared.

Intervention value

Parallel to the aim for return interviews to improve outcomes for young people, the method can be evaluated in terms of its value as an intervention. RHIs are deemed an appropriate and effective screening mechanism identifying individuals who require further support and can contribute to directing referrals to support services (Burgess *et al*., 2010; Mitchell *et al*., 2014). However, they have been found most beneficial to young people who are not already involved with social work services (Burgess *et al*., 2010).

There has been evidence of RHIs reducing the number of missing episodes by up to 30% in a year (Ofsted, 2013). Furthermore, a Social Return on Investment (SROI) analysis found RHIs and follow up support to be linked to reduced episodes of running away, lowered risk of exploitation and harm, improved family relationships, greater confidence, and more optimistic views of the future (Railway Children, 2015). Similarly, 60% of RHIs and subsequent support were reported to link to reduced missing episodes or unsafe behaviours (The Children's Society, 2013), and more recently, the average number of repeat incidents has reportedly reduced from 6.1 to 2.8 times (NYAS Cymru, 2020). However, contrary to promising

outcomes, research has also highlighted inconclusive results such as young people having mixed views on whether RHIs affected the likelihood of them running away again (Burgess *et al.,* 2010) as well as high rates of 80% repeat episodes following RHIs (Galiano López *et al.*, 2021). From another perspective, Harris (2019) explored interviewer opinions and found only 1% of interviewing police officers felt RHIs help to prevent future episodes. Generally, there is insufficient evidence to judge whether RHIs result in young people receiving the help they might need (Mitchell *et al*., 2014).

A wider indirect positive outcome of RHIs is the financial impact. A Social Return on Investment analysis conducted by Railway Children (2015) estimated the impact of RHIs reducing missing incidents can contribute to police service savings of £2,500 per young person. In addition, interviews can mitigate the requirement for additional support provisions (Railway Children, 2015).

Offers

There are inconsistencies in the extent to which RHIs are offered and prioritised (APPG, 2017). They are inconsistently conducted across forces, where some areas carry out interviews for select cases (i.e., repeatedly missing, from care, or assessed as high risk; HMIC, 2016), and others do not. They are also rarely conducted for youth considered to be low risk or absent, referring to cases where individuals are not where they are expected to be, generating a police record and risk assessment, but no active response or RHI follow up. Similarly, NYAS Cymru (2020) reported differing eligibility criteria across services; some authorities offered RHIs to every individual reported missing for the first time or repeatedly five or more episodes per month, whereas others held stricter or more exclusive criteria. Assessing need for a RHI on a case-by-case basis leads to what NYAS Cymru (2020, p. 13) term "patchwork provision" where youth across areas receive varying safeguarding responses, affecting the reliability of delivery overall. However, a strength of interview offers is the active nature of contact, where methods such as letters and visits to young runaways are more effective than passive approaches that rely on young individuals taking initiative or reaching out (Rees, 2001).

Uptake

A key weakness of the utility of RHIs is the level of uptake and resultant engagement. Whilst young people are encouraged to engage, RHIs do not take place

if refused (Puffett, 2018), as observed in Chapter Four's case assessment. Refusal rates vary across literature but appear to fall around 23-40% (Boulton *et al*., 2022; Chetwynd & Pona, 2017). Mitchell *et al*., (2014) report a lower rate of 9% who did not attend due to refusal, as well as moving areas or risk of compromising criminal investigations. In two areas of Wales, just one in three and one in ten missing incidents were followed up with a RHI (NYAS Cymru, 2020), and a missing service in Scotland reported around one in three referrals resulted in an RHI, with barriers including refusal, multiple referrals, failure to meet service criteria, moving out of the area or difficulties arranging interviews at places of care (Vaswani & Moodie, 2016). Boulton *et al.* (2022) also noted refusal rates to be significantly higher among children in care compared to those living at home. It is emphasised this obstacle exists prior to an individual accepting the offer of a RHI, as Pona *et al.* (2019) reported despite just above half of youth missing incidents resulting in a RHI, high rates of 94-97% of those accepted did indeed take place after the individual initially agreed to interview. They revealed reasons for decline included refusal, going missing again, being unobtainable, moving out, poor mental health or being in police custody. However, disengagement might also occur in anticipation or during the interview process, such as being asked to sign permission for information sharing with the police (McIver & Welch, 2018). It is lastly suspected repeat runaways may experience RHIs as repetitive or have difficulty seeing value in engaging more than once.

There are also pitfalls related to the categorisation of missing young people which may exclude opportunity for RHIs. In 2013, a distinction was outlined between 'missing' and 'absent' individuals, where missing children were defined as those whose whereabouts cannot be established and circumstances are out of character, or related to risk of harm, and responded to actively such as police officer deployment. Contrastingly, absent children are defined as not where they are expected to be, initiating a police record and regular risk assessment, but no active response (Chetwynd & Pona, 2017). In 2017, a graded response system was introduced to assess risk, where the absent category was replaced with a novel definition of missing integrating 'no apparent risk'. Whilst acknowledging resources are limited and a boundary has to be drawn, low risk categories create concern around the number of incidents not followed up with processes such as a return interview. Opportunities to identify safeguarding needs and offer support before risks escalate may be missed, making vulnerable youth even more vulnerable. This

also affects reliability given there is a highlighted discrepancy in the number of RHIs offered between missing and absent categories (The Children's Society, 2013).

Frequency

It can be argued reach of RHIs is limited given they are not offered to individuals who are never reported as missing. Given a substantial percentage of unreported runaways (Rees & Lee, 2005), it is impractical for RHIs to capture all young people who may need support. Mitchell *et al*. (2014) highlight implications of this, whereby groups such as those who have been kicked out and less likely to be reported missing or Black and minority ethnic youth may be systematically excluded from intervention. Services offering RHIs may also work by restrictive criteria such as gender or assessed risk before offering RHIs, potentially excluding some groups.

Timeliness

Consistency is also impacted by timeliness of interviews. Guidance recommends RHIs are offered within 72 hours of youth returning to their place of living (Hill *et al.,* 2016), however, interviews are not reliably offered in a timely way (NYAS Cmyru, 2020). In one police force Boulton *et al*. (2022) found 42% of RHIs occurred within the required time frame, and the average time between return and interview was five days. Another study found 61% were completed within five days and 77% within one week. A further 14% occurred within two weeks, and 8% even later (Burgess *et al*., 2010). Delays were noted to be caused by difficulties accessing young people, some of whom may have gone missing again, and logistics of communication and scheduling (Mitchell *et al*., 2014). Pona *et al*. (2019) highlighted concerns about the feasibility of RHI time frames which were attributed to high staff workloads, difficulties gaining consent from parents or carers and uncertainty around when the 72-hour window begins. A clash of priorities also surfaces when professionals aim to complete RHIs promptly but also attempt to build rapport with the young person to boost engagement, for example, by offering choice in the interview setup (Hill *et al*., 2016). Delays could be problematic given prompt responses lead to more successful engagement, which is particularly important for those in care, who appear to have a smaller window of opportunity for intervention (Bezeczky & Wilkins, 2022; Rees, 2001).

Interviewer attitudes

Difference in professionals conducting RHIs links to disputes regarding who is deemed most appropriate. Statutory guidance recommends RHIs are conducted by someone the young person trusts, is independent and appropriately trained (DfE, 2014). However, it is noted the interpretation of the term 'independent' is ambiguous (The Children's Society, 2013). Studies of current practice have repeatedly suggested that consent, engagement, and willingness to share information are more likely if interviewers are known to youth and not connected with statutory services, particularly police or social services (Boulton *et al*., 2022; McIver & Welch, 2018; Pona *et al*., 2019; Rees, 2001). Children have reported dissatisfaction with police involvement, stating responses feel punitive rather than considerate of vulnerabilities (Beckett *et al*., 2015), and it is reported only 2% of young people willingly approach police upon returning from going missing (Rees, 2011), reflective of young individuals' attitudes and trust with police forces as a supportive body. From the other side, some negativity also exists from police towards the employment of RHIs, particularly frustration at repetition and doubt about usefulness (Harris & Shalev Greene, 2016), raising questions as to whether police forces are the most appropriate service to interview. Hedges (2002) found police to perceive missing people as of lesser importance than other duties they face, and Colvin *et al*. (2018) found they felt frustrated at the work demand related to young people repeatedly reported missing, particularly those from care placements. To contextualise the effect of this, Newiss (1999) commented that police are more likely to view RHIs as an administrative exercise when responding to repeat runaways, due to opinions that those who persistently go missing or do not engage are "time wasters" rather than "vulnerable children in need of help" (HMIC 2015, p. 10). These attitudes may impact their ability to work effectively to meet the aims of RHIs. This is particularly problematic given high rates of repeat incidents, reported to be up to 80% of episodes in a year period (Bezeczky & Wilkins, 2022; Galiano López *et al.*, 2021).

Contrasting to assumptions that young people may mistrust police, and proposals they may choose not to engage with linked professionals (Rees, 2001), others have challenged the assumption of police unsuitability and argued effective interviews offered by police rely on training and adequate resourcing (Mitchell *et al*., 2014). Burgess *et al*. (2010) also named police as the most appropriate agency to conduct RHIs, and strengths that cannot be matched are highlighted, such as the

broadness of geographical areas police cover and the 24-hour nature of services. Similarly, police information systems add value to the understanding of individuals' backgrounds and circumstances (Mitchell *et al*., 2014).

Despite this, one study asked young people what they value in RHIs and concluded the way in which support was delivered appeared to be more important than who delivered it, with non-judgmental support from a caring adult being deemed the most important, as well as having flexibility and choice in the process (Turner & Jaqusz, 2002). Young people also shared the importance of interviewers getting to know them for effective collaboration (Missing People, 2021), contributing to the argument that the overriding factor of importance is interviewers' ability to relate to youth (Mitchell *et al*., 2014).

Interviewer competency

Literature has also explored efficacy of differing professionals based on attitudes and competency to conduct RHIs. It is possible level of training creates another barrier to successful data collection, for example, Harris and Shalev Greene (2016) found nearly all officers in their study were not trained in conducting RHIs and had not read national policy, increasing danger of missing indicators of risk vital for successful follow up. Instead, officers were trained in police interview models for suspects, which lack open-ended questions that elicit adequate responses.

Despite this, young people have previously described interviewers as generally easy to talk to and confide in, and good at listening and helping (Mitchell *et al*., 2014). Availability is also an overarching strength whereby RHIs can be conducted by a range of professionals and do not rely on a singular specialist service, as well as taking place in various locations, with young people expressing no strong preference for where RHIs happen (Burgess *et al*., 2010).

Information sharing

Following the completion of RHIs, further problems arise when considering how data is utilised and shared with appropriate agencies to meet safeguarding aims. Further to earlier critique related to data collection such as absent information, evaluations have also highlighted inconsistent and unreliable information sharing processes that can impact outcomes for young people. Generally, multiagency responses to youth who go missing are poor (Ofsted, 2016),

and it can be argued that weaknesses in information sharing systems of RHIs are contributory. For example, feedback and outcomes from interviews are not consistently shared with relevant forces or always used to develop appropriate care plans (HMIC, 2016; Ofsted, 2013), and it is concerning that two thirds of local authorities have been found to have no protocols for sharing information with the police upon a missing report, resulting in police forces later assessing risks of harm without critical background knowledge of the young person (Chetwynd & Pona, 2017) or lacking key intelligence that might direct efficient and safe return of youth in future episodes (Smith & Shalev Greene, 2014). Consequently, one of the challenges of initial risk assessment is accessibility of information for practitioners, as Eales (2017) highlighted that information is often spread across several data systems.

Contrastingly, it is suggested young people consent to information being shared with police or appropriate services in the majority of RHIs (Missing People, 2019) and information sharing processes work well (Burgess *et al*., 2010). For example, data obtained in RHIs is often recorded on local authority social care systems, where professionals are able to share information with police and external agencies (Pona *et al*., 2019). Similarly, Smith and Shalev Greene (2014) found almost three quarters of local authorities were 'often' or 'frequently' sharing information from RHIs, which is an encouraging direction. The issue and impact of poor multi-disciplinary working is wide reaching, as the challenge to involve third sector partners in RHIs processes and follow up also contributes to negative police attitudes towards RHIs (Harris & Shalev Greene, 2016).

Discussion

This review investigates RHIs as a tool with a primary aim to gather data from the interviewee, and a secondary aim to reduce missing episodes and exposure to harm. Both the utility of the tool itself as an assessment and intervention and the wider implications of use are discussed, providing insight into the strengths and limitations of return interviews.

The RHI tool itself appears to be offered at an appropriate level for young interviewees. It holds some value in reliability, whereby the tool is common practice across local authorities who follow similar processes. However, there is no standardised tool which results in different outcomes, including information collected and referrals made, ultimately contributing to poor practice intervention

integrity. A lack of consistent application also restricts potential to evaluate the utility of RHIs widely across services. RHIs also lack some interrater and test-retest reliability due to the variety of differences found amongst interviewer aims and approaches, particularly related to professional background.

Following a call for RHIs to be conducted by individuals with strong rapport with young people, it is promising the UK Government responded in 2018, when the Home Office launched 'The Trusted Relationships Fund' to encourage staff of local authorities to build positive relationships with young people at risk of exploitation (Home Office, 2018c; Robinson, 2020). It acknowledged a lack of meaningful relationships leading to failures in practice, so invited services to create safe spaces for young people to feel more heard and confident in sharing concerns. The offer was distributed to eleven services; however, it is unclear if the initiative was evaluated or if funding will be replicated.

The RHI method is comprehensive and boasts some validity through its evolution and revision to ensure aims are met. It also holds face validity, with evidence suggesting interviews measure what they aim to, enabling appropriate follow up. However, this relies on factors that have elsewhere been identified as weaknesses, such as adequate reporting of information and successful youth engagement. As a method of intervention, it is also argued RHIs are effective in meeting aims to reduce number of missing episodes and contribute to financial benefits. However, efficacy is dependent on the interviewee, with research finding discrepancies of impact between those living at home or in care, having returned from a first or repeat missing episode, and past involvement with social services.

The wider practical application of the tool was also explored. Research suggests RHIs are inconsistently offered or prioritised, both in terms of groups eligible for interviews and the timeliness of offers. Even when offered, there are high refusal rates which may be reflective of young peoples' perceptions of interviewers, or a lack of trust in the tool and services. Although RHIs are versatile and can be offered by a range of professionals, substantial differences and difficulties with interviewer attitudes and competency have been identified. There appears to be wider implications whereby data is poorly shared with appropriate agencies to eventually meet critical aims of safeguarding young people.

Whilst the review highlights an array of weaknesses of the RHI as an assessment tool and intervention, the positive outcomes such as reduced missing episodes and risk of harm cannot be overlooked. Similarly, despite criticality, it is

noted many of the difficulties appear to be relational and systemic, with a smaller number of criticisms unearthed from the tool itself. A wider approach to tackling all the issues highlighted would allow for better safeguarding of young people, but it is important to continue to focus on the root of information on young runaways, which starts with the interview.

Recommendations

Therefore, several recommendations are proposed to improve the existing application of RHIs.

Design*.* Following from early recommendations made in the Chapter Two review for a standardised measure of running away for research purposes, this critique too calls for a consistent and evidence-based form to be developed and implemented to ensure consistency across services and also provide opportunity for wider analysis of use and findings. Interviews should use a combination of closed tick box questions as well as open ended questions that give interviewees opportunity to share lengthier narratives, and specifically ask about previous missing incidents and known vulnerabilities (Boulton *et al*., 2020).

Professional approaches. Findings that the focus of interviews and resultant decision-making differs between professionals leads to a call for the aims of RHIs to be clearly outlined and interviewers sufficiently trained to boost interrater reliability and consistency across interviews. In line with Taylor *et al.'s* (2014) findings that young people value being heard, respected and able to practice independence, it is recommended such values are a focus in training to improve relational dynamics and RHI outcomes. Young people could also be offered choice in interviewer to boost agency and reduce poor engagement, following Boulton *et al.'s* (2020) conclusion the role and relationship of the interviewer can influence the quality of information elicited.

Approaches could also be more psychologically informed. For example, research on missing child typologies suggests there are four predominant behavioural profiles for running away: the 'depressed throwaway victim', 'distressed pushaway revenger', 'calm runaway professional' and 'elated fallaway hero' (see Hunt, 2021). However, the RHI does not extend to attempting to explore underlying psychological motivations and behaviour or identify typologies of runaways which

could stimulate greater depth of feedback and insight to help inform contextual causes for going missing and possible intervention tackling the root and presenting problems specific to typologies.

Uptake*.* In line with Harris and Shalev Greene's (2016) suggestion for engagement to be an area for development, it is recommended the current approach to inviting and engaging young people is thought about creatively, with a view to boost acceptance of offers and ultimately data collected and subsequent actions. This could potentially utilise video call methods, or modern technology such as an interactive mobile phone or web application. Responses should be more individualised through awareness of trauma informed methods and evidence-based interview techniques. Implementing such should incorporate voices of young people to design effective approaches. Key factors in effective engagement include independence from social services and police, quick responses and active methods of contact that do not rely on young people reaching out for support (Rees, 2001), which should also be focus areas for improvement.

Information recording and sharing. Improving information sharing can generally be tackled following recommendations for wider input response, where multiple agencies are able to contribute to risk assessments (Chetwynd & Pona, 2017), and there are better information sharing processes, where the Government should develop guidance and systems for multiagency use. To confront issues related to absent or incomplete information recorded in RHIs, Hedges (2017) suggests building more comprehensive information profiles using police crime and incident reports. When possible, it might be of value to also interview others involved, such as family, carers or support workers, to build broad understandings of young people and their circumstances from a supportive lens.

Limitations

It is acknowledged this critique is exploratory due to a lack of consistent evidence from which to base conclusions. Burgess *et al*. (2010) highlight this inconsistency in their evaluation where even a few services present vastly different settings such as size, quantities of missing persons, resources and multi-agency working methods. Therefore, it is difficult to compare RHI models and consider overall effectiveness and conclusions. Similarly, whilst the review is based on a wide scope of current literature, a substantial amount of existing evidence is taken from

grey literature, with less access to research methodology to consider reliability and validity.

Conclusion

The effectiveness and strength through the evolution of RHIs is highlighted throughout this review, also considering areas in which the tool as an assessment and intervention method does not commendably meet its aims to assess factors relating to missing episodes and safeguard young people. Whilst RHIs possess some reliability in measuring what they intend to, aspects of the success of interviews are inhibited by weaker factors. The evaluation calls for improved practices in the design and standardisation of the tool itself, as well as clearer aims and training for professionals to undertake return interviews consistently and effectively to improve intervention integrity. It argues for more creative approaches to be utilised to increase uptake of offered RHIs, and to improve information sharing for more accurate referrals to appropriate support.

Chapter Seven

Discussion

Introduction

The research presented throughout this thesis focuses on young people who run away from home or care and their involvement in offending. The aims of the studies were to understand the factors that contribute to absconding behaviours before a missing episode, links to offending behaviours whilst away, and harmful outcomes after a period of missing. It considered elements of youth missing and perpetration of crime through a lens of victimisation and potential child criminal exploitation.

Young people run away from home or care due to a number of push and pull factors related to their current situations or the promise of different circumstances away from home. Whilst missing, they face a multitude of risks related to their health, abuse, substance use, crime, victimisation and possible longer-term harm, where 1 in 11 young individuals are reported to be harmed whilst away (Rees, 2011). Further to this, it has been consistently reported that running away links with involvement in crime (Bowden & Lambie, 2015), with as many as half of runaways committing offences (Hutchings *et al.*, 2019). Recent research and media coverage has begun to illustrate how youth offending can be driven by involvement in CCE, where young individuals are coerced, controlled or manipulated into illegal activity (Home Office, 2018a) to benefit exploiters and the success of their criminal models such as drug markets, as seen in county lines drug dealing. It could be argued that related criminal behaviours are a consequence of victimisation, shifting the perception that young people are always perpetrators of crime. Running away and participation in crime, particularly in the context of criminal exploitation, is likely to have harmful impacts on young people. This may lead to longer term effects such as poor mental health outcomes including symptoms of trauma.

Overview

The above aims were explored alongside the existing knowledge base through five interrelated chapters. Chapter Two's systematic literature review aimed to explore the evidenced links between running away and offending whilst missing, with a focus on commonly reported types of crime. It drew evidence together from thirteen empirical studies to outline associations between missing episodes and offending, including theft, violence, property crime and drug related offences. It also considered the interplay of gender, ethnicity, living in home or care and length of

time away. Finally, it commented on the lack of existing evidence to there being a link between the concepts of running away, exploitation and crime.

The study outlined in Chapter Three focused on experiences before a missing episode. It utilised existing data from a youth secure unit to identify associations and predictive properties of care, harm, school, family and offending backgrounds on absconding from residential care. It builds on existing literature to shape understanding of the characteristics of young people who abscond and increase knowledge of associated causes and consequences of running away. The study found an array of relationships between individual, relational and contextual factors and running away from care, and proposed a predictive model of absconding.

The focus shifted to what happens during a missing episode that may contribute to outcomes of psychological harm and trauma in Chapter Four. Youth runaways completed an online missing experience survey including measures of indicated exploitation and current symptoms of PTSD. The study aimed to understand the effects of exploitation on trauma, specifically focusing on the number of missing episodes and length of time away. It went on to explore causation and the mediating effect of CCE on the linear relationship between time away and symptoms of trauma.

Given some of the limitations of online survey methods, a live case assessment was mapped to solidify research conclusions in Chapter Five. It aimed to apply findings from previous chapters, such as the predictive risks for absconding identified in Chapter Three and the screening criteria for exploitation from Chapter Four, and to further understand the harmful effects of going missing. The case study formulated runaway and criminal behaviours, highlighting precipitating and perpetuating themes. It also presented problems with the current protocol for interviewing young people upon return for missing episodes.

In line with this, Chapter Six presented a critical commentary on RHIs, a current tool used to assess the context and circumstances around missing incidents, gather direct safeguarding measures and reduce risk of repeat episodes (Boulton *et al*., 2022; McIver & Welch, 2018). The chapter considers the reliability, validity and practical application of the protocol, finally calling for a review of the design and use of information to increase consistency and successful engagement of young vulnerable runaways.

Main findings

As outlined in Chapter One, this thesis aimed to broadly explore young runaways, risks when away, crime and subsequent harm experienced. Chapters addressed several research questions which are discussed alongside additional key themes and findings identified throughout.

Crime types

The research began by examining the current literature on youth runaways to establish what the typologies of criminal offences young people become involved with may be. Significant associations were detected between missing episodes and involvement in offending, including theft, violence, property crime and drug related offences. It is likely, as expected, these crime types relate to acquisitive offending to aid survival whilst away and independent, and crime such as theft and drug selling may also be influenced by thrill-seeking related to boredom whilst away (Matsueda *et al.*, 2006; McCarthy & Hagan, 2005). It was particularly interesting to consider these crime types in the context of contemporary crime, where it has been reported possession of weapon offences, drug offences and violence against the person have increased the most in the past ten years (MoJ; 2022). It is observed the most common crime types whilst away appear parallel to those listed to be characteristic of CCE, including working in drug factories, which may link to later drug related offences; county lines involvement such as transporting drugs or money; and pickpocketing, which can be reported as theft (Turner *et al.*, 2019). These activities could also link to violence, such as through drug related disagreements or debts, or in the process of theft such as through violent threats. Property crime, however, has not been reported to be linked with CCE. It may alternatively be explained through the sequencing of theft, where an individual may break into and damage houses or buildings to gain entry to steal property. In the midst of being missing, the function of criminal damage may simply be for enjoyment such as defacing or graffitiing property, or driven by feelings of anger or to assert control (McGuire, 2004). Previous street-gang literature has also reported models that explain street-gang-involved youth crime such as general delinquency, crimes against people, and drug related crimes, but do not appear to appropriately explain crimes against property (Thornberry *et al*., 1993). With property damage recognised as an important factor in three of the chapters presented, further research specific to

criminal damage in runaways would clarify this association and benefit the wider understanding of runaway crime.

Aside from crime types, the systematic review of literature also identified a higher prevalence of males committing crime amongst runaways, and individuals living in care committing crime more than those from home, which was expected based on existing literature (Bonning & Cleaver, 2021; Williams & Finlay, 2018). Overall, these findings helped to define the focus and factors explored in later empirical studies.

Crime and exploitation

This thesis considered whether there is evidence to suggested those who commit criminal offences whilst missing do so in the context of CCE. The short answer is that the current study cannot make direct causal conclusions about criminal exploitation given the limited reliability of measures, such as inclusion of a measure of CCE based on self-reported indicators of exploitation and only a small number of clearly defined examples in Chapter Four and Chapter Five's case example. However, the findings overall may allude to a link between criminal offending and victimisation toward crime.

As a focus of the systematic literature review, it was concluded based on the existing evidence that types of crime committed by runaways could be related to those representative of exploitation models. For example, the review found significant associations between missing episodes and involvement in theft, violence, property crime and drug related offences, which fall parallel to typical crimes related to criminal exploitation as discussed. Only one study made direct references to offending in the context of CCE, possibly due to the phenomenon being relatively new to the evidence base.

The main argument for offending behaviours being driven by exploitation stem from Chapter Four's study measuring indicated CCE. It found several self-reported criminal behaviours to be reflective of exploitation such as being taken to another location and involvement in drug selling. It also found indicated CCE whilst missing mediates the psychological impact of experiences in the relationship between length of time away and trauma, where experiences of CCE increase the level of PTSD symptoms reported.

Similarly, a number of factors reported by the individual presented in Chapter Five were found to be indicative of criminal exploitation, such as going missing

frequently, being found in a different area to home, unexplained acquisition of money and items, substance misuse and appearing withdrawn and emotionally switched off. Whilst the case in this study did not self-report or perhaps have insight into being a victim of exploitation, it was deemed highly possible that he was, based on collateral information. Alongside the formulation of his behaviours, the chapter concluded his involvement in criminal offending was likely related to CCE victimisation. Therefore, this study can only allude to the prospect young runaways commit crime in a position of victimisation. It supports calls for improved measures of return missing persons that are able to identify indicators of CCE, which can produce data to contribute to more reliable research to answer this question.

Risk factors for absconding

Following the identified potential involvement in offending, the current research explored secondary data in Chapter Three to establish what existing factors related to harm and offending are associated with young people who abscond from care settings. It found associations between individual factors and absconding, such as care history and self-harm. Relational factors, including being beyond control of parents and behavioural difficulties in school, are also associated with youth who abscond from care settings. Similarly, intergenerational factors were found to be important and individuals with fathers who have histories of substance misuse are at higher risk of absconding. Contextual offending behaviour variables such as the age at first offence and types of crime, including theft and property crime, are also associated with propensity to abscond. It can therefore be suggested that runaways may typically have a history of harm and offending before going missing, some of which may influence subsequent behaviours during missing episodes. However, the temporal order of runaway behaviours is not clear in this study, limiting the validity of this conclusion.

An interesting theme through Chapters Three and Five is the niche relevance of father substance misuse and criminality, where paternal substance use was found to be predictive of absconding, and also present in the runaway case assessment who was involved in crime and exploitation. Stein *et al*. (2009) offer some direction for this finding, as they found amongst runaways, attachments to families were often strained. The predictive effects appear in their study to only affect those with positive paternal relationships, which were found to predict less substance use and less criminal behaviour. For female runaways, the more time spent away from home

was significantly associated with poorer paternal relationships, and increased substance use and criminality. Reflecting hypotheses for this link proposed in Chapter Three, it is possible fathers who are unable to meet core needs due to their own difficulties including substance misuse contribute to youth runaway and criminal behaviours. Paternal relations are less addressed in research, especially through attachment theory (Stein *et al*., 2009). Therefore, further research focused on this particular relationship would be welcomed. Lastly, it is suggested this observation links to general disrupted relationships and insecure attachments, increasing the proclivity for young individuals to follow a path towards missing episodes and crime.

Experience of trauma

The ultimate focus of this thesis is to investigate how involvement in crime or exploitation whilst away impacts experience of trauma, which is primarily addressed in Chapter Four's empirical study. It drew attention to factors of missing episodes that contribute towards negative physical and affective outcomes categorised by trauma, including time away, substance misuse and criminal exploitation. It is noted these factors are reflective of existing understanding of CCE models, but more importantly, the study concluded there to be a linear relationship between length of time away and reported symptoms of trauma, which was later found to be mediated by experience of indicated exploitation. Therefore, it could be concluded that involvement in crime, often in the context of victimisation, greatly impacts experience of trauma where those who are exploited whilst away report higher levels of PTSD symptoms. In addition, the case assessment presented contributes to answering this study question, where the individual assessed reported crime, indicators of exploitation and moderate levels of psychological distress and presence of symptoms of posttraumatic stress. Together, the findings support existing suggestions that involvement in crime or exploitation have a harmful impact, based upon basic theory of stressful experiences and adverse psychological outcomes (Anda *et al*., 2010; Maschi *et al.,* 2010). Whilst the current research is limited to defining trauma by symptoms of PTSD and does not measure specific or adulthood negative psychological outcomes, it provides an initial understanding of the adverse effects of runaway crime and victimisation.

Chapter Four highlights typical criminal activity of youth runaways. Deeming young, possibly exploited, runaways as criminal has been suggested to reflect the

conservative and punitive youth justice approach held by the UK Government, which tends to overlook structural influences facilitating youth offending and imply offending behaviours are driven by rational choice (Ellis, 2018; Windle *et al.,* 2020). It is important to acknowledge the wider context, as highlighted by Spicer (2021), that reminds us to be somewhat critical of the media and government portrayals of gang leaders and young people who have been groomed, and frame findings from the study within the idea of victimisation. Spicer argues not to undervalue the existence of exploitation, but to remember that beyond grooming and exploitation, there is space for the government to reshift this blame from 'groomers' to culture and society to more broadly address the conditions and problems that current social policies have created, for example, deprivation and social exclusion (Fahmy, 2017, as cited in Spicer, 2021). In line with this, despite the argument for exploitation, the study acknowledges that some young individuals may actively become involved and become perpetrators of harm themselves (Robinson *et al.,* 2018).

Practical tools

Finally, the study turns to existing tools used to identify the concepts outlined so far, including specific endeavours whilst missing, experiences of harm and indicators of exploitation. In a critique of the current protocol addressing youth who return from missing episodes, the study argues RHIs are insufficient in meeting aims to assess factors relating to missing episodes and safeguard young people. It calls for improved tools, or a redesign of a standardised RHI, to capture vital information to support young people. Parallel to this, a prominent observation of the case assessment was that the participant refused to engage in a RHI but was willing to partake in an interview for the purpose of the study approximately two weeks after returning from the missing episode explored. It is assumed the participant declined the RHI due to some ambivalence engaging with professionals who may be linked with the police, or result in consequences such as referrals to services he was not interested in, and it is noted the participant had an existing positive rapport and built trust with the author who was a support worker at the residential unit. This contrast supports an overall recommendation for intervention and support for young people to be relational based for increased engagement and efficacy. Similarly, the methodology of Chapter Four's study would have been improved with the use of existing data taken from consistent RHIs to draw conclusions more reliably from the reported experiences of young runaways, their

involvement in crime and the harm they experience. Recommendations for redesign were discussed in the aforementioned chapters.

Further key implications

Unfortunately, effective practice for tackling youth involvement in criminal exploitation activities is rare, with a lack of reliable evidence of what works and no hub where evidence is evaluated and reviewed (Child Safeguarding Practice Review Panel, 2020) to inform the development of interventions. Humayun, Jolliffe and Cleaver (2023) summarise broader problems including that no further action is often taken when exploitation is identified, or young people are commonly referred to youth offending services where risk of criminalisation increases. They also highlight ineffective practice with impractical long-term outcomes such as moving the young person out of borough.

Throughout the chapters, recommendations are made reflecting these issues and calling for improved standardised methods of assessment for youth runaways including risk factors for absconding, involvement in crime and indicators of exploitation. Implications of the current research therefore contribute to existing understanding of these concepts to further inform the redesign and the development of assessment tools and interventions. Findings can be drawn upon to modernise police strategy, practitioner intervention and wider government policy. They can also help to build trauma-informed approaches to responding to youth upon return from missing. For example, awareness of posttraumatic outcomes of missing episodes can inform intervention, such as the use of Cognitive Behavioural Therapy (CBT) which was found to have the strongest efficacy in Gillies *et al.'s* (2013) comprehensive review of psychological therapies for the treatment of PTSD in children and adolescents. Charity and support organisations can benefit to further inform approaches to supporting young people and offering training and education to youth services, schools and parents.

Findings across this thesis are important given young people involved in crime are often viewed as criminals and not always victims of what has happened to them to go missing or become exploited. Findings can help contribute to existing efforts to reduce criminalisation of children and young people, which between 2010 and 2019 has seen a 70% reduction in arrests nationally and a 64% fall in children in prison (Howard League for Penal Reform, 2020; MoJ, 2020; MOPAC, 2021) due to current work by police and others.

Limitations and direction for future research

Limitations of each chapter are discussed throughout, but the key limitations of research in this area and overall findings of this specific research are engaging young people to access evidence of experiences and small samples, both of existing reviewed literature and participants in empirical studies.

One clear limitation of research in this area, including that of this study, is the difficulty accessing youth runaway populations and expecting young people to trust researchers to share accurate accounts of their experiences. This also links to the highlighted barrier that effective tools to measure experiences and gather information from hard to engage young people do not exist.

Research is further complicated by identification of and access to youth target populations. For example, there are suggestions that drug networks are continually adapting procedures to avoid detection, including use of day trips so as not to trigger youth missing episodes or reports of truancy from school (Rescue and Response Report Analysists, 2019), therefore, exploitation research findings are similarly harder to detect if not always linked to missing episodes. The current research made use of existing data and anonymous online data collection to tackle this issue, but these methods come with limitations regarding reliability. As suggested in Chapter Four, future studies could utilise samples from schools, parents or training young people as peer researchers to aid data collection and increase reliability (Taylor *et al.,* 2014).

Secondly, the research presents studies with small sample sizes and a review based on limited literature, reducing statistical power of conclusions and breadth of results. Further research in the area of youth runaways will contribute to this limitation as the evidence base expands and methods for engaging more hard to engage young participants are tried and tested.

The current research identified additional areas for future exploration. Primarily, this thesis calls for more research to contribute to the development of standardised risk assessments and approaches to engaging young people and effectively identifying risk of exploitation and resultant harm. Future research should continue to bear this as a focus and aim to inform practical application. Regarding missing experiences, Crosland, Haynes and Clarke (2019) recently published an assessment tool examining the function of runaway behaviour to inform intervention, The Functional Assessment Interview for Runaways (FAIR). Following

further evaluation of the interview as well as the efficacy and feasibility of interventions linked to the results from the FAIR assessment, the tool could offer opportunity to be used as a foundation for a wider assessment of runaway behaviour and exposure to harm. Development of a specific measure of exploitation is a less advanced area of study and will require additional primary research.

Generally, the research highlights a need for additional studies exploring harmful psychological effects of going missing and criminal victimisation. Future studies should consider using longitudinal methods to obtain accurate accounts of youth experiences and open opportunity for more robust casual relationships to be discovered.

Chapter Two highlighted the impact of length of time away on offending is a neglected area in existing research. Although a focus on time away was addressed later in Chapter Four and as part of Chapter Five's case assessment examining a young person away for two weeks, time away was also revealed to be highly predictive of runaway trauma, and therefore future studies should continue to prioritise this as an exploratory factor.

This could contribute to the overall literature base given the suggested association between youth who stay away for extended periods, often a longer distance from their home, to engage in exploitation related behaviours such as county lines drug dealing. Similarly, Chapter One suggested repeat runaway incidents to be linked with types of offending, but further studies did not measure number of times missing or identify an association between going missing repeatedly and psychological harm. More dedicated research on repeat missing youth is recommended.

Additional angles for research could also add diversity to the current literature. As highlighted in Chapter Four regarding a two-way causal risk between ADHD and PTSD (Spencer *et al*., 2016), future research addressing absconding and trauma should consider the impact of neurodiversity such as diagnostic traits of ADHD.

Conclusion

Experiences of youth runaways has received attention from researchers in social work, psychology and policy, with most existing studies exploring risk factors for missing episodes. Runaway experiences are multifaceted in that varying factors contribute to reasons for running away, what happens whilst away, and the impact

experiences have on youth post-runaway. Offending behaviours can also be viewed from both a perpetrator and victim perspective. As such, research into the various areas of this field is important to improve understanding and responses to youth involved.

This thesis presents an initial review to summarise the existing literature base on what happens to young people whilst away. It incorporates empirical studies using existing data from a residential youth service to propose a predictive model of absconding behaviours, and novel data from an online survey to explore the harm experienced by young absconders who may have been criminally exploited. A case assessment was presented to apply findings to a live example and strengthen recommendations for practice. Lastly, a critical review of existing intervention is published to open dialogue around current responses to young runaways.

Findings contribute to the current evidence base by exploring risk factors for absconding from care, links between running away and offending, the psychological harm episodes have on youth and the current tools used in the UK to address youth runaways and understand their experiences. This thesis highlights important concepts to consider in practical application, such as who is likely to abscond, the typical crimes committed by young runaways, and the harm they might experience as a result. Overall, it can be suggested that factors related to experience of harm and involvement in offending have significant influences in the causation of running away as well as appearing to be a consequence of going missing.

It is hoped that the current research findings presented, and recommendations for both practice and future research, can be considered by practitioners working with youth at risk of absconding, exploitation, or involved in crime whilst away, to improve identification of risk and trauma-informed support offered to vulnerable youth. It goes without saying that despite efforts to improve the reliability and practicality of tools to support young people, efforts also need to be directed to more widely tackling the root causes of cultures that foster links to exploitation and harm of young people, considering social and economic marginalisation of young people and their families.

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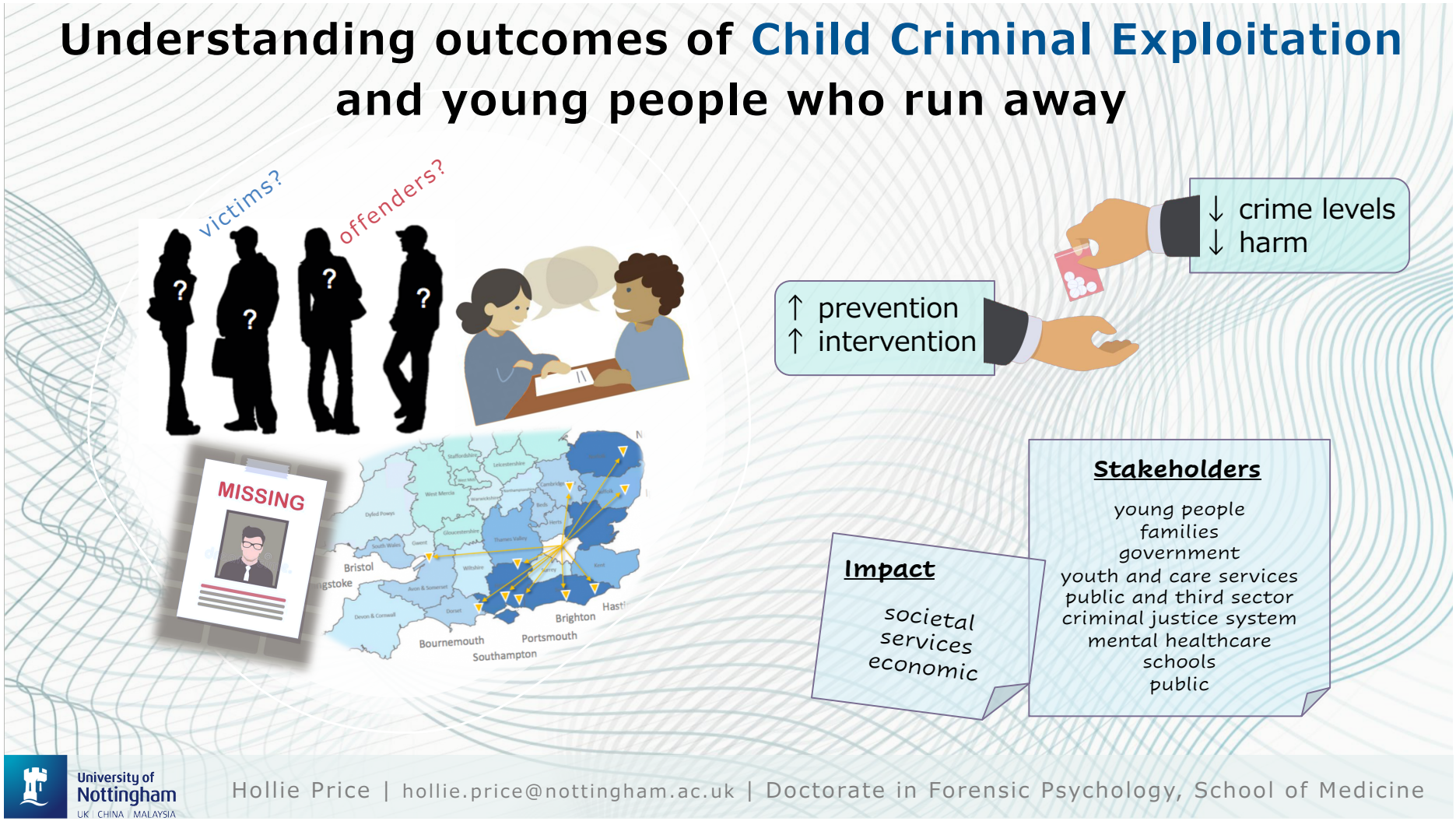
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Appendices

Appendix A
Poster presented at the School of Medicine Postgraduate Research Impact Forum



Appendix B
Certificate of attendance to Postgraduate Research Impact Forum



University of Nottingham
UK | CHINA | MALAYSIA

Certificate

This is to certify that

Hollie Price

Has participated and contributed to:

School of Medicine

Postgraduate Research Impact Forum

2020

Prof. I Sayers

Prof. Ian Sayers

Director of Doctoral Programmes
School of Medicine

18th September 2020

School of Medicine, University of Nottingham

Appendix C
Full search inclusion and exclusion form

Author:
Date:
Country:

Inclusion criteria	Criterion met?	Comment
Publication type / study design: see list	Yes Unclear Discuss No	
Population: age 10-18	Yes Unclear Discuss No	
Exposure: missing Comparator?	Yes Unclear Discuss No	
Outcomes: crime % or types, exploit	Yes Unclear Discuss No	

INCLUDE / EXCLUDE

Author:
Date:
Country:

Inclusion criteria	Criterion met?	Comment
Publication type / study design: see list	Yes Unclear Discuss No	
Population: age 10-18	Yes Unclear Discuss No	
Exposure: missing Comparator?	Yes Unclear Discuss No	
Outcomes: crime % or types, exploit	Yes Unclear Discuss No	

INCLUDE / EXCLUDE

Appendix D

The Observational Study Quality Evaluation (OSQE; Drukker *et al.*, 2021) assessment tools for cross-sectional, cohort and case-control study designs

Observational study Quality Evaluation (cross-sectional studies) Name first author and year: _____		Star	Type 1 to score	VETO	Comments and explanation
	Representativeness				
1	Is the sample optimal for both internal validity and representativeness? Take into account all items (only when a, b, c and d obtain a yes (score 1) item 1 receives a star)	-			
	a) In- and exclusion criteria --> is the internal validity optimal?				
	b) In- and exclusion criteria --> is the external validity optimal?				
	c) Is selection proces transparant, leading to representative sample?				
	d) Do reasons for refusal **not** point at non-representative data?				
	e) Unknown				
	Independent variable: exposure, intervention, or risk factor				
3	Is the assessment of the main independent variable valid?	-			
	Yes				
	No				
	Unknown				
4	Is the presence of the independent variable optimal? (i.e. severity of exposure, compliance, fidelity to intervention, presence of risk factor, discontinuation of exposure)	-			
	Yes				
	No				
	Unknown				
	Dependent variable				
5	Is the assessment of the dependent variable valid?	-			
	Yes				
	No				
	Unknown				
	Other				
12	Is there a conflict of interest? (e.g. funding or connections with pharmacological industry)	-			
	No				
	Yes				
	Unknown				
	Comparability / control for confounders				
13	Does the statistical analysis control for the relevant confounders? *This also includes cointerventions*	-			
	Yes				
	No				
	Unknown				
14	Did the reporting of the results follow a protocol? In other words, were only *a priory* intended analyses reported? *As opposed to cherry picking*	-			
	Yes				
	No				
	Unknown				
	Optional				
11	Did the authors use methods to properly deal with missing data?	-			
	There were no missing data				
	Yes				
	No				
	Unknown				
15	Are effect modifiers analysed correctly?	-			
	Yes				
	No				
	Unknown				
16	**Systematic reviews and CATs:** Is sample size sufficient, looking at calculations/explanation provided by the authors?	-			
	Yes				
	No				
	Unknown				
	Reporting (score 1 if yes)				
I	Are the objectives clearly stated?				
II	Are background characteristic provided?				
III	Are background characteristic provided stratified by the most relevant exposure or treatment?				
IV	Is statistical analysis described?				
	Sum of stars:	0			
	Veto	0			Any veto: study will be placed in the low-validity group, despite any stars on other items

Observational Study Quality Evaluation (cohort studies)
Name first author and year: _____

		Star	Type 1 to score	VETO	Comments and explanation
	Representativeness				
1	Is the sample optimal for both internal validity and representativeness? Take into account all items (only when a, b, c and d obtain a yes (score 1) item 1 receives a star)	-			
	a) In- and exclusion criteria --> is the internal validity optimal?				
	b) In- and exclusion criteria --> is the external validity optimal?				
	c) Is selection proces transparant, leading to representative sample?				
	d) Taking into account reasons why participants refuse, do you think data are representative?				
	e) Unknown				
2	Is the cohort really one cohort or are there sub-cohorts? (e.g. an exposed and an unexposed cohort):	-			
	One cohort obtained from one population				
	Exposed and unexposed are collected in different cohorts, but cohorts are obtained from the same population				
	Two or more cohorts obtained from different populations				
	Unknown				
	Independent variable: exposure, intervention, or risk factor				
3	Is the assessment of the main independent variable valid?	-			
	Yes				
	No				
	Don't know				
4	Is the presence of the independent variable optimal? (i.e. severity of exposure, compliance, fidelity to intervention, presence of risk factor, discontinuation of exposure)	-			
	Yes				
	No				
	Unknown				
	Dependent variable				
5	Is the assessment of the dependent variable valid?	-			
	Yes				
	No				
	Unknown				
6	Was exposure unknown to assessor?	-			
	Assessor was blind for exposure				
	Outcome was obtained from medical files or registries				
	Neither of those				
	Unknown				
7	Were subjects where the outcome was present at baseline excluded?	-			
	Yes				
	No				
	Unknown				
8	Is follow-up sufficiently long to assess the outcome?	-			
	Yes				
	No				
	Unknown				
9	Is the outcome assessed continuously?	-			
	Outcome is assessed continuously				
	Outcome is not assessed continuously, but variation in outcome between assessment is not possible (e.g. death)				
	Information between assessments could have been missed (e.g. relapse and recovery)				
	Unknown				
	Loss to follow-up				
10	Does loss to follow-up likely introduce bias?	-			
	No, follow-up is 100%				
	No, loss to follow-up lower than 10%				
	No, loss to follow-up is higher than 10%, but it is non-selective				
	Yes, loss to follow-up is higher than 10%				
	Unknown				
11	Did the authors use methods to properly deal with missing data? (incl. loss to follow-up)	-			
	There were no missing data				
	Yes				
	No				
	Unknown				
12	Is there a conflict of interest? (e.g. funding or connections with pharmacological industry)	-			
	No				
	Yes				
	Unknown				
	Miscelaneous				
13	Does the statistical analysis control for the relevant confounders? *This also includes cointerventions*	-			
	Yes				
	No				
	Unknown				
14	Did the reporting of the results follow a protocol? In other words, were only *a priory* intended analyses reported? *As opposed to cherry picking*	-			
	Yes				
	No				
	Unknown				
	Optional				
15	Are effect modifiers analysed correctly?	-			
	Yes				
	No				
	Unknown				
16	**Systematic reviews and CATs:** Is sample size sufficient, looking at calculations/explanation provided by the authors?	-			
	Yes				
	No				
	Unknown				
	Reporting (score 1 if yes)				
I	Are the objectives clearly stated?				
II	Are background characteristic provided?				
III	Are background characteristic provided stratified by the most relevant exposure or treatment?				
IV	Is statistical analysis described?				
	Sum of stars:	0			
	Veto	0			Any veto: study will be placed in the low-validity group, despite any stars on other items

Observational Study Quality Evaluation (case-control studies)

Name first author and year: _____

		Star	Type 1 to score	VETO	Comments and explanation
	Representativeness				
1	Is the sample optimal for both internal validity and representativeness? Take into account all items (only when a, b, c and d obtain a yes (score 1) item 1 receives a star)	-			
	a) In- and exclusion criteria --> is the internal validity optimal?				
	b) In- and exclusion criteria --> is the external validity optimal?				
	c) Is selection proces transparant, leading to representative sample?				
	d) Taking into account reasons why participants refuse, do you think data are representative?				
	e) Unknown				
2	Is the data collected in one population or are cases and controls selected in different populations?	-			
	Cases and controls stem from the same source population, i.e. community controls				
	Hospital controls				
	Controls are selected from a different source population than the cases				
	Unknown				
	Independent variable: exposure, intervention, or risk factor				
3	Is the assessment of the main independent variable valid?	-			
	Yes				
	No				
	Unknown				
4	Is the presence of the independent variable optimal? (i.e. severity of exposure, compliance, fidelity to intervention, presence of risk factor, discontinuation of exposure)	-			
	Yes				
	No				
	Unknown				
5	Is the method of assessment independent variable the same in cases and controls?	-			
	Yes				
	No				
	Unknown				
	Dependent variable				
6	Is assessment of the dependent variable valid? (In other words: Is case definition adequate?)	-			
	Yes				
	No				
	Unknown				
7	Do controls have a history of the disease?	-			
	No				
	Yes				
	Unknown				
8	Is follow-up sufficiently long to assess the outcome?	-			
	Yes				
	No				
	Unknown				
	Non-response				
9	Does non-response likely introduce bias?	-			
	No, response is higher than ..%				
	No				
	Yes				
	Unknown				
10	Is non-response similar in cases and controls?	-			
	Yes				
	No				
	Unknown				
11	Did the authors use methods to properly deal with missing data? (including loss to follow-up)	-			
	There were no missing data				
	Yes				
	No				
	Unknown				
12	Is there a conflict of interest? (e.g. funding or connections with pharmacological industry)	-			
	No				
	Yes				
	Unknown				
	Comparability / control for confounders				
13	Does the statistical analysis control for the relevant confounders? *Also take into account matching*	-			
	Yes				
	No				
	Unknown				
14	Did the reporting of the results follow a protocol? In other words, were only *a priory* intended analyses reported? *As opposed to cherry picking*	-			
	Yes				
	No				
	Unknown				
	Optional				
15	Are effect modifiers analysed, correctly?	-			
	Yes				
	No				
	Unknown				
16	**Systematic reviews and CATs:** Is sample size sufficient, looking at calculations/explanation provided by the authors?	-			
	Yes				
	No				
	Unknown				
	Reporting (score 1 if yes)				
I	Are the objectives clearly stated?				
II	Are background characteristic provided?				
III	Are background characteristic provided stratified by the cases and controls?				
IV	Is statistical analysis described?				
	Sum of stars:	0			
	Veto	0			Any veto: study will be placed in the low-validity group, despite any stars on other items

Appendix E

Table of excluded articles and reason for exclusion at full text screening (*N* = 77)

	Reference	Reason for exclusion
1	Agoff, C., Fondevila, G., & Vilalta-Perdomo, C. (2022). Family violence and runaway children in prisoner populations of Latin America. *International Journal of Comparative and Applied Criminal Justice*.	No measure of criminal offending but assumed using prisoner population
2	Ang, R. P., & Huan, V. S. (2008). Predictors of recidivism for adolescent offenders in a Singapore sample. *Criminal Justice and Behavior, 35*(7), 895-905.	Running away as an independent variable not tested against crime
3	Antonini, G., & Corberi, G. (1935). The running away of adolescents. *Le fughe degli adolescenti., 31*, 247-261	Unable to access
4	Armstrong, C. P. (1932). 660 runaway boys. Why boys desert their homes. *660 runaway boys. Why boys desert their homes.*	Unable to access
5	Attar-Schwartz, S. (2013). Runaway behavior among adolescents in residential care: The role of personal characteristics, victimization experiences while in care, social climate, and institutional factors. *Children and Youth Services Review, 35*(2), 258-267.	Age exceeded criteria (11-19 years), reported adjustment difficulties but not crime
6	Baron, S. W. (1997). Risky lifestyles and the link between offending and victimization. *Studies on Crime & Crime Prevention, 6*(1), 53-71.	Homeless population, age exceeded criteria (*M* = 18.86)
7	Bender, K. (2010). Why do some maltreated youth become juvenile offenders?: A call for further investigation and adaptation of youth services. *Children and Youth Services Review, 32*(3), 466-473.	Based upon existing evidence, no empirical design
8	Bezeczky, Z., & Wilkins, D. (2022). Repeat missing child reports: Prevalence, timing, and risk factors. *Children and Youth Services Review, 136*, 1-8.	No measure of criminal offending
9	Biehal, N., & Wade, J. (1999). Taking a chance? The risks associated with going missing from substitute care. *Special Issue: Children in public care., 8*(6), 366-376.	Uses same data as Biehal & Wade (2000) in less detail
10	Booth, R. E., & Zhang, Y. (1996). Severe aggression and related conduct problems among runaway and homeless adolescents. *Psychiatric Services, 47*(1), 75-80.	Measured prior criminal convictions and only current 'severe aggressive behaviour'
11	Browne, K., & Falshaw, L. (1998). Street children and crime in the UK: A case of abuse and neglect. *Child Abuse Review, 7*(4), 241-253.	Non empirical
12	Bryant, E. S., Rivard, J. C., Addy, C. L., Hinkle, K. T., Cowan, T. M., & Wright, G. (1995). Correlates of Major and Minor Offending Among Youth with Severe Emotional Disturbance. *Journal of Emotional and Behavioral Disorders, 3*(2), 76-84.	No measure of criminal offending whilst away

13	Burgess-Proctor, A., Huebner, B. M., & Durso, J. M. (2016). Comparing the effects of maternal and paternal incarceration on adult daughters' and sons' criminal justice system involvement: A gendered pathways analysis. *Criminal Justice and Behavior, 43*(8), 1034-1055.	Running away as an independent variable not tested against crime, no measure of criminal offending whilst away
14	Byrne, A. M. (2014). Children and youth who run away from substitute care: A qualitative and quantitative analysis. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 74*(9)	Age exceeded criteria (16-24 years), no measure of criminal offending whilst away
15	Carlson, B. E. (1991). Outcomes of physical abuse and observation of marital violence among adolescents in placement. *Journal of Interpersonal Violence, 6*(4), 526-534.	Unable to access
16	Chamberlain, P., & Moore, K. (1998). A clinical model for parenting juvenile offenders: A comparison of group care versus family care. *Special Issue: Parenting, 3*(3), 375-386.	In care population not runaways, measure of previous arrests not criminal offending whilst away
17	Chapple, C. L., Johnson, K. D., & Whitbeck, L. B. (2004). Gender and arrest among homeless and runaway youth: An analysis of background, family, and situational factors. *Youth Violence and Juvenile Justice, 2*(2), 129-147.	No record of types of crime, also listed by authors as limitation
18	Chen, X. J., Thrane, L., Whitbeck, L. B., & Johnson, K. (2006). Mental disorders, comorbidity, and postrunaway arrests among homeless and runaway adolescents. *Journal of Research on Adolescence, 16*(3), 379-402.	Age exceeded criteria (16-19 years), homeless population
19	Chen, X. J., Thrane, L., Whitbeck, L. B., Johnson, K. D., & Hoyt, D. R. (2007). Onset of conduct disorder, use of delinquent subsistence strategies, and street victimization among homeless and runaway adolescents in the Midwest. *Journal of Interpersonal Violence, 22*(9), 1156-1183.	Same sample as Chen *et al*. (2006), focus on conduct disorder
20	Choquet, M., Menke, H., & Manfredi, R. (1991). Interpersonal aggressive behaviour and alcohol consumption among young urban adolescents in France. *Alcohol and Alcoholism, 26*(4), 381-390.	Running away as an independent variable not tested against crime
21	Craig, T. K., & Hodson, S. (2000). Homeless youth in London: II. Accommodation, employment and health outcomes at 1 year. *Psychological Medicine, 30*(1), 187-194.	Age exceeded criteria (16-21 years), homeless population
22	Crawford, D. M., Whitbeck, L. B., & Hoyt, D. R. (2011). Propensity for violence among homeless and runaway adolescents: An event history analysis. *Crime & Delinquency, 57*(6), 950-968.	Homeless population, focused on violence but not crime
23	Crosland, K., Haynes, R. D., Jr., & Clarke, S. (2020). The Functional Assessment Interview for Runaways (FAIR): An Assessment Tool to Assist with Behavior Support Plan Development to Reduce Runaway Behavior: C & A. *Child & Adolescent Social Work Journal, 37*(1), 73-82.	Non empirical
24	Datesman, S. K., & Aickin, M. (1984). Offense specialization and escalation among status offenders. *Journal of Criminal Law & Criminology, 75*(4), 1246-1275.	Population age unclear, previous runaway charges (USA) rather than active population

25	De La Rue, L., & Espelage, D. L. (2014). Family and abuse characteristics of gang-involved, pressured-to-join, and non-gang-involved girls. *Psychology of Violence, 4*(3), 253-265.	Some of population runaways but main focus on gangs, no criminal offending variable
26	DeHart, D., Lynch, S., Belknap, J., Dass-Brailsford, P., & Green, B. (2014). Life history models of female offending: The roles of serious mental illness and trauma in women's pathways to jail. *Psychology of Women Quarterly, 38*(1), 138-151.	Age exceeded criteria (17-55 years), not current runaways
27	Dehbozorgi, G. R. (2011). A survey of the demographic, personality and psychopathology characteristics of the runaway girls. *European Psychiatry, 26*	Unable to access
28	Deosaran, R., & Chadee, D. (1997). Juvenile delinquency in Trinidad and Tobago: Challenges for social policy and Caribbean criminology. *Caribbean Journal of Criminology & Social Psychology, 2*(2), 36-83.	Criminal offending and running away as separate variables not compared
29	Famularo, R., Kinscherff, R., Fenton, T., & Bolduc, S. M. (1990). Child maltreatment histories among runaway and delinquent children. *Clinical Pediatrics, 29*(12), 713-718.	Criminal offending and running away as separate variables not compared
30	Fors, S. W., & Rojek, D. G. (1991). A comparison of drug involvement between runaways and school youths. *Journal of Drug Education, 21*(1), 13-25.	Age exceeded criteria (12-20 years), attitudes towards illegal behaviour measured rather than criminal offending
31	Freeman, E. M. (1993). Developing alternative family structures for runaway, drug-addicted adolescents. *Substance abuse treatment: A family systems perspective.*, 48-70.	Non empirical
32	Gambon, T. B., & Gewirtz O'Brien, J. R. (2020). Runaway Youth: Caring for the Nation's Largest Segment of Missing Children. *Pediatrics*.	Non empirical
33	Gary, F. A., & Campbell, D. W. (1998). The struggles of runaway youth: Violence and abuse. *Empowering survivors of abuse: Health care for battered women and their children.*, 156-173.	Non empirical
34	Grinnell, R. M., & Loftis, M. (1977). The runaway youth. *Journal of Sociology and Social Welfare, 4*(7), 1122-1131.	Focus on recidivism rather than types of crime
35	Henriksen, A. K. (2022). "It's my life they are talking about" - On children's participation in decision-making for secure placement. *Qualitative Social Work, 21*(4), 783-799.	Missing as reason for secure placement, no report of crime
36	Herrera, V. M. (2002). Family influences on adolescent depression and delinquency: Gender differences in risk. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 62*(9-B), 4219.	Criminal offending and running away as separate variables not compared
37	Herrera, V. M., & McCloskey, L. A. (2003). Sexual abuse, family violence, and female delinquency: Findings from a longitudinal study. *Violence and Victims, 18*(3), 319-334.	Criminal offending and running away as separate variables not compared
38	Hill, B. (1953). An experiment in treating seriously disturbed juvenile delinquent boys. *Psychiatric Quarterly Supplement, 27*, 105-119.	No record of types of crime, focus on psychotherapy
39	Hutchings, E., Browne, K. D., Chou, S., & Wade, K. (2019). Repeat missing child reports in Wales. *Child Abuse & Neglect, 88*, 107-117.	No measure of criminal offending whilst away

40	Janus, M. D., Burgess, A. W., & McCormack, A. (1987). Histories of sexual abuse in adolescent male runaways. *Adolescence, 22*(86), 405-417.	Age exceeded criteria (15-20 years), types of crime not reported
41	Jeanis, M. N. (2018). Chronic runaway youth: A gender-based analysis. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 79*	History of offending rather than crime whilst away
42	Jeanis, M. N., Fox, B. H., & Muniz, C. N. (2019). Revitalizing Profiles of Runaways: A Latent Class Analysis of Delinquent Runaway Youth: C & A. *Child & Adolescent Social Work Journal, 36*(2), 171-187.	History of at least one arrest on record, not whilst away
43	Johansson, P., & Kempf-Leonard, K. (2010). A gender-specific pathway to serious, violent, and chronic offending? Exploring Howell's risk factors for serious delinquency. *Evidence-based practice in the field of substance abuse: A book of readings.*, 85-103	Only 4.4% runaway population, no measure of criminal offending whilst away
44	Kaufman, J. G., & Widom, C. S. (1999). Childhood victimization, running away, and delinquency. *Journal of Research in Crime and Delinquency, 36*(4), 347-370.	Age exceeded criteria (*M* = 28.7 years), no measure of criminal offending whilst away
45	Kirby, S., & Middleham, N. (2005). Reducing misery and saving money - how partners can make a difference in reducing the incidence of young runaways. *Community Safety Journal, 4*(4), 10-13.	Non empirical
46	Kjelsberg, E. (2002). DSM-IV conduct disorder symptoms in adolescents as markers of registered criminality. *European Child & Adolescent Psychiatry, 11*(1), 2-9.	Running away as an independent variable not tested against crime
47	Lubeck, S. G., & Empey, L. T. (1968). Mediatory vs. total institution: The core of the runaway. *Social Problems, 16*(2), 242-260.	History of at least one arrest on record, not whilst away
48	Machinski, N. (2009). Gender differences in risk and protective factors of repeat juvenile offenders. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 69*(10-B), 6423.	Unable to access
49	Mansion, A. (2018). *Differences in Offending among Bisexual and Heterosexual Youth: The Influence of Maternal Support and Running Away from Home.* (Ph.D.). Arizona State University, United States -- Arizona.	Only 7.4% runaway population, no measure of criminal offending whilst away
50	Martijn, C., & Sharpe, L. (2006). Pathways to youth homelessness. *Social science & medicine (1982), 62*(1), 1-12.	Age exceeded criteria (14-25 years), homeless population
51	Martinez, R. J. (2006). Understanding runaway teens. *Journal of Child and Adolescent Psychiatric Nursing, 19*(2), 77-88.	No measure of criminal offending beyond violating court orders, or whilst away
52	McCarthy, B., & Hagan, J. (1992). Surviving on the street: The experiences of homeless youth. *Journal of Adolescent Research, 7*(4), 412-430.	Age exceeded criteria (16-19 years), homeless population
53	McClendon, J. R. (2010). Who uses community-based youth shelters? An inter-group and intra-group analysis. *Dissertation Abstracts International Section A: Hu*	No measure of criminal offending, listed as limitation

54	McGarvey, E. L., Cantebury, R. L., & Waite, D. (1996). Delinquency and family problems in incarcerated adolescents with and without a history of inhalant use. *Addictive Behaviors, 21*(4), 537-542.	Running away as an independent variable not tested against crime, focused on inhalant use
55	McIntyre, J. K., & Spatz Widom, C. (2011). Childhood victimization and crime victimization. *Journal of Interpersonal Violence, 26*(4), 640-663.	Age exceeded criteria (*M* = 39.5), running away as an independent variable not tested against crime
56	Meltzer, H., Ford, T., Bebbington, P., & Vostanis, P. (2012). Children who run away from home: Risks for suicidal behavior and substance misuse. *Journal of Adolescent Health, 51*(5), 415-421.	Age exceeded criteria (16-34 years), only 7% runaways, no report of criminal offending
57	Menon, S. E., Parrish, D., & Zhao, Q. (2023). Risk and protective factors of juvenile justice involvement among post-adjudicated young women. *Child & Adolescent Social Work Journal*,	No measure of criminal offending whilst away
58	Miksaj-Todorovic, L., & Budanovac, A. (1998). Some personal and behavioral characteristics of juvenile delinquents and regions where they live in Croatia. *Neka osobna i ponasajna obiljezja malodobnih delinkvenata s obzirom na regiju prebivanja u Republici Hrvatskoj., 6*(1), 1-20.	Not written in English language, running away as an independent variable not tested against crime
59	Mitchell, S., & Rosa, P. (1981). Boyhood behaviour problems as precursors of criminality: A fifteen-year follow-up study. *Child Psychology & Psychiatry & Allied Disciplines, 22*(1), 19-33.	No measure of criminal offending whilst away
60	Montgomery, K. L., Thompson, S. J., & Barczyk, A. N. (2011). Individual and relationship factors associated with delinquency among throwaway adolescents. *Children and Youth Services Review, 33*(7), 1127-1133.	Throwaway (forced to leave) population rather than runaways
61	Morewitz, S. J. (2016). Runaway and homeless youth: New research and clinical perspectives. *Runaway and homeless youth: New research and clinical perspectives.*	Non empirical
62	Nystrom, A., Richards, T. N., Wood, H., Cox, L. M., & Gross, M. (2022). Examining missingness among children in out-of-home care placement in Nebraska. *Child Abuse & Neglect, 134*, 1-11.	No measure of criminal offending, only risk of criminal activity
63	Ortiz-Schumeyer, Z. (2009). Factors leading to high recidivism rates among juvenile delinquents at three correctional facilities in New York city. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 69*(11-A), 4518.	Teacher population not direct runaways, focus on recidivism not crime
64	Ozen, S., Ece, A., Oto, R., Tirasci, Y., & Goren, S. (2005). Juvenile delinquency in a developing country: A province example in Turkey. *International Journal of Law and Psychiatry, 28*(4), 430-441.	Age exceeded criteria (10-19 years), running away as an independent variable not tested against crime
65	Park, S., Morash, M., & Stevens, T. (2010). Gender differences in predictors of assaultive behavior in late adolescence. *Youth Violence and Juvenile Justice, 8*(4), 314-331.	Focus on assaults, no report of wider criminal offending and not whilst away

66	Payne, M. (1995). Understanding `going missing': issues for social work and social services. *British Journal of Social Work, 25*(3), 333-348.	Non empirical
67	Pobanz, M. S. (2001). Using protective factors to enhance the prediction of negative short-term outcomes of first-time juvenile offenders. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 62*(5-A), 1948.	Running away as a risk factor for delinquency, no measure of criminal offending whilst away
68	Quinn, C. R. (2015). Exploring gender differences in juvenile offenders: Understanding girls on probation. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 76*(1	Running away as an independent variable not tested against crime
69	Stevenson, E., & Thomas, S. D. M. (2018). A 10 year follow-up study of young people reported missing to the police for the first time in 2005. *Journal of Youth Studies, 21*(10), 1361-1375.	Age exceeded criteria (1-25 years), criminal trajectories not whilst missing
70	Thompson, S. J., & Pollio, D. E. (2006). Adolescent Runaway Episodes: Application of an Estrangement Model of Recidivism. *Social Work Research, 30*(4), 245-251.	No measure of current criminal offending
71	Thrane, L., Chen, X., Johnson, K., & Whitbeck, L. B. (2008). Predictors of police contact among Midwestern homeless and runaway youth. *Youth Violence and Juvenile Justice, 6*(3), 227-239.	Age exceeded criteria (16-19 years), homeless population
72	Toubaei, S., Nateghi, G., Dehbozorgi, G. R., & Esfahani, H. S. (2012). Demographic, personality and psychopathology characteristics of the runaway girls in social emergency and rehabilitation centre of Shiraz, Iran. *Iranian Journal of Psychiatry and Behavioral Sciences, 6*(1), 33-39.	Age exceeded criteria (*M* = 19.9 years), focus on escaped population not runaway, crime seeking not offending
73	Tyler, K. A., Kort-Butler, L. A., & Swendener, A. (2014). The effect of victimization, mental health, and protective factors on crime and illicit drug use among homeless young adults. *Violence and Victims, 29*(2), 348-362	Age exceeded criteria (16-19 years), homeless population
74	Walsh, S. M., & Donaldson, R. E. (2010). Invited commentary: National safe place: Meeting the immediate needs of runaway and homeless youth. *Journal of Youth and Adolescence, 39*(5), 437-445.	Non empirical
75	Werb, D., Kerr, T., Li, K., Montaner, J., & Wood, E. (2008). Risks surrounding drug trade involvement among street-involved youth. *The American Journal of Drug and Alcohol Abuse, 34*(6), 810-820.	'Street involved' population rather than missing or criminal offending
76	Whitbeck, L. B., & Simons, R. L. (1993). A comparison of adaptive strategies and patterns of victimization among homeless adolescents and	Homeless population
77	Windle, J., & Briggs, D. (2015). 'It's like working away for two weeks': The harms associated with young drug dealers commuting from a saturated London drug market. *Crime Prevention and Community Safety, 17*(2), 105-119.	Population not defined as runaways, no measure of direct criminal offending

Appendix F
Quality assessment of included studies using The Observational Study Quality Evaluation (OSQE; Drekker *et al*., 2021) tools for cross-sectional, cohort and case control study designs

Study design (sorted by)		Article author and year	Quality assessment item														Total	Quality (%)
			1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Cross-sectional	**2**	Biehal & Wade (2000)	Y	-	Y	Y	Y	-	-	-	-	-	U	Y	Y	N	6/8	75
	3	Boulton *et al*. (2023)	Y	-	Y	Y	Y	-	-	-	-	-	Y	Y	U	Y	7/8	88
	6	Howell, Emmons & Frank (1973)	N	-	Y	Y	Y	-	-	-	-	-	Y	U	N	Y	5/8	63
	7	Hunt (2021)	N	-	Y	Y	Y	-	-	-	-	-	Y	Y	Y	Y	7/8	88
	9	Kempf-Leonard & Johansson (2007)	Y	-	Y	Y	Y	-	-	-	-	-	Y	Y	Y	U	7/8	88
	11	Shalev Greene (2011)	N	-	Y	Y	Y	-	-	-	-	-	U	Y	N	Y	5/8	63
	12	Wade *et al.* (1998)	N	-	N	Y	Y	-	-	-	-	-	Y	Y	U	Y	5/8	63
	13	Yoder *et al*. (2005)	Y	-	Y	Y	Y	-	-	-	-	-	U	Y	Y	Y	7/8	88
Cohort	**1**	Allen (2005)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	12/14	86
	5	Francis (2008)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	14/14	100
	8	Jeanis *et al*. (2020)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	U	Y	11/14	79
Case control	**4**	Brennan, Huizinga & Elliott (1978)	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	U	Y	U	Y	11/14	79
	10	Sarri *et al*. (2016)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	14/14	100

Y = Yes (where Y indicates the scoring of a star in the OSEQ); N = No; U = Unknown

Cross-sectional: 1: Is the sample optimal for both internal validity and representativeness? Take into account all items (only when a, b, c and d obtain a yes (score 1) item 1 receives a star)
3: Is the assessment of the main independent variable valid?
4: Is the presence of the independent variable optimal? (i.e. severity of exposure, compliance, fidelity to intervention, presence of risk factor, discontinuation of exposure)
5: Is the assessment of the dependent variable valid?
11: Did the authors use methods to properly deal with missing data?
12: Is there a conflict of interest? (e.g. funding or connections with pharmacological industry)
13: Does the statistical analysis control for the relevant confounders? This also includes cointerventions
14: Did the reporting of the results follow a protocol? In other words, were only a priory intended analyses reported? As opposed to cherry picking
i: Are the objectives clearly stated?
ii: Are background characteristic provided?
iii: Are background characteristic provided stratified by the most relevant exposure or treatment?
iv: Is statistical analysis described?

Cohort: 1: Is the sample optimal for both internal validity and representativeness? Take into account all items (only when a, b, c and d obtain a yes (score 1) item 1 receives a star)
2: Is the cohort really one cohort or are there sub-cohorts? (e.g. an exposed and an unexposed cohort)
3: Is the assessment of the main independent variable valid?
4: Is the presence of the independent variable optimal? (i.e. severity of exposure, compliance, fidelity to intervention, presence of risk factor, discontinuation of exposure)
5: Is the assessment of the dependent variable valid?
6: Was exposure unknown to assessor?
7: Were subjects where the outcome was present at baseline excluded?
8: Is follow-up sufficiently long to assess the outcome?
9: Is the outcome assessed continuously?
10: Does loss to follow-up likely introduce bias?
11: Did the authors use methods to properly deal with missing data? (incl. loss to follow-up)
12: Is there a conflict of interest? (e.g. funding or connections with pharmacological industry)
13: Does the statistical analysis control for the relevant confounders? This also includes cointerventions
14: Did the reporting of the results follow a protocol? In other words, were only a priory intended analyses reported? As opposed to cherry picking
i: Are the objectives clearly stated?
ii: Are background characteristic provided?
iii: Are background characteristic provided stratified by the most relevant exposure or treatment?
iv: Is statistical analysis described?

Case control: 1: Is the sample optimal for both internal validity and representativeness? Take into account all items (only when a, b, c and d obtain a yes (score 1) item 1 receives a star)

2: Is the sample optimal for both internal validity and representativeness? Take into account all items (only when a, b, c and d obtain a yes (score 1) item 1 receives a star)

3: Is the assessment of the main independent variable valid?

4: Is the presence of the independent variable optimal? (i.e. severity of exposure, compliance, fidelity to intervention, presence of risk factor, discontinuation of exposure)

5: Is the method of assessment independent variable the same in cases and controls?

6: Is assessment of the dependent variable valid? (In other words: Is case definition adequate?)

7: Do controls have a history of the dependent variable?

8: Is follow-up sufficiently long to assess the outcome?

9: Does non-response likely introduce bias?

10: Is non-response similar in cases and controls?

11: Did the authors use methods to properly deal with missing data? (including loss to follow-up)

12: Is there a conflict of interest? (e.g. funding or connections with pharmacological industry)

13: Does the statistical analysis control for the relevant confounders? Also take into account matching

14: Did the reporting of the results follow a protocol? In other words, were only a priory intended analyses reported? As opposed to cherry picking

i: Are the objectives clearly stated?

ii: Are background characteristic provided?

iii: Are background characteristic provided stratified by the most relevant exposure or treatment?

iv: Is statistical analysis described?

Appendix G
Data extraction form

Data extraction

1) Study Information:			
Study ID			
Author(s)			
Paper title			
Journal or book title			
Year published			
Article type (e.g., journal, thesis)			
Country research completed			
2) Study characteristics:			Location
Quantitative ☐		Mixed methods ☐	
Study design (e.g., cohort etc)			
Study aims			
Study setting			
Exposure factors	How were runaways defined and measured?	Defined:	
		Measures used:	
		Evaluation:	
	How was criminal offending defined and measured?	Defined:	
		Measures used:	
		Evaluation:	
3) Participant characteristics:			

N			
Group/recruitment method			
Age	Range:	Mean:	
Gender breakdown			
Ethnicity breakdown			
4) Study results *relevant to review question* (mark with cross if not explored)			
Gender	Analysis used and appropriateness		
	Findings		
Ethnicity	Analysis		
	Findings		
Missing from home or care	Analysis		
	Findings		
Length of time away	Analysis		
	Findings		
Single or repeat episodes	Analysis		
	Findings		
5) Conclusion/summary:			

6) Strengths and limitations	
7) Quality assessment score:	
8) Any other important/relevant information:	

Appendix H
List of excluded variables (*N* = 92)

Variable	Label	Variable	Label
year	Year of admission	nursy	Number of nursery schools attended
addat	Date of admission	infan	Number of infants and junior schools attended
bthdt	Date of birth		
disyear	Year of discharge	senior	Number of senior schools attended
disdt	Date of discharge	spsch	Number of special schools attended
disag	Age on discharge	lgegp	Able to work in large groups
unit	Location	smlgp	Able to work in small groups
sex	Gender	teach	Needs one to one teaching
sectn	Legal status	readg	Current reading age
senyr	Length of sentence: years	spell	Current spelling age
careder	Date of first care order	maths	Current maths age
crtyp	Type of care	iq	IQ on admission
secorder	Date of first secure order	pefiq	WISC/WAIS performance IQ
wght	Weight as admission (kgs)	vebiq	WISC/WAIS verbal IQ
hght	Height at admission (metres)	test	Test please specify
mixra	Mixed race please specify	mum	Mother
sveld	Elderly victims of sexual misconduct	moccu	Occupation – mother
		mpsych	Psychiatric illness – mother
svadt	Adult victims of sexual misconduct	dad	Father
svtee	Teenage victims of sexual misconduct	doccu	Occupation – father
		dpsych	Psychiatric illness – father
svkid	Child victims of sexual misconduct	stepm	Step-mother or co-habitee
svfam	Victims of sexual misconduct within own family	smlve	Step-mother or co-habitee
		smno	Number of step-mothers or co-habitees
misot	Miscellaneous offences – other		
rabsc	Risk of absconding	smocc	Occupation – step-mother
sight	Sight problems	smpsy	Psychiatric illness – step-mother
hear	Hearing problems	stepf	Step-father or co-habitee
lang	Language delay / speech difficulties	sflve	Step-father or co-habitee
		sfno	Number of step-fathers or co-habitees
movem	Co-ordination / movement problems		
		sfocc	Occupation – step-father
emotp	Behavioural / movement problems	sfpsy	Psychiatric illness – step-father
physd	Physically disadvantaged	careg	Primary caregiver (if not parents or step-parent)
outcm	(following pregnancy variable) – if yes what was the outcome		
		nobro	Number of brothers
nochd	Number of children	nohbro	Number of half brothers
diabe	Diabetes	bcare	Brothers in care
fits	Epilepsy / fits / seizures	brabu	Brothers known to be abused
asthma	Asthma	bharm	Brothers using self-harm (inc. dg/al abuse)
eczma	Eczema		
enure	Enuresis (bed wetting)	nosis	Number of sisters
encup	Encopresis (soiling)	nohsis	Number of half sisters
eatdi	Anorexia / bulimia	scare	Sisters in care
eatprob	Eating problems short of eating disorders	siabu	Sisters known to be abused
		sharm	Sisters using self-harm (inc dg/alco abuse)
toohv	Weight problems – too heavy		
toolg	Weight problems – too light	sigot	Significant others
phyil	Physical illness (hospitalised)	spsig	Specify significant others
medot	Other	sevty	Severity of self-harm
staop	Statement operative	revictim	Revictimisation: sexual abuse
staap	Statement applied for at some time	place	Placement prior to admission
homet	Home tuition		

Appendix I
Listed analysed variables (*N* = 165*)* organised by category

List of variables in Demographics category (*N* = 9)

Variable	Label	Variable	Label
ageyr**	Age on admission, years	careyr	Number of years in care on admission
stayleng	Length of stay (months)	**noplc****	Number of prior placements
ethnc	Ethnic origin	**instn****	Number of institutional placements
urban	From an urban area	**fostr****	Number of foster placements
rural	From a rural area		

* indicative of trend with Absconding variable at $p \leq .05$ (N = 0)

** indicative of significant association with Absconding variable at $p \leq .005$ (N = 4)

List of variables in Harm category (*N* = 17)

Variable	Label	Variable	Label
prost	Soliciting / prostitution	fphys	Known physically abused within family
selfc	Self-cutting		
selfs	Self-strangulation	fneg	Known neglected within family
selff	Burning self deliberately	**femot***	Known severe emotional abuse within family
drugs	Drug abuse / overdose		
solva	Solvent / gas abuse	**ssex***	Known sexual abused/assaulted outside family
alcoa**	Alcohol abuse		
sexbh*	Sexualised behaviour	sphys	Known physically abused / violent assault outside family
slfot	Self-harm – other		
slfpo**	Self-harm – persistent problem	selfh	Harms self
fsex	Known sexually abused within family		

* indicative of trend with Absconding variable at $p \leq .05$ (*N* = 3)

** indicative of significant association with Absconding variable at $p \leq .005$ (*N* = 2)

List of variables in Offending Behaviours category (*N* = 65)

Variable	Label	Variable	Label
rape*	Rape	**theft***	Theft from the person
arape	Attempted rape	**shopl***	Shoplifting
indas	Indecent assault	athef	Attempted theft
buggy	Buggery	stole	Handling stolen goods
isu	Unlawful sexual intercourse (USI)	fraud	Fraud, forgery, deception
grind	Gross indecency	**thcar***	Theft from motor vehicle
aarap	Aiding and abetting rape	**thfpo****	Persistent theft
inexp	Indecent exposure	**carry***	Being carried
abduc	Abduction with intent	**tada****	Taking and driving away (TADA & TWOC)
sexpo	Persistent sex offender		
vveld	Elderly victim of violence	ddriv	Driving whilst unfit (drink/drugs)
vvadt	Adult victim of violence	atwoc	Aggravated TWOC
vvtee	Teenage victim of violence	**otcar***	Auto-crime – other
vvkid	Child victim of violence	carpo	Persistent auto crime
vvfam	Victims within own family of violence	arint	Arson with intent
		arson*	Arson, criminal damage by fire
murdr*	Murder	**crimd****	Criminal damage
amurd	Attempted murder	cdlif	Criminal damage endangering life
mansl	Manslaughter	**cdpo****	Persistent criminal damage
wound	Wounding	weaps	Firearms / weapons offences
asslt*	Assault	drgof	Drug related offences
abh*	ABH	kidnp	Kidnapping
bgh	GBH	confn	Unlawful confinement
vothr*	Other – violent crimes	beg	Begging
viopo**	Persistent violent offender	riot	Riot, disorder offences, obstruction
burgh**	Burglary – in a dwelling house	cruel	Cruelty to animals

burgb*	Burglary – in a building other than a dwelling house	mispo	Persistent offender
		offno**	Total number of known offences
agbur	Aggravated burglary	nocon	Total number of known convictions
atbur	Attempted burglary	**foffy****	Age at first offence (years)
burpo*	Persistent burglary	sexoffen	Any sex offence
robry	Robbery / armed robbery	violoff	Any violent offence
dmnce	Demand with menace		Serious violence offence: murder
bmail	Blackmail	serviol	to ABH
robpo	Persistent robber		

* indicative of significant trend with Absconding variable at $p \leq .05$ ($N = 13$)

** indicative of significant association with Absconding variable at $p \leq .005$ ($N = 8$)

List of variables in Care and Risk Interactions category ($N = 15$)

Variable	Label	Variable	Label
cpr*	On Child Protection Register (at some time)	sxast	Sexual assault to staff
		sapr	Sexual assault to peers
care**	Care history of young person	**rthft****	Risk of theft
vthst	Violent / verbal threats to staff	**rpdam****	Risk of property damage
vasst	Violent assaults to staff	**rfire***	Risk of fire setting
vthpr	Violent threats to peers	bully	Bullying of peers
vaspr	Violent assaults to peers	bsvty	Severity of bullying
sxhst	Sexual harassment of staff		
sxhpr	Sexual harassment of peers		

* indicative of trend with Absconding variable at $p \leq .05$ ($N = 2$)

** indicative of significant association with Absconding variable at $p \leq .005$ ($N = 3$)

List of variables in Health and Treatments category ($N = 25$)

Variable	Label	Variable	Label
ldis	Learning disabilities	tcogf	Treatment for cognitive functioning
preg	Known young person has been pregnant / or fathered the pregnancy	tlang	Treatment for language delay
		temot	Treatment for emotional functioning
mill	Mental illness	tsest	Counselling for self concept
hdinj	Head injury	**tang****	Treatment for self control
edspn	Education special needs	**tadd****	Treatment for substance abuse and addiction
thome	Treatment for problems at home		
tcare**	Counselling for problems in care	tvict	Counselling for history of victimisation
tphys	Treatment for physical problems		
tmed	Treatment for medical problems	tspec	Treatment for specific behaviour problems
tpsyc	Treatment for psychological problems	tsexd	Treatment for sexual development and functioning
teduc*	Treatment for educational problems	twork	Counselling for vocation
thygi	Treatment for personal habits	**tplac***	Counselling for care history
tsocl	Treatment for social relationships	toff	Counselling for offence history

* indicative of trend with Absconding variable at $p \leq .05$ ($N = 2$)

** indicative of significant association with Absconding variable at $p \leq .005$ ($N = 3$)

List of variables in School category ($N = 11$)

Variable	Label	Variable	Label
educ	Education	bulld	Victim of bullying
susps	Suspension	**trunt***	Persistent non-school attendance
exclu	Exclusions	**under***	Underachievement
disrp**	Disruptive behaviour	steal	Stealing
violt**	Violence / aggression / fighting / bullying	**vandl***	Vandalism / property destruction
		hyper	Hyperactive episodes

* indicative of trend with Absconding variable at $p \leq .05$ ($N = 3$)

** indicative of significant association with Absconding variable at $p \leq .005$ ($N = 1$)

List of variables in Family category ($N = 23$)

Variable	Label	Variable	Label
adopt	Adopted	**ypctl****	Young person deemed beyond control of parents
fabus**	Alcohol / drug abuse by father		
mabus	Alcohol / drug abuse by mother	sibcl	Siblings deemed beyond control of parents
fvlm	Violence by father to mother		
mvlf	Violence by mother to father	mcrim	Criminality – mother
fvlc	Violence by father to children	**dcrim***	Criminality – father
mvlc	Violence by mother to children	smcrm	Criminality – step mother
fvlo	Father violent to other	smabu	Drug / alcohol abuse – step mother
mvlo	Mother violent to other	sfcrm	Criminality – step father
ypvlf	Violence by young person to father	sfabu	Drug / alcohol abuse – step father
ypvlm	Violence by young person to mother	brcrm	Criminality within brothers
		sicrm	Criminality among sisters
sibvl*	Violence between siblings	paren	Parents (status)

* indicative of trend with Absconding variable at $p \leq .05$ ($N = 2$)

** indicative of significant association with Absconding variable at $p \leq .005$ ($N = 2$)

Appendix J

Changes made to dichotomise selected variables (*N* = 15)

Variable	Label	Initial levels and values	*N*	New levels and values	*N*
ageyr	Age on admission, years	1= 11-13 years	21	0= 11-15 years	138
		2= 14-15 years	117	1= 16-17 years	28
		3= 16-17 years	28		
careyr	Number of years in care on admission	1= 0 years in care	8	0= 0-4 years in care	85
		2= 1-4 years in care	77	1= 5 or more years in care	30
		3= 5 or more years in care	30		
ethnc	Ethnic origin	1= White UK European	131	0= White	131
		2= Other White European	0	1= Black, Asian and minority ethnic (BAME)	35
		3= Black Caribbean	7		
		4= Black African	2		
		5= UK Black	12		
		6= Other Black	1		
		7= Indian	1		
		8= Pakistani	1		
		9= Chinese	0		
		10= Bangladeshi	0		
		11= Other Asian	0		
		12= Other	1		
		13= Mixed race	10		
noplc	Number of prior placements	1= 1-5 placements	58	0= 1-5 placements	58
		2= 6-10 placements	67	1= 6 or more placements	105
		3= over 10 placements	38		
vveld	Elderly victim of violence	0= no	139	0= no	139
		1= male	12	1= yes	15
		2= female	0		
		3= both	2		
		4= sex unknown	1		
vvadt	Adult victim of violence	0= no	48	0= no	48
		1= male	26	1= yes	116
		2= female	0		
		3= both	87		
		4= sex unknown	3		

vvtee	Teenage victim of violence	0= no 1= male 2= female 3= both	71 27 0 65	0= no 1= yes	71 92
vvkid	Child victim of violence	0= no 1= male 2= female 3= both	135 6 0 19	0= no 1= yes	135 25
vvfam	Victims within own family of violence	0= no 1= male 2= female 3= both	116 25 0 14	0= no 1= yes	116 39
offno	Total number of known offences	1= 0-6 known offences 2= 7-13 known offences 3= 14+ known offences	40 46 63	0= 0-6 known offences 1= 7 or more known offences	40 109
nocon	Total number of known convictions	1= 0 known convictions 2= 1-12 known convictions 3= 13+ known convictions	29 91 36	0= no known convictions 1= one or more convictions	29 127
foffy	Age at first offence (years)	1= 5-10 years 2= 11-13 years 3= 14-16 years	32 82 25	0= 5-10 years 1= 11-16 years	32 107
instn	Number of institutional placements	1=0-1 institutional placements 2=2-10 institutional placements 3= 11+ institutional placements	11 135 15	0= 0-1 institutional placements 1= Two or more placements	11 150
fostr	Number of foster placements	1= 0 foster placements 2= 1-6 foster placements 3=7 or more foster placements	55 92 13	0= no foster placements 1= one or more placements	55 105
paren	Parents (status)	1= Together 2= Separated 3=Divorced 4=Single parent 5=Widowed ~~6= Not known~~	43 56 46 11 6 ~~1~~	0= two-parent unit 1= disrupted parental unit = missing value	43 119

Appendix K

Non-significant trend variables that showed some relationship ($p \leq .05$) with absconding ($N = 25$)

Variable	Total *N*	Variable (*N*)	Have absconded		Test of statistical difference
			N	(%)	
Harm					
Known severe emotional abuse	166	-	-	-	$X^2 = 4.60$, $p = .032$
No	-	107	84	78.5	-
Yes	-	59	54	91.5	-
Known sexual abuse outside family	166	-	-	-	$X^2 = 6.32$, $p = .012$
No	-	108	84	77.8	-
Yes	-	58	54	93.1	-
Sexualised behaviour	166	-	-	-	$X^2 = 4.60$, $p = .032$
No	-	107	84	78.5	-
Yes	-	59	54	91.5	-
Offending behaviours					
Rape	166	-	-	-	$p = .021$ (two-tailed FE)*
No	-	155	132	85.2	-
Yes	-	11	6	54.5	-
Murder	166	-	-	-	$p = .008$ (two-tailed FE)*
No	-	160	136	85.0	-
Yes	-	6	2	33.3	-
Assault	166	-	-	-	$X^2 = 5.89$, $p = .015$
No	-	46	33	71.7	-
Yes	-	120	105	87.5	-
ABH	166	-	-	-	$X^2 = 5.72$, $p = .017$
No	-	117	92	46	-
Yes	-	49	78.6	93.9	-
Other violent crimes	166	-	-	-	$X^2 = 4.86$, $p = .028$
No	-	120	95	79.2	-
Yes	-	46	43	93.5	-
Burglary in a building other than a dwelling or house	166	-	-	-	$p = .050$ (two-tailed FE)*
No	-	139	112	80.6	-
Yes	-	27	26	96.3	-

Persistent burglary	166	-	-	-	X^2 = 6.01, p = .014
No	-	109	85	78.0	-
Yes	-	57	53	93.0	-
Shoplifting	166	-	-	-	X^2 = 5.40, p = .020
No	-	111	87	78.4	-
Yes	-	55	51	92.7	-
Theft from person	166	-	-	-	X^2 = 7.63, p = .006
No	-	85	64	75.3	-
Yes	-	81	74	91.4	-
Theft from motor vehicle	166	-	-	-	p =.046 (two-tailed FE)*
No	-	147	119	81.0	-
Yes	-	19	19	100	-
Being carried	166	-	-	-	p =.026 (two-tailed FE)*
No	-	145	117	80.7	-
Yes	-	21	21	100	-
Auto-crime (other)	166	-	-	-	X^2 = 5.91, p = .015
No	-	132	105	79.5	-
Yes	-	34	33	97.1	-
Arson or criminal damage by fire	166	-	-	-	X^2 = 4.44, p = .035
No	-	101	79	78.2	-
Yes	-	65	59	90.8	-
Care and risk interactions					
Risk of firesetting	166	-	-	-	X^2 = 6.09, p = .014
No	-	102	79	77.5	-
Yes	-	64	59	92.2	-
On Child Protection Register	166	-	-	-	X^2 = 5.47, p = .019
No	-	104	81	77.9	-
Yes	-	62	57	91.9	-
Health and Treatments					
Counselling for problems in care	166	-	-	-	X^2 = 6.48, p = .011
No	-	122	96	78.7	-
Yes	-	44	42	95.5	-
Treatment for educational problems	166	-	-	-	X^2 = 5.88, p = .015
No	-	51	37	72.5	-
Yes	-	115	101	87.8	-
School					
Persistent school non-attendance	166	-	-	-	X^2 = 6.03, p = .014

No	-	61	45	73.8	-
Yes	-	105	93	88.6	-
Underachievement	166	-	-	-	$X^2 = 5.46$, $p = .019$
No	-	52	38	73.1	-
Yes	-	114	100	87.7	-
Vandalism/property destruction	166	-	-	-	$X^2 = 5.22$, $p = .022$
No	-	80	61	76.3	-
Yes	-	86	77	89.5	-
Family					
Violence between siblings	166	-	-	-	$X^2 = 7.18$, $p = .007$
No	-	111	86	77.5	-
Yes	-	55	52	94.5	-
Criminality by father	166	-	-	-	$X^2 = 4.56$, $p = .033$
No	-	113	88	77.9	-
Yes	-	53	50	94.3	-

† FE = Fisher's Exact

Appendix L

Variables excluded in statistical analysis of prediction (*N* = 8)

Variable	Researcher justification for exclusion
Number of prior placements	Highly correlated with Number of institutional placements and Number of foster placements, both of which were kept in the model instead
Age on admission, years	Age of first offence deemed to be more relevant factor regarding age
Criminal damage	Highly correlated with Persistent criminal damage which was kept in the model, less variance
Risk of property damage Risk of theft	'Risk of' variables are subjective ratings, also highly correlated with Persistent criminal damage and Persistent theft variables
Treatment for substance abuse and addiction Treatment for self control Counselling for care history	Treatment and counselling variables refer to interventions applied to population and are expected to be correlated with each other

Appendix M

Summary of interview exploring impact of Covid-19 on Return Home Interviews

An interview with a UK Lead for a vulnerable children's organisation revealed commissioned services were not supporting face to face RHIs and services were being provided by phone call or video call. Such provision met barriers to successful interviews including practical difficulties such as children not having access to technology, connectivity issues and lack of mobile data or internet access to make calls. Methods also raised concerns for young individuals or those with learning difficulties who may struggle with digital contact which relies on high cognitive functioning, and raises concerns surrounding the impact of dealing with traumatic events without in person support available. It was also highlighted that young people were not offered and therefore may not be based in a neutral venue when making contact via phone or video, and with additional push factors in the home, may impact their ability to engage with the RHI. It was also revealed that RHI referrals reduced during lockdown, offering less opportunity for data collection. However, it was reported there was not a reduction in young people missing, but it was suspected that it was underreported during this period as young people would be penalised for the breach of lockdown measures and not identified as missing persons. Similarly, services suspected children disclosed less detailed information due to a lack of privacy or in some cases safety when attending a digital interview.

Appendix N

Poster advertisement for online survey

University of Nottingham
UK | CHINA | MALAYSIA

Have you ever gone missing?

Are you a young person who has run away, or stayed away from home or care before? Maybe you have been reported as missing?



I am a project leader in the School of Medicine interested in what happens when young people like you go missing or stay away from home or care, and would like to hear your experiences.

Please take a slip below and access the website to complete a short survey. Your answers will not be shared with anyone else. Contact details for questions about this project can also be found on the website.

tinyurl.com/missingstudy
tinyurl.com/missingstudy
tinyurl.com/missingstudy
tinyurl.com/missingstudy
tinyurl.com/missingstudy
tinyurl.com/missingstudy
tinyurl.com/missingstudy
tinyurl.com/missingstudy
tinyurl.com/missingstudy
tinyurl.com/missingstudy

Appendix O

Suspected authenticity of survey responses rated by two independent raters

	Rater 1		Rater 2		Agreement	Agreed outcome
ID	Authentic	False	Authentic	False		
1	X		X		Yes	Authentic
2	X			X	No	Authentic
3	X		X		Yes	Authentic
4	X		X		Yes	Authentic
5	X		X		Yes	Authentic
6	X		X		Yes	Authentic
7	X		X		Yes	Authentic
8	X		X		Yes	Authentic
9	X		X		Yes	Authentic
10	X		X		Yes	Authentic
11	X		X		Yes	Authentic
12	X		X		Yes	Authentic
13	X		X		Yes	Authentic
14	X		X		Yes	Authentic
15	X		X		Yes	Authentic
16	X		X		Yes	Authentic
17		X		X	Yes	False
18	X		X		Yes	Authentic
19	X		X		Yes	Authentic
20	X		X		Yes	Authentic
21	X		X		Yes	Authentic
22	X		X		Yes	Authentic
23	X		X		Yes	Authentic
24	X		X		Yes	Authentic
25	X		X		Yes	Authentic
26	X		X		Yes	Authentic
27	X		X		Yes	Authentic
28	X		X		Yes	Authentic
29	X		X		Yes	Authentic
30	X		X		Yes	Authentic
31	X		X		Yes	Authentic
32	X		X		Yes	Authentic
33	X		X		Yes	Authentic
34	X		X		Yes	Authentic
35	X		X		Yes	Authentic
36	X		X		Yes	Authentic
37	X		X		Yes	Authentic
38	X		X		Yes	Authentic
39	X		X		Yes	Authentic
40	X		X		Yes	Authentic
41	X		X		Yes	Authentic

42	X		X		Yes	Authentic
43	X		X		Yes	Authentic
44	X		X		Yes	Authentic
45	X		X		Yes	Authentic
46	X		X		Yes	Authentic
47	X		X		Yes	Authentic
48	X		X		Yes	Authentic
49	X		X		Yes	Authentic
50	X		X		Yes	Authentic
51	X		X		Yes	Authentic
52	X		X		Yes	Authentic
53	X		X		Yes	Authentic
54	X		X		Yes	Authentic
55	X		X		Yes	Authentic
56	X		X		Yes	Authentic
57	X		X		Yes	Authentic
58	X		X		Yes	Authentic
59		X		X	Yes	False
60	X		X		Yes	Authentic
61	X		X		Yes	Authentic
62	X		X		Yes	Authentic
63	X		X		Yes	Authentic
64		X		X	Yes	False
65	X		X		Yes	Authentic
66	X		X		Yes	Authentic
67	X		X		Yes	Authentic
68	X		X		Yes	Authentic
69		X		X	Yes	False
70	X		X		Yes	Authentic
71	X		X		Yes	Authentic
72	X		X		Yes	Authentic
73	X		X		Yes	Authentic
74	X		X		Yes	Authentic
75	X		X		Yes	Authentic
76	X		X		Yes	Authentic
77	X		X		Yes	Authentic
78	X		X		Yes	Authentic
79	X		X		Yes	Authentic
80	X		X		Yes	Authentic
81	X		X		Yes	Authentic
82	X		X		Yes	Authentic
83	X		X		Yes	Authentic
84	X		X		Yes	Authentic
85	X		X		Yes	Authentic
86	X		X		Yes	Authentic
87	X		X		Yes	Authentic
88	X		X		Yes	Authentic
					87/88	84/88

Appendix P

Excluded responses and rationale for exclusion

ID	Reasons for suspected falseness and exclusion
17	Rated all PCL-5 items as 'extremely', had copied song lyrics into free text boxes, impossible answers such as being away from home for '79 years',
27	Answered authentically but stated 'I never went missing, I only had thoughts of going missing'.
59	Rated all PCL-5 items as 'extremely', free text items talked about unlikely experiences of urination/defecation whilst away
64	Incomplete responses, racist comments in free text questions, stated had gone missing '7999 times' and for '500 years' and 'killed 50 people'
69	Selected all minority identity options, racist and ableist comments in all free text questions and mention of perpetrating child sexual offences

Appendix Q

***T*-tests for association exploring mean PCL-5 trauma score against 18 binary independent variables**

Variable	Total *N*	Variable (*N*)	PCL-5 score *M*	PCL-5 score *SD*	*t*(81)	*p*	Cohen's *d*
Demographics							
Age at missing	83	-	-	-	-0.92	.362	-0.21
10-15 years	-	33	41.5	20.4	-	-	-
16-18 years	-	50	45.6	19.5	-	-	-
Gender identity	83	-	-	-	-0.88	.379	-0.19
Male	-	44	42.2	20.1	-	-	-
Female	-	39	46.0	19.7	-	-	-
Ethnicity	83	-	-	-	1.06	.294	0.25
White	-	56	45.6	18.5	-	-	-
BAME	-	27	40.7	22.4	-	-	-
Sexuality	83	-	-	-	-1.54	.128	-0.33
Heterosexual	-	42	40.7	19.9	-	-	-
LGBTQIA+	-	41	47.3	19.5	-	-	-
Disability	83	-	-	-	-0.70	.488	0.21
Yes	-	14	47.4	18.7	-	-	-
No	-	69	43.3	20.1	-	-	-
Learning difficulty	83	-	-	-	-0.66	.512	0.16
Yes	-	23	46.3	19.0	-	-	-
No	-	60	43.1	20.3	-	-	-
History							
Lived in home or care	83	-	-	-	0.84	.402	0.23
Home or with family	-	66	44.9	18.8	-	-	-
In care	-	17	40.4	24.0	-	-	-
History of abuse or neglect	83	-	-	-	-2.56	.012*	0.57
Yes	-	47	48.7	17.5	-	-	-
No	-	36	37.8	21.2	-	-	-

No. of missing episodes	83	-	-	-	-1.41	.164	-0.32
Once	-	31	40.0	17.9	-	-	-
Repeat	-	52	46.3	20.7	-	-	-
Missing episode							
Date most recent episode	83	-	-	-	-0.04	.966	-0.01
Historical (>6 months)	-	54	43.9	20.1	-	-	-
Recent (within 6 mo)	-	29	44.1	19.7	-	-	-
Planned to stay away	83	-	-	-	-1.20	.235	0.26
Yes	-	49	46.1	19.8	-	-	-
No	-	34	40.9	19.8	-	-	-
Length of time away	83	-	-	-	-3.55	.001**	-0.79
Less than one week	-	47	37.6	18.4	-	-	-
A week or more	-	36	52.3	18.9	-	-	-
Location whilst missing	83	-	-	-	-0.66	.510	-0.18
Local	-	67	43.3	19.6	-	-	-
Out of town	-	16	46.9	21.1	-	-	-
Alcohol use whilst missing	83	-	-	-	-2.88	.005*	0.63
Yes	-	38	50.5	19.5	-	-	-
No	-	45	38.4	18.7	-	-	-
Drug use whilst missing	83	-	-	-	-2.76	.007*	0.61
Yes	-	34	50.9	20.4	-	-	-
No	-	49	39.2	18.2	-	-	-
Offending whilst missing	83	-	-	-	-1.52	.133	0.33
Yes	-	40	47.4	19.5	-	-	-
No	-	43	40.8	19.9	-	-	-
CCE whilst missing	83	-	-	-	-2.85	.006*	0.77
Yes	-	17	55.7	18.0	-	-	-
No	-	66	41.0	19.3	-	-	-
CSE whilst missing	83	-	-	-	0.24	.812	-0.09
Yes	-	8	42.4	24.1	-	-	-
No	-	75	44.2	19.5	-	-	-

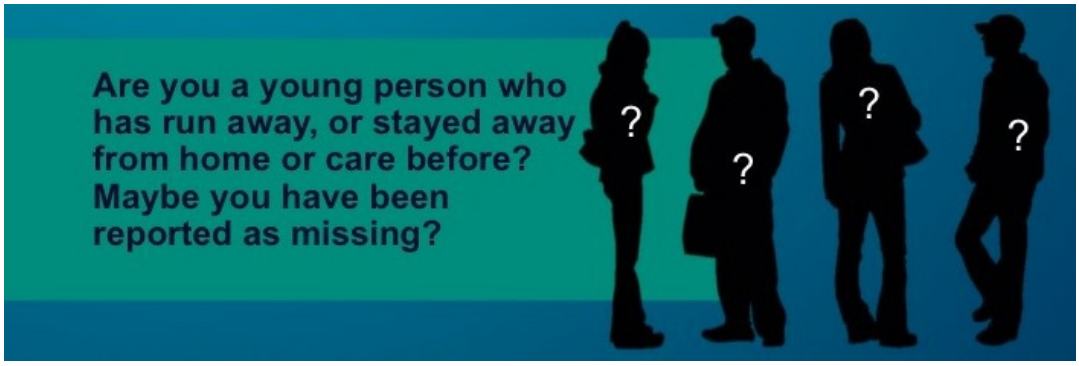
** significant at $p \leq .003$
* some association at $p \leq .05$

Appendix R

Online survey questions published using Jisc Online Surveys

Missing harm study

Page 1: Welcome



Hollie Price

Room B22, YANG Fujia Building, Jubilee Campus

Nottingham, NG8 1BB

If you are aged between 13 and 25 and want to take part in this online survey, read on...

Thank you for your interest in taking part in this online survey. You have been invited to participate as you are aged 13-18 and identify as a young person who has gone missing or been away from home or care before, or you are between 18-25 and have run away when you were under the age of 18.

Please read through this information before agreeing to participate by ticking the box below.

- This study is being conducted by Hollie Price and Kevin Browne. We are exploring young people who go missing from home or care, the activities they participate in whilst away, and the associated harms. We hope to use findings to educate services on how to help young people who run away from home or care.
- You will be given some questions to read and answer based on your experiences of being away

from home or care.

- The survey should take you around **15-20 minutes to complete** with a total of **28 questions**. No background knowledge is required, and you will not be required to do anything else after completing the survey questions.
- Cookies and personal data stored by your web browser are not accessed or used in this survey.
- **Do I have to take part?** Your participation in this study is entirely voluntary. You can withdraw at any point during the questionnaire for any reason, before submitting your answers, by clicking the Exit button or closing the browser. The data will only be uploaded on completion of the questionnaire by clicking the SUBMIT button. You can skip any question.
- **Who will look at my data?** The University of Nottingham is the data controller for the purposes of the Data Protection. Your answers will be kept confidential and then made anonymous. Your data will be stored in a password-protected file and saved on an encoded computer. Anonymised data may be used later to publish the project findings or shared with other professionals. Your IP address will not be accessed or stored. Data will always be reported anonymously, with any identifying information removed.
- We believe there are no known risks associated with this research study; however, the questions you will be asked may cause you to think about bad memories, or unpleasant experiences you may have had in the past. To reduce the risks of any harm, the researchers are able to provide details for appropriate support.

- If you have any questions about this project, you may contact Hollie Price (**hollie.price@nottingham.ac.uk**) or if you have any concerns about any aspect of this study please contact the Supervisor: Kevin Browne (kevin.browne@nottingham.ac.uk). If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, E41, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk. **Research Ethics ref: FMHS 08-0420**.

1. I have read and understood the above information and voluntarily agree to take part in this study. For our records, and to confirm your agreement with the above, please tick the box:

- ○ I agree

Page 2: Consent

2. Thank you for participating! Please tick each box to continue: **NEXT** – to be taken to the survey

- ☐ I confirm that I have read and understood the information on the previous page
- ☐ I understand that my participation is voluntary and I can end the study at any time and withdraw my data by clicking the EXIT button.
- ☐ I understand that my answers will be anonymous.
- ☐ I understand the anonymised results from this study may be used in the future by other professionals.

Page 3: About you

3. How old are you?

4. What gender do you identify as?

5. What is your ethnicity?

6. What language(s) do you speak fluently?

7. What sexuality do you identify with?

8. Do you have a disability?

- Yes

- No
- I don't know

9. Do you have a learning difficulty?

- Yes
- No
- I don't know

Page 4

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then tick one of the responses to the right to indicate how much you have been bothered by that problem *in the past month.*

10. **In the past month, how much were you bothered by:**

Please don't select more than 1 answer(s) per row.

Please select between 1 and 10 answers.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	☐	☐	☐	☐	☐
2. Repeated, disturbing dreams of the stressful experience?	☐	☐	☐	☐	☐
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	☐	☐	☐	☐	☐
4. Feeling very upset when something reminded you of the stressful experience?	☐	☐	☐	☐	☐

5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	☐	☐	☐	☐	☐
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	☐	☐	☐	☐	☐
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	☐	☐	☐	☐	☐
8. Trouble remembering important parts of the stressful experience?	☐	☐	☐	☐	☐

9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	☐	☐	☐	☐	☐
10. Blaming yourself or someone else for the stressful experience or what happened after it?	☐	☐	☐	☐	☐

Page 5: Your history

11. Do you live with family or in care?

- With family
- With foster family
- In care
- Homeless
- Other

11.a. If you selected Other, please specify:

12. Do you have a history of abuse or neglect?

- Yes
- No
- I don't know

13. How many times do you think you have gone missing in your life?

Page 6

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then tick one of the responses to the right to indicate how much you have been bothered by that problem *in the past month.*

14. **In the past month, how much were you bothered by:**

Please don't select more than 1 answer(s) per row.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	☐	☐	☐	☐	☐
12. Loss of interest in activities that you used to enjoy?	☐	☐	☐	☐	☐
13. Feeling distant or cut off from other people?	☐	☐	☐	☐	☐
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	☐	☐	☐	☐	☐
15. Irritable behavior, angry outbursts, or acting aggressively?	☐	☐	☐	☐	☐

16. Taking too many risks or doing things that could cause you harm?	☐	☐	☐	☐	☐
17. Being “superalert” or watchful or on guard?	☐	☐	☐	☐	☐
18. Feeling jumpy or easily startled?	☐	☐	☐	☐	☐
19. Having difficulty concentrating?	☐	☐	☐	☐	☐
20. Trouble falling or staying asleep?	☐	☐	☐	☐	☐

Page 7: Thinking about the MOST RECENT time you went missing or stayed away from home/care...

15. When did you most recently go missing or stay away from home/care?

- In the last week
- 2-4 weeks ago
- Over a month ago
- Over 3 months ago
- Over 6 months ago
- A year ago
- Two years ago
- Three years ago
- Four years ago
- More than four years ago

16. Why do you think you ran away or stayed away from home or care?

17. Did you plan to stay away (i.e did you take food, clothes or money?)

- Yes
- No
- I don't know

18. How long were you away from home or care?

- A day or less
- Days
- Weeks
- Months
- Years

18.a. How many?

19. Were you taken anywhere by someone else?

- Yes
- No

19.a. If yes, can you tell me more? Did you know this person or group of people?

20. Where did you stay when away from home/care?

21. Were you kept against your will?

- Yes
- No

21.a. If yes, can you tell me more?

22. Were you asked to do anything for someone else?

- Yes
- No

22.a. If yes, can you tell me more?

23. Have you been given anything like money or gifts in return for a favour or job when missing or away?

- Yes
- No

23.a. If yes, can you tell me more?

24. Were you harmed or hurt when away from home or care?

- Yes
- No

24.a. If yes, can you tell me more?

25. Have you done anything you think is a crime, or illegal, whilst away?

- Yes
- No
- I don't know

25.a. If yes, can you tell me more?

26. When away, were you offered or did you use substances like alcohol or drugs?

- ○ Yes
- ○ No
- ○ I don't know

26.a. If yes, what were you offered?

- ☐ Alcohol
- ☐ Drugs

26.a.i. If yes, what did you use?

- ☐ Alcohol
- ☐ Drugs

Page 8: Lastly...

27. Is there anything else you want to share relating to the question asked, or your experiences of going missing or being away from home or care?

Page 9: You have finished - thank you

Thank you for participating in this research study.

If you have been affected by these questions or want to talk to someone not involved with the questionnaire for free, you can contact:



Missing People
https://www.missingpeople.org.uk
Call or text: 116 000

The Children's Society
Advice Hub: https://www.childrenssociety.org.uk/advice-hub
Running away: https://www.childrenssociety.org.uk/advice-hub/i-want-to-run-away-what-should-i-do

Barnardo's
https://www.barnardos.org.uk/get-help

Childline
Call: 0800 1111 (free and confidential 24-hour helpline)

Samaritans
Call: 08457 909 090
or text: 07725 909 090

Catch-22
https://www.catch-22.org.uk/find-support/

Young Minds (mental health)
https://youngminds.org.uk
or text: YM to 85258 if you need urgent help

Talk to Frank (substance misuse)
https://www.talktofrank.com
Call: 0300 1236600 or text: 82111 text a question and FRANK

It's Not Okay (sexual exploitation)
http://www.itsnotokay.co.uk/children/going-missing/

For more information, or if you have any questions about this project, you may contact Hollie Price (**hollie.price@nottingham.ac.uk**) or if you have any concerns about any aspect of this study please contact the Supervisor Kevin Browne (kevin.browne@nottingham.ac.uk). If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, E41, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk. **Research Ethics ref: FMHS 08-0420**.

You may now close the browser.

Key for selection options

3 - How old are you?

- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21

22
23
24
25

4 - What gender do you identify as?

Male
Female
Non-binary
Transgender male
Transgender female
Prefer not to say

5 - What is your ethnicity?

White English / Welsh / Scottish / Northern Irish / British
White Irish
White Gypsy or Irish Traveller
Any other White background
Mixed White and Black Caribbean
Mixed White and Black African
Mixed White and Asian
Any other Mixed / Multiple ethnic background
Asian Indian
Asian Pakistani
Asian Bangladeshi
Asian Chinese
Any other Asian background
Black African
Black Caribbean
Any other Black / African / Caribbean background
Arab
Any other ethnic group

7 - What sexuality do you identify with?

Bisexual
Gay or Lesbian
Heterosexual (or straight)
Pansexual
I don't know
Prefer not to say

Appendix S

Behaviours or signs indicative of potential criminal exploitation (*N* = 38)

Indicator
Interpersonal signs
Withdrawal from family [6]
Not mixing with usual friends [2, 3]
New peer groups and/or relationships [4, 5, 7]
In a relationship or spending time with someone older than them [1]
Gang association [3]
Emotional difficulties
Being angry, aggressive or violent [1, 6]
Appearing isolated or withdrawn, or emotionally 'switched off' [1]
Sudden change in moods such as becoming secretive, unsettled, anxious, scared, depressed or controlling [4, 7]
Significant changes in emotional wellbeing [2]
Sudden change in demeanour or personality [4, 6]
Problems with offending
Committing petty crimes such as shop lifting or vandalism [1]
Carrying weapons [1, 3, 5]
Being arrested in a different area to where you live – especially for drug related offences [2]
Behavioural signs
Going missing from home or care [1, 4, 6, 7]
Frequent missing episodes [2, 3, 5]
Being found in a different area to where you live [2]
Travelling for unexplained reasons [1]
Staying out late [1]
Entering or leaving vehicles with unknown adults [2, 7]
Abduction or force imprisonment [2]
Spending more time on social media and being secretive about time online [1]

Sending and receiving more calls or sending more texts, possibly on a new phone [1, 3, 4]

Using new slang words [1]

Increased interest in making money [2, 5]

Unexplained acquisition of money, items or buying new things [1, 3, 4 5, 7]

Sudden change of appearance or wearing clothes or accessories of certain colours/styles [1]

Decrease in personal hygiene [7]

Getting tattoos [1]

Increasingly disruptive, hostile or physically aggressive behaviours [2]

Self-harming and feeling emotionally unsettled [1, 3, 5]

Using alcohol or illicit drugs [1, 7]

Being found with quantities of drugs or drug paraphernalia [2, 5, 7]

Expressions around invincibility or not caring about what happens to them [2]

Disclosure of a sexual of physical assault [2]

Unexplained injuries and refusing to seek medical help [1, 3, 4, 5, 7]

Problems or disengagement in school, college, training or work

Unexplained or frequent absences from place of education [5]

Underperforming, disengagement or decline in performance in school [1, 3, 4, 6]

Missed appointments with professionals [7]

---

[1] *NSPCC (n.d. a) guidance*
[2] *PACE (n.d.) guidance*
[3] *Home Office (2018) county lines guidance*
[4] *Missing People (n.d.) guidance*
[5] *The Children's Society (2017) toolkit*
[6] *Maxwell (2022)*
[7] *Rescue and Response Report Analysists (2019)*

Appendix T

Behaviours or signs indicative of potential sexual exploitation (*N* = 29)

Indicator
Interpersonal or relational signs
Being frightened of some people, places or situations [1]
Emotional distance from family members [3, 5]
Having a new group of friends [1]
Hanging out with older people, other vulnerable people or in antisocial groups [1, 5]
Having an older boyfriend or girlfriend [1, 5]
Involved in a gang [1, 5]
Emotional difficulties
Sharp changes in mood or character [1, 2, 5]
Aggressive/violent/hostile behaviour [5]
Poor mental health [3, 5]
Poor self-image or low self-esteem [5]
Sexual behaviour
Unhealthy or inappropriate sexual behaviour, such as over-familiarity with strangers, dressing in a sexualised manner or sending sexualised images by mobile phone ("sexting") [1, 2, 5]
Sexually transmitted infections or health problems that may indicate such [1, 2, 3, 5]
Behavioural signs
Being secretive [1, 5]
Regularly staying out late or overnight [1, 2, 5]
Missing from home or care [1, 3, 4, 5]
Deterioration in physical appearance [3, 5]
Alcohol or drug misuse [1, 2, 3, 4]
Self-harming or suicidal ideation [3, 4]
Having money or unexplained gifts [1, 2, 3, 5]
Involved in criminal activities like selling drugs or shoplifting [1, 3]
Physical signs of abuse, like bruises or bleeding in their genital or anal area, or cigarette burns [1, 2, 3, 5]

Pregnancy [1, 5]

Increased screen time or showing unusual use of online platforms, such as websites, social media, apps or games [2]

Evidence of online sexual bullying [3]

Evidence of vulnerability on social networking sites [3, 5]

Eating difficulties or disorders [5]

Detachment from age appropriate activities [5]

Problems or disengagement in school, college, training or work

Stopping going to school or college [1, 2, 3, 4, 5]

Being disruptive in class [2]

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[1] NSPCC (n.d. b) guidance
[2] NHS (2021) guidance
[3] Metropolitan Police (2023) guidance
[4] Ashby, Rogstad, Forsyth & Wilkinson (2015)
[5] Brown et al., (2016)

Appendix U

Number of indicators and coding for presence of CCE records from two independent raters

ID	Rater 1		Rater 2		Agreed code
	Indicators (*N*)	Presence of CCE (yes/no)	Indicators (*N*)	Presence of CCE (yes/no)	
1	11	Y	10	Y	Y
2	12	Y	10	Y	Y
3	10	Y	10	Y	Y
4	4	N	4	N	N
5	3	N	5	Y	Y
6	5	N	6	N	N
7	3	N	3	N	N
8	4	N	5	N	N
9	4	N	4	N	N
10	7	N	8	Y	Y
11	6	Y	6	Y	Y
12	6	N	7	Y	Y
13	3	N	4	N	N
14	4	N	4	N	N
15	4	N	4	N	N
16	6	N	8	N	N
18	4	N	5	N	N
19	8	Y	8	Y	Y
20	3	N	3	N	N
21	2	N	2	N	N
22	5	N	6	N	N
23	2	N	2	N	N
24	3	N	3	N	N
25	9	Y	9	Y	Y
26	4	N	5	N	N
28	7	N	7	N	N
29	3	N	3	N	N
30	1	N	1	N	N
31	2	N	2	N	N
32	3	N	3	N	N
33	1	N	1	N	N
34	1	N	1	N	N
35	2	N	2	N	N
36	1	N	1	N	N
37	5	N	5	N	N
38	2	N	2	N	N
39	3	N	3	N	N
40	7	N	7	N	N
41	3	N	3	N	N
42	2	N	2	N	N
43	6	N	6	N	N
44	5	N	5	N	N
45	5	N	5	N	N

46	5	N	5	N	N
47	2	N	2	N	N
48	6	N	7	Y	Y
49	1	N	1	N	N
50	4	N	4	N	N
51	3	N	3	N	N
52	5	N	5	N	N
53	6	N	6	N	N
54	2	N	2	N	N
55	1	N	1	N	N
56	3	N	3	N	N
57	7	Y	8	Y	Y
58	3	N	3	N	N
60	5	N	5	N	N
61	3	N	3	N	N
62	3	N	3	N	N
63	7	N	6	N	N
65	6	N	6	Y	Y
66	6	N	6	N	N
67	6	Y	6	Y	Y
68	4	N	4	N	N
70	5	N	5	N	N
71	4	N	3	N	N
72	4	N	4	N	N
73	6	N	7	N	N
74	3	N	3	N	N
75	4	N	4	N	N
76	7	Y	7	Y	Y
77	8	Y	8	Y	Y
78	6	N	5	N	N
79	3	N	3	N	N
80	7	N	7	N	N
81	1	N	1	N	N
82	6	Y	6	N	Y
83	5	N	5	N	N
84	5	N	5	N	N
85	2	N	2	N	N
86	4	N	4	N	N
87	5	N	5	N	N
88	6	Y	6	Y	Y

Appendix V

Number of indicators and coding for presence of CSE records from two independent raters

ID	Rater 1		Rater 2		Agreed code
	Indicators (*N*)	Presence of CSE (yes/no)	Indicators (*N*)	Presence of CSE (yes/no)	
1	6	N	6	N	N
2	7	N	8	N	N
3	6	N	7	N	N
4	3	N	3	N	N
5	5	N	3	N	N
6	8	Y	8	Y	Y
7	2	N	3	N	N
8	6	Y	6	Y	Y
9	7	Y	7	Y	Y
10	6	N	6	N	N
11	5	N	5	N	N
12	7	N	7	N	N
13	9	Y	9	Y	Y
14	5	N	5	N	N
15	3	N	3	N	N
16	7	Y	7	Y	Y
18	5	N	5	N	N
19	7	N	6	N	N
20	5	N	5	N	N
21	1	N	1	N	N
22	5	N	5	N	N
23	1	N	1	N	N
24	4	N	4	N	N
25	5	N	5	N	N
26	5	N	5	N	N
28	7	N	6	N	N
29	4	N	4	N	N
30	1	N	1	N	N
31	5	N	5	N	N
32	3	N	3	N	N
33	2	N	2	N	N
34	1	N	2	N	N
35	3	N	3	N	N
36	2	N	2	N	N
37	4	N	4	N	N
38	2	N	2	N	N
39	3	N	3	N	N
40	6	Y	6	Y	Y
41	4	N	4	N	N
42	3	N	4	N	N
43	6	N	6	N	N
44	4	N	4	N	N
45	6	N	6	N	N
46	4	N	4	N	N

47	2	N	3	N	N
48	5	N	5	N	N
49	1	N	2	N	N
50	5	N	5	N	N
51	2	N	2	N	N
52	4	N	4	N	N
53	6	N	6	N	N
54	2	N	2	N	N
55	1	N	1	N	N
56	5	N	5	N	N
57	7	Y	7	Y	Y
58	2	N	1	N	N
60	4	N	4	N	N
61	5	N	5	N	N
62	2	N	2	N	N
63	6	N	6	N	N
65	7	N	7	N	N
66	7	N	7	N	N
67	5	N	5	N	N
68	5	N	4	N	N
70	4	N	4	N	N
71	3	N	3	N	N
72	7	Y	8	Y	Y
73	6	N	6	N	N
74	3	N	3	N	N
75	6	N	6	N	N
76	7	N	7	N	N
77	9	N	8	N	N
78	6	N	6	N	N
79	5	N	5	N	N
80	5	N	5	N	N
81	2	N	2	N	N
82	5	N	5	N	N
83	6	N	6	N	N
84	7	N	6	N	N
85	1	N	1	N	N
86	2	N	2	N	N
87	4	N	4	N	N
88	5	N	4	N	N

Appendix W

PCL-5 paper form translated to online survey and utilised for scoring

PCL-5

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being "superalert" or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

Appendix X

List of variables in dataset (*N* = 19)

Variable	Label
Demographics	
Age at missing	age_grouped
Gender identity	genderid_grouped
Ethnicity	ethnicity
Sexuality	sexuality_grouped
Disability	disability
Learning difficulty	ld
History	
Living in family home or care	home
History of abuse or neglect	abuse
Estimated number of missing episodes	nomis
Missing episode	
Time of most recent episode	recentep
Planned to stay away	planmis
Location whilst away	location
Length of time away (days)	lengthdays
Involvement in crime whilst awat	crimemis
Used alcohol	usedalc
Used drugs	useddrugs
Suspected Child Criminal Exploitation score	CCE_score
Suspected Child Sexual Exploitation	CSE
PCL-5 score	PCL-5 trauma score

Appendix Y
Signed consent form for participation in case study

University of Nottingham
UK | CHINA | MALAYSIA

Faculty of Medicine & Health Sciences
School of Medicine
University of Nottingham
Room B22, YANG Fujia Building
Jubilee Campus, Nottingham, NG8 1BB



Participants Consent Form

Final version 1.0: 31/01/2020

Title of study: Risks and harm experienced by young people who run away

REC ref: FMHS 08-0420
Name of project leaders: Hollie Price and Kevin Browne, School of Medicine

Name of Participant: [redacted] **Please tick box**

1. I confirm that I have read and understand the information sheet. ☑
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without any consequences. ☑
3. I understand information about me is confidential and will be made anonymous before it is stored in a secure database. Data will be kept for 7 years. ☑
4. I understand that anonymous direct quotes may be used in the study reports. ☑
5. I understand that data collected in the study, once anonymised, may be looked at by the two researchers and other professionals. I give permission for these individuals to store, analyse and publish anonymised information obtained in this study. ☑
6. I understand that what I share will be kept confidential until it is made anonymous, unless I reveal something of concern that may put myself or someone else at any risk. It may be necessary for the researchers to contact me to discuss reporting this to the appropriate persons. ☑
7. I agree to take part in the study. ☑

[redacted]	13.06.21	[redacted]
Name of Participant	Date	Signature
Hollie Price	13/06/21	HP.
Name of person taking consent	Date	Signature

Appendix Z
Question prompts for case study assessment interview

What name do you want to use?

Historical
Have you been missing before? How many times?
Why do you think you go missing?
What is your accommodation history?
Where do you usually live? Do you like it?
How would you describe your current life and lifestyle?
Do you have a history of harm/abuse/neglect? Any recently?
Do you have any criminal convictions?
Have you been arrested?
How would you describe your current mental health? How are you?
How would you describe your current physical health? How are you?
Do you receive any support from services?

Recent events
Have you gone missing recently? How long for?
Why do you think you went missing?
Were there things at home that made you want to leave?
Things at your destination that made you want to be there?
Did anyone know where you were? Did you tell anyone?
Where did you go? Can you describe it?
Did you plan to stay away?
Did you pack things to be away?
Did you choose to go or did someone ask you to?
Were you taken anywhere by anyone?
Did you know where you were going?
How did you feel being there?
What emotions did you experience?
Were there any points you wanted to leave but couldn't?
Did you stay away for longer than you wanted?
Were you asked to do anything for anyone else?
What did that involve? How did you feel?
Were you given anything like money or gifts in return for a favour or job?
Were you threatened? Harmed or hurt?
What was the best part of this experience?
What was the worst part?
Do you think you did anything illegal whilst away?
Were you offered or did you use substances? Alcohol?
Do you think the experience has affected you in any way?
Do you feel different to how you felt before you left?
When you returned, why did you?
Were there any consequences of having been away? Were you in any trouble?

End of interview
I am going to read out my notes to check I have heard you correctly, please correct anything or tell me more if you feel it is necessary.
We agreed that information shared would be kept private and confidential, but is there anything you have shared today that you would like to be shared with anyone?

Appendix AA

G case study evidence mapped onto Chapter Four study variables

Chapter Four study variables	Group	Evidence
Age at missing	16-18	17 years old
Gender identity	Male	G identifies as male
Ethnicity	BAME	Black Caribbean
Sexuality	Heterosexual	G identifies as heterosexual
Disability	No	No evidence of disability
Learning difficulty	No	No evidence of learning difficulty
Lived in family home or care	Care	Varied history if living in care (residential, foster care, YOI secure units); living in care (youth supported housing under Full Care Order) at time of assessment
History of abuse or neglect	Yes	Evidence from interview of unspecified neglect or abuse
Number of missing episodes	Repeat	Stated in interview he has gone missing "over 10+" times
Date of most recent episode	Recent (within last 6 months)	Last missing episode reported to be one month before assessment
Planned to stay away	No	Stated in interview the last missing episode was not planned, however he expected to "maybe stay away for a few days"
Location whilst away	Out of town	Stated in interview he went "quite far, an hour away"
Crime whilst away	Yes	Stated in interview he was involved in selling drugs
Alcohol use	Yes	Stated in interview he used alcohol (vodka, whiskey, tonic wine)
Drug use	Yes	Stated in interview he used cannabis
Experience of trauma	Present	Derived from PCL-5 score (Weathers *et al.,* 2013); scored 38/80
Child Criminal Exploitation	Present	Scored 12 + criminal element using Chapter Four screening criteria (Appendix S)
Child Sexual Exploitation	Absent	Scored 9 but no sexual element using Chapter Four screening criteria (Appendix T)

Appendix AB
Evidence towards scoring of CCE and CSE screening criteria outlined in Appendix S and T

CCE scoring	Evidence
1. Not mixing with usual friends	Disrupted relationships in care setting and change of routine/time spent with family friends at Grandmothers
2. Gang association	Reported as suspected by police from known associates
3. Appearing isolated or withdrawn, or emotionally switched off	Observed withdrawn mood
4. Going missing from home or care	Recorded and observed frequent missing episodes reported to police
5. Frequent missing episodes	As above
6. Being found in a different area to where you live	Talked about travelling to friends, police tracking in other locations
7. Travelling for unexplained reasons	As above, G did not share reasonable rationale
8. Staying out late	Observed return to care setting past 11pm curfew
9. Unexplained acquisition of money, items, or buying new things	Police reported belongings in room, comments made about small amount of service provided allowance money
10. Using alcohol or illicit drugs	Evidence in care setting and self-report
11. Missed appointments with professionals	Observed in care setting such a missed keywork
12. Unexplained or frequent absences from place of education	Dropped out of college, missed examination for construction course
Criminal element?	Yes
Total = 12	
Criteria met: Yes	

CSE scoring	Evidence
1. Hanging out with older people, other vulnerable people or in antisocial groups	Friends described, police known associates and suspected gang involvement
2. Involved in a gang	Reported as suspected by police from known associates
3. Poor self-image or low self-esteem	Talked about in key work
4. Being secretive	Observed in care setting
5. Staying out late or overnight regularly	Observed return to care setting past 11pm curfew or unauthorised absences
6. Missing from home or care	Recorded and observed frequent missing episodes reported to police
7. Alcohol or drug misuse	Evidence in care setting and self-report
8. Having unexplained money or gifts	Observed and police reported belongings in room, comments made about small amount of service provided allowance
9. Involved in criminal activity like selling drugs or shoplifting	Evidence for selling drugs
Sexual element?	No
Total = 9	
Criteria met: No	

Appendix AC

Evolution of policies on RHIs. Reprinted with permission from Pona *et al.* (2019)

