



LJMU Research Online

Waring, S, Fusco-Maguire, A, Bromley, C, Conway, B, Giles, S, O'Brien, F and Monaghan, P

Examining the impact of dedicated missing person teams on the response to missing children

<http://researchonline.ljmu.ac.uk/id/eprint/22730/>

Article

Citation (please note it is advisable to refer to the publisher's version if you intend to cite from this work)

Waring, S, Fusco-Maguire, A, Bromley, C, Conway, B, Giles, S, O'Brien, F and Monaghan, P (2023) Examining the impact of dedicated missing person teams on the response to missing children. Cambridge Journal of Evidence-Based Policing. 7 (1). pp. 1-30. ISSN 2520-1344

LJMU has developed [LJMU Research Online](http://researchonline.ljmu.ac.uk/) for users to access the research output of the University more effectively. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LJMU Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain.

The version presented here may differ from the published version or from the version of the record. Please see the repository URL above for details on accessing the published version and note that access may require a subscription.

For more information please contact researchonline@ljmu.ac.uk

<http://researchonline.ljmu.ac.uk/>

RESEARCH



Examining the Impact of Dedicated Missing Person Teams on the Multiagency Response to Missing Children

Sara Waring¹ · Adrianna Fusco-Maguire¹ · Caitlin Bromley¹ · Bess Conway¹ · Susan Giles¹ · Freya O'Brien² · Paige Monaghan¹

Received: 17 April 2023 / Revised: 8 September 2023 / Accepted: 25 October 2023

© The Author(s) 2023

Abstract

Some police forces are investing resources into dedicated missing person teams (MPTs) to improve risk assessment and responsibility sharing across partner agencies. This study used police records and interviews with representatives from police and partner agencies in one UK region to provide the first systematic evaluation of the impact of implementing a dedicated MPT on the response to missing children. Results revealed a reduction in reports and change in risk assessment practices post implementation, along with suggestions that the MPT brought about more of a child-centred approach, a pushing back of responsibility to care providers, and greater personalised communication with children and care providers. However, improvements needed to be made to intra- and inter-agency communication, and consideration of resources across shift patterns. Findings pose important implications for informing decisions regarding allocation of finite resources and improving multiagency response to missing children.

Keywords Missing children · Repeat missing · Police response · Care home · Partnership working · Missing children investigations

Introduction

In the UK, ‘missing’ refers to “*anyone whose whereabouts cannot be established*” who will be “*considered as missing until located, and their well-being or otherwise confirmed*” (College of Policing [CoP], 2019). More than 300,000 incidents of missing children are typically reported to police in England and Wales each year (National Crime Agency [NCA], 2022). Children in the care of local authorities (living with foster parents, in residential children’s homes, schools or secure units) represent over 60% of cases, are three times more likely to go missing than other children and often go repeatedly missing (Babuta & Sidebottom, 2020; NCA, 2022;

Extended author information available on the last page of the article

Taylor et al., 2014). Responsibility for preventing and responding to children missing from care belongs to multiple agencies, including care homes and local authorities (CoP, 2019). However, police perceive this responsibility to be falling heavily on their shoulders, placing strain on resources (Greenhalgh & Shalev Greene, 2021; Hayden & Shalev-Greene, 2016). With government funding cuts to public services creating further pressure to do more with less (Boulton et al., 2017; Fyfe et al., 2014), questions are being raised regarding allocation of police resources in responding to missing children given that most are found within 24 h (NCA, 2022). Questions are also being raised regarding the use of non-specialist teams to manage investigations given potential complex risks involved such as criminal or sexual exploitation (All-Party Parliamentary Groups [APPG], 2019; Greenhalgh & Shalev Greene, 2021).

In response, various forces across the UK are trialling the use of dedicated missing person teams (MPTs) that have responsibility for coordinating the management of missing people, including risk assessment, resource allocation, and engagement with partner agencies. To date, however, little research has examined the effectiveness of these dedicated MPTs for improving the prevention and response to missing children. Accordingly, the following study draws on police records and interviews with representatives from police and partner agencies to examine the impact of implementing an MPT on the response to missing children.

Responding to Missing Child Episodes

Responding to missing incidents represents one of the biggest burdens on police resources, costing an estimated £394 to £509 million per year in England and Wales (Babuta & Sidebottom, 2020). Investment of police resources is determined by risk classification (i.e. no apparent immediate risk-absent [NAIRA]/low risk/medium risk/high risk), with greater resources invested in higher risk cases (APPG, 2019). For children missing from care who are believed to be at 'no apparent' or 'low' risk, there is an expectation that care homes and other social care partners will adopt responsibility for searching (Shalev-Greene & Pakes, 2013). Pushing back responsibility on partners to undertake reasonable actions to locate a child missing from care reflects the approach taken for children reported missing by parents or guardians (APPG, 2021). This can reduce burden on police resources (Phoenix & Francis, 2022), along with minimising potential stigma experienced by children coming into frequent contact with police for breaching care home curfews (Hayden, 2010; Shalev Greene, 2011).

Nevertheless, in practice, very few missing children are classified as 'no apparent' or 'low risk' (only 15%, compared to 75% classified as medium and 7% as high risk in England and Wales in 2018/2019; NCA, 2020). This reluctance to apply 'low risk' categories stems from a perception that children who are not where they are expected to be are at some risk (Hayden, 2016), despite more than 96% returning unharmed (Doyle & Barnes, 2020; NCA, 2022) many within 24 h and of their own accord (Holmes, 2016). Accordingly, figures suggest a mismatch between risk classification, allocation of resources, and division of responsibility across agencies

(Allsop et al., 2020; Babuta & Sidebottom, 2020; Giles, 2021; Hayden & Shalev-Greene, 2016). This may be exacerbated by how ‘missing’ is defined and implemented in practice, with police believing the definition poses limited implications for partner agencies to take responsibility (Allsop et al., 2020; Shalev Greene et al., 2019; Waring et al., 2023). With local authorities and care homes also experiencing the strain of government funding cuts, police are increasingly being used to locate children who have breached care home curfews with the knowledge that most do not require their intervention (Hayden & Shalev-Greene, 2016; Smith & Shalev Greene, 2015). However, with missing cases expected to continue rising in line with population growth (Institute for Government, 2019), this approach is not sustainable.

One way in which UK police forces are seeking to address issues with risk assessment, resource allocation, and partnership working is through introducing specialist roles (e.g. missing person coordinators; Alys et al., 2013) or missing person teams. The development of such teams (although varied in size and function) has been raised as an example of good practice by Her Majesty’s Inspectorate of Constabulary [HMIC] (2016; see police efficiency, effectiveness, and legitimacy inspection reports for individual police services). To date, however, such teams have not been rigorously evaluated. Nonetheless, some would argue for the benefits of a dedicated team versus ‘business as usual’ practises comprised of early investigations handled by response teams. Questions have been raised about the extent to which frontline officers have the specialist knowledge needed to respond to complex missing child incidents or the time needed to develop relationships with partners to better coordinate responses given their high caseloads (Ofsted, 2013; Shalev-Greene, 2014). This has also led to concerns that missing children may not be receiving the appropriate expertise needed to prevent further episodes, which also places further strain on finite resources (Greenhalgh & Shalev Greene, 2021). Consequently, some forces are seeking to introduce dedicated MPTs to provide a more coordinated and specialised approach in the responses to and prevention of missing children. Other forces are considering implementing dedicated MPTs but are reluctant to commit resources in the absence of evidence demonstrating efficacy.

Current Study

The following study seeks to examine the impact of a new MPT on the response to missing children in one UK police force. Implemented in November 2020, this dedicated resource is overseen by a detective inspector (DI) and consists of eight detective constables (DCs) and one detective sergeant (DS), responsible for managing reports of missing children between the ages of 14 and 17 years. Under this new structure, all reports are passed to the MPT to conduct background checks and assess risk. Children under the age of 14 are reported as missing between 3 and 8am are automatically classed as ‘medium’ or ‘high’ risk based on the police force’s perception that these factors increase risk. Accordingly, these cases are passed to an inspector to manage and allocate search resources to ensure safeguarding. Cases assessed as ‘low’ or ‘no apparent’ risk remain under the supervision of the MPT for 6 h, with the team providing support and advice to care homes, social care partners,

parents, and other guardians as they undertake reasonable steps to search during this period. In effect, the MPT was introduced to increase the use of ‘NAIRA’ or ‘low risk’ classifications and responsibility for social care partners to search for children living in care settings who are not where they are expected to be but are believed to be at low risk of harm, along with reducing missing and repeat missing episodes and, thus, the pressure on police resources.

The following mixed-method two study paper evaluates whether the implementation of the MPT improved the response to missing children. In study one, we examine missing children reports to consider whether the introduction of the MPT has (i) significantly impacted the use of particular risk classifications, (ii) significantly decreased the number of missing children, the proportion of cases where children went missing or repeatedly missing from care, and length of time children were missing for, and (iii) significantly impacted whether certain types of cases were resolved more quickly (e.g. those assigned as high/medium risk, repeat missing cases). In study two, we examine how the MPT may have facilitated and hindered the multiagency response to missing children, using interviews conducted with representatives from police and partner agencies. As the first study to robustly examine the use of dedicated resources in the investigation of missing children, findings pose important implications for decisions regarding use of finite resources to improve multiagency response to missing children.

Study One

Method

Design

An outcome evaluation (Mims, 2021) was conducted to indicate how much of a difference the MPT made on factors that may impact allocation of police resources and outcomes for children. This is important for providing an evidence base of ‘what works’ in practice (Shannon & Schaefer, 2013).

Data

Secondary data consisting of anonymised missing reports of 14–17-year-olds¹ were provided by the UK force implementing the new MPT at the following four predetermined 2-month timepoints:

- i) Before the MPT was implemented (timepoint 1 [T1], January–February 2019)
- ii) During the initial pilot of the MPT (timepoint 2 [T2], January–February 2020)
- iii) When the full MPT was implemented (timepoint [T3], January–February 2021)

¹ This is the age range that the MPT were responsible for categorising risk in relation to (children under 14 were automatically categorised as ‘medium’ or ‘high’ risk and managed by an inspector).

iv) Six months after the MPT was implemented (timepoint 4 [T4], June–July 2021)

T3 coincided with periods of local lockdowns in some regions and widespread public health restrictions due to COVID-19. By T4, public health restrictions were starting to be lifted. Whilst local lockdowns and other public health restrictions may have influenced the number of reports of young people going missing, T3 has been included in the analysis because it reflects the initial period for when the full MPT was first implemented. It is included to allow some comparison between missing reports when the team was first being embedded and then six months later when the team was more established.

In total, 1810 missing incidents were reported across the four time points involving a total of 737 children (see Table 1). The mean age of children reported missing across all timepoints was around 15 years (T1: $M=15.4$ years, $SD=1.1$; T2: $M=15.6$ years, $SD=1.1$; T3: $M=15.6$ years, $SD=1.1$; T4: $M=15.7$ years, $SD=1.1$). Apart from T1, males comprised the highest proportion of missing reports (T1: 48.2%, $n=124$; T2: 54.6%, $n=112$; T3: 53.4%, $n=79$; T4: 59.1%, $n=75$). Information on the ethnicity of missing children was not available for T1 and T2; for T3 and T4, most reports involved young people from a White North European ethnic background (T3: 31.1%, $n=46$; T4: 89%, $n=113$).

Variables

The independent variable of ‘timepoint’ had four levels (T1–4). Outcome variables were taken directly from categories used to record missing incidents on the police database and included length of time missing (in hours), risk categorisation (NAIRA/low/medium/high/other), whether the child was living in care (unknown/no/yes), type of premises from where the child was reported missing (domestic dwelling/care placement/care hostel), and whether the child was recorded as going missing previously (i.e. a repeat missing case; yes/no). ‘Living in care’ and ‘type of premises’ represents two separate but related variables and data relating to these was not recorded on police databases at T1 or T2. Domestic dwelling refers to young people living in their family home (i.e. not looked after children living in care). Care placement and care hostel refer to young people who are living in different types of care setting, the former representing regulated care homes where a greater level of support is provided compared to care hostels. The ‘NAIRA’ risk category did not exist at T1 and was only introduced toward the end of T2 (February 2020). Accordingly, comparisons were conducted between T3 and T4 for these three variables.

Data Analysis

A quasi-experimental time-series design (Handley et al., 2018) was used to examine differences across timepoints (using the SPSS statistical software package). This method is a robust and popular way to consider the impact of an intervention within an evaluation (Mims, 2021). Chi-square tests of independence using Bonferroni corrections for any multiple comparisons were applied to compare the presence of categorical variables across timepoints (McHugh, 2012) (i.e. risk level). Standardised

Table 1 Means, standard deviations, and frequencies of variables across time points

Variable	Timepoint			
	T1	T2	T3	T4
Incidents reported	700	476	373	261
Children involved	257	205	148	127
Length of time missing (hours)	<i>M</i> (<i>SD</i>) 8.7 (11.5)	9.7 (13.8)	9.9 (13.3)	12.3 (16.0)
Risk assessment				
NAIRA	-	-	130 (34.9%)	186 (71.3%)
Low	2 (0.3%)	6 (1.3%)	10 (2.7%)	2 (0.8%)
Medium	243 (34.7%)	137 (28.8%)	86 (23.1%)	44 (16.9%)
High	8 (1.1%)	7 (1.5%)	4 (1.1%)	0 (0%)
Other	0 (0%)	0 (0%)	13 (3.5%)	29 (11.1%)
Not recorded	447 (63.9%)	326 (68.5%)	130 (34.9%)	0 (0.0%)
Living in care				
Yes	-	-	147 (39.4%)	193 (73.9%)
No	-	-	39 (10.5%)	44 (16.9%)
Unknown	-	-	1 (0.3%)	22 (8.4%)
Not recorded	-	-	186 (49.9%)	2 (0.8%)
Type of premises				
Domestic dwelling	-	-	44 (11.8%)	59 (22.6%)
Care placement	-	-	133 (35.7%)	161 (61.7%)
Care hostel	-	-	9 (2.4%)	33 (12.6%)
Other	-	-	3 (0.8%)	8 (3.1%)
Not recorded	-	-	184 (49.3%)	0 (0.0%)

Table 1 (continued)

Variable	Timepoint				
	T1	T2	T3	T4	
Repeat missing	Yes	615 (87.9%)	404 (84.9%)	335 (89.8%)	237 (91.5%)
	Living in care	-	-	143 (38.3%)	181 (69.3%)
	Not living in care	-	-	35 (9.4%)	33 (12.6%)
	Domestic dwelling	-	-	41 (0.1%)	46 (17.6%)
	Care placement	-	-	129 (34.6%)	155 (59.4%)
	Hostel	-	-	9 (2.4%)	30 (11.5%)
No		85 (12.1%)	72 (15.1%)	38 (10.2%)	22 (8.5%)
	Living in care	-	-	4 (1.1%)	10 (3.8%)
	Not living in care	-	-	4 (1.1%)	11 (4.2%)
	Domestic dwelling	-	-	3 (0.8%)	13 (5.0%)
	Care placement	-	-	4 (1.1%)	4 (1.5%)
	Hostel	-	-	0 (0%)	3 (1.1%)

Note. The NAIRA category did not exist for T1 and was introduced towards the end of T2

residuals were calculated to determine the which (if any) variables contributed to any significant results when there were more than two levels in the categorical data (e.g. type of premise), using the formula $O - E/\sqrt{E}$, where O is the observed count of category within the variable at timepoint, and E is the expected count of the category within the variable at timepoint (Sharpe, 2015). To examine differences in continuous variables across timepoints (e.g. length of time missing), one-way analysis of variances (ANOVAs), or their appropriate non-parametric versions were used (Ross & Willson, 2017).

Results

The following sections highlight whether there were differences in terms of characteristics of the missing children reports across the four timepoints (see Table 1 for descriptive statistics).

Number of Reports and Individual Children Going Missing

Risk Assessment

There was a significant relationship between risk assessment category use across timepoints (NAIRA was only implemented between T3 And T4) ($\chi^2(15) = 1069.27$, $p < 0.001$). Cases were significantly more likely to be classified as 'NAIRA' at T4 than T3 ($\chi^2(1) = 81.44$, $p < 0.001$), as 'low' risk at T3 compared to T1 (Fisher's exact test, $p < 0.001$), as 'medium' risk at T1 compared to T3 ($\chi^2(1) = 15.56$, $p < 0.001$) and T4 ($\chi^2(1) = 28.94$, $p < 0.001$), and as 'other' at T3 compared with T1 (Fisher's exact, $p < 0.001$) and T2 ($\chi^2(1) = 16.85$, $p < 0.001$) and in T4 compared with T1 ($\chi^2(1) = 80.20$, $p < 0.001$). The proportion of cases that did not have a risk categorisation decreased over time, with T3 being lower than T1 ($\chi^2(1) = 82.35$, $p < 0.001$) and T2 ($\chi^2(1) = 96.16$, $p < 0.001$), and T4 being lower than T1 ($\chi^2(1) = 311.61$, $p < 0.001$).

Living in Care

Out of the total number of children going missing at each time point, there was no significant difference in the number of children going missing from care comparing T3 and T4 ($\chi^2(1) = 0.38$, $p = 0.54$).

Type of Premises From Where Children Went Missing

There was a significant association between T3 and T4 and type of premises that repeat cases went missing from ($\chi^2(1) = 19.79$, $p < 0.001$). Examination of the standardised residuals for each premises type showed that none of the variables had an absolute value greater than 2 (Agresti, 2018). Therefore, it is not possible to say that

any particular type of premise (including the unknown category) caused the overall significant effect.

Repeat Missing Cases

There was a significant relationship between repeat missing cases and timepoints ($\chi^2(3)=8.59, p<0.05$). Post hoc comparisons (adjusted p -value of 0.0125) showed a higher percentage of repeat missing cases in T4 (91.5%) compared with T2 (84.9%) ($\chi^2(1)=6.61, p=0.01$).

There was a significant association between timepoint and type of premises that repeat cases went missing from ($\chi^2(1)=16.79, p<0.001$). Examination of the standardised residuals for each premises type showed that none of the variables had an absolute value greater than 2 (Agresti, 2018). Therefore, it is not possible to say that any type of premise (including the unknown category) caused the overall significant effect.

Length of Time Missing

A one-way ANOVA and post hoc analysis showed a significant difference in the amount of time children were missing for across timepoints (Welch's $F(3, 764.60)=3.83, p<0.05$). Children were missing for longer in T4 ($M=12.2$ h, $SD=16$ h) compared with T1 ($M=8.7$ h, $SD=11.5$ h). Using one-way ANOVAs (with corrected p -value of 0.008333), no significant difference was found between timepoints and hours missing for cases categorised as 'low' risk (Welch's $F(3, 764.60)=3.16, p=0.02$), 'medium' risk (Welch's $F(3, 142.33)=1.44, p=0.23$), 'high' risk (Welch's $F(2, 5.85)=3.31, p=0.11$), 'NAIRA' (measured between T3 and T4) (Welch's $F(1, 485.34)=4.24, p=0.04$), and 'other' (Welch's $F(1, 28.44)=11.13, p=0.002$). There was a significant difference between T1-T3 (no cases categorised in this way for T4) and hours missing for cases that did not have a risk categorisation (Welch's $F(2, 764.60)=3.16, p=0.02$). Post hoc comparisons using Tukey HSD test indicated that the mean length of time missing at T1 ($M=4.54$ h, $SD=5.98$ h) was significantly shorter than at T2 ($M=6.64$ h, $SD=11.67$ h) and T3 ($M=7.13$ h, $SD=9.80$ h). There was no significant difference between length of time missing in T3 and T4 for children living in care ($U=752.50, p=0.34$) or for children not living in care ($U=11, p=1.00$).

Length of time missing was compared across T3 and T4 for reports of children going missing from each type of premises (adjusted p -value of 0.01). Children living in care placements went missing for significantly longer at T4 ($Mdn=6.28$ h, $Min=0$ h, $Max=134.28$ h) compared to T3 ($Mdn=3.75$ h, $Min=0$ h, $Max=70.1$ h) ($U=8394.50, p<0.01$). There was no significant difference in time missing for children living in a private dwelling ($U=1167, p=0.38$), hostel ($U=93.50, p=0.09$), or other type of premises ($U=2.0, p=0.05$). A one-way ANOVA showed a significant difference in hours missing for repeat cases across timepoints (Welch's $F(3, 683.55)=3.16, p<0.05$). Time missing was significantly shorter in T1 ($M=9.06$ h, $SD=11.89$ h) than T4 ($M=12.49$ h, $SD=16.46$ h).

Discussion

Following the introduction of the MPT there was a noticeable decline in the number of missing cases categorised as medium risk. Whilst national data indicates that the majority of these cases fall into the medium risk category (75%; NCA, 2022), results suggest that the adoption of the NAIRA category has led to a decline of medium risk cases (16.9%), minimising police deployment and police-child interactions. Such findings differ from those of McIver and Welch (2018) who found introduction of an absent category did not reduce higher-risk reports. This discrepancy may be attributed to the concurrent launch of the MPT and NAIRA. Unlike the approach in McIver and Welch (2018), where carers had to report children as absent based on their judgement, the MPT maintains the usual reporting protocol whereby the call handler assesses initial risk, ensuring the onus of risk assessment remains with the police. As carers discretion is often undermined by fear of liability if something untoward were to happen to the child (Murphy, 2022; Waring et al., 2023), relegating the task of determining absence to them will invariably result in minimal cases, thus transferring the weight of responsibility to the police (Hayden & Goodship, 2013).

It was also noted that proportion of cases that did not have a risk categorisation also improved over time, with 63.9% of cases not recording a risk assessment within T1, compared to 0% of cases not recording a risk categorisation at T4. This indicates that the introduction of the MPT has significantly enhanced the quality of information recording. Waring et al. (2023) emphasised that effective inter-agency collaboration during a missing child investigation is bolstered by transparent information sharing. Therefore, enhanced recording practices will invariably foster better inter-agency cooperation.

Results also found that repeat missing episodes increased post- MPT implementation. This suggests that the MPT did not reduce the number of children who repeatedly go missing. However, the MPT is not tailored to tackle underlying causes for missing episodes. Understanding the complexities of why children repeatedly go missing and attempting to reduce history of repeat missing episode is not sensitive to change.

Lastly, the length of time children went missing increased over time, suggesting that the implementation of the MPT introduction might have inadvertently elongated the missing periods, possibly because the police were less involved in search efforts by the implementation of NAIRA. One concern from this finding is, prolonged absence potentially increases a child's vulnerability to dangers (Hayden, 2016). Results were unable to offer an explanation as to why this is the case or offer results on number of children come to harm to determine if length of time missing is posing a risk for these children. However, with NAIRA placing responsibility onto care homes, these institutions may be potentially struggling to allocate staff to search for absent children. This observation warrants more in-depth research for clarity.

Study Two

Method

Design

Process evaluation was used to indicate how outcomes were achieved, whether the dedicated resource was being implemented as intended, what aspects of the MPT were working well, challenges to implementation achieving intended outcomes, and whether (and how) these challenges had been overcome (Ellard & Parsons, 2010). Semi-structured interviews were conducted with representatives from police and partner agencies to gather in-depth rich data to understand these mechanisms.

Participants

Participants were recruited via a criterion sampling approach between July and September 2021 and were selected based on their experience with the implementation, delivery, and utilisation of the new MPT (Palinkas et al., 2015). As responding to missing children is a multi-agency issue, multiple perspectives were sought to understand what works and why (Vogl et al., 2018). Interviews were conducted until no further knowledge or information was found to address the research question (Guest et al., 2006). This led to a total of 20 interviews with eight members of the MPT (including a retired DI [RDI] who was involved in the design of the MPT), four internal stakeholders working across Basic Command Units (BCUs), and eight external stakeholders. Internal stakeholders were detectives working within the Public Protection Unit with responsibility for responding to serious incidents, including missing children at 'high' and 'medium' risk. Prior to implementing the MPT, all missing child cases would initially be passed to these officers to review and respond. External stakeholders were representatives from the local authority (LA), social workers (SW), and care home staff (CH) with responsibility for looking after vulnerable children, including those living in care. Independent Advocates from the Barnardo's charity were also among these external stakeholders. Commissioned by the police service, Barnardo's advocates (BA) are responsible for conducting return home interviews with children following missing episodes to provide support and reduce risk-taking behaviour (Mitchell et al., 2014). Table 2 provides an overview of participants and topics discussed in each set of interviews.

Materials

An interview schedule was designed in consultation with the DI responsible for overseeing the initial implementation of the MPT to ensure the process evaluation focused on issues of practical relevance. The interview schedule depended on the role of the participant in the MPT but included opening questions to explore participants' perception of the purpose of the MPT (e.g. *What does the new Missing Persons Team hope to*

Table 2 Roles of participants in the MPT and scope of questions asked within interviews ($N = 20$)

Role	Job title	Scope of interview questions
Members of the MPT ($n=8$)	Detective constable ($n=5$)	1. Role and overview of MPT
	Detective sergeant ($n=1$)	2. Whether goals have been met
	Detective inspector ($n=1$)	3. Factors that facilitated and hindered the success of the MPT
	Retired detective inspector involved in the design of the MPT ($n=1$)	4. How well agencies have worked together
Internal stakeholders from different BCUs ($n=4$)	Detective sergeant ($n=3$) Detective inspector ($n=1$)	1. Role in relation to the MPT
External partners/stakeholders ($n=8$)	Local authority manager with responsibility for child protection and exploitation ($n=1$)	2. Experience of missing children
	Social workers ($n=2$)	3. Perspectives on the purpose of the MPT
	Children's care home staff ($n=2$)	4. Expectations of the MPT
	Barnardo's advocates responsible for conducting return home interviews with missing children ($n=3$)	5. How well agencies worked together

achieve?) and expectations (e.g. *What were your expectations of what the Missing Persons Team would achieve?*). The schedule also included questions around perceptions of how the MPT may have worked well (e.g. *What is your experience so far, do you think the implementation of the new team is going according to plan?*) and what processes may have required improvement and why (e.g. *How can the new Missing Persons Team be improved?*). Finally, questions included how well participants perceived the MPT worked together with other agencies (e.g. *How well do you think the Missing Persons Team and partner agencies are working together?*).

Procedure

Due to social distancing restrictions in place within the UK during the COVID-19 pandemic, all participants took part in online semi-structured interviews, which ranged between 14 and 76 min in length ($M=35.3$ min, $SD=18.6$ min). Interviews were conducted by two interviewers; one took the lead with asking questions, and the other reviewed responses and asked follow-up questions to clarify points raised. Interviews were recorded using a dictaphone, transcribed verbatim, anonymised, and then audio files were deleted.

Data Analysis

Interviews were analysed using thematic analysis, a technique for identifying common themes across participants (Braun & Clarke, 2006, 2019). Thematic analysis follows an inductive approach where analysis was not guided by a pre-existing coding framework but rather ‘data-driven’ (Patton, 1990). This allowed for an exploratory technique permitting the researchers to develop themes from raw data (Braun & Clarke, 2006, 2019). The process involved transcribing interviews to build familiarity. Transcripts were then coded into analytic themes using data analysis software (NVivo). Themes were systematically reviewed for internal homogeneity and external heterogeneity, ensuring the name and definition of each theme supported their category (Palinkas et al., 2015). To assess the robustness of themes, inter-rater reliability was calculated using Cohen’s Kappa with a second researcher analysing 10% of the dataset. This allowed the researchers to identify any inappropriate quotes that could compromise the trustworthiness of a theme (O’Connor & Joffe, 2020). Results of Cohen’s kappa ($k=0.73$, $p<0.001$) indicated a substantial level of agreement (McHugh, 2012). Two researchers discussed disagreements in coding with a third researcher, which included the content surrounding quotes in interview transcripts also being read to provide further context and meaning, resulting in 100% agreement.

Results

Thematic analysis identified two themes related to aspects of the MPT that are working well—(i) a child-centred approach and (ii) reducing demand on frontline resources—and three themes related to processes requiring further focus—(iii)

communicating the role and purpose of the MPT, (iv) understanding risk, and (v) shift patterns.

A Child-Centred Approach

Police participants highlighted the main goal of the MPT was to adopt a child-centred approach to improve the lives of missing children.

“[The goal] is to be child centred, and to make sure that we are appropriately intervening in that child’s life.” [DC5].

“I am very child focused, very, and vulnerability focused. This is about making it better for them.” [RDI1].

Police officers noted that prior to the implementation of the MPT, most missing children were categorised as medium or high risk and a police intervention was deployed, which did not demonstrate a child-centred approach. They believed most children reported missing were living in residential care and were reported missing because they had not returned home by curfew times set by social services, which were stricter than the curfews of their friends. Sending out officers to locate these children could lead them to be unnecessarily stigmatised and criminalised. However, the dedicated MPT sought to minimise this stigmatisation by taking a more consistent approach to risk assessment, so police resources were only deployed in cases where the child was assessed as being at risk.

“[Children in care] they got curfews much earlier than most people, and you’re kind of setting that person up to fail [...]. When their friends are allowed to stay out till 10 o’clock, and you’re setting your curfews at eight o’clock, that’s never going to work” [DC4].

“They were having constant contact with the police, which is likely to be a negative impact for them.” [DC4].

“I think it’s better for the children because they’re not being picked up in police cars and sort of criminalised when they haven’t done anything criminal, they’re just missing.” [DC1].

The MPT also sought to adopt a child-centred approach by taking steps to communicate with children with a history of going repeatedly missing from care in a less obtrusive way to check their safety. This included texting or calling them to check they were safe, where they were, and when they would return home. Officers felt this improved the relationship between the MPT and children in care.

“We might give them a text or something and say, ‘it’s [name] from the missing persons team’, it lets me say, ‘what’s your plans?’ So, they’d be like, ‘oh, we’re going to go back at midnight when my mate goes in.’” [DC2].

“It was well received because they felt as no police involvement [...] we contact the children via phone or text, and link with them directly. So again, it’s no visible police presence.” [DS1].

Reducing Demand On Frontline Resources

Members of the MPT highlighted another key objective was to reduce demand on frontline resources.

“There’s obviously the kind of reduction in demand on the frontline resources, which is an important part of why this was brought in, because the demand on frontline resources was stretched to the breaking point.” [DI1].

MPT participants noted they did this by emphasising to staff within care homes they had a responsibility to take reasonable actions to locate the missing child when the child appeared to be at no apparent risk of harm.

“[Police service] aren’t deploying resources unnecessarily to something that other agencies, parents, fosters, and children’s services should be doing.” [DC5].

“The team expect a little bit more from the care providers in terms of their responsibilities to firstly go and locate the child if they’re missing and to make those inquiries themselves before reporting to us.” [DI1].

“Pushing back on the care homes is a better outcome for the children and is also reducing demand on the frontline.” [DC1].

External stakeholders from local authorities and care homes were willing to accept responsibility to work alongside the MPT to explore ways missing incidents could be reduced.

“I think for me this change is about making a better outcome for young people [...] We’re on a similar page with regards to how we should be responding differently and not having a blanket response to all young people who are missing.” [LA1].

“I think [police] they’re positive [...] we’re trying to work with them. And they can see that and appreciate it. And we do, we follow all what they ask us to do with regards to doing our damndest to get them home.” [CH1].

Members of the MPT reported the push-back to care homes was well received due to establishing stronger working relationships and methods of communication, which had been beneficial for improving access to information to inform risk assessments and reducing demand on police resources. For example, MPT officers often provided care home staff with their personal work number so they could call directly rather than using a central number and waiting for prolonged periods or being passed across multiple contacts before reaching the MPT. Being able to communicate more

efficiently and effectively and work in collaboration with care homes and other partners was beneficial for identifying actions to find the missing child quicker, further reducing demand on police resources.

“As soon as that reported person is rung in, we will ring them back from the NAIRA team with our personal mobile numbers [...] what the care homes have said is that they prefer that sort of single point of contact rather than waiting up to an hour to back through to us.” [DC3].

“When somebody’s reported missing, we’ll contact them [care homes] directly and provide our work mobile numbers. So, they can contact us directly if there’s any issues. So again, that’s breaking down the barriers with the particular care homes and the staff.” [DC4].

Creating stronger relationships and clearer boundaries regarding the expectations for care homes and other social care partners to take reasonable steps to locate children missing from care settings also meant police received fewer calls. Police perceived that as care homes and social care providers became more familiar with these expectations, they were reporting fewer incidents because they were taking steps to locate children perceived to be at low risk first and finding them without the need for police intervention.

“The care providers have accepted that, ‘well, yeah, actually, we don’t need to contact the police about that [...] It’s not just about pushing back when the call comes in, now the call doesn’t even come into us.” [DC5].

However, participants also acknowledged there was still a tendency for other agencies to treat the police as a ‘one-stop shop’ and there needed to be more of a multi-agency response to missing children rather than police shouldering the responsibility.

“But it is a bit unfortunate, the police are treated as the one-stop shop. Police haven’t got that excuse to sort of say, ‘oh no, we’re not going’. It always falls back.” [CH1].

“But what we need to recognise is we can’t do this on our own. It needs to be in partnership, and we need social workers, care staff, foster carers, and in effect, parents to actually step up and actually take on some responsibility themselves.” [RDI1].

Clear Communication of the Role and Purpose of the MPT

All participants interviewed highlighted that the MPT currently worked well to reduce demand on police resources and encourage a more child-centred approach. However, there was a lack of information disseminated when piloting the MPT, which initially created some confusion for police and partner agencies in understanding the role and purpose of the team, the use of the NAIRA risk classification,

and implications in terms of responsibility being pushed back on care homes and other social care partners to take reasonable steps to locate children missing from care settings.

“I think there’s been some teething problems. And I don’t think the information about especially the NAIRA process has been properly filtered down to some of the residential settings, the private homes.” [SW1].

“I know when [the pilot] it first came out, there was an initial step back from the care homes, as they didn’t know what they should be doing, and what they shouldn’t be doing.” [DC4].

Officers noted that whilst information about the role and purpose of the MPT had been provided to local authorities and call handlers, mostly via e-mail and a week-long training session, there were concerns that not all relevant parties were made aware or received adequate training. For example, members of the MPT noted needing to provide frequent guidance to call handlers about changes to their role in eliciting information from people calling to report a missing child.

“The message was communicated beforehand, but it was communicated at a kind of executive level. Whether or not that filtered down to the actual staff who were on duty, you know, I would doubt that actually happened, which is unfortunate, because they’re the ones that are involved in the process.” [DI1].

“When [call handlers] initially started, all they had was an email. They didn’t have the proper training on it, which caused a few issues.” [DS1].

“When it comes to the call handlers, I know, I think from what others have told me, they had like a week’s training, and I think it was pretty intense.” [DC5].

All participants suggested the need to provide greater focus on communicating with internal and external stakeholders and partner agencies prior to implementing a dedicated MPT to make it clear what the purpose is, how it will operate, why it is being introduced, and the intended benefits for all involved.

“I would suggest [...] spend a lot of time discussing with the partners and care homes in their area, before implementing it, to explain the reasons why it’s being implemented” [DI1].

“[we need to] educate our call handlers, in giving them the confidence to push back even before it comes to us.” [DC5].

Understanding Risk

Members of the MPT felt the introduction of NAIRA was beneficial for the MPT to delineate levels of risk posed to children. They also felt it provided another ‘layer’ of

assessment to review this process, ultimately giving children a more thorough risk assessment.

“You’re getting a better response, because when that person is reported missing at 9 pm, on a Friday, unless that child is [...] high risk [...] then realistically, it will get put on a terminal, and you won’t be allocated because on a Friday night, there’s no officers available [...] So in all honesty, that young person could go hours or all night without having any resources attached to it. [...] So you’ve got a more robust process in place [with the team] where you’re actually have got an experienced call handler. So it will go through a call handler in the control room, it will go through a thrive, which is a risk assessment process.” [DS4].

“Before, you would put someone missing, and by the time an officer is free to go and do all the necessary checks or make the phone calls, it could be a while before they can get there. Whereas now, you’ve got parents and carers out looking for them straight away [...] and then we’re keeping in contact with them [...]. It’s better managed than what it was before.” [DC1].

Care home staff also acknowledged the value of them taking steps to search for children missing from care settings that were at low risk of harm as it helped to demonstrate to the children that they cared. However, they were concerned about not having the resources needed to take the steps police wanted them to in cases where children were assessed as ‘NAIRA’ or ‘low’ risk. Police also questioned whether care homes were taking the steps expected of them. This disparity between police expectations for care home staff and what care home staff had the capacity to do could sometimes lead to tensions. Police also understood these challenges for care homes and acknowledged the need for greater staffing.

“Our resources are pushed to try and locate them before we obviously contact the police” [CH1].

“[police] they want to ask children’s homes to take more responsibility for children that are going missing. We already took on as much responsibility as we could anyway, as far as we could within the limits of the safety plan.” [CH2].

“The police are saying to me, ‘why can’t there be more staff on because those staff should play a role in going to look for those kids rather than sending the police around to look for them?’ And I’m saying, ‘Well, it’s because that accommodation is very expensive, they do it on a shoestring and they got the minimum requirements of staff, those staff cannot leave that because of the ratio of other kids that are in the premises.’ It’s a weekly thing [...]. There’s usually a bloody slanging match between the police and the support staff who will go, ‘listen I’m just doing what I’m told.’ And the police are going, ‘well, have you tried this? Have you tried that?’. Like I can’t try that because I can’t leave.” [LA1].

External stakeholders from care homes and social services were also concerned about the application of NAIRA, believing it was used too readily for children who had a record of going repeatedly missing. In addition, they believed there could be a danger that limited resources was influencing how risks were being assessed rather than risk assessments determining allocation of resources. This could result in vulnerable children not receiving the response they needed.

“And I just get the impression now there’s a little bit more of “Ah, this person’s always on the whiteboard. So, maybe they should be NAIRA” just because they are repeat [missing people]. But it shouldn’t be the case, simply because we haven’t got the resources to investigate it properly”. [BA1].

Care home staff also noted receiving conflicting responses from officers when utilising NAIRA, which made them question whether this risk classification was being understood and applied inconsistently across the MPT.

“We are getting different information from different officers. Some would be fine about it [...]. Others would slate us for leaving it for so long, saying: ‘At that age, why haven’t you rang us earlier?’. So it’s not black and white [...] And so that’s one thing we found difficult.” [CH2].

Shift Pattern

Feedback from members of the MPT highlighted issues with the shift patterns that were put in place for the team.

“I know the shift patterns are a major issue for the Team.” [DS1].

“The shift pattern is very hard to set up, because you’re very predominantly skewed towards the night-time.” [DI1].

This included issues with the number of staff being equally distributed across day and evening shifts when the workload was greater during the evening. Consequently, staff working on evening shifts were experiencing considerable stress and were at risk of making errors in judgements and assessments of risk, whereas officers working day shifts sometimes struggled to find work to do.

“We could really do with maybe a bit more coverage, possibly 24/7. Because they [children] don’t get reported missing after 3am when we finish, but some of them are, still missing because they go all night.” [DC2].

“It is a hard shift pattern for my team, it’s because [...] the majority of our calls are in the evenings when the curfew times expired, that’s when we get the calls. Data shows about 50% of our calls come in between 10 pm and 3am in the morning.” [DS1].

“[The day shift] it’s that kind of period of inactivity, both mentally and physically. And that can be stifling. It can be debilitating for you on a personal level. But it can be stifling from a professional point of view.” [DC5].

The MPT also highlighted the shift patterns had an impact on their personal life. Working unsociable hours created issues for family life and being overwhelmed with work during evening shifts could also create stress and burnout.

“You know, it’s, it’s not easy going [...] it has an impact on your life as well, because they are working so many unsociable hours [...] You don’t know if you’re coming or going sometimes.” [DC4].

“I think the biggest barrier for this team is the amount of hours they work. I don’t think the rota is set up right for them, but also for effective management and handling missing persons. I don’t think it flows. I think it should be a 24/7 service.” [RD11].

Members of the MPT suggested a greater number of staff needed to be allocated to evening shifts to balance workloads. They also suggested staff working daytime shifts could take a more proactive approach to safeguarding children by visiting care homes to build relationships with children and staff and improve access to information that would help develop risk assessments.

“In order to match up the resources to the demand, in an ideal world, you’d have a team working, or you’d have most of your team working evenings. You’d only need a couple of officers during the day to deal with the kind of daytime enquiries.” [DI1].

“I think we should be going when we’ve got the availability to do so maybe go and visit the care homes.” [DC4].

Discussion

A primary object of the MPT was to safeguard missing children. They advocate a child-centred approach, emphasising meaningful communication with care homes discern behaviours or potential triggers prompting children to run away. Moreover, they attempt to minimise unnecessary interaction between police and children. Such efforts resonate with prior research suggesting that frequent interactions with police during missing episodes can potentially criminalise the child (Hayden, 2010; Shalev Greene, 2011). Furthermore, officers have expressed that addressing and rectifying shortcomings in the care system is pivotal to reducing incidents of children going missing. For instance, a recurring concern among officers relates to unsuitable curfew timings for specific age brackets believing that children are set up for non-compliance when subjected to unrealistic regulations. This perspective echoes past research which identifies constraints on personal freedom as a prevailing factor pushing children to run away (Shalev-Greene, 2014). By spotlighting and addressing

these issues, enhancements can be integrated into care systems, potentially decreasing the frequency of missing episodes for each child.

Another aim for the MPT was to alleviate the pressure on frontline resources. The MPT recognised that the majority of children who are reported missing are not missing but rather absent from where they are supposed to be. Likewise, previous findings report that children tend to reside or socialise at unverified locations (Hayden & Shalev-Greene, 2016), then return home unharmed (NCA, 2022). Implementing the NAIRA process in responding to such reports suggest that by the MPT are achieving their goal of reducing the demand.

Nonetheless, the MPT faced some challenges during its rollout, including a deficit in training and awareness about its introduction, and complications with the rostering system established for the team. The process evaluation offers valuable insights into refining the implementation of the MPT for greater efficacy.

Overall Discussion

This study presents the first systematic evaluation of whether a dedicated MPT could be an effective police response to the considerable demand generated by missing children reports. Key findings are discussed in turn. Collectively, they provide a provisional theory of change and an outcome map that forces wishing to implement MPTs can draw on. Caveats are also provided for addressing unexpected, potentially negative outcomes in terms of methodological limitations.

In terms of expected positive outcomes, the number of missing child cases reduced over time. Almost 50% fewer cases were reported to the police force six months post implementation compared to the baseline. Whilst not direct evidence of a reduction in police resources, they indicate that fewer investigative resources are being applied to cases that do not require immediate police involvement. There was also a change in the profile of risk assessment categories across time with NAIRA being increasingly used post MPT implementation. Seventy two percent of cases were classified as NAIRA or low risk after 6 months. This contrasts markedly with 15% in England and Wales in 2018/2019 (NCA, 2020). This use of NAIRA reinforces previous findings that children are likely to be found or voluntarily returned home, without police deployment (NCA, 2022).

Nevertheless, interviews with external partners highlighted some reservations about the use of NAIRA. In line with previous research, there was concern that being an absent child poses some risk (Hayden, 2016) and that officers may become desensitised to repeat missing episodes (Harris & Shalev Greene, 2016). Indeed, previous research highlights discrepancies in accuracy of risk assessing missing children (Babuta & Sidebottom, 2020), including lack of consistency across forces (Harris & Shalev Greene, 2016) with many officers using discretion (Smith & Shalev Greene, 2015), lack of risk management plans (Ofsted, 2013), and risk adverse practice due to reduced police capacity (Eales, 2017; Heaton, 2010). However, the present study indicates improvements in systematic use of risk assessment as evidenced by the higher proportion of cases being assigned a risk category by the end of the evaluation time frame. Findings indicate this was

influenced by the strengthening of relationships between the MPT and care home staff, which resulted in more information being available to inform risk assessments. This signals the role of a dedicated unit that focuses on missing young people and improving partnership working with local authorities and care givers in changing how children are risk assessed. Findings also highlight a learning effect, with the team assessing more children as NAIRA as they gained experience in their role.

Analysis of the length of time missing provided some unexpected findings. Lower risk and higher risk cases tended to be open for the same length of time irrespective of MPT implementation. This is somewhat contrary to expectations that efficiency savings from a reduced number of reports and fewer investigative hours allocated to NAIRA might be reallocated to higher risk cases, thus helping higher risk cases be resolved sooner. This could indicate that additional factors impact on the investigative cycle of high-risk cases outside of the amount of police resources available. Reduced length of time missing might not be a suitable indicator of success in high-risk cases.

In addition, length of time missing increased post implementation of the MPT for children living in care placements and repeat missing cases. This related specifically to children risk assessed as NAIRA, which could be a potential negative outcome for MPT implementation as children missing for longer may be placed at greater risk (Hutchings et al., 2019). However, the reason why children were missing for longer is unclear. It may be partially due to NAIRA pushing responsibility back to care homes. Care homes often have lone working policies in place that could prevent or delay deployment of staff to search for missing children. Indeed, questions were raised as to how care home staff were meeting the responsibilities being pushed back to them. Further work is needed to understand whether this is a tolerable risk. In line with previous research (e.g. NCA, 2020), such cases in the present sample were still resolved within 24 h. However, harm outcomes were unavailable, so it was not possible to examine whether children initially identified as NAIRA became increasingly at risk of harm due to cases being open for longer.

Another unexpected finding is that the proportion of repeat missing cases increased, including repeat incidents for children living in care placements. This should not necessarily be interpreted as a negative outcome as the static variable, history of repeat episodes, is not sensitive to change. The MPT and related changes may have helped to reduce the frequency of missing episodes for each child. However, that would remain hidden by static variable analysis. The findings indicate that the MPT has not necessarily helped to reduce all repeat episodes for children previously reported missing. There are also unknown numbers of new children who had repeat episodes during the evaluation period. This figure is unknown as children as individual level data was not collected and so the evaluation team were not able to track missing patterns across the evaluation time frame. The MPT is not designed to address the root cause of missingness; rather, it addresses changes in professional action that emerge from a revised framework for police involvement in low-risk cases. Nonetheless, improvements in partnership working may alleviate push and pull factors for children in care. A reduction in repeat missing episodes should be anticipated. Moving forward, individual level data or a more nuanced and responsive

variable would be a better indicator of success (e.g. number of new cases, number of repeat episodes per child during each time point period).

Some findings from the outcome evaluation cannot be contextualised because of other data limitations, including poor baseline data. As with previous research (Babuta & Sidebottom, 2020; NCA, 2020), children in the care of local authorities in this sample represented a disproportionate number of missing cases. Unfortunately, data was not available pre-implementation and so we cannot explore whether the proportion of cases of children missing from care reduced. Similarly, it was not possible to determine whether the increase in the proportion of missing reports for children living in hostels, care placements, and private dwellings from time point three to time point four was meaningful or an artefact of the analysis. The evaluation demonstrated an unexpected positive outcome in terms of improved data collection and risk assessment. Demonstrated improvements are evidenced in terms of children living in care and types of premises. There was also a reduction in the proportion of cases that did not receive a risk classification or were assessed as 'other'. It was encouraging to work with a MPT who were so receptive to improvements in recording processes throughout the evaluation time line. However, it does sometimes mean that context is sometimes unclear, i.e. whether changes reflect changing missing person population, impact of MPT, or improved data gathering practises alone.

Theory of Change

The process evaluation suggests several change mechanisms as potential causal factors for increasing NAIRA risk categories (and reducing medium risk categories) and reducing reports. First, a child-centred approach helps ensure appropriate police intervention in a child's life. Under the MPT, children are no longer routinely assessed as medium or high risk and police intervention deployed. Whilst the process evaluation revealed a degree of reservation around use of a NAIRA risk classification, the movement towards a NAIRA system demonstrates increased confidence among MPT officers to identify a child as presenting no additional risk indicators and to delay police investigation. As mentioned above, improvements in risk assessment and data gathering also demonstrate the benefits of a more transparent and confident child-centred approach. It suggests that the standardised and systematic approach afforded by the MPT team has reduced the ambiguity and potential reticence around risk assessment previously observed by researchers (Smith & Shalev Greene, 2015).

Second, care homes and other social care partners were willing to accept responsibility to work alongside the MPT to reduce police resource burden. The success of the MPT can be attributed to strengthening relationships with care homes resulting in more information being given. This allows risk assessment based on the circumstances in each case, in line with APPG (2021) recommendations. By improving relationships, care homes accepted their responsibility for actively searching for the child and working with the MPT during investigations. Participants credited stronger relationships and clearer boundaries around police involvement as one reason police received fewer calls. As familiarity with the MPT and NAIRA approach increased,

police perceived fewer incidents were reported. This was because care providers knew to take reasonable actions themselves. However, changes were not absolute; there was still a feeling among some participants that responsibility falls heavily on police shoulders.

Finally, improved communication strategies with both children and agencies help to personalise relationships, manage expectations around police involvement, and cut down the administrative burden associated with reporting and monitoring a child's whereabouts. Improved communication and reduced police involvement were reported by stakeholders as a key way to minimise potential stigma and subsequent criminalisation experienced by children that come into frequent contact with police (Hayden, 2010; Shalev-Greene, 2011). More personalised forms of communication also help to improve the relationship between the MPT and children in care. This could have a positive impact on children's engagement with subsequent investigations and safeguarding plans. This process evaluation finding might also clarify the finding from the outcome evaluation that children in care and repeat missing individuals were missing for longer periods of time post implementation. Officers may have been aware of where the young person was and that they were not at risk of harm. However, the report was not considered resolved until the child returned of their own accord.

Members of the MPT reported that push-back to care homes was well received due to establishing stronger working relationships and communication methods, specifically in the form of personal telephone numbers. This reduced the amount of steps care providers needed to undergo to provide updates on missing children under their care. Research into safeguarding missing children highlighted that effective communication between agencies is associated with reduced missing incidents (Ofsted, 2013; Shalev-Greene & Hayden, 2014). Despite these improvements, less communication appears to have been directed to hostel staff relationships. Children living in this form of residence receive less supervision and support. This may have contributed to increases in this type of demographic going missing post implementation.

In general, these three change mechanisms suggest a better match between risk classification, allocation of police resources and division of responsibility across agencies, addressing the mismatch identified by previous researchers (Allsop et al., 2020; Babuta & Sidebottom, 2020; Giles et al., 2021; Hayden & Shalev-Greene, 2016). There are several lessons learned that might have contributed to poor outcomes if not addressed. These lessons serve as useful learning points for future forces. Information about any MPT approach must be communicated clearly, at both a strategic and operational level. Training format and regularity needs to be considered within and across agencies. This includes police training to ensure consistent NAIRA use. Practical consideration needs to be given to shift patterns and types of work during daylight hours. In theory, the financial cost of early search has shifted to partner agencies, but they may struggle to resource this. Some agencies may continue to rely heavily on the police because of these resource problems. Moving forward, interested forces might consider the governance structure for dedicated teams, whether within or outside the police, to best communicate an expectation that responsibility for preventing and responding to children missing from care belongs to multiple agencies. Accountability might also be

introduced to ensure care providers have adequate resources to undertake reasonable actions effectively.

Limitations and Future Research

The MPT implementation coincided with COVID-19, so the extent to which the MPT alone contributed to reductions in missing child reports is questionable. However, O'Brien et al. (2022) found that children in care were 1.5 times more likely to go missing during lockdown restrictions across some forces than the previous year. This is inconsistent with the study's findings, which showed a decrease in reports. This supports the argument that the MPT had a positive impact on reducing the number of missing child incidents reported to police and provides valuable empirical support towards the use of MPTs in reducing strain on resources and potentially improving outcomes for missing children. Further evaluation will be needed now that the UK is moving out of the response and recovery phases of the pandemic to examine whether these reductions in missing reports continue.

This research was conducted with one UK police force who implemented an MPT. The data provided was based upon the available data captured within this force. This affected the level of data provided to the research team and therefore the robustness of the outcome evaluation. Due to this limitation, the researchers could not examine the impact of the MPT on outcomes for missing children, including whether they were harmed, involved in criminal activity, or how they were found and returned home. This poses implications for understanding whether NAIRA is being appropriately applied to distinguish children that are not at risk of harm from those that are at risk and to allocate resources appropriately. This links in with concerns raised during some interviews about the strength of evidence being used to apply a risk assessment of NAIRA in relation to children.

Future research should also aim to develop outcome measures. This includes focusing on ways to improve the standard of return home interviews conducted with young people by police or independent advocates so that more is known about the outcomes of missing episodes. The expertise and relationships that are being built by the dedicated MPT could have a positive impact on this moving forward. However, available evidence within the current study for a reduction in police resources is indirect and related to risk assessment's changing profile. We know that police resources are determined by risk classification with the most resources invested in high-risk cases (APPG, 2019). However, the assumption that changes in risk profiles equate to a reduction in police hours needs to be considered in future cost-benefit analyses. The absence of a no-MPT control force with whom to compare outcomes means any changes cannot be directly attributed to MPT. As observed changes could be due to unobserved factors, findings must be considered indicative. Future research should include a no-MPT control group.

Conclusion

Set against external demands placed on forces to respond to large numbers of missing children reports, and finite police resources, this paper provides the first independent evaluation of an emerging police response, dedicated MPT teams. A quasi-controlled time series analysis revealed a reduction in reports and an increased use of NAIRA risk classification post implementation. A qualitative process evaluation suggested three intervention effects: a child centred approach, pushing back responsibility to care providers, and personalised communication with children and care providers. Two factors could facilitate or hinder intervention effects: communication within and across agencies and resource considerations across shift patterns. Children from care settings and repeat missing cases were missing for longer periods using the new approach. There were also concerns that lack of resources dictates risk assessment strategy. Further focus would be needed to separate outcomes from the impact of the pandemic. In addition, the impact of MPT and NAIRA needs to be examined on a wider range of outcomes for children. This research provides preliminary evidence to support MPT as an effective way of responding to missing children reports for 14–17-year-olds who do not present additional risk markers.

Acknowledgements For the purpose of open access, the author has applied a Creative Commons Attribution (CC BY) licence to any Author Accepted Manuscript version arising.

Author Contribution Sara Waring conceived and implemented the study. Adrianna Fusco-Maguire, Caitlin Bromley, and Bess Conway conducted, transcribed, and analysed interviews. Caitlin Bromley, Sara Waring, Susan Giles, and Freya O'Brien analysed police records. Sara Waring, Susan Giles, Freya O'Brien, and Paige Monaghan wrote and edited the manuscript.

Funding The authors did not receive support from any organisation for the submitted work.

Availability of data and materials The datasets generated and analysed during the current study are not publicly available as the police force wishes to remain anonymous.

Declarations

Ethical Approval This study received ethical approval from Health and Life Sciences Research Ethics Committee at the University of Liverpool. The researchers involved in interviewing and analysing data were also vetted by the police force used within the study. We certify that the study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Consent to Participate Informed consent was obtained from all individual participants included in the study.

Consent for publication Additional informed consent was obtained from all individual participants to publish their responses.

Financial interests All authors certify that they have no affiliations with or involvement in any organisation or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

Competing interests All authors declare no financial and non-financial competing interests for the submitted work.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Agresti, A. (2018). *An introduction to categorical data analysis* (2nd ed.). Wiley. <https://mregression.files.wordpress.com/2012/08/agresti-introduction-to-categorical-data.pdf>
- All-Party Parliamentary Groups. (2019). *No place at home: Risks facing children and young people who go missing from out of area placements*. <https://www.childrensociety.org.uk/sites/default/files/2020-10/no-place-at-home.pdf>
- All-Party Parliamentary Groups. (2021). *Event briefing note: Impacts of COVID-19 on missing people*. <https://www.missingpeople.org.uk/wp-content/uploads/2021/09/APPG-on-Missing-Children-and-Adults-event-briefing-impact-of-COVID-19-on-missing-22-March.pdf>
- Allsop, C., Shalev-Greene, K., & O'Brien, F. (2020). *Evidence base for reviewing missing people APP*. University of South Wales.
- Alys, L., Massey, K., & Tong, S. (2013). Investigative decision making: Missing people and sexual offences, crossroads to an uncertain future. *Journal of Investigative Psychology and Offender Profiling*, 10(2), 140–154. <https://doi.org/10.1002/jip.1382>
- Babuta, A., & Sidebottom, A. (2020). Missing children: On the extent, patterns, and correlates of repeat disappearances by young people. *Policing: A Journal of Policy and Practice*, 14(3), 698–711. <https://doi.org/10.1093/police/pay066>
- Boulton, L., McManus, M., Metcalfe, L., Brian, D., & Dawson, I. (2017). Calls for police service: Understanding the demand profile and the UK police response. *The Police Journal*, 90(1), 70–85. <https://doi.org/10.1177/0032258x16671032>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- College of Policing. (2019). *Strategic responsibilities*. Retrieved 15th July from <https://www.college.police.uk/app/major-investigation-and-public-protection/missing-persons/strategic-responsibilities>
- Doyle, R., & Barnes, G. C. (2020). Targeting missing persons most likely to come to harm among 92,681 cases reported to devon and cornwall police. *Cambridge Journal of Evidence-Based Policing*, 4(3), 160–177. <https://doi.org/10.1007/s41887-020-00051-2>
- Eales, N. (2017). *Risky business? A study exploring the relationship between harm and risk indicators in missing adults incidents*, PhD Thesis. University of Portsmouth. https://pure.port.ac.uk/ws/portalfiles/portal/11009886/Naomi_Eales_Thesis_final_copy_Risky_Business.pdf
- Ellard, D., & Parsons, S. (2010). Process evaluation: understanding how and why interventions work. In M. Thorogood & Y. Coombes (Eds.), *Evaluating Health Promotion: Practice and Methods* (pp. 87–102). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199569298.003.0007>
- Fyfe, N. R., Stevenson, O., & Woolnough, P. (2014). Missing persons: The processes and challenges of police investigation. *Policing and Society*, 25(4), 409–425. <https://doi.org/10.1080/10439463.2014.881812>
- Giles, S., Oh, H., Waring, S., & O'Brien, F. (2021). *A new missing person question set protocol for missing children investigations: An independent pre-implementation process evaluation and outcome map*. Report written for police force. Available on written request

- Greenhalgh, M., & Shalev Greene, K. (2021). *Impact of police cuts on missing person investigations*. University of Portsmouth. <https://researchportal.port.ac.uk/en/publications/impact-of-police-cuts-on-missing-person-investigations>
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough?: An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822x05279903>
- Handley, M. A., Lyles, C. R., McCulloch, C., & Cattamanchi, A. (2018). Selecting and improving quasi-experimental designs in effectiveness and implementation research. *Annual Review of Public Health*, 39(1), 5–25. <https://doi.org/10.1146/annurev-publhealth-040617-014128>
- Harris, M. F., & Shalev Greene, K. (2016). Police attitudes in England to return interviews, in repeat missing person cases. *Journal of Investigative Psychology and Offender Profiling*, 13(3), 253–266. <https://doi.org/10.1002/jip.1455>
- Hayden, C. (2010). Offending behaviour in care: Is children’s residential care a ‘criminogenic’ environment? *Child & Family Social Work*, 15(4), 461–472. <https://doi.org/10.1111/j.1365-2206.2010.00697.x>
- Hayden, C. (2016). Children missing from care. In K. Shalev Greene & L. Alys (Eds.), *Missing persons: A handbook of research* (pp. 155–162). Routledge. <https://www.routledge.com/Missing-Persons-A-handbook-of-research/Shalev-Greene-Alys/p/book/9781409468028>
- Hayden, C., & Goodship, J. (2013). Children reported ‘missing’ to the police: Is it possible to ‘risk assess’ every incident? *British Journal of Social Work*, 45(2), 440–456. <https://doi.org/10.1093/bjsw/bct150>
- Hayden, C., & Shalev-Greene, K. (2016). The blue light social services? Responding to repeat reports to the police of people missing from institutional locations. *Policing and Society*, 28(1), 45–61. <https://doi.org/10.1080/10439463.2016.1138475>
- Heaton, R. (2010). We could be criticized! Policing and risk aversion. *Policing: A Journal of Policy and Practice*, 5(1), 75–86. <https://doi.org/10.1093/polic/paq013>
- Her Majesty’s Inspectorate of Constabulary. (2016). *Missing children: Who cares? The police response to missing and absent children*. <https://www.justiceinspectorates.gov.uk/hmicfrs/publications/missing-children-who-cares/>
- Holmes, L. (2016). Resolution of missing incidents In K. Shalev Greene & L. Alys (Eds.), *Missing Persons* (pp. 234–242). Routledge. <https://doi.org/10.4324/9781315595603>
- Hutchings, E., Browne, K. D., Chou, S., & Wade, K. (2019). Repeat missing child reports in Wales. *Child Abuse and Neglect*, 88, 107–117. <https://doi.org/10.1016/j.chiabu.2018.11.004>
- Institute for Government. (2019). *Performance Tracker 2019: Police* <https://www.instituteforgovernment.org.uk/publication/performance-tracker-2019/police>
- McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemia Medica*, 22(3), 276–282.
- McIver, L., & Welch, V. (2018). *Just out having a good time? Evaluation of the pilot National Partnership Agreement for Looked After Children who go missing from Residential and Foster Care in Scotland*. University of Strathclyde. <https://strathprints.strath.ac.uk/65980/>
- Mims, B. (2021). Outcome evaluation. In *The Encyclopedia of Research Methods in Criminology and Criminal Justice* (pp. 280–285). <https://doi.org/10.1002/9781119111931.ch56>
- Mitchell, F., Malloch, M., & Burgess, C. (2014). The role of return home welfare interviews in responding to the needs of young runaways. *Children & Society*, 28(1), 55–65. <https://doi.org/10.1111/j.1099-0860.2012.00467.x>
- Murphy, C. (2022). ‘I don’t want my face on the front page of The Sun’: The ‘Baby P effect’ as a barrier to social worker discretion. *Journal of Children’s Services*, 17(1), 45–58. <https://doi.org/10.1108/jcs-03-2021-0013>
- National Crime Agency. (2020). *Missing Persons Data Report 2019/20*. <https://www.nationalcrimeagency.gov.uk/component/finder/search?q=missing+person+data&Itemid=101&Itemid=101>
- National Crime Agency. (2022). *Statistical Tables for the Missing Persons Data Report 2021/2022*. <https://missingpersons.police.uk/en-gb/resources/downloads/missing-persons-statistical-bulletins>
- O’Brien, F., Collie, C., Shalev Greene, K., & Giles, S. (2022). The impact of COVID-19 lockdown restrictions on missing person reports. *Policing and Society*, 32(8), 997–1011. <https://doi.org/10.1080/10439463.2021.1999448>
- O’Connor, C., & Joffe, H. (2020). Intercooder reliability in qualitative research: Debates and practical guidelines. *International Journal of Qualitative Methods*, 19, 1609406919899220. <https://doi.org/10.1177/1609406919899220>
- Ofsted. (2013). *Missing children*. <https://www.gov.uk/government/publications/missing-children>
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation

- research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544. <https://doi.org/10.1007/s10488-013-0528-y>
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*, 2nd ed. Sage Publications, Inc.
- Phoenix, J., & Francis, B. J. (2022). Police risk assessment and case outcomes in missing person investigations. *The Police Journal: Theory, Practice and Principles*. <https://doi.org/10.1177/0032258x221087829>
- Ross, A., & Willson, V. L. (2017). One-Way Anova. In A. Ross & V. L. Willson (Eds.), *Basic and advanced statistical tests: Writing results sections and creating tables and figures* (pp. 21–24). SensePublishers. https://doi.org/10.1007/978-94-6351-086-8_5
- Shalev-Greene, K., & Hayden, C. (2014). *Repeat reports to the police of missing people: Locations and characteristics*. University of Portsmouth.
- Shalev-Greene, K., & Pakes, F. (2013). *ABSENT: An exploration of common police procedures for safeguarding practices in cases of missing children and adults*. University of Portsmouth.
- Shalev Greene, K. (2011). Children who go missing repeatedly and their involvement in crime. *International Journal of Police Science & Management*, 13, 29–36. <https://doi.org/10.1350/ijps.2011.13.1.197>
- Shalev Greene, K., Hayler, L., & Pritchard, D. (2019). A house divided against itself cannot stand: Evaluating police perception of UK missing person definition. *European Journal on Criminal Policy and Research*, 28(1), 1–17. <https://doi.org/10.1007/s10610-019-09428-0>
- Shannon, L. M., & Schaefer, J. (2013). Evaluation research. *The Encyclopedia of Criminology and Criminal Justice*, (pp. 1–8). <https://doi.org/10.1002/9781118517383.wbceccj095>
- Sharpe, D. (2015). Chi-square is statistically significant: Now what? *Practical Assessment, Research, and Evaluation*, 20(8). <https://doi.org/10.7275/tbfa-x148>
- Smith, R., & Shalev Greene, K. (2015). Recognizing risk: The attitudes of police supervisors to the risk assessment process in missing person investigations. *Policing*, 9(4), 352–361. <https://doi.org/10.1093/police/pav016>
- Taylor, J., Bradbury-Jones, C., Hunter, H., Sanford, K., Rahilly, T., & Ibrahim, N. (2014). Young people's experiences of going missing from care: A qualitative investigation using peer researchers. *Child Abuse Review*, 23(6), 387–401. <https://doi.org/10.1002/car.2297>
- Vogl, S., Zartler, U., Schmidt, E.-M., & Rieder, I. (2018). Developing an analytical framework for multiple perspective, qualitative longitudinal interviews (MPQLI). *International Journal of Social Research Methodology*, 21(2), 177–190. <https://doi.org/10.1080/13645579.2017.1345149>
- Waring, S., Monaghan, P., Yates, A., Girgiel, N., Giles, S., & O'Brien, F. (2023). Examining what factors affect inter-agency working in missing children investigations. *Policing: A Journal of Policy and Practice*, 17. <https://doi.org/10.1093/police/paad044>

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Sara Waring is a Senior Lecturer in Investigative Psychology at the University of Liverpool. She has worked in partnership with various law enforcement and emergency services, government bodies, and charities nationally and internationally for over 15 years. Her work takes a field-based approach to identify what works in practice in the complex environments these agencies operate. Research specialisms include i) decision-making, inter-agency information sharing, and teamwork in risky, uncertain environments, ii) emergency training design and delivery, and iii) evaluation. She has been involved in debriefing a number of critical and major incidents, and her work has been used to inform practice, policy, training and guidance across a range of organisations.

Adrianna Fusco-Maguire has a Masters in Investigative and Forensic Psychology from the University of Liverpool. She is a Criminal Justice Advocate for ASSIST NI, focusing on the rights of victims of domestic and sexual abuse.

Caitlin Bromley has a Masters in Investigative and Forensic Psychology from the University of Liverpool. She is a Research Assistant at the University of Liverpool, examining emergency response to events of national significance.

Bess Conway has a Masters in Investigative and Forensic Psychology from the University of Liverpool. She is an Employment and Reconnection Worker at Harringey Council, provides support and interventions for vulnerable populations.

Susan Giles is an internationally recognised expert in Evidence Based Policing (EBP). Her research specialisms include police decision making and risk assessment in child sexual abuse, missing person investigations, equivocal death and contested document analysis, and training design and evaluation. Her research takes a critical and quality assessment approach towards forensic interventions, working alongside police and other agencies to identify 'what works' in practise. This body of work is essential for improving management of investigations and offender populations, helping to manage risks to public safety and safeguarding goals.

Freya O'Brien is a Chartered Psychologist and an internationally recognised expert in missing people research. Freya specialises in applying fundamental research to applied contexts to increase scientific rigour. Freya has 18 years' experience working in partnership with regional and national law enforcement agencies and charities to conduct research and evaluation. She has an extensive track record of providing an evidence base for missing investigations, including examining harm prediction whilst missing, the impact of the pandemic on missing people, risk assessment, modelling spatial behaviour whilst missing, and memory for missing people appeals.

Paige Monaghan has a Masters in Investigative and Forensic Psychology from the University of Liverpool (UoL). She is undertaking a PhD at UoL, focusing on understanding the facilitators and barriers to multiagency working in the response to missing children.

Authors and Affiliations

Sara Waring¹  · Adrianna Fusco-Maguire¹ · Caitlin Bromley¹ · Bess Conway¹ · Susan Giles¹ · Freya O'Brien²  · Paige Monaghan¹ 

✉ Sara Waring
s.k.waring@liverpool.ac.uk

Adrianna Fusco-Maguire
adriannafm96@live.co.uk

Caitlin Bromley
caitlinbromley13@gmail.com

Bess Conway
bessconway@hotmail.com

Susan Giles
sgiles@liverpool.ac.uk

Freya O'Brien
F.O'Brien@ljmu.ac.uk

Paige Monaghan
hlpmonag@liverpool.ac.uk

¹ Department of Psychological Sciences, University of Liverpool, Eleanor Rathbone Building, Bedford Street South, Liverpool L69 7ZA, UK

² School of Justice Studies, Liverpool John Moores University, John Foster Building, 80-98 Mount Pleasant, Liverpool L3 5UZ, UK