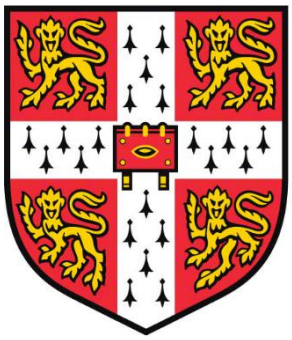

Do Trauma-Informed Investigation Teams in One Hospital Increase Detection, Reduce Repeat Victimisation, and Reduce Recidivism: A Comparative Study

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Research Abstract

Background

Serious violent crime continues to be a focus of academic interest and governmental strategy (Densley et al., 2020; Home Office, 2018). In the United Kingdom (UK) a network of Major Trauma Centres (MTCs) treat individuals with serious injuries, including those caused by criminality, with four of these MTCs situated in London: the Royal London Hospital (RLH); Kings College Hospital (KCH); St Mary's Hospital (SMH); and St George's Hospital (SGH). The police response to victims of serious violent crime in the Metropolitan Police Service (MPS) has faced challenges due to officer inexperience coupled with the difficult environment of an MTC. In July 2021, the Trauma Support Team (TST), a novel pilot programme was implemented at the RLH to take a trauma-informed approach to victims of violent crime. The goal of this team was to improve the quality of engagement with victims of violent crime, build strong partnership relations, and ensure good initial and secondary evidential capture.

Research Questions and Design

The population studied for this research is victims who attend any of London's MTCs between 01/09/2021 and 31/05/2022 with an injury classified as 'serious', this population was located through searches of the MPS's Crime Report Information System (CRIS) which is used to log all incidents of crime. For all questions, the independent variable is the MTC attended by the victim.

The three research questions are as follows:

1. *How do the baseline characteristics of victims of serious violence treated in the four sample hospitals compare in the:*
    a) *demographic distributions of victim characteristics (age, gender, white vs. BAMEH ethnicity)*
    b) *offence classification*

For question one, the dependent variable in this question is the demographic distributions of victims and offence classification.

2. *How do criminal justice outcomes differ between victims who attend the RLH and the comparison hospitals? And does this change depending on victim characteristics (age, gender, white vs. BAMEH ethnicity)?*

For question two, the dependent variable is the outcome of the investigation of the incident which led to MTC attendance. There is interest placed on the sub-variables of demographic factors and offence classification.

3. *Over 365 days subsequent to hospital admission, the difference between RLH and the comparison hospitals in the following outcomes and how is this affected by victim characteristics (age, gender, white vs. BAMEH ethnicity):*
    a) *All victims repeat victimisation by any crime*
    b) *All victims repeat victimisation by serious violent crime*
    c) *All victims listed as named suspect for any crime*
    d) *All victims listed as* named *suspect for serious violent crime*

The final question has two dependent variables; re-victimisation in 365 days post MTC attendance (a & b); and the victim in 365 days post MTC attendance being recorded as a named suspect on a CRIS report (c & d). The interest also remains on

the sub-variables of demographic distribution, offence classification and offence outcome code.

Methods and Data

The data was sourced from CRIS as outlined. It was then cleaned to ensure the dataset was accurate and usable. For example, participants were removed when age fell outside the specified age range (<10 years old as per the criminal age of responsibility), or when key variables were missing (name or DOB). Participants were also identified as ineligible when a review of the allocated administrative crime classification showed the report was not a crime (e.g., crime related incidents, non-crime domestics and police protections) or was rendered illegible because the offence was outside the scope of research (e.g. driving offences).

The data was analysed and summarised to present a descriptive presentation to answer the research questions. Regarding re-victimisation and recorded offending in the year post attendance (question three), an analysis of variance (ANOVA) was applied to establish if outcomes for victims varied significantly depending on the hospital they attended. Finally, for question three, the Cambridge Crime Harm Index (Sherman et al., 2016) was also utilised to understand the crime harm associated with recorded offending and re-victimisation in the 365 days post MTC attendance.

Key Findings

In answer to question one; there are differences in the demographic distributions and offence characteristics of victims who attended the four MTCs in the

period 01/09/21 to 31/05/22. The RLH the busiest site, receiving 45.2% of all victims included in this research. Further, there are differences in the socio-demographic characteristics, for example the mean victim age was lowest at the RLH, however the difference was not statistically significant.

In answer to question two; the more serious offences of attempted murder and GBH with intent had higher charge rates than the less serious offence of GBH (attempted murder=56.3%; GBH with intent=28.4%; GBH=12%). At all sites the charge rates when the victim was ≤25 years old were lower than for victims' ≥26 years old, however the variation between the two age groups for charge rates was smallest at the RLH.

In answer to question three; re-victimisation rates were found to be lowest at the RLH, however when ANOVA was applied, this was not statistically significant (p=0.33). The re-victimisation rate was particularly low for victim's ≤25 years old who attended the RLH at 8.7%. Victims recorded as 'White European' experienced the highest rates (19.5%) of re-victimisation in the 365 days post MTC attendance, the RLH had the lowest victimisation for this group (14.4%) whilst KCH had the highest (26.4%). Utilising data on criminal justice outcomes, unsupportive victims were re-victimised the most (19%), however SGH presents as an anomaly in that it saw supportive victims re-victimised more than unsupportive (19.4% and 13.9% respectively). Whereby the crime was closed as 'investigation complete but no suspect identified' there were high rates of re-victimisation (18.7%), it is not clear from this outcome code whether the victim was supportive or not. For recorded offending in the year post MTC attendance, the sample size was small (n=93) and there was not a statistically significant difference in overall numbers by MTC (p=0.78). Males had higher rates of offending in the year post than females, however females who attended the RLH were listed as a suspect most (12.2%) out of the four MTCs. Unsupportive victims were recorded as an offender

most out of the population (11%). Interestingly, when the crime was closed as 'Investigation complete; no suspect identified' there were relatively high rates of ongoing recorded offending, the highest is at SMH (15.4%), with the lowest at KCH and RLH (both 9.3%).

The amount of time after MTC attendance for both re-victimisation and recorded offending was relatively consistent across the 365 days (R^2=0.99 and 0.97 respectively). A 'power few' population was present when CCHI applied, both in those re-victimised and those recorded as offenders (15 individuals caused 76.4% of the offending crime harm; 20 individuals receiving 60.9% of the re-victimisation crime harm).

Policy implications

The implementation of the TST presents a novel shift in police approach to victims of serious violent crimes. The first policy implication concerns the adoption of a trauma-informed approach aligns strategically with the current MPS Commissioner's 'New Met for London' (NMfL) plan, and that training for officers should therefore be considered more broadly.

Second, it is proposed that the Home Office consider the introduction of a new outcome code for incidents whereby a crime report is closed when the victim does support police investigation, but no suspect is identified. In this research, outcome code 18 (investigation complete, no suspect identified) was utilised in 26.8% of all investigations. This provides no detail on whether the victim was supportive of police investigation, which is fundamental to establishing how well we are rebuilding perceptions of legitimacy amongst victims.

Regarding the rollout of the TST model to other hospitals, it is acknowledged that this research is not an impact study, and therefore before broad policy changes on embedding trauma-informed police teams at hospitals further research, both in the form of a randomised control trial (RCT) and qualitative research, is proposed. However, demonstrating the perceived success of this model within the MPS, it has now been agreed by the MPS Chief Officer Group (COG) that this team will be made permanent from April 2024.

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CHAPTER ONE: INTRODUCTION

1.1 Background

In the year ending March 2020, the Office for National Statistics (2020) reported that the Metropolitan Police had recorded proportionally the most knife offences of any police force in England and Wales (178 per 100,000 population). Following this, in 2021, thirty teenagers were murdered in the capital, the largest figure on record for a twelve-month period. It is therefore unsurprising that serious violence generates public concern, leading to it featuring as a key focus of academic interest and governmental strategy (Densley et al., 2020; Home Office, 2018).

In London, four major trauma centres (MTCs) treat those who have suffered 'serious or multiple injuries where there is a strong possibility of death or disability' (Glen et al., 2016, p.1). The Royal London Hospital (RLH) is the busiest of these MTCs; as of 2016 it treated approximately 3,000 trauma patients a year, including approximately 750 knife, sharp instrument or gunshot injuries (Vulliamy et al., 2018). These serious incidents necessitate police investigation, however, challenge has been faced in capturing best evidence due to the inexperience of officers and unfamiliarity with the set-up of an MTC. Further, some victims of crime are reluctant to engage with police investigation following prior negative experiences (Carr et al., 2007).

In July 2021, the Trauma Support Team (TST) was implemented at the RLH as a pilot programme by serving police officers. The officers working on the team were trained to take a trauma-informed approach to victims of serious violent crime and on how to capture best evidence. The goal was that this team would improve the rapport built with victims, professionalising the approach taken to evidential capture and building

strong collaborative relationships with partners involved in a whole system approach to violence reduction.

1.2 Research Questions

The current research seeks to establish whether there is a difference in outcomes between victims with injury classified as 'serious' who attended one of London's four MTCs within the period of 01/09/2021 and 31/05/2022. Throughout this period the RLH was the only site with a TST operating, however it is acknowledged that this is not an impact study as there has not been a full assessment to demonstrate similarity between the populations attending each hospital. Rather, this is a comparison study, sitting at level 2 of the Maryland Scale as described by Sherman (1998).

For all research questions the independent variable, often the treatment or change applied in a study, is the MTC attended (Ariel et al., 2022). The first question (below), seeks to display key differences between the populations of victims attending each site. The dependent variable in this question is the demographic distributions of victims and offence classification. This question will be key to assessing the internal validity of the study;

1. How do the baseline characteristics of victims of serious violence treated in the four sample hospitals compare in the:
    a) demographic distributions of victim characteristics (age, gender, white vs. BAMEH ethnicity).
    b) offence classification.

The second question's dependent variable is the outcome of the investigation of the incident which led to MTC attendance. There is interest placed on the sub-variables of demographic factors and offence classification to understand if there are differences in outcomes between demographic groups or offence types.

2. How do criminal justice outcomes differ between victims who attend the RLH and the comparison hospitals? And does this change depending on victim characteristics (age, gender, white vs. BAMEH ethnicity)?

The final question has two dependent variables; re-victimisation in 365 days post MTC attendance, and the victim in 365 days post MTC attendance being recorded as a named suspect on a CRIS report. The interest on the impact of change in sub-variables of demographic distribution, offence classification and outcome code persists for the reasons outlined.

3. Over 365 days subsequent to hospital admission, what is the difference between RLH and the comparison hospitals in the following outcomes and how is this affected by victim characteristics (age, gender, white vs. BAMEH ethnicity):

    a) All victims repeat victimisation by any crime

    b) All victims repeat victimisation by serious violent crime

    c) All victims listed as named suspect for any crime

    d) All victims listed as named suspect for serious violent crime

1.3 Organisation of the Thesis

The thesis will proceed over five further chapters: 2) Literature Review; 3) Operational Setting and Methods; 4) Findings; 5) Discussion; 6) Conclusion. The literature review will provide an overview of the existing research and scholarly discussion relevant to this topic. It will begin by exploring the current approaches to reducing the harm associated with violent crime, such as hospital-based violence intervention programmes (Brice and Boyle, 2020). Next, trauma theory will be discussed, including how trauma-informed practice has been proposed as an avenue to be explored by law enforcement (Ko et al., 2008). Subsequently, factors which affect engagement with police following victimisation are discussed, before the theories surrounding disparity in criminal justice outcomes such as the devaluation perspective (Fine and Tom, 2023; Black, 1976). Finally, given the focus on offending in the year post MTC attendance, the theories surrounding the victim-offender overlap are outlined, for example, sub-cultural norms theory which suggests communities where 'honour' culture is entrenched see a greater victim-offender overlap (Berg et al., 2012).

Next, the operational setting in MTCs will be described, with focus placed on outlining the business imperative for the implementation of the TST. This chapter will then outline the research design, including how the data utilised was collected, cleaned, and stored. Finally, the data analysis, including the production of descriptive statistics, the use of the Cambridge Crime Harm Index and the application of the analysis of variance (ANOVA) test will be described.

The findings chapter will present answers the research questions, with the discussion chapter detailing the policy, research, and theoretical implications of this work. The discussion chapter will outline the limitations associated with this research, such as

challenges relating to external validity due to the concentration of violent crime in urban areas (Home Office, 2023). Finally, the conclusion chapter will summarise the key findings and implications of this research.

1.4 Chapter Summary

The TST was set up at the RLH, the busiest of London's four MTCs, in July 2021. This team takes a trauma-informed approach to victims of violent crime to improve the rapport built with them, and the quality of evidential capture. This research seeks to compare the characteristics of the populations attending each of the four MTCs between 01/09/2021 and 31/05/2022 and their subsequent outcomes.

The thesis will critically analyse the existing evidence base and explain the theoretical framework surrounding phenomena such as the victim-offender overlap. It then describes the operational setting of MTCs, and how the data was collected and analysed to answer the research questions. Finally, the results are presented in the 'Findings' chapter before the implications and limitations of this research are detailed in the 'Discussion' chapter.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This research aims to establish the effectiveness of implementing a hospital-based police team using a trauma-informed approach to engage with serious violent crime victims. It draws on a range of measures, including the outcome of the investigation into the incident which led to MTC attendance, and whether the victim was recorded as an offender or re-victimised in the one year following their attendance at the MTC. Of specific interest to the research is how demographic factors such as age, gender and ethnicity impact re-victimisation and offending post victimisation.

This chapter proceeds as follows: Firstly, it explores approaches such as restorative justice conferences and hospital-based violence intervention programmes and how they are contributing to reducing harm related to violent crime. Secondly, it explores trauma theory and how this has acted as the basis for the development of trauma-informed practice. Now frequently adopted in the health setting (Reeves, 2015), it discusses applicability of this approach in a law enforcement setting (Ko et al., 2008; Rich, 2019). Next, the varying levels of engagement with police following victimisation will be discussed, considering factors affecting engagement such as age and validation in interactions with police (Fine and Tom, 2023; O'Neill et al., 2021). Following this, disparity in criminal justice outcomes for offences, primarily framed around the devaluation and solvability perspectives, are discussed (Vaughn, 2020). The final section focuses on the victim-offender overlap, given the focus of the current study on offending in the year post MTC attendance. Drawing on the theoretical underpinnings, opportunity is taken to explore why this overlap exists, such as extension of routine activity theory proposed by Osgood et al. (1996).

2.2 Improving Outcomes amongst Victims of Serious Non-Domestic Violence

Despite decades of reduction in overall violent crime rates, incidents of serious violence, particularly those involving weapons, persist as a challenge facing the UK (Densley et al., 2020; Home Office, 2018). Reducing serious violence therefore remains a focus of academic interest and governmental strategy (Densley et al., 2020; Home Office, 2018; Home Office, 2021). Restorative justice conferences and hospital-based violence intervention programmes are two approaches taken to reducing violent crime (Sherman et al., 2015; Brice and Boyle, 2020).

Restorative justice conferences (RJCs) are an in-person meeting chaired by a trained facilitator between a victim and offender (Sherman et al., 2015). The key points covered are 'what happened, who was affected, and what is to be done?' (ibid., p.507). Through the study of twelve randomised control trials (RCTs), Sherman et al. (2015) showed RJCs resulted in victims having higher rates of satisfaction and a reduced desire for revenge. Further, RJCs have been evidenced to consistently reduce recidivism in violent offenders compared to those randomly assigned to traditional justice routes in both the UK and Australia (ibid.). This has been recognised internationally as a possible solution to youth violence: Clark (2012) proposed the benefit to introducing restorative justice in South Africa for violent crime. A recent rapid evidence assessment on the applicability of restorative justice mechanisms to serious youth violence found victims to have improved satisfaction and wellbeing following RJCs (Hobson et al., 2022), in line with the findings of Sherman et al. (2015).

The UK's *Serious Violence Strategy* acknowledges that 'tackling serious violence is not a law enforcement issue alone and it requires a multiple strand approach involving a range of partners across different sectors' (Home Office, 2018, p.14). Hospital-based

violence intervention programmes (HVIPs) integrate in-hospital interventions with post-discharge community-based case management (Purtle et al., 2013). With a primary emphasis on servicing high risk populations, the ambition is to reduce risk factors for re-victimisation and retaliation while nurturing protective factors (ibid.). The first RCT studying the effectiveness of HVIPs was completed by Cooper et al. (2006) in Baltimore. Interestingly, the admission criteria stipulated that the individual must have had at least one prior admission to hospital for violent injury and prior involvement with the criminal justice system as a suspect. The research revealed the non-intervention group were four times more likely to be convicted of a violent crime in the period (between 10 months and 2.5 years) following admission. There are limitations to the generalisability of this study, given the broader context in Baltimore at the time saw 52% of Black men in their twenties either in prison, or on patrol or probation, this is not reflected in the UK (ibid.). In fact, in a systematic review of ten RCTs examining HVIPs effectiveness in reducing re-victimisation and preventing perpetration by victims noted that all experiments to date occurred in North America (Brice and Boyle (2020). Nonetheless, in eight out of ten experiments, statistically significant findings were found for one or more violence related outcome measure, in favour of this site-based approach to victims of violent crime.

Finally, there is a growing scholarly interest in violent crime being viewed as a public health issue (Braga, 2022; Butts et al., 2015; Gebo, 2016; Welsh et al., 2014). A public health approach focuses on problem solving and developing comprehensive, action-oriented approaches which utilise scientific evidence to improve violence reduction (Braga, 2022). This approach recognises violence as a far-reaching problem which extends beyond the individual, and advocates collaborative working between agencies (Gebo, 2016; Welsh et al., 2014). In fact, this was recognised by the Home Office in

the Serious Violence Strategy whereby a commitment was made to funding Violence Reduction Units which would tackle the root causes of violence through public health driven interventions across agencies (Hopkins and Floyd, 2022; Home Office, 2018).

2.3 Trauma-Informed Practice: What do we know so far?

Contemporary trauma theory seemingly originates from the theoretical view first proposed by Ferenczi (1933) in '*Confusion of tongues between adults and the child'* (cited in Mészáros, 2010). Central to this perspective, and that of modern day trauma theory, is that trauma is founded in real events (e.g., child abuse, sexual abuse and violent victimisation) which an individual is unable to prevent, stop or process (Boulanger, 2002; Ullman et al., 2009). This damages the individual's ability to restore psychological balance (Mészáros, 2010; Reeves, 2015). Further, it has been recognised that patients with a history of traumatic life events risk being distressed or re-traumatised as a result of their experience in the health care system (Reeves, 2015). For example, prior victimisation of sexual assault has been shown to reduce attendance at regular cervical screening, with the perceived power disparity of the setting reinvigorating prior trauma (Cadman et al., 2012).

Trauma-informed care is constructed from trauma theory, recognising the impact of trauma survivor's prior experiences and designing services which accommodate individual needs and prevent re-traumatisation (Carello and Butler, 2015; Reeves, 2015). The practice is primarily adopted in health settings, reflecting awareness amongst practitioners that trauma exposure can negatively impact on individuals 'neurological, biological, psychological and social development' (Home Office, 2022). The four principles of trauma-informed care include: prioritising trustworthiness and

transparency; safety – creating a safe place emotionally and physically; working collaboratively with the trauma survivor; adopting a broad definition of trauma (Bath, 2008; Sweeney and Taggart, 2018). The UK Home Office (2022) stated that fundamental to trauma-informed practice is culturally sensitive services that are trusted by communities, which in turn generate greater empowerment for individuals to make choices about their own treatment and care.

The largest body of evidence in support of trauma-informed practice is focussed on the women's health field. A wealth of published evidence supports taking a trauma-informed approach with child sexual abuse victims, and sexual assault victims where it has been shown to improve voluntary engagement with healthcare (Aaron et al., 2013; Dunleavy and Kubo Slowik, 2012; Muzik et al., 2013). Extending across the health setting it has been adopted in mental health and oncology care where it has been shown to improve response to difficult diagnosis (Lawson and Lawson, 2018; Muskett, 2014).

Outside of a medical setting, there has been a move toward a trauma-informed approach in the US juvenile justice system (Zettler, 2021). Crosby (2016) detailed how trauma-informed practice could provide a new framework for working with ethnic minority groups in the US juvenile justice system emphasising the need to shift toward a universally trauma-informed system for these young people. More recently, Baetz et al. (2021) showed that trauma-informed skills training for both young people and staff at a juvenile detention centre significantly reduced future violent incidents in the centre following the training intervention. The findings were not replicated when only one group (staff or young people) received the training, highlighting the importance of implementation for both groups (ibid.).

As first responders, Ko et al. (2008) emphasise that police officers may be able to intervene and reduce ongoing trauma generated from violent incidents with formal training on trauma-informed approaches. Similarly, Rich (2019) highlighted that there is no conflict between 'doing good police work' and taking a trauma-informed approach, arguing that by taking this approach victims are more likely to feel comfortable and more willing to provide an accurate account. However, institutional inertia within police culture is referenced as a barrier to the adoption of trauma-informed practice, as is a lack of resources to implement training. Whilst this work offers a valuable viewpoint on the adoption of trauma-informed practice in policing, it is a narrative review rather than a research-based assessment of trauma-informed practice in the law enforcement setting.

Existing research highlights how a trauma-informed response may prevent re-traumatisation, increase engagement with healthcare, and reduce future violent incidents (Aaron et al., 2013; Baetz et al., 2021; Reeves, 2015). However, there remains a dearth of literature examining the relationship between police officers adopting a trauma-informed approach and victim outcomes.

2.4 Victims of Serious Violence and Contact with the Police: What Does the Research Tell Us?

Variation by socio-demographic characteristics in terms of views of the police and willingness to engage has been reported: Fine and Tom (2023) found perceptions of the police tend to be lowest in adolescence, directly impacting the willingness of young people to report crime to, and cooperate with, law enforcement. Further,

ethnicity and highly publicised incidents of police violence have also been shown to significantly affect the reporting of crime to police (Desmond et al., 2016).

Brunson and Wade (2019) conducted a qualitative study of young black men from Brooklyn and the Bronx deemed ‘high-risk’ of involvement in gun violence by organisations staffed by former gang members or local community groups. Amongst the participants, 37 (74%) stated they had been previously shot or shot at, whilst 47 (94%) stated someone they knew had. The study highlighted why ‘high-risk’ individuals are reluctant to cooperate with police shooting investigations. Most respondents ‘believed that officers were either incapable of, or not genuinely interested in, keeping them and their communities safe’ largely due to negative experiences with police (ibid., p.634) . Further, the majority (92%) would prefer ‘self-help in the form of retaliatory violence over cooperating with the police’ (ibid., p.637). Whilst findings may be specific to the demographic interviewed and unique high crime locality in which they reside, a similar study from high crime neighbourhoods in Philadelphia, showed that most young people in these areas were negatively disposed toward the police following poor personal interactions, termed by the authors ‘procedural injustice’ (Carr et al., 2007). This was consistent across genders and ethnicities and was shown to negatively impact on the willingness to call the police with less than 10% of respondents stating they would call if they saw a group of teens misbehaving.

To explore the impact of perceptions of police fairness on willingness to report crime, Murphy and Barkworth (2014) completed an Australian study seeking to elicit if previous victimisation affected perceptions of police fairness. For previous victims of non-domestic violent assault, whilst procedural fairness mattered, outcome favourability mattered more when considering whether crime would be reported again to police. However, this study risked its internal validity by not establishing whether the

participants most recent contact with police was the same interaction as their most recent victimisation thus victims could be referring to an unrelated encounter with police when completing the questionnaire. Consequently, it is hard to ascertain that results are due to the victimisation incident, not just the individuals' perceptions of police generally, or, based on another contact.

Following victimisation, increased isolation, normalisation of violence, and desire to carry a weapon for one's own protection is seen amongst victims (O'Neill et al., 2020). Liebschutz et al. (2010) found victims of stabbings and shootings in the medical setting felt police were 'interrogating' victims whilst they were receiving medical treatment – leaving them feeling they were viewed as perpetrators. Moreover, in a study of black male gun violence survivors in the US, O'Neill et al. (2021) found distrust in the police was most apparent when discussing interactions which had occurred in a medical setting; 'most participants expressed that they perceived that the police officers they encountered were lacking empathy, focusing solely on investigating the crime while ignoring or actively interfering with treatment for life-threatening injuries' (p.4). Whilst not directly inferred, it is reasonable to conclude considering the wider evidence base that these negative interactions in the medical setting may have affected ongoing willingness to support police investigation, however this remains a gap in the literature.

Much of the literature focuses on initial reporting either by a victim or the wider community to police following a crime (Decker et al., 2019; Desmond et al., 2016). Lantz et al. (2022) showed that severe victimisations (an incident including either a weapon, or resulting in injury), were found to be 70% more likely to result in reporting to police, regardless of victim ethnicity. This builds on the work of Baumer (2002) which showed no difference in reporting tendencies based on neighbourhood disadvantage levels for aggravated assaults.

However, there is a paucity of research into factors affecting ongoing willingness to support police investigation in incidents of non-domestic violent crime. Nearly all existing research relates to domestic violence or sexual assault victimisations (Hester, 2006; Hohl and Stanko, 2015). There are several cross-cutting themes that emerge, such as victims losing trust in the police quickly when police officers expressing doubt at the allegation or disrespect toward the victim (ibid.). However, the lack of literature directly relating to victims of non-domestic violent crime raises questions as to what specific factors affect ongoing willingness to engage with police and provide information which will help secure a positive criminal justice outcome?

One proposal to improve violent crime victims engagement with the police emerged from the RCT conducted by Hink et al. (2022) into the effectiveness of a hospital based violence intervention programme (HVIP). In line with existing research (O'Neill et al., 2021), they discovered that victims of violent crime generally felt that the police did not care about their case or what happened to them. They proposed that there was an opportunity for police departments to partner with HVIPs to mitigate the challenges faced by victims in obtaining updates for their case, in turn reducing feelings of lack of law enforcement care (Hink et al., 2022).

2.5 Disparity in Police Outcomes for Violent Crime

The likelihood of the police charging a suspect with a crime may be influenced by victim demographics and the situational characteristics of the incident (Roberts, 2008). Two primary theoretical perspectives have been developed to explain differences in crime clearance rates; 1) the devaluation perspective and 2) the solvability perspective (Vaughn, 2020).

The devaluation perspective, first proposed by Black (1976), suggests laws and legal systems are built to protect majority citizen groups over others, resulting in police resource and effort being applied differently depending on victim demographics, or the community they come from (Paintsil, 2022; Petersen, 2017; Vaughn, 2020). Studies of this perspective in relation to victim ethnicity have generated mixed results. Some have found that homicides with white victims are more likely to be solved than those from other ethnic minority groups (Addington, 2006; Lee, 2005; Regoeczi et al., 2008). Conversely, others have found ethnicity to have no effect on clearance rates (Litwin and Xu, 2007; Puckett and Lundman, 2003). Victim age has consistently been found to affect crime clearance, with crimes with child victims more likely to be solved than those with an adult victim (Addington, 2006; Lee, 2005; Litwin and Xu, 2007). Limiting the applicability of these studies to the current research is the focus on incidents of homicide.

Taylor et al. (2009) found African American victims were 5.9% less likely to have their case reach point of arrest than white victims in aggravated assault offences. Alternatively, Paintsil (2022) study of arrest rates in violent offences, also in the US, only partially supported the victim devaluation thesis. The authors found that non-lethal violent offences against white victims were more likely to be cleared, but homicides against black victims were more likely to be cleared. This showed some support for the solvability perspective given the more serious an offence the more likely a resultant arrest. However, this disparity in clearance rate was found to vary substantially by region, with the authors acknowledging a lack of data coverage for major cities. With clear changes in clearance within the country, it is likely with the different sociological landscape of the UK that such results may differ. This presents as a gap that the current research attempts to bridge.

Contrasting the victim devaluation perspective, the solvability perspective proposed by Gottfredson and Hindelang (1979) posits that the police put increased effort into investigating more serious offences, with offences with more than one victim or a serious injury level therefore receiving greater police investigative effort resulting in improved outcomes (Roberts, 2008; Vaughn, 2020). Similarly, situational characteristics may influence outcomes, for example, shootings have been shown to have lower clearance rates due to lack of forensic evidence with reduced contact between victim and suspect (Addington, 2006; Litwin, 2004). Likewise, those involving two parties who do not know one another have been shown to also have lower clearance rates (Litwin and Xu, 2007).

Supporting the solvability perspective, Roberts (2008) study of the effect of incident and contextual factors on crime clearance for several offence types found the number of victims, level of injury, and type of weapon used all significantly affected clearance rate. They found contextual factors, namely higher levels of unemployment in the community, significantly reduced the clearance rate for aggravated assaults. Limiting the validity of this study, as with many of the US based studies, is that the dependent variable is crime clearance rate, this is measured at point of a suspect arrest – not the point at which they are charged with the crime. It is unknown to what extent arrests in the US are translated into charge, and how applicable this is to a UK context where the police measure is generally considered to be the suspect being charged with an offence.

The complicated relationship between the solvability and victim devaluation perspectives is further supported by Petersen (2017) who proposes that levels of legal cynicism within communities should form part of the solvability perspective. They claim this reduces willingness to support police investigation, leading to fewer positive

outcomes in low trust communities. Vaughn (2020) highlighted that whilst victim race acts as a significant predicator for clearance rate, in favour of the devaluation perspective, when overlaid with situational characteristics detailed in the solvability perspective, such as the availability of forensic evidence, 'the police are largely affected by circumstances which are out of their control' (ibid., pg. 13).

This research effort will have limited access to data surrounding situational characteristics of an offence or offence location. However, when considering disparity in outcomes amongst groups, it will be important to consider the solvability perspective, as well as the possible presence of devaluation. Consistent with the previous sections, much of the current evidence base is focussed on the US context, this study will offer a UK perspective.

2.6 Victim-Offender Overlap in Serious Violent Crime

Criminology research has tended to focus on understanding the patterns and predictors of offending and victimisation as two distinct fields (Jennings et al., 2012). However, victims and offenders are not always distinct populations, rather there is a specific group of overlapping individuals who form the population of victim-offenders (Berg and Mulford, 2020; Jennings et al., 2012; Lauritsen and Laub, 2007; Schreck et al., 2008). This section examines why this overlap exists, adding context to the current research which examines offending and re-victimisation in the year post injury. It also offers context as to why some victims may be unwilling to engage with police if their prior interactions have been when they have been an offender (Brunson and Wade, 2019).

Routine activity theory as outlined by Cohen and Felson (1979) explains that victimisation is most likely to occur at the convergence of three factors: a motivated offender, a suitable target, and the absence of a capable guardian (Schreck et al., 2006). It has been shown that some people, by virtue of their lifestyles, are at risk of increased victimisation (Berg and Mulford, 2020). For example, young people who engage in delinquent activities such as acts of violence, drug use and low level theft, have been shown to have the highest risk of robbery, assault and theft victimisations (Lauritsen et al., 1992; Mustaine and Tewksbury, 1998). However, it should be noted that most of these studies use questionnaires or interviews to establish if individuals are spending time in risky social contexts, posing self-selection as an alternative explanation for the results.

Building on this theoretical underpinning, Osgood et al. (1996) argued that unstructured social activity with peers, in the absence of a capable guardian, increases the likelihood of both offending and victimisation, irrespective of individual criminal tendencies. Recent support for this perspective is the work of Mulford et al. (2018) which found risky lifestyle measures and unstructured social activity to be key determinants in the overlap. It should be noted that small sample size, restricted to females, limits applicability of results to this population (ibid.). This extension of the routine activities theory (Cohen and Felson, 1979) provides useful additional insight which may have some relevance to deliberations associated with the victim-offender overlap: that it is an output from 'risky' lifestyle exposure.

The second theory as to the prevalence of the victim-offender overlap comes from Gottfredson and Hirschi (1990) general theory of crime, which suggested that low self-control (broadly defined as ‘the tendency of some individuals to act as if long-term negative consequences did not exist’ (Schreck et al., 2006, p.3)) predisposes

individuals to both victimisation and offending. An explanation is that individuals are more likely to impulsively engage in events which make them vulnerable to victimisation (Schreck, 1999). The link between low self-control and victimisation is now well established across crime types (Higgins et al., 2009; Pratt et al., 2014; Schreck et al., 2002; Turanovic and Pratt, 2014). For example, Turanovic and Pratt (2014) found that those who exhibited low self-control were most likely to continue to engage in risky behaviours after their first violent victimisation, and were subsequently significantly more likely to be a repeat victim of violent crime. Low self-control is thus a consistent predicator of the victim-offender overlap (Berg and Mulford, 2020).

An alternative perspective offers sub-cultural norms as an explanation for the victim offender overlap (Fader and Sebastian León, 2023; Schreck et al., 2008; Van Gelder et al., 2015). This theory argues that violence occurs more frequently in groups or communities where 'honour' culture, also called street code, is entrenched (Berg et al., 2012; Schreck et al., 2008). Honour cultures as defined by Berg and Mulford (2020, p.21) 'place a premium on the maintenance of respect, lower the threshold of personal insult, define violations of self in an adversarial manner, and endorse violence as an appropriate means to regulate interpersonal disputes'. Stewart et al. (2006) showed how adoption of 'street code' significantly increases violent victimisation in young people, with the highest rates of victimisation unsurprisingly falling with those who adopt the street code and live in high crime neighbourhoods. More recently Berg et al. (2012) found that neighbourhoods whereby the street code is more prominent have a greater victim-offender overlap than those where it is not used, with the street code shown to increase both violent offending and victimisation.

2.7 Chapter Summary

Serious violent crime persists as a challenge facing the UK, it is increasingly being viewed as a public health issue which requires innovative, multi-agency approaches to reduce the harm it generates (Home Office, 2018). Research in North America suggests HVIPs reduce violent re-victimisation and ongoing offending by serious violent victims (Brice and Boyle, 2020). In the healthcare setting, trauma-informed practice has been evidenced to reduce re-traumatisation to prior victims of child abuse and sexual assault (Aaron et al., 2013; Muzik et al., 2013). Whilst it has been proposed that there may be benefit in law enforcement agencies adopting a trauma-informed approach, there remains a lack of evaluated implementation of such practice (Ko et al., 2008; Rich, 2019).

Regarding contact with the police, serious victimisations are likely to come to police attention (Baumer, 2002; Lantz et al., 2022). However, specific sub groups such as high risk individuals or younger victims are reluctant to cooperate with the police following prior negative experiences (Brunson and Wade, 2019; Carr et al., 2007; Fine and Tom, 2023). For cases of domestic violence there is literature to support that victims are more likely to withdraw their support for police investigation when an officer expresses doubts regarding the credibility of their allegation (Hohl and Stanko, 2015). However, there is a dearth of specific literature on the topic of why there is attrition of victims in cases of non-domestic violent victimisation.

The devaluation perspective and the solvability perspective are two main theoretical explanations for disparities in police outcomes (Vaughn, 2020). There is mixed support for both perspectives, and as with much of the evidence presented in this chapter, the focus of research thus far has been in North America.

Finally, the chapter discussed the victim-offender overlap and theories proposed as to why this population of individuals who are both victims and offenders exists (Lauritsen and Laub, 2007). This included the general theory of crime, whereby Gottfredson and Hirschi (1990) suggest that low self-control predisposes individuals to both victimisation and offending. The next chapter will provide an overview of the operational setting at a major trauma centre, and the methods utilised in this research.

CHAPTER THREE: OPERATIONAL SETTING AND METHODS

3.1 Introduction

This chapter seeks to provide an overview of the operational setting and methods applied to the current research; it will describe the approach taken to answering the research questions as detailed in chapter one. It begins by describing the operational setting and the business imperative for the implementation of the Trauma Support Team (TST), which takes a trauma-informed approach to victims of violent crime. It will then outline the research design, including how data was collected, cleaned, and stored. Finally, it will discuss how the data was analysed to produce descriptive statistics and explain how the analysis of variance test (ANOVA) was utilised.

3.2 Operational Setting

3.2.1 Major Trauma and Typical Police Response

Victims of major trauma have been described as having “serious or multiple injuries associated with a strong possibility of death or disability” (Glen et al., 2016, p.1). The RLH has the largest and busiest major trauma centre (MTC) in the UK: as of 2016 it treated approximately 3,000 trauma patients a year, with approximately 750 of these classified as penetrating injuries caused by a knife, gunshot or other sharp instrument (Vulliamy et al., 2018). The London Trauma System services London and large parts of its surrounding counties, it has four MTCs, the other three sites are Kings College Hospital (KCH), St Mary’s Hospital (SMH) and St Georges Hospital (SGH). If a patient needs the services of an MTC then National Health Service (NHS) protocol

dictates they should be taken to the nearest site, however in reality this does not always take place. NHS colleagues have advised that the four MTCs have the same specialties to standardise practice. There are some differences in the wider service offered to victims of violent crime depending on the MTC attended. For example, whilst the RLH has St Giles Trust operating as their HVIP, as described in the literature review, the other three MTCs have Redthread. The service offered by Redthread differs slightly from that of St Giles; unlike at Redthread, caseworkers from St Giles are employed partially due to their lived experience. The age range for both HVIPs is 11-25 years old. Redthread are based in the Emergency Department (ED) and focus most of their work here, however St Giles focus on doing longer term work with those admitted to wards. As part of the designation criteria to be a MTC, the hospital must have a trauma coordinator post providing cover 365 days a year, however the specific role profile is open to local interpretation. The After Trauma Team (ATT) provides this service at the RLH from the dedicated trauma ward, meanwhile at KCH they have a coordinator located in ED, and at SMH and SGH smaller teams of nurses.

This research is focussed on the Trauma Support Team (TST), a pilot programme running at RLH to improve the quality of engagement with victims of violent crime, the initial and secondary evidential capture and build strong partnership relations. The TST was set up in July 2021 by serving police officers following the identification that there was a need to improve the engagement of police with serious violent crime victims.

In London, police will typically respond to the scene of an incident of serious violence having been called either by the victim or a witness. The London Ambulance Service also have a positive duty to make police aware of incidents of serious violence and will notify police if they are attending such an incident. At the scene, the victim will

generally require urgent medical attention and will be transported to hospital either by ambulance or helicopter. Where the injury level cannot be declared as not life-threatening or life-changing at scene, a police constable (PC) will be sent with the victim to hospital to act as continuity. They will either travel in the ambulance with the victim or follow it in a police car. A continuity officer's role is to coordinate investigative actions at the hospital and to evidence continuity to exhibits seized and victim contact. This may include: establishing the identity of the victim; seizing victim clothing; taking swabs; and obtaining an initial account from the victim where they are well enough to do so (National Centre for Policing Excellence, 2006).

3.2.2 Challenges of Initial and Secondary Investigation

In the MPS, the initial investigation is generally performed by less experienced officers. This inexperience can manifest as a seeming lack of proficiency and urgency in progressing the necessary steps to obtain best evidence thus hampering the investigative process. Furthermore, the environment in which early investigative efforts are necessary, within hospital resus, appears chaotic if one is not familiar with it, presenting a range of different pressures and challenges. This generates complexity for officers in identifying when to engage with medical staff, or when it is appropriate to engage with the victim, to capture evidence or obtain an initial account. Further, amongst frontline officers there is no formal training in the taking of a trauma-informed approach, so it is unlikely to be consciously incorporated in routine interactions with victims.

The next phase, or, secondary investigation, including the taking of statements from victims and obtaining their consent to access their medical notes, is completed by

detective constables (DCs) or, increasingly, trainee detective constables (TDCs). The introduction of the direct entry detective programme means that it is now commonplace for TDCs to never have performed the PC role. These officers will, whilst still relatively new to policing, be assigned as the investigating officer for offences involving serious violence. Amongst TDCs experience can be lacking, and due to staffing challenges, workloads are high. Coupled with the experience challenges faced with PCs performing the continuity role, this results in challenges obtaining the evidence required, inhibiting the investigative process.

3.2.3 A Different Approach: The Business Imperative

Prior to the implementation of the team, officers would attend the RLH from across London and county forces to complete initial and secondary evidential capture. Travel time meant this was inefficient and time-consuming. In terms of engagement with victims, a trauma-informed approach was not adopted, and initial rapport built between police and victims of violent crime was ineffective. It was common for victims of violent crime to be unsupportive of police investigation, often having had prior negative experiences with police and/or come from communities with low perceptions of police legitimacy. Similarly, NHS staff did not know who to engage with from police to improve victim experience. Likewise, they were spending a significant amount of time chasing updates for their patients. Further, there was minimal intelligence being gathered from the hospital footprint and opportunities to improve safeguarding of victims upon discharge were being missed. However, it should be noted that there was no official baselining or measurement of levels of engagement at the RLH or other MTCs prior to the implementation of the TST.

3.2.4 The Trauma Support Team – Overview and Opportunities

The TST, consisting of one Detective Sergeant and eight PCs/DCs, was implemented as a pilot programme, with the goal of improving the rapport built with victims, professionalising the approach taken to evidential capture and building strong collaborative relationships. The key rationale for introducing this pilot was that having officers, in the right place, with the skills to establish relationships with violent crime victims, NHS staff and NGOs presents an excellent opportunity for the MPS to enrich its response to violent crime incidents. The team is co-located at the RLH, with the following teams: NHS trauma clinicians; St Giles Trust; the NHS ATT.

The TST operate from 0700hrs to 2300hrs from Monday to Thursday, and 1300hrs to 0700hrs from Friday to Sunday. These dedicated officers service any victim of serious violence who attends the RLH, including from large areas of North and East London, and those transported to the RLH from outside of London. The pilot is the first of its kind in the UK.

All officers on the team have applied to be there, evidencing their individual drive to work with violent crime victims. The officers have had training on adopting a trauma-informed approach, this included inputs from individuals with lived experience of serious violence. This helps the team empathise with the possible prior experiences of victims, to minimise re-traumatisation as is key to a trauma-informed approach (Reeves, 2015). Similarly, inputs were delivered by experienced investigators and scene of crime examiners on capturing best evidence. The TST have also been familiarised with the Emergency Department and the process for trauma patients.

The implementation of the pilot was not without challenge, firstly, it was completed quickly, with implementation only agreed by senior police leaders two months prior to

‘go live’. This meant there was a lack of evaluative framework built prior to set-up and no formal baselining conducted, rather the evaluation of TST is being conducted retrospectively. The pilot programme remained operational throughout the research period, with all officers remaining on attachment, rather than allocated the role on a full-time basis, resulting in instances of staff turnover.

3.3 Research Design

3.3.1 Overview

This research seeks to compare the outcomes of victims who attend the RLH against those who attend another of London’s MTCs. It sits at level 2 of the Maryland Scale as described by Sherman (1998), as there is a comparison group namely the victims who attend other MTCs. Whilst the victims attending the other MTCs have some comparability to those attending the RLH, there has not been full assessment conducted to demonstrate the level of similarity to the ‘treatment’ group as would be required to move this to level 3 of the Maryland Scale. Likewise, the similarities between the different MTCs have not been formally established. This approach was cost effective in the current policing context of limited resources, and to ensure the evaluation was completed within the period available.

The next section addresses how the proposed approach responds to the research questions.

3.3.2 Data Collection and Cleaning

Data to answer all questions was obtained from the MPS’s Crime Report Information System (CRIS). CRIS is used to log all incidents of crime, and is the

platform where incidents such as non-crime domestics and the enactment of police protection powers under Section 46 of Children Act (1989) are recorded.

The population studied for this research is victims who attend any of London's MTCs between 01/09/2021 and 31/05/2022. This data was obtained through searches of CRIS for all victims whose injury was listed as 'serious'. Serious injury is defined in the National Critical Incident Management Guidance as meaning 'a fracture, a deep cut, a deep laceration or an injury causing damage to an internal organ or the impairment of any bodily function' (Home Office, 2021, p.35). On CRIS, level of injury is a mandatory 'drop-down' selection for each victim listed, with the options of; 'no injury', 'minor', 'moderate', 'serious'.

There is no pre-formatted way to show hospital attendance on CRIS, rather it sits within the free-text details of a report. To identify victims who attended an MTC during the time period searches of the hospital names and frequently used acronyms were searched against the free text sections of the reports. These search terms are detailed in **Appendix A.**

Data searches supported the capture of individuals who attended each MTC. This dataset provided victim details, offence date, hospital attended, crime classification (initial and current), and outcome of investigation (in line with Home Office Crime Outcome Codes (listed in **Appendix B**)).

Participants were removed when age fell outside the specified age range (<10 years old as per the criminal age of responsibility), or when key variables were missing (name or date of birth (DOB)). Participants were also identified as ineligible when a review of the allocated administrative crime classification showed the report was not a crime (e.g., crime related incidents, non-crime domestics and police protections) or

was rendered ineligible because the offence was outside the scope of research (driving offences). This ‘cleaned’ data has been used to answer research questions one and two.

To generate the data which has been used to answer research question three, CRIS was once again searched. Initially two separate data pulls were completed; 1) all named victims between 01/09/2021 and 31/05/2023 – this search was run on 06/07/2023, and 2) all named suspects between 01/09/2021 and 31/05/2023 - this search was run on 04/07/2023.

A ‘VLOOKUP’ search on excel was then utilised to search the surname and DOB of the victim who initially attended an MTC between 01/09/2021 and 31/05/2022 against the total named victims and named suspect lists. All those that did not receive a match for any of the four sites were removed.

The data was then cleaned for both named victims and named suspects to remove reports where key details (surname or DOB) were unknown (as without this it could not be confirmed it was the same individual). Duplicates records or those recorded outside of the timeframe were removed (offence date same as initial attendance, >365 days after initial attendance, occurred prior to MTC attendance). Again, reports were removed when crimes could not be confirmed as the current classification for the investigation was not a crime (e.g. crime related incidents, non-crime domestics and police protections). All reports were manually cross-checked to ensure the same first name as on initial MTC attendance data, reports with different first name were removed.

When answering the sub-questions regarding serious violent offences the definition of this was taken from the Home Office Serious Violence Strategy (Home Office, 2018) and included:

- Homicide
- GBH or above assaults
- Robbery

3.3.3 Data Storage and Ethical Considerations

Data was stored as per the six data protection principles for law enforcement introduced in the UKs implementation of General Data Protection Regulation (GDPR) through the Data Protection Act (2018) and outlined College of Policing (CoP) in their Authorised Professional Practice (2023) (see **Appendix C**).

All data utilised is available through CRIS, this system can be accessed by MPS employees. This research is a part evaluation of a current MPS funded and run pilot team, and the data was accessed in a proportionate manner to meet the evaluation goals. This also meant there was no requirement for informed consent from individuals attending the MTCs as a victim within the time frame. Data that was not of relevance to this research, such as named victims or named suspects who had not attended an MTC in between 01/09/2021 and 31/05/2022, was removed from the dataset and not accessed. Once data was cleaned, it was anonymised, all non-anonymised data was removed. Further, to ensure data security, the raw data has only been accessed on MPS laptops. Only fully cleaned and anonymised data sheets were shared with other individuals or onto a non-MPS device.

3.4 Data Analysis

The proposed data analysis accompanying this research incorporates different approaches and techniques. Firstly, data will be analysed and summarised to develop a descriptive presentation of the data and relationships between the variables for all questions as outlined in chapter one. The ambition is to highlight key differences between the dependent and sub-variables depending on MTC attended. Descriptive analyses were undertaken using pivot tables on Microsoft Excel.

Secondly, ANOVA, or analysis of variance, is a statistical test used to compare whether there is statistically significant difference between three or more independent groups (Hinton, 2014). Given the current research has four populations – those attending each of the four MTCs – ANOVA is the most appropriate statistical test. Further, the use of ANOVA assumes representativeness of the group studied to the entire population either by capturing the entire population or using probability sampling (Weisburd, 2014). Given the entire population for the timeframe studied (excluding those with key missing name or DOB data) will have been captured, this requirement is met. ANOVA compares the means of each group, assuming that the data is normally distributed. The test results in a p value, where if p=<0.05 it is broadly accepted the result is statistically significant meaning the observed effect is unlikely to be due to chance (Cooper and Hedges, 1994). ANOVA will be utilised in this research to establish if differences in re-victimisation and recorded offending in the year post MTC attendance are statistically significant.

Finally, the CCHI which uses the recommended starting point of day's imprisonment for sentencing to generate a score for each offence type will be utilised to assess the crime harm associated with re-victimisation and recorded offending in the year post

attendance (Sherman et al., 2016). This will be presented to understand if there is a power few population present: a small percentage of offenders, victims or places that produce the greatest amount of harm (Sherman, 2007).

3.5 Data Limitations

There are several limitations accompanying the outlined data capture and management process. Firstly, there are likely to be inaccuracies in initial recording of information onto CRIS: whilst there is definition of 'serious' injury as outlined, the recording of injury level is subjective. Despite this, the error rate is likely to remain consistent pan-MPS, reducing impact on internal validity. Second, the search for MTC attendance is against the free text sections of the report, denoting two clear risks: misspelling of MTC name in report would result in it not being picked up by search; the acronym being used for another meaning would cause the report to be pulled incorrectly. The second risk is mitigated by only reports where the injury was listed as 'serious' being extracted.

Whereby name or DOB was not known, the report was excluded as there was no way of establishing if they matched an individual in the initial MTC population, however, a small proportion of these could have been individuals who had initially attended an MTC.

Another data limitation relates to unreported crime. At the RLH, the TST respond to trauma calls, this has seen them reporting crimes which may have otherwise remained unidentified due to the unwillingness of victim to report. This means the RLH may have seen increased reporting from victims who did not wish to report the crime to police which could have caused an increase in the unwilling victims at the RLH compared to

other sites. However, somewhat mitigating this is the positive duty on the NHS to notify police of all gunshot injuries and incidents where the clinician believes there could be reciprocal violence, albeit the latter of these is subjective and threshold may vary by hospital.

3.6 Chapter Summary

This chapter described the set-up of major trauma centres in London, and how the TST has been set up to focus on taking a trauma-informed approach to victims of serious injury attending the RLH. It outlines how the research will seek to elicit differences in the groups attending each of the MTCs, and any subsequent difference in their outcomes. Next, it detailed how the data was drawn from CRIS and cleaned and stored in line with the data protection principles. Finally, this chapter discussed some limitations in the data available, for example the subjectivity relating to level of injury recorded. The next chapter will outline the findings of the research.

CHAPTER FOUR: FINDINGS

4.1 Introduction

This chapter will present the main findings associated with each research question, beginning by providing an overview of the baseline characteristics of victims, both socio-demographic and offence classifications, attending each of the four sites to answer research question one. For research question two, the criminal justice outcomes for the victimisations which led to MTC attendance will be detailed both in terms of socio-demographic factors and offence classification. Answering the final question, the re-victimisation and recorded offending in the year post MTC attendance will be detailed with a focus on detailing the impact of the change in independent variable (MTC attended) and sub-variables (demographic factors, crime classification and criminal justice outcome). Further, the CCHI has been utilised to portray the harm associated with the ongoing victimisations and offending.

4.2 Baseline Characteristics

This section provides the findings for research question one; '*How do the baseline characteristics of victims of serious violence treated in the four sample hospitals compare in the; a) demographic distributions of victim characteristics (age, gender, white vs. BAMEH ethnicity) and b) offence classification'*.

4.2.1 Socio-demographic Characteristics of Victims

Table 1: Socio-demographic characteristics of victims who attended each of the four MTCs in the period of 01/09/21 to 31/05/22.

	Location				
	KCH	**RLH**	**SGH**	**SMH**	**All sites**
Total n (%)	289 (27.4)	445 (42.2)	161 (15.3)	160 (15.2)	1055
Age (years)					
Total (mean)	33.4	31.5	33.3	32.6	32.5
≤ 25 years n (%)	107 (37)	173 (38.9)	61 (37.9)	61 (38.1)	402 (38.1)
Gender n (%)					
Female	50 (17.3)	49 (11)	32 (19)	26 (16.3)	157 (14.9)
Male	239 (82.7)	396 (89)	129 (80.1)	134 (83.8)	898 (85.1)
Ethnicity n (%)					
Afro-Caribbean	131 (45.3)	121 (27.2)	55 (34.2)	53 (33.1)	360 (34.1)
Arabian/ Egyptian	2 (0.7)	5 (1.1)	3 (1.9)	22 (13.8)	32 (3)
Asian	10 (3.5)	83 (18.7)	11 (6.8)	15 (9.4)	119 (11.3)
Dark European	21 (7.3)	40 (9.0)	8 (5)	10 (6.3)	79 (7.5)
Oriental	2 (0.7)	3 (0.7)	1 (0.6)	2 (1.3)	8 (0.8)
Unknown	17 (5.9)	26 (5.8)	10 (6.2)	15 (9.4)	68 (6.4)
White European	106 (36.7)	167 (37.5)	73 (37.5)	43 (26.9)	389 (36.9)

Table 1, above, outlines the characteristics of victims who attended each of the four MTCs in the period of 01/09/21 to 31/05/22. It shows that there are differences between the size and demographics of the populations attending each site, for example the RLH had the lowest mean age (31.5 years old). A post-hoc Tukey test showed that the ages of the groups did not differ significantly (p=.51).

Breaking the findings down further Figure 1. below details subject age at the time of victimisation.

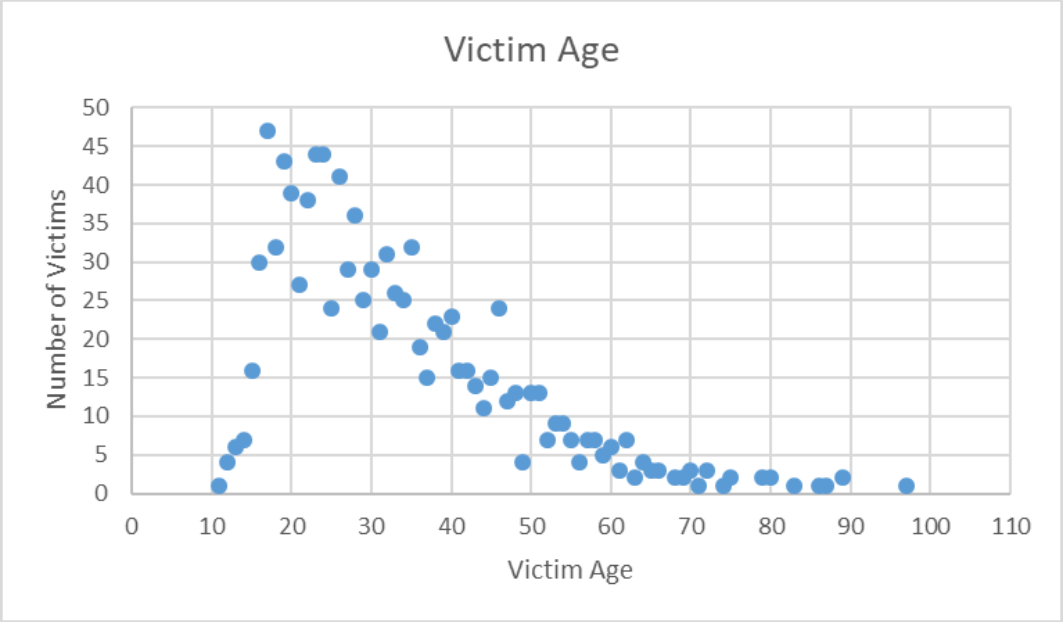

Figure 1: Scatter plot depicting age at time of victimisation

Examination of the scatter plot (Figure 1.) reveals the number of victims of each age, based on age at time of victimisation. The scatter plot confirms that the most prevalent age was seventeen (n=47).

4.2.2 Offence Classification

This section details the offences experienced by victims attending the four MTCs, it presents the percentage breakdown for the total population, and for victims ≤25 years old.

Table 2: Offence Classifications for victims who attended the four MTCs between 01/09/21 to 31/05/22.

	Location				
% Total (% Victim ≤25 years)	**KCH**	**RLH**	**SGH**	**SMH**	**All sites**
Robbery	9.3 (9.3)	10.1 (9.8)	8.7 (11.5)	10.6 (8.2)	9.8 (9.7)
GBH	41.9 (34.6)	32.1 (26)	44.1 (39.3)	36.3 (37.7)	37.3 (32.1)
Att Murder	3.5 (5.6)	4.9 (7.5)	1.9 (3.3)	8.1 (8.2)	4.5 (6.5)
GBH with Intent	37.7 (42.1)	46.5 (53.2)	34.2 (37.7)	38.8 (42.6)	41 (46.3)
Firearm Offences	1.0 (2.8)	0.0 (0)	1.9 (1.6)	1.3 (1.6)	0.8 (1.2)
Other Assault	3.8 (3.7)	3.8 (2.3)	5.6 (3.3)	4.4 (1.6)	4.2 (2.7)
Sexual Offences	1.0 (0)	0.9 (0.6)	1.9 (1.6)	0.6 (0)	1 (0.5)
Non-robbery Acquisitive Crime	0.7 (0)	1.3 (0.6)	1.2 (1.6)	0 (0)	0.9 (0.5)
Kidnap	1.0 (1.9)	0.2 (0)	0.6 (0)	0 (0)	0.5 (0.5)

Table 2. reveals the RLH had the highest proportion of GBH with intent offences (46.5%), but the lowest proportion of GBH offences (32.1%), this is also reflected when the victim was ≤25 years old (53.2% and 26% respectively) suggesting that those attending the RLH are victims of more serious offences. More broadly, it shows victims aged ≤25 years old experience higher rates of more serious offences (GBH with intent, attempted murder) compared to the total population.

4.3 Criminal Justice Outcomes

This section will provide information to answer the second research question; '*How do criminal justice outcomes differ between victims who attend the RLH and the comparison hospitals? And does this change depending on victim characteristics (age, gender, white vs. BAMEH ethnicity)?'*.

4.3.1 Overall Criminal Justice Outcomes

Police crime reports are closed by an outcome code, this section details the outcome codes for the investigations based upon which MTC the victim attended.

Table 3: Criminal justice outcomes by MTC attended.

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Adult offender cautioned alternate offence	0.3%	0.2%	0.0%	0.0%	0.2%
	Caution - adult	0.0%	0.0%	0.6%	0.0%	0.1%
	Charge/Summons Alternate offence	5.9%	3.6%	5.6%	10.0%	5.5%
	Charged/Summonsed	14.5%	18.7%	13.0%	21.3%	17.1%
	Community Resolution	0.0%	0.2%	0.0%	0.0%	0.1%
	Evidential difficulties victim based	9.3%	10.1%	7.5%	8.8%	9.3%
	Investigation complete: no suspect identified	29.8%	26.5%	24.8%	24.4%	26.8%
	Outcome Pending	14.5%	9.7%	10.6%	12.5%	11.6%
	Suspect identified; Victim does not support. Evidential difficulties.	10.4%	11.0%	14.9%	5.6%	10.6%
	Suspect identified; Victim supports. Evidential difficulties.	15.2%	20.0%	22.4%	17.5%	18.7%
	The offender has died (all offences)	0.0%	0.0%	0.6%	0.0%	0.1%

Table 3. outlines the percentage of each investigative outcome for all offences as recorded on CRIS at the point of data pull. SMH presents as an outlier here with a total charge rate of 31.3%, however this does not appear to be changing the all-site average

(22.6%) drastically due to the comparatively small proportion of victims who attend SMH (15.2%).

4.3.2 Criminal Justice Outcomes by Offence Classification

This sub-section outlines the outcome data by site from CRIS for the offences of: attempted murder, GBH with intent, GBH, and robbery offences. Collectively these four offence classifications make up 92.2% of all the crimes within the cleaned dataset.

Table 4: Outcomes for crimes classified as Attempted Murder.

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Charge/Summons Alternate offence	10.0%	9.1%	0.0%	0.0%	6.3%
	Charged/Summonsed	20.0%	59.1%	66.7%	53.8%	50.0%
	Evidential difficulties victim based	0.0%	0.0%	0.0%	23.1%	6.3%
	Investigation complete: no suspect identified	10.0%	9.1%	33.3%	7.7%	10.4%
	Outcome Pending	60.0%	22.7%	0.0%	15.4%	27.1%

Examination of the available data reveals that Attempted Murder makes up 4.5% of the total offences. This serious offence has high charge rates (>50%) at all sites except for KCH where most offences have an outcome pending (60%).

The next table displays the outcomes for the offence of GBH with intent, the most prevalent crime type in the dataset (41% all-site average, see Table 2).

Table 5: Outcomes for crimes classified as Grievous Bodily Harm with Intent

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Charge/Summons Alternate offence	6.4%	2.9%	1.8%	6.5%	4.2%
	Charged/Summonsed	15.6%	27.5%	18.2%	32.3%	24.0%
	Evidential difficulties victim based	12.8%	11.1%	5.5%	3.2%	9.7%
	Investigation complete: no suspect identified	24.8%	21.7%	25.5%	27.4%	23.8%
	Outcome Pending	11.9%	8.7%	9.1%	9.7%	9.7%
	Suspect identified; Victim does not support. Evidential difficulties.	13.8%	12.1%	16.4%	4.8%	12.0%
	Suspect identified; Victim supports. Evidential difficulties.	14.7%	15.9%	23.6%	16.1%	16.6%

Examination of Table 5. reveals that suspect charge rate for GBH with varies by site (RLH=27.5%; SMH=32.3%; KCH=15.6%; SGH=18.2%). Unsupportive victims, described by the outcomes ‘Evidential difficulties victim based’ and ‘Suspect identified; Victim does not support. Evidential difficulties’, collectively represent 21.7% of all outcomes for GBH with intent.

The next table explores the outcomes for investigations into the less serious offence of GBH which was the most prevalent offence at both KCH and SGH (see Table 2).

Table 6: Outcomes for crimes classified as Grievous Bodily Harm

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Adult offender cautioned alternate offence	0.8%	0.7%	0.0%	0.0%	0.5%
	Charge/Summons Alternate offence	7.4%	3.5%	8.5%	12.1%	6.9%
	Charged/Summonsed	6.6%	4.2%	7.0%	1.7%	5.1%
	Community Resolution	0.0%	0.7%	0.0%	0.0%	0.3%
	Evidential difficulties victim based	10.7%	11.9%	9.9%	10.3%	10.9%
	Investigation complete: no suspect identified	34.7%	30.1%	21.1%	29.3%	29.8%
	Outcome Pending	13.2%	9.1%	9.9%	15.5%	11.5%
	Suspect identified; Victim does not support. Evidential difficulties.	9.1%	12.6%	18.3%	8.6%	12.0%
	Suspect identified; Victim supports. Evidential difficulties.	17.4%	27.3%	25.4%	22.4%	23.2%

Table 6. shows the charge rate for this offence is lower than in the more serious assault offences of GBH with intent and attempted murder. The largest outcome descriptor is ‘Investigation complete: no suspect identified’ with an average of 29.8%. Unsupportive victims represent 22.9% of outcomes.

The final table in this section displays the outcomes for investigations classified as robbery.

Table 7: Outcomes for crimes classified as Robbery

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Charge/Summons Alternate offence	0.0%	6.7%	14.3%	11.8%	6.8%
	Charged/Summonsed	33.3%	13.3%	7.1%	17.6%	18.4%
	Evidential difficulties victim based	0.0%	11.1%	7.1%	17.6%	8.7%
	Investigation complete: no suspect identified	44.4%	46.7%	57.1%	17.6%	42.7%
	Outcome Pending	11.1%	4.4%	0.0%	11.8%	6.8%
	Suspect identified; Victim does not support. Evidential difficulties.	3.7%	4.4%	0.0%	5.9%	3.9%
	Suspect identified; Victim supports. Evidential difficulties.	7.4%	13.3%	14.3%	17.6%	12.6%

The data within Table 7 table affirms that the most frequently used outcome for this crime type is 'Investigation complete: no suspect identified' at 42.7%.

4.3.3 Criminal Justice Outcomes by Age

In this section, outcomes have been split into two age ranges, ≥26 years old and ≤25 years old to understand if age changed outcomes for this population.

Table 8: Outcomes by site and victim age (≥26 years old, ≤25 years old)

	Location				
% Victims ≥26 years (% Victim ≤25 years)	KCH	RLH	SGH	SMH	All sites
Charge/Summons Alternate offence	7.1 (3.7)	3.3 (4)	7 (3.3)	13.1 (4.9)	6.4 (4)
Charge/Summons	17.6 (9.3)	19.9 (16.8)	16 (8.2)	24.2 (16.4)	19.3 (13.4)
Evidential difficulties victim based	3.8 (18.7)	9.2 (11.6)	8 (6.6)	7.1 (11.5)	7.2 (12.7)
Investigation complete: no susp id	29.1 (30.8)	28.3 (23.7)	23.0 (27.9)	25.3 (23)	27.3 (26.1)
Outcome Pending	13.7 (15.9)	10.3 (8.7)	10.0 (11.5)	13.1 (11.5)	11.6 (11.4)
Susp id; V not support; evidential difficulties.	12.1 (7.5)	9.2 (13.9)	16.0 (13.1)	5.1 (6.6)	10.4 (10.9)
Susp id; V supports; evidential difficulties	15.9 (14)	19.5 (20.8)	18.0 (29.5)	12.1 (26.2)	17.2 (21.1)
Other	0.5 (0)	0.4 (0.6)	2 (0)	0 (0)	0.7 (0.2)

Table 8. confirms that charge rates when the victim was ≤25 years old were lower at all sites than for victims ≥26 years old, the variation between the two age groups for charge rates is smallest at the RLH. Interestingly, the percentage of reports closed as 'Suspect identified; Victim supports. Evidential difficulties' is higher at RLH, SGH, and SMH for the younger population.

4.3.4 Criminal Justice Outcomes by Gender

Understanding outcomes by recorded gender answers part of research question two, providing valuable insight into whether gender generates disparity in outcomes.

Table 9: Outcomes by site and gender (male, female)

	Location				
% Male Victims (% Female Victims)	**KCH**	**RLH**	**SGH**	**SMH**	**All sites**
Charge/Summons Alternate offence	4.2 (14)	3.5 (4.1)	2.3 (18.8)	8.2 (19.2)	4.2 (12.7)
Charge/Summons	13.4 (20)	17.7 (26.5)	13.2 (12.5)	17.2 (42.3)	15.8 (24.2)
Evidential difficulties victim based	10.0 (6)	11.1 (2)	8.5 (3.1)	10.4 (0)	10.4 (3.2)
Investigation complete: no susp id	33.5 (12)	27.3 (20.4)	27.9 (12.5)	27.6 (7.7)	29.1 (14)
Outcome Pending	15.5 (10)	9.8 (8.2)	10.9 (9.4)	12.7 (11.5)	11.9 (9.6)
Susp id; V not support; evidential difficulties.	9.6 (14)	10.9 (12.2)	14.0 (18.8)	5.2 (7.7)	10.1 (13.4)
Susp id; V supports; evidential difficulties	13.8 (22)	19.2 (26.5)	21.7 (25)	18.7 (11.5)	18.0 (22.3)
Other	0 (2)	0.6 (0)	1.6 (0)	0 (0)	0.4 (0.6)

The findings above (Table 9.) reveal that the overall charge rate when the victim is female sits at 36.9%, which is higher than in the male population (20%).

4.3.5 Criminal Justice Outcomes by Ethnicity

This section will outline criminal justice outcomes by ethnicity. This should be read alongside Table 1. which details the ethnicity breakdown by site. The ethnicities of 'Arabian/Egyptian', 'Dark European', 'Oriental', and 'Unknown' represent 17.7% of the population, in this section these ethnicities will be included as 'Other' due to the smaller number of victims in each group.

Table 10: Outcomes for victims described as 'White European'

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Charge/Summons Alternate offence	4.7%	5.4%	8.2%	14.0%	6.7%
	Charged/Summonsed	18.9%	16.8%	15.1%	20.9%	17.5%
	Evidential difficulties victim based	6.6%	9.0%	5.5%	9.3%	7.7%
	Investigation complete: no suspect identified	27.4%	29.3%	21.9%	23.3%	26.7%
	Outcome Pending	16.0%	6.6%	12.3%	9.3%	10.5%
	Suspect identified; Victim does not support. Evidential difficulties.	9.4%	9.6%	16.4%	2.3%	10.0%
	Suspect identified; Victim supports. Evidential difficulties.	17.0%	23.4%	19.2%	20.9%	20.6%
	The offender has died (all offences)	0.0%	0.0%	1.4%	0.0%	0.3%

The findings associated with 'outcomes of victims described as 'White European'' (Table 10.) confirm that the most frequently used closure code at all sites for this group was 'investigation complete; no suspect identified'. The RLH saw the highest rates of crimes closed whereby the victim supported but there were evidential difficulties (23.4%).

Table 11: Outcomes for victims described as ‘Afro-Caribbean’

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Adult offender cautioned alternate offence	0.8%	0.0%	0.0%	0.0%	0.3%
	Charge/Summons Alternate offence	7.6%	2.5%	5.5%	3.8%	5.0%
	Charged/Summonsed	11.5%	21.5%	10.9%	22.6%	16.4%
	Evidential difficulties victim based	12.2%	12.4%	9.1%	7.5%	11.1%
	Investigation complete: no suspect identified	28.2%	25.6%	29.1%	34.0%	28.3%
	Outcome Pending	10.7%	13.2%	10.9%	7.5%	11.1%
	Suspect identified; Victim does not support. Evidential difficulties.	11.5%	6.6%	14.5%	7.5%	9.7%
	Suspect identified; Victim supports. Evidential difficulties.	17.6%	18.2%	20.0%	17.0%	18.1%

The results associated with ‘outcomes for victims described as ‘Afro-Caribbean’’ (Table 11.) confirm that the total suspect charge rate varied by which site the victim attended; KCH = 19.1%, RLH = 24%, SGH = 16.4%, SMH = 26.4%. Meanwhile, the rate of crimes closed whereby the suspect was identified and the victim supported the investigation, but it was closed due to evidential difficulties remained more consistent with 3% variance between the highest and lowest.

Table 12: Outcomes for victims described as ‘Asian’

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Charge/Summons Alternate offence	10.0%	1.2%	0.0%	6.7%	2.5%
	Charged/Summonsed	20.0%	18.1%	9.1%	13.3%	16.8%
	Evidential difficulties victim based	20.0%	12.0%	18.2%	13.3%	13.4%
	Investigation complete: no suspect identified	0.0%	24.1%	27.3%	33.3%	23.5%
	Outcome Pending	30.0%	13.3%	9.1%	13.3%	14.3%
	Suspect identified; Victim does not support. Evidential difficulties.	0.0%	15.7%	0.0%	0.0%	10.9%
	Suspect identified; Victim supports. Evidential difficulties.	20.0%	15.7%	36.4%	20.0%	18.5%

Table 12. shows the outcome rates for victims whose ethnicity was listed as ‘Asian’. It should be noted that the RLH was the only site where the ‘Asian’ population exceeded 10% of the total site population (see Table 1).

The next table presents the data for victims whose ethnicity did not fall into one of the most prevalent ethnicities, as described at the beginning of this sub-section.

Table 13: Outcomes for victims described as ‘Arabian/Egyptian’, ‘Dark European’, ‘Oriental’, and ‘Unknown’

		Hospital Attended				
		KCH	RLH	SGH	SMH	All Site Average
Outcome Description	Adult offender cautioned alternate offence	0.0%	1.4%	0.0%	0.0%	0.5%
	Caution - adult	0.0%	0.0%	4.5%	0.0%	0.5%
	Charge/Summons Alternate offence	2.4%	4.1%	0.0%	14.3%	5.9%
	Charged/Summonsed	11.9%	18.9%	13.6%	22.4%	17.6%
	Community Resolution	0.0%	1.4%	0.0%	0.0%	0.5%
	Evidential difficulties victim based	4.8%	6.8%	4.5%	8.2%	6.4%
	Investigation complete: no suspect identified	47.6%	24.3%	22.7%	12.2%	26.2%
	Outcome Pending	19.0%	6.8%	4.5%	20.4%	12.8%
	Suspect identified; Victim does not support. Evidential difficulties.	11.9%	16.2%	18.2%	8.2%	13.4%
	Suspect identified; Victim supports. Evidential difficulties.	2.4%	20.3%	31.8%	14.3%	16.0%

Table 13. reveals that following analysis the most prevalent outcome for this group was ‘Investigation complete: no suspect identified’.

4.4 Re-victimisation Rates

This section will present the data which answers research question 3a, specifically, ‘*Over 365 days subsequent to hospital admission, what is the difference between RLH and the comparison hospitals in repeat victimisation by any crime and how is this affected by victim characteristics (age, gender, white vs. BAMEH ethnicity)’.*

Overall re-victimisation rates and detail of re-victimisation by socio-demographic characteristic will be outlined, followed by presentation of the results of ANOVA statistical test on overall re-victimisation by site. Figures on most prevalent age for re-

victimisation and the length of time to re-victimisation will also be presented. This is followed by re-victimisation rate by offence classification and criminal justice outcome code. Finally, re-victimisation by serious violent crime is provided, answering research question 3b.

4.4.1 Re-victimisation Rates by Socio-demographic Characteristic

This section aims to display the overall re-victimisation rates in 365 days post MTC attendance, and breaks this down into demographic factors of age, gender, and ethnicity.

Table 14: Re-victimisation within 365 days of MTC attendance by socio-demographic characteristics

	Location				
	KCH	**RLH**	**SGH**	**SMH**	**All sites**
Total re-victimised n (%)	55 (19)	62 (13.9)	26 (16.1)	25 (15.6)	168 (15.9)
Age (years) % re-victimised					
≥ 26 years	19.2	18	18	13.1	17.6
≤ 25 years	18.7	8.7	13.1	19.7	13.7
Gender % re-victimised					
Female	30	28.6	25	3.8	24.2
Male	16.7	12.1	14	17.9	14.5
Ethnicity % re-victimised					
Afro-Caribbean	13.7	13.2	12.7	26.4	15.3
Arabian/ Egyptian	0	0	0	0	0
Asian	20	16.9	18.2	6.7	16
Dark European	23.8	15	0	20	16.5
Oriental	0	0	0	0	0
Unknown	11.8	11.5	6.6	0	8.8
White European	26.4	14.4	21.9	18.6	19.5

Table 14. shows that the RLH has the lowest re-victimisation rate at 13.9%. This figure is lowest for victims aged 25 of under (8.7%). Female victims were re-victimised more than male victims (all-site average; female=24.2%; male=14.5%). Focussing on ethnicity, victims recorded as ‘White European’ experienced the highest rates (19.5%) of re-victimisation in the 365 days post MTC attendance, the RLH had the lowest

victimisation for this group (14.4%) whilst KCH had the highest (26.4%). It also shows that the re-victimisation rate for 'Afro-Caribbean' victims was relatively consistent at KCH (13.7%), RLH (13.2%) and SGH (12.7%), but higher at SMH (26.4%).

Next, the ANOVA statistical test results which was utilised to compare overall re-victimisation rates by site is presented.

Table 15: Analysis of variation (ANOVA) for re-victimisation at MTC level

		Sum of Squares	df	Mean Square	F	Sig.
Re-victimised in 365 days post	Between Groups	0.458	3	0.153	1.139	0.332
	Within Groups	140.79	1051	0.134		
	Total	141.247	1054			

Table 15. shows the results of the application of ANOVA to the overall re-victimisation rate by site, it confirms that there is a not a statistically significant difference (p=0.33) between re-victimisation levels.

The next figure presents re-victimisation by victim age, this is key to understanding at which age victims most frequently went on to be victimised in the year post MTC attendance.

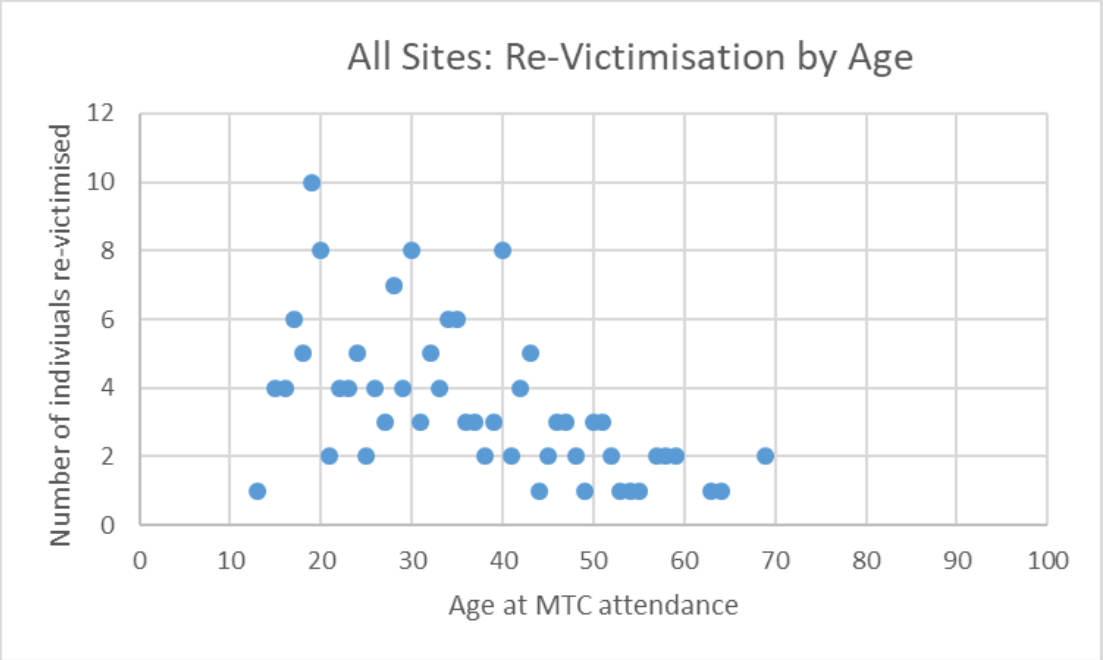

Figure 2: Scatterplot depicting victim age at time of MTC attendance against number of re-victimisations.

The results forthcoming from the data analysis confirms the most prevalent age for re-victimisation was victims aged 19, whereby 10 victims were re-victimised.

Figure 3. (below) displays how many victimisations each individual who was re-victimised experienced.

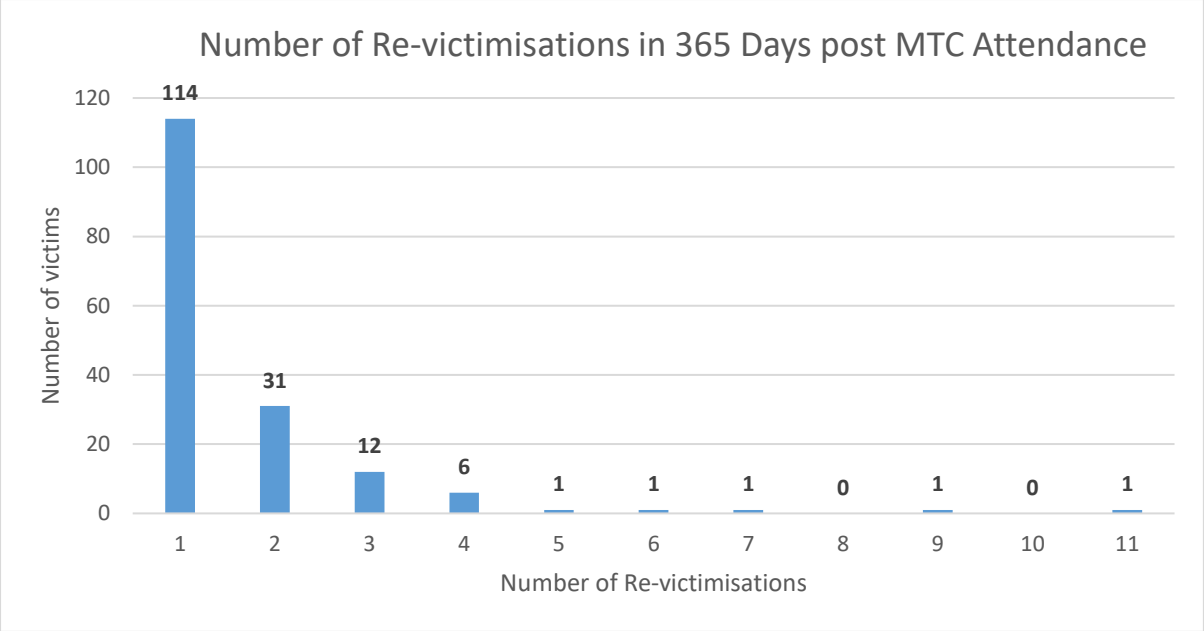

Figure 3: Number of times each individual was re-victimised in 365 days post attendance.

Figure 3. shows that of 168 individuals re-victimised, 54 of these were re-victimised more than once. The total number of incidents of re-victimisation sits at 280 offences.

The next figure plots the rank-ordered percentage of crime harm which each re-victimised individual received, this is key to understanding whether there is a 'power few' population present. Following this, Figure 5. displays the length of time after MTC attendance that re-victimisation occurred.

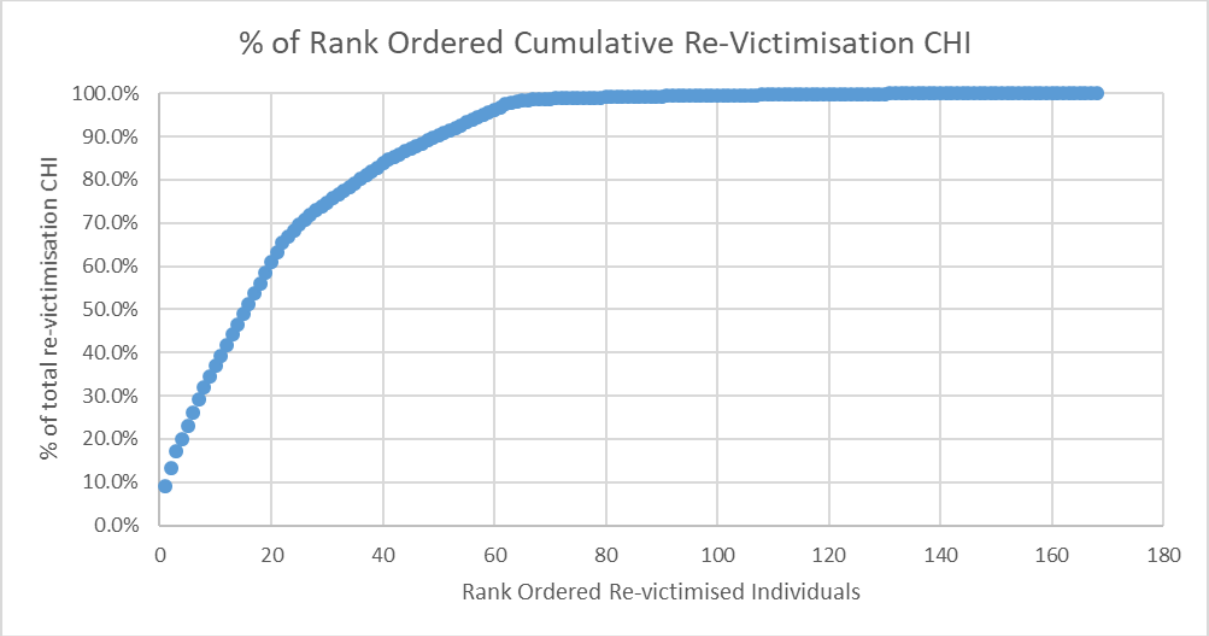

Figure 4: Scatterplot depicting rank-ordered crime harm of re-victimisation

Figure 4. above depicts that the total Crime Harm for the victims was 61017.3. It shows that 20 individuals received 60.9% of the re-victimisation crime harm.

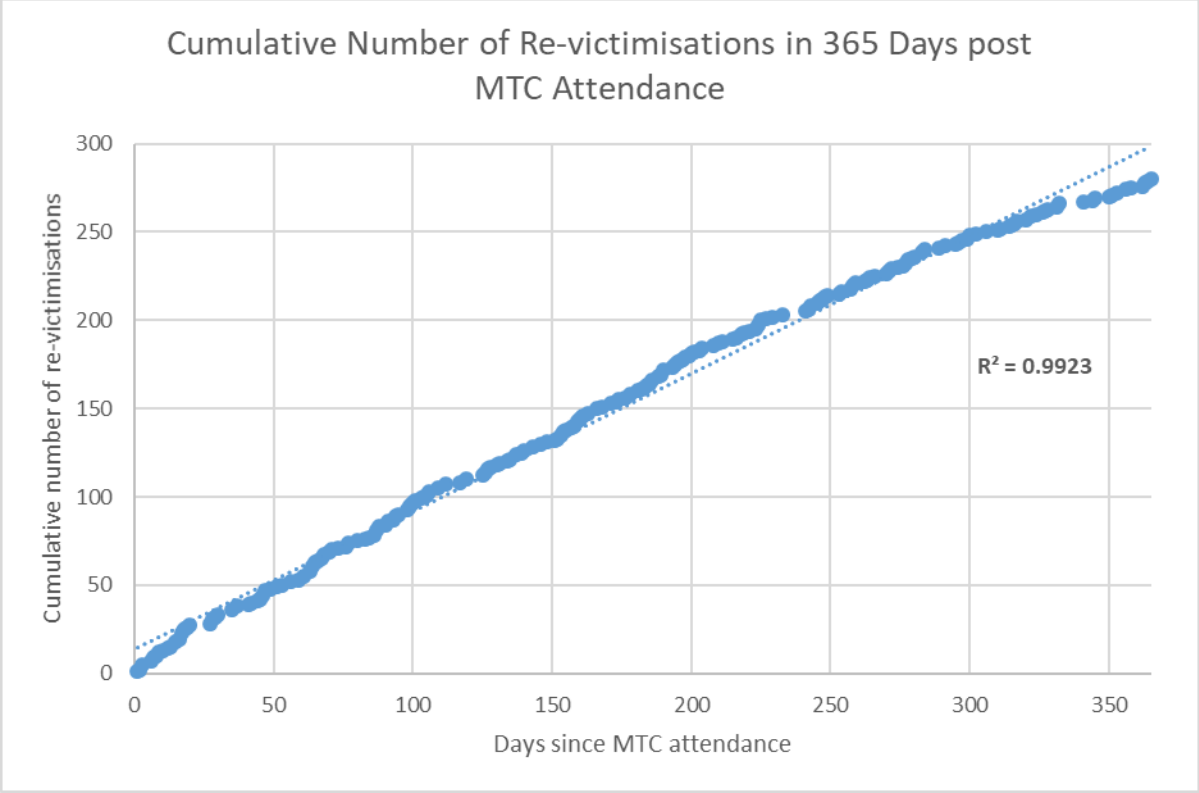

Figure 5: Number of Days post MTC Attendance that Re-victimisation occurred

Figure 5. above illustrates the number of days since MTC attendance against the cumulative number of re-victimisations. R^2 = 0.99, which shows that there is not a specific timeframe post initial victimisation that most re-victimisations take place.

4.4.2 Re-victimisation by Offence Classification and Criminal Justice Outcome

This section will cover re-victimisation rates by offence the victim was initially victimised by. As detailed within previous sections (see 4.2.2) attempted murder, GBH with intent, GBH and robbery offences, account for 92.2% off all crimes within the cleaned dataset and will be focussed on.

Further, for this section the outcome codes have been grouped into the following (% of total population provided in brackets);

- Charge of any offence (22.6%)
- Victim not supportive (19.9%)
- Victim supports and suspect identified but evidential difficulties (18.7%)
- Investigation complete, but no suspect identified (26.8%)
- Outcome pending (11.6%).

Table 16: Re-victimisation rates within 365 days of MTC attendance by offence classification and investigation outcome.

	Location				
	KCH	**RLH**	**SGH**	**SMH**	**All sites**
Total re-victimised n (%)	55 (19)	62 (13.9)	26 (16.1)	25 (15.6)	168 (15.9)
Offence Classification % re-victimised					
Attempted Murder	20	9.1	0	23.1	14.6
GBH with intent	17.4	11.6	12.7	11.3	13.2
GBH	20.7	17.5	21.1	19	19.3
Robbery	14.8	11.1	14.3	11.8	12.6
Criminal Justice Outcome % re-victimised					
Charge/Summons (Any Offence)	20.3	13.1	20	8	14.7
Victim not supportive	26.3	17	13.9	17.4	19
Victim supports and suspect identified but evidential difficulties	20.5	7.9	19.4	14.3	13.7
Investigation complete, but no suspect identified	16.3	19.5	15	25.6	18.7
Outcome Pending	11.9	7	11.8	15	10.7

Table 16. shows that the overall re-victimisation rates are highest for GBH offences (19.3%), and when the outcome was that the victim was unsupportive (19%). SGH presents as an anomaly in that it saw supportive victims re-victimised more than unsupportive (19.4% and 13.9% respectively). GBH re-victimisation rates appear relatively consistent across the sites, with RLH the lowest at 17.5%, and SGH the highest at 21.1%. Interestingly, whereby the ‘investigation complete but no suspect identified’ there were high rates of re-victimisation, it is not clear from this outcome code whether the victim was supportive or not.

4.4.3 Re-victimisation Rate of Serious Violent Crime

This section will detail the number of victims who were subsequently the victim of a serious violent offence in 365 days post MTC attendance, answering question 3b on repeat victimisation by serious violent crime.

Table 17: Number of serious violent re-victimisations in 365 days post MTC attendance.

Serious violent re-victimisation offence	Number of victimisations	% of all re-victimisations
Murder	1	0.6%
GBH with intent	13	7.7%
GBH	21	12.5%
Robbery	17	10.1%
All Serious Violent Offences	52	31.0%

Table 17. reveals that 52 serious violent re-victimisations were experienced by 46 people. The total crime harm of these was 42157.5, which is 69.1% of total re-victimisation crime harm score.

4.5 Named Suspect within 365 Days

This section will present the data which answers research question 3c, which is '*Over 365 days subsequent to hospital admission, what is the difference between RLH and the comparison hospitals in all victims listed as a named suspect for any crime, and how is this affected by victim characteristics (age, gender, white vs. BAMEH ethnicity)*'.

First overall named suspect rates including breakdown by socio-demographic characteristic and ANOVA test results will be presented. Next, recorded offending by initial victimisation offence classification and criminal justice outcome is presented.

Finally, the data on serious violent offending is presented, answering research question 3d.

4.5.1 Named Suspect Rates by Socio-demographic Characteristics

This section displays the overall named suspect rates in 365 days post MTC attendance, and breaks this down into demographic factors of age, gender, and ethnicity.

Table 18: Individuals named as a suspect within 365 days of MTC attendance by socio-demographic characteristics.

	Location				
	KCH	**RLH**	**SGH**	**SMH**	**All sites**
Total named as suspect n (%)	26 (9)	39 (8.8)	12 (7.5)	16 (10)	93 (8.8)
Age (years) % named as suspect					
≥ 26 years	7.7	5.9	6	4	6.1
≤ 25 years	11.2	13.3	9.8	19.7	13.2
Gender % named as suspect					
Female	4	12.2	3.1	0	5.7
Male	10	8.3	8.5	11.9	9.3
Ethnicity % named as suspect					
Afro-Caribbean	13.7	12.4	14.5	18.9	14.2
Arabian/ Egyptian	0	0	0	0	0
Asian	10	10.8	0	6.7	9.2
Dark European	0	7.5	0	0	3.8
Oriental	0	0	0	0	0
Unknown	0	3.8	10	6.7	4.4
White European	6.6	6.6	4.1	9.3	6.4

When considering Table 18 the small sample size should be noted (n=93 for all sites), with SGH for example having just 10 individuals named as a suspect in the year post attendance, this generates some challenges interpreting the data. The table shows that proportionately males were listed as a named suspect more than females. Females who attended the RLH were listed as a suspect most (12.2%) compared to females attending the other MTCs. Meanwhile males who attended the RLH had the

lowest rate (8.3%) of being a named suspect. For victims listed as 'Afro-Caribbean', the RLH saw the lowest percentage (12.4%) of victims who went on to be listed as a named suspect.

Next, the ANOVA statistical test results for overall offending by site will be presented.

Table 19: Analysis of variation (ANOVA) for recorded offenders at MTC level

		Sum of Squares	df	Mean Square	F	Sig.
Named Suspect in 365 days post	Between Groups	0.094	3	0.031	0.368	0.776
	Within Groups	89.616	1051	0.085		
	Total	89.71	1054			

The table above shows the results of the application of ANOVA to the overall recorded offending rate by site, it indicates that there is a not a statistically significant difference (p=0.78) between offending levels.

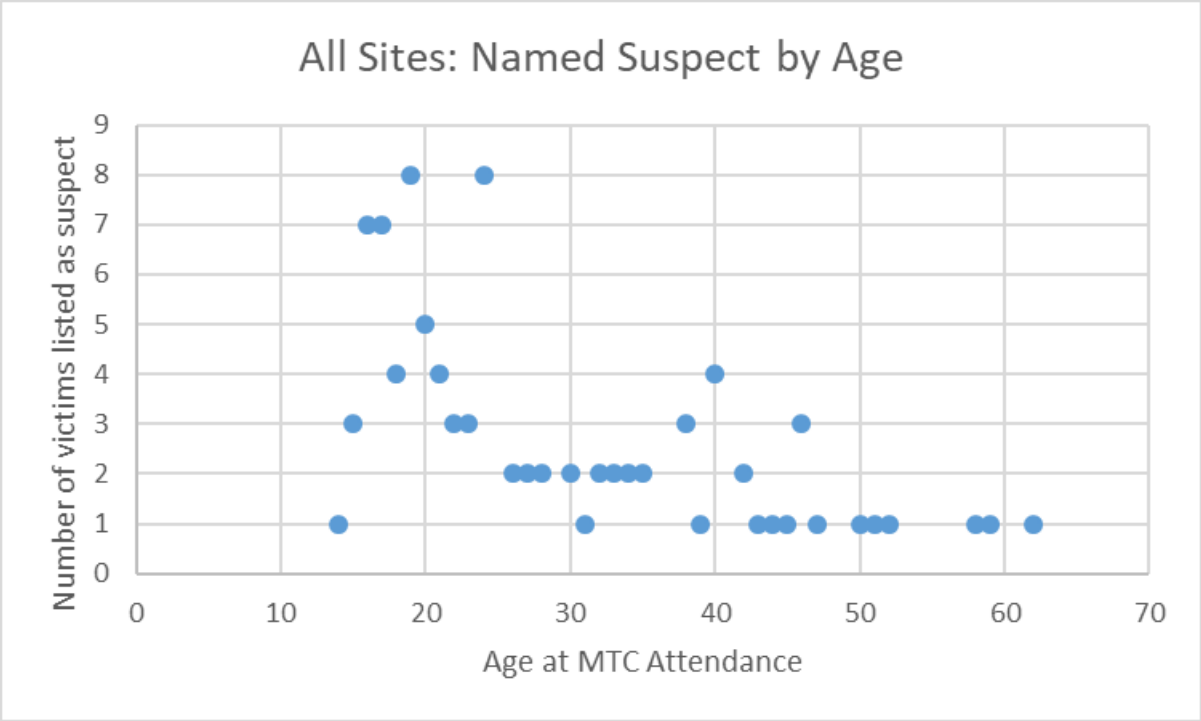

Figure 6: Scatterplot depicting victim age at time of MTC attendance against incidents whereby victim named as a suspect in 365 days post attendance.

Figure 6. outlines the most prevalent ages for victims to be recorded as an offender in the year post attendance were 19 and 24 years old.

The next figure details how many times each individual was recorded as an offender in the year post MTC attendance.

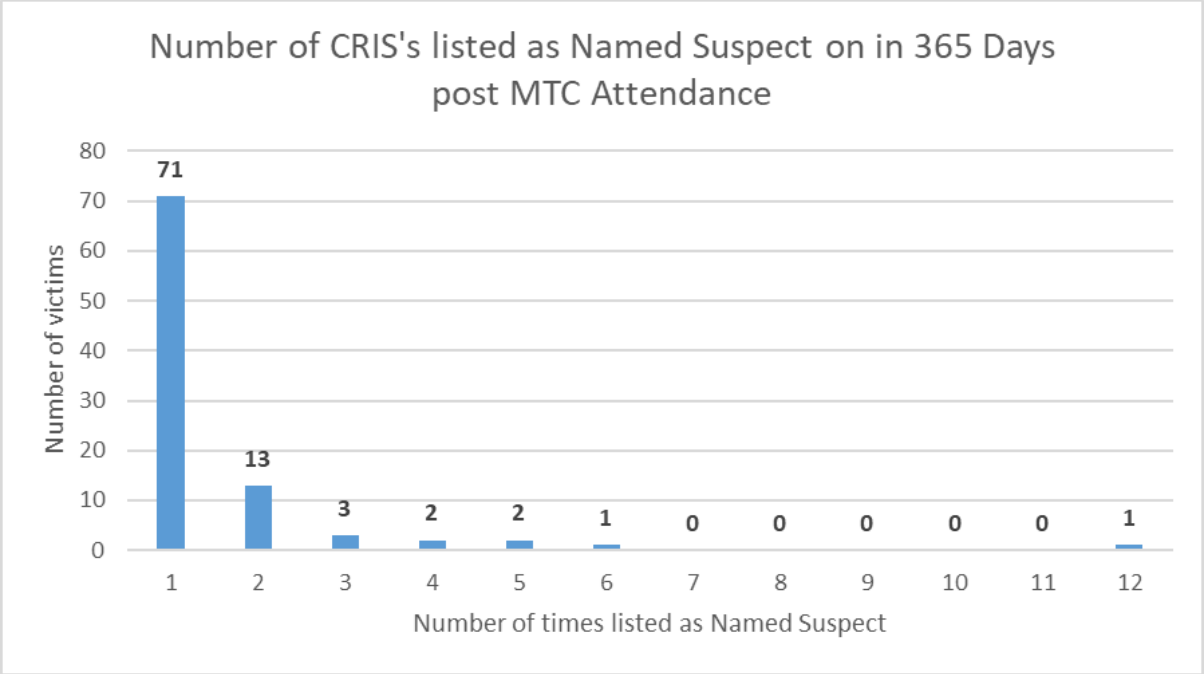

Figure 7: Number of times each individual was named as a suspect in 365 days post attendance.

Interestingly, Figure 7. reveals that the 93 individuals listed as a named suspect at least once, were collectively listed as named suspects on 142 offences.

Next, crime harm scores for each individuals recorded offending were rank-ordered.

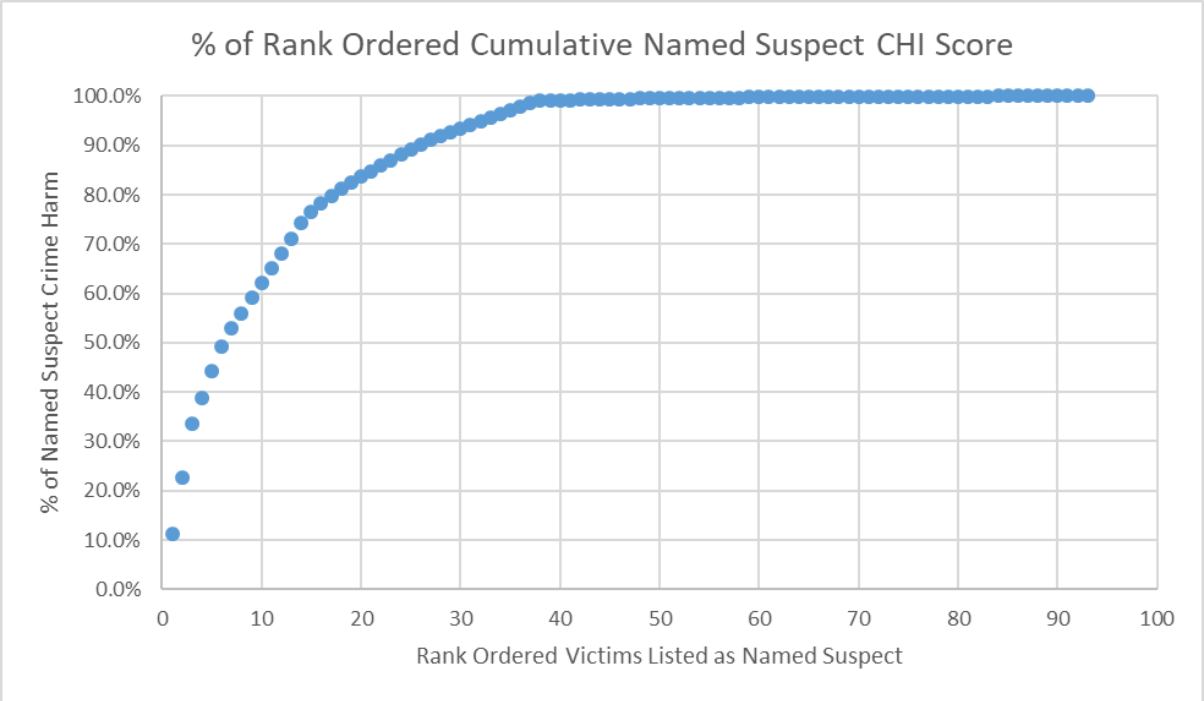

Figure 8: Scatterplot depicting rank-ordered crime harm of recorded offending

Figure 8. reveals that the total crime harm caused by these offences was 48327.8. This figure plots the rank-ordered percentage of crime harm caused by each named suspect, showing that 15 individuals caused 76.4% of offending crime harm.

The next figure confirms the number of days since MTC attendance against the cumulative number of offences whereby a victim was listed as a named suspect.

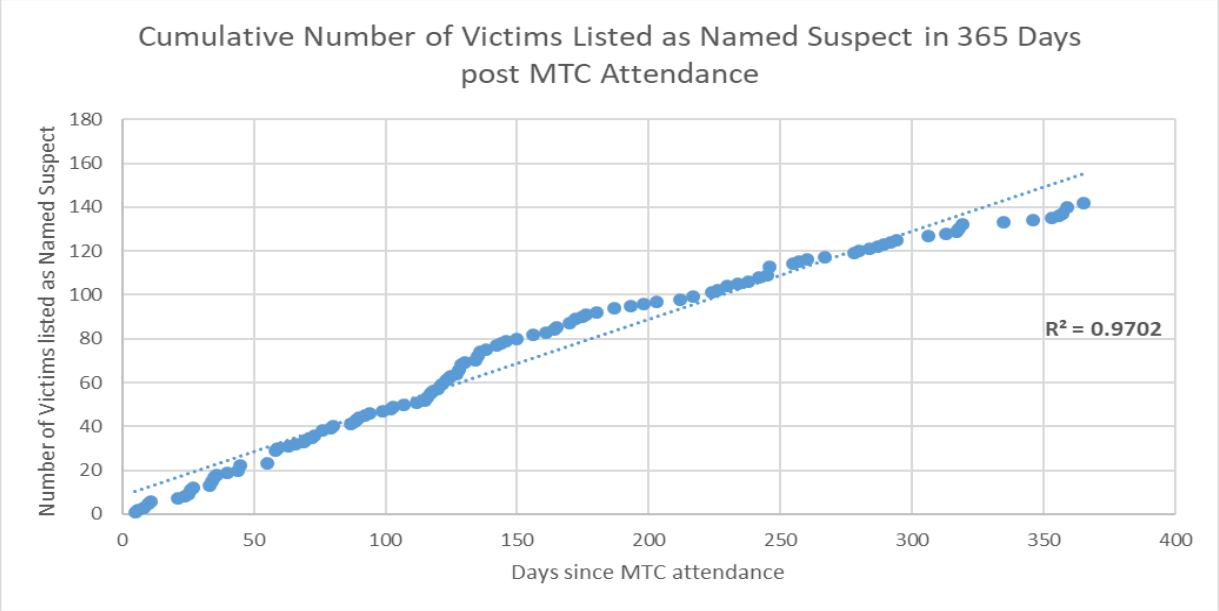

Figure 9: Number of days post MTC attendance that offence occurred

The graph above (Figure 9.) $R^2 = 0.97$ meaning the offences took place at a consistent rate across the year.

4.5.2 Named Suspect by Offence Classification and Criminal Justice Outcome

This section will focus on the offences and criminal justice outcomes as previously described (see section 4.4.2.).

Table 20: Recorded offending rates within 365 days of MTC attendance by offence classification and investigation outcome.

	Location				
	KCH	**RLH**	**SGH**	**SMH**	**All sites**
Total named as suspect n (%)	26 (9)	39 (8.8)	12 (7.5)	16 (10)	93 (8.8)
Offence Classification % named as suspect					
Attempted Murder	10	27.3	0	7.7	16.7
GBH with intent	12.8	7.7	9.1	12.9	9.9
GBH	5.8	9.1	8.5	10.3	8.1
Robbery	3.7	4.4	7.1	5.9	4.9
Criminal Justice Outcome % named as suspect					
Charge/Summons (Any Offence)	10.2	9.1	3.3	8	8.4
Victim not supportive	12.3	10.6	8.3	13	11
Victim supports and suspect identified but evidential difficulties	6.8	6.7	2.8	10.7	6.6
Investigation complete, but no suspect identified	9.3	9.3	12.5	15.4	10.6
Outcome Pending	4.8	7	11.8	0	5.7

Table 20. shows that 16.7% of attempted murder victims were named as a suspect, however this represents just 8 individuals. However, the second highest rate came from victims of the next most serious offence, GBH with intent (9.9%), robbery had the lowest rate at 4.9%. There is some variance across the sites, for example, for GBH with intent victims, 7.7% of those who attended the RLH were recorded as a suspect, meanwhile, 12.9% of those from SMH were, however as discussed, the sample size here is small.

Considering criminal justice outcomes, unsupportive victims went on to be named a suspect most out of the population (11%), whereas for supportive victims this figure

was 6.6%. Whereby the suspect was charged for an offence for the initial victimisation there was disparity in recorded offending by site. Where the crime was closed as 'Investigation complete; no suspect identified' there were relatively high rates of recorded offending, the highest is at SMH (15.4%), with the lowest at KCH and RLH (both 9.3%).

4.5.3 Named Suspect of Serious Violent Crime

This section will detail the number of victims who were named as the suspect of a serious violent offence in 365 days post MTC attendance, answering research question 3d on serious violent offending.

Table 21: Number of serious violent recorded offending incidents in 365 days post MTC attendance.

Serious violent re-victimisation offence	Number of offences	% of all named suspect crimes
Murder	1	0.7%
Attempted Murder	1	0.7%
GBH with intent	4	2.8%
GBH	6	4.2%
Robbery	23	16.2%
All Serious Violent Offences	35	24.6%

Table 21. reveals that 25 individuals were listed as suspects for 35 serious violent offences in the year post MTC attendance. 23 of these were robbery offences. The total crime harm of these offences was 26280 which is 54.4% of total named suspect CCHI.

4.6 Both Named Suspect and Re-Victimised

4.6.1 Exploring the Population of Both Suspect and Re-victimised

This section explores the individuals listed as both a suspect, and re-victimised in the year post MTC attendance and the associated harm they caused and received.

Table 22: The number of individuals listed as both a victim and suspect in year post MTC attendance.

	KCH	RLH	SGH	SMH	All Sites
Number of individuals	11	16	2	7	36
% of total hospital population	3.8%	3.6%	1.2%	4.4%	3.4%

Table 22. shows that 36 individuals were both listed as a suspect and re-victimised in the year post MTC attendance (3.4% of the total population).

Next the crime harm associated with these individuals is presented.

Table 23: Crime Harm score of those re-victimised and listed as a suspect in year post MTC attendance.

	Named Suspect	Re-victimisation	Total
CHI Score	13514.25	12411.75	25926
% of total CHI	28.0%	20.3%	23.7%

Table 23. shows that the 36 victim-offenders were not the most harmed or harmful population, accounting for 23.7% of the total harm in the year post attendance, which is lower than the ‘power few’ population of offenders or those re-victimised.

4.7 Chapter Summary

This chapter has shown that there are differences between the populations of victims who attended the four MTCs in the period 01/09/21 to 31/05/22. First, it shows that there is difference in the size of populations attending each site, with the RLH the

busiest site, receiving 45.2% of all victims in this research. Further, there are differences in the socio-demographic characteristics, for example the mean victim age was lowest at the RLH, however this was not a statistically significant difference. Next, the criminal justice outcomes were outlined answering research question two, this showed that more serious offences of attempted murder and GBH with intent had higher charge rates than the less serious offence of GBH (attempted murder=56.3%; GBH with intent=28.4%; GBH=12%). At all sites the charge rates when the victim was ≤25 years old were lower than for victims' ≥26 years old, however the variation between the two age groups for charge rates was smallest at the RLH.

MTC level re-victimisation rates were next discussed, these were found to be lowest at the RLH, however when ANOVA statistical test was applied, this was not statistically significant (p=0.33). The rate was particularly low for victim's ≤25 years old attending the RLH at 8.7%. Victims recorded as 'White European' experienced the highest rates (19.5%) of re-victimisation in the 365 days post MTC attendance, the RLH had the lowest re-victimisation for this group (14.4%) whilst KCH had the highest (26.4%). When considering criminal justice outcomes, unsupportive victims were re-victimised the most (19%), however SGH presents as an anomaly in that it saw supportive victims re-victimised more than unsupportive (19.4% and 13.9% respectively). Whereby the 'investigation complete but no suspect identified' there were high rates of re-victimisation (18.7%).

The amount of time after MTC attendance for both re-victimisation and recorded offending was relatively consistent across the year (R^2=0.99 and 0.97 respectively). A 'power few' population was apparent when the CCHI scoring was applied, with 15 individuals causing 76.4% of the offending crime harm and 20 individuals receiving 60.9% of the re-victimisation crime harm. More broadly, looking at recorded offending

in the year post MTC attendance, the sample size was small (n=93). Males had higher rates of offending in the year post than females, however females who attended the RLH were listed as a suspect most (12.2%) out of the four MTCs. Unsupportive victims were listed named suspect most out of the population (11%). Interestingly when the crime was closed as 'Investigation complete; no suspect identified' there were relatively high rates of ongoing recorded offending, the highest is at SMH (15.4%), with the lowest at KCH and RLH (both 9.3%).

In the discussion chapter, the collective implication of these results on policy, research and theory will be considered.

CHAPTER FIVE: DISCUSSION

5.1 Introduction

Recent evidence suggests that a trauma-informed approach has improved engagement in healthcare (Baetz et al., 2021; Reeves, 2015), raising interest over the possibilities of the wider adoption of this approach by policing and partners (Rich, 2019). This research seeks better evidence, setting out on a quest to explore the potential benefits of implementing a co-located police team in the Royal London Hospital (RLH) by comparing victim outcomes following attendance at one of London's four MTCs. Whilst we did not find evidence of a statistically significant relationship between victim outcomes at the RLH compared to other MTCs, the results of this study have yielded useful insights for policy and theory. They have also emphasised important avenues for further research.

This chapter will begin by reflecting on suitable policy implications, such as consideration for the introduction of a new crime outcome code. Second, research implications will be discussed, here the benefits of future qualitative research will be outlined, with the proposal for a more thorough quantitative analysis through a randomised control trial presented. Next, the theoretical implications of this research are outlined, such as the contribution this work makes to the evidence base surrounding trauma-informed approaches. Finally, the limitations of this research are outlined, here implementation challenges and validity issues will be discussed.

5.2 Policy Implications

Recent literature has emerged evidencing the possibilities of trauma-informed practice to prevent re-traumatisation and reduce future violent incidents (Baetz et al., 2021; Ko et al., 2008; Reeves, 2015). However, surprisingly, there has been no prior published research to assess any change in outcomes following the adoption of this approach by police officers either in the UK, or internationally, with victims of crime. The implementation of the TST therefore represented a novel shift in police practice. Whilst the results showed that victims attending the RLH had the lowest rate of re-victimisation (8.7%) of the four sites there was not a statistically significantly difference between groups (p=0.33) when the statistical test (ANOVA) was applied. Despite this, results from this study and learnings from the implementation of the team have yielded important policy implications.

5.2.1 Co-located Teams

Hink et al. (2022) suggested that police departments should partner with HVIPs to improve victim care, specifically by improving access to updates about their case. This co-located team is the first exploration of this model; the anecdotal feedback suggests that police teams co-locating within a hospital is improving perceptions of police amongst partners and streamlining processes to get updates on investigations. However, this has not been quantified as part of the current research.

This team is an example of where policing is building and sustaining strong relationships with partners in a co-located manner whilst not extending beyond a police role as had been seen with mental health incidents prior to the recent implementation of Right Care, Right Person (Home Office, 2023). Where appropriate, co-located teams with clear remits offer an excellent opportunity to work effectively alongside

partners for the benefit of communities whilst maximising resource efficiency and effectiveness. However, considering the results presented, more work is needed to establish the mutual benefits to differing agencies prior to a broad policy update for TSTs to be implemented in other MTCs.

5.2.2 Strategic Alignment: Training Opportunities

Strategically, the TST neatly connects with the MPS Commissioner's direction as outlined in 'New Met for London' (NMfL) plan given the focus on taking a more compassionate approach to victims (Metropolitan Police, 2023). Previous research from O'Neill et al. (2021) found that gun crime victims' distrust in the police was most apparent when discussing their interactions with officers in the medical setting. The anecdotal feedback provided to the team, whilst outside of the scope of this research, suggests that victims from distrusting backgrounds are, in some cases, engaging positively with the TST. Therefore, it is proposed that there is a policy change to begin training police officers to adopt a trauma-informed approach with victims of serious crime. It is suggested that this could form a part of the initial training for officers and be covered in training days for officers who have completed initial training. Within the MPS, this may result in a more receptive and compassionate approach being taken to victims in line with the NMfL plan.

5.2.3 Home Office Outcome Codes: Is an amendment required?

An important policy implication comes with relation to the use of Outcome Code 18, which was used in 26.8% of all investigations, which is utilised when the police investigation is complete with no suspect having been identified (Home Office, 2021).

This code does not provide information on whether the victim was supportive of police investigation, information which is key to understanding the success of changes in police approach to victims. Outcome Code 18 may continue to present as an appropriate closure code when the victim has not been identified, e.g. cases whereby the crime has been confirmed through CCTV, but no victim has come forward. However, when the victim is known and the report is to be closed as the suspect has not been identified, it is recommended that the Home Office considers creating an additional closure code. This new code would record contrariwise to Outcome 14, which is utilised when the suspect is not known and victim does not support police investigation. Specifically, it would fill the current gap for reports closed when the victim does support police investigation, but no suspect is identified. This would enrich the police datasets around victim engagement, enabling better tracking of the persistent effort by police to rebuild trust. Further, it would assist in understanding the disparity in outcomes for victims based on demographic factors, which will be discussed in more detail when considering the solvability and devaluation perspectives.

5.2.4 MPS Structural Changes: The Permanence of the TST

Demonstrating the perceived success of this model within the MPS, and based on better evidence, it has now been agreed by the MPS Chief Officer Group that this team will be made permanent as of April 2024. This follows successful briefings on the approach of the team to the Deputy Mayor for Policing in London, Sophie Linden, and strategic level buy-in within both the NHS and MPS. The renouncing of pilot status represents a direct shift in the approach to victims of violent crime at the RLH. As stated, the results of this research are too modest to suggest changes to policy either

across the MPS or nationally on the embedment of TSTs at MTCs. However, early discussions on future possible pilots of this approach at other MTCs within London have begun. The implementation of other pilot TSTs would present an opportunity to embed a strong evaluative framework, with the next section discussing the different research opportunities this may present. In turn, depending on results generated, there is scope for future changes to national policy.

5.3 Research Implications

The design of this research was decided having considered the fact the TST were already established, the available data and feasibility within the timeframes dictated. However, given this is a novel approach, there are numerous avenues for ongoing research to yield improved understanding of the impact of police officers taking a trauma-informed approach.

5.3.1 Qualitative Research

Previous qualitative research has shown the multitude of reasons why individuals may be unwilling to engage with police (Brunson and Wade, 2019; Carr et al., 2007), however the focus of previous research has not been specifically on engagement following victimisation. O'Neill et al. (2021) showed that in the US victims felt interrogated by police and left to feel they were being treated as perpetrators, however, there has not been direct inference established between this perception and any subsequent lack of engagement with police investigation. Qualitative research would add depth by establishing how victims perceived their interaction with police, for example interviews with victims of violent crime at the RLH and at other sites without

a TST. Brunson and Wade (2019) showed that a researcher independent to policing may help ensure victims are able to present their full views, maintaining the validity of the research. The results generated would help establish whether a trauma-informed approach reduces re-traumatisation in a law enforcement context, and whether it assists with building perceptions of police legitimacy amongst victims. Further, such research could be designed to incorporate questions to improve understanding of the victim-offender overlap in serious violent crime, by establishing whether any of the theoretical perspectives, for example the adoption of 'street code' to endorse retribution, presents in victims (Berg et al., 2012; Mulford et al., 2018). Collectively, this may enable processes to be adapted to ensure benefit for victims is maximised, both in the TSTs and across policing more generally. Future qualitative research should also incorporate the impact this approach has on professionals working both on the TST and those engaging with it (e.g., other police officers, NHS clinicians, HVIP case workers).

5.3.2 Randomised Control Trial

An RCT would provide clearer insight into cause-and-effect relationships. Positioned at Level 5 of the Maryland Scale (Sherman, 1998), this design would help to quantify the impact that TST has on victims of serious violent crime. It is suggested that the most feasible way to do this would be to randomise the shift pattern the team works, so that there are some days without coverage. The TST would then only engage with those that are admitted to hospital during their hours of work, this would form the treatment population. This population could be compared against those admitted when the team were not working. Specific detail regarding criteria for

inclusion should be considered by the research team, for example, whereby an individual explicitly does not wish to engage with police. Given the TST has anecdotally seen success with individuals who initially were unwilling to engage, it is suggested that these individuals would form an important part of the treatment population. The RCT should also log level of engagement by the team, acknowledging the differing amount of time victims are admitted for. As KCH is the next busiest MTC in London, it may present as a suitable site for this style of RCT. Albeit, other options in MTCs nationally should be considered, improving the external validity of any results by understanding the impact of a trauma-informed approach in a wider variety of settings.

Whilst simple randomisation on a case-by-case basis would present the fewest threats to internal validity, the challenges remain daunting, for example, ethical dilemmas where the team have capacity to assist a victim but do not do so due to randomisation. Similarly, it would require a third party to randomise all those attending the MTC, risking implementation failure. Financially, randomisation of the shift pattern presents as the more cost-effective option as you would require a smaller team if only working on certain days of the week. There are risks associated with this design, specifically if secondary evidential capture was required on a day the team is not working it would be completed by officers who are not trained in a trauma-informed approach. Likewise, it may risk relationships with other co-located agencies, these factors should be considered in research design. This approach will require an ethics panel to scrutinise and endorse the proposed research, both in the MPS and NHS.

5.3.3 Offending, Victimisation and Demographics: What Contributes to Serious Victimisation?

Future research should also aim to extend upon which demographic factors are most prevalent in victims of serious injury. Whilst the current research has provided an overview of the demographic factors of the victims who attended the MTCs, it has not compared this to the whole population demographic breakdown of the locality within which victimisation occurred. This would enable greater understanding of the disproportionality presented in victims of serious crime. Further, considering the ongoing scholarly discussion on whether the devaluation perspective or solvability perspective is driving disparity in investigative outcomes (Roberts, 2008; Vaughn, 2020), information pertaining to the method of injury would add context to whether particular demographic groups are experiencing more weapon-enabled crimes, and whether this changes the level of engagement with police.

It is well established that severity of the incident moderates against reporting disparity between demographic groups (Baumer, 2002; Lantz et al., 2022). However, when assessing levels of prior victimisation and offending in the population there may be reporting bias if less serious offences. This generates challenge to establishing a full picture of prior victimisation and offending rates. However, seeking to explore this, alongside demographic distribution, may enable improved targeting of the power few individuals within the population attending MTCs who go on to receive, and cause, the most crime harm in the year post attendance (20 individuals received 60.9% re-victimisation harm; 15 named suspects caused 76.4% of the offending crime harm). If key risk factors can be established, this could encourage the development of bespoke trauma-informed police support for those specifically high-risk individuals.

5.4 Theoretical Implications

5.4.1 Trauma Theory and Trauma-Informed Approaches

Trauma theory explains that trauma is founded in real events, such as violent victimisation, which an individual is unable to prevent, stop, or process (Boulanger, 2002). Trauma-informed care seeks to recognise this by adopting culturally sensitive practice which prioritises principles such as trustworthiness, transparency and safety (Bath, 2008; Sweeney and Taggart, 2018). This approach is ably demonstrated in healthcare, where it has been shown to improve engagement and improve response to difficult diagnosis' (Aaron et al., 2013; Muskett, 2014). However, despite suggestions that this approach could be adopted by law enforcement, there was no prior research found of police officers adopting a trauma-informed approach to victims of serious non-domestic violent crime (Ko et al., 2008; Rich, 2019).

The current research therefore adds an important and novel narrative to the evidence base, that police officers can adopt a trauma-informed approach when provided with the training, time, and environment within which to do so, therefore in itself advancing theory by showing wider adoption of this model in policing. It is unclear from this initial research the extent to which taking this approach changes outcomes, for example re-victimisation rates at the RLH were the lowest, but differences in future offending and criminal justice outcomes was less stark. However, as discussed, future research should explore in greater depth, through qualitative and quantitative research, the impact of this approach to further contribute to the evidence base.

5.4.2 Differing Outcomes: The Devaluation or Solvability Perspective?

Prior research on both the devaluation and solvability perspectives has predominately focused on crime clearance rates in homicides (Addington, 2006; Lee, 2005; Regoeczi et al., 2008). Additionally, much of the research is focussed in the US context whereby the socio-political landscape differs to that of the UK (Paintsil, 2022; Taylor et al., 2009; Vaughn, 2020). Further, in US studies, 'case clearance' is measured at the point of suspect arrest, whereas in this study suspect charge is used as the measure, reflecting a difference in threshold.

This research shows that, in this population, investigations where the victim was classified as 'White European' had the highest suspect charge rate for any offence (24.2%), meanwhile where the victim was classified as 'Asian' the lowest suspect charge rate presented (19.3%). It could be argued that this data tentatively supports the devaluation perspective, which was first proposed by Black (1976) and posits that police resource and effort is applied differently depending on victim demographics or the community they come from (Paintsil, 2022; Petersen, 2017; Vaughn, 2020). However, given the overall population demographics are not included, firm conclusions cannot be drawn to this effect.

Conversely, the more serious crimes of attempted murder and GBH with intent have higher suspect charge rates (56.3% and 28.2% respectively) than the less serious offence of GBH (12%). This supports the solvability perspective as proposed by Gottfredson and Hindelang (1979) which theorises that police put increased effort into investigating more serious offences. However, the situational characteristics, such as method of injury or whether the two parties knew one another, which have been

previously shown to influence outcomes (Litwin and Xu, 2007) are not known in the current research, so this cannot be fully explored.

Further, it should be noted that robbery offences had a relatively high charge rate at 25.2% despite being less serious than attempted murder or GBH with intent. Petersen (2017) suggests that levels of legal cynicism should form part of the solvability perspective. Considering, in robbery offences, the suspect is less likely to have specifically targeted their victim, it could be interpreted that robbery victims may represent a different population of victims to GBH, GBH with intent and attempted murder victims. This could act in support of Petersen's position if robbery victims are presenting as comparatively more supportive due to increased trust in the police.

5.4.3 The Victim-Offender Overlap

The current research has shown that 8.8% of victims were named as a suspect on a crime report in the year post MTC attendance. These 93 individuals would, by definition, fall into the population of the victim-offenders (Berg and Mulford, 2020). This research therefore adds empirical support to establishing the number of victim-offenders generated from a population of serious violent crime victims in London. However, the research lacks data on prior victimisation and offending, meaning an unknown number of victims may have presented as a suspect in crime prior to serious injury victimisation, these individuals would also be victim-offenders.

Sub-cultural norms theory (Fader and Sebastian León, 2023) suggests 'honour' culture and the seeking of retribution may drive the presence of victim-offender populations. The finding that there was a relatively consistent rate of offending across the year post attending ($R^2 = 0.97$) may not support this, given it is likely retribution

would be sought relatively soon following hospital discharge. However, the length of time to offence was not cross-referenced against offence type, so it should be explored when more serious offending occurs following MTC attendance, as this could be theorised to be more likely to be retribution. Ultimately, it was not in the scope of the current study to explore the reasons why the overlap occurs. However, examining this may present as a valuable area for ongoing research as discussed.

The power few theory explains that a small percentage of offenders, victims or places produce the greatest amount of harm (Sherman, 2007). Amongst the individuals named as a suspect in the 365 days post MTC attendance, in support of this theoretical proposition, utilisation of the CCHI (Sherman et al., 2016) to generate harm scores showed that 15 individuals caused 76.4% of the total harm associated with offending.

5.5 Limitations

5.5.1 Implementation Challenges

The TST was set up by serving police officers who felt passionately that this novel approach was an opportunity to improve the service provided to victims. Practical limitations in terms of resources available (both funding and staffing), experience levels and lack of clarity around the longevity of the pilot resulted in the team being set up without clear measures of success. Setting up a new co-located team has presented challenges of itself, for example given the size of the MPS, initially it was challenging to share across the organisation that the TST had been implemented and its function. It was a gradual process to ensure investigators utilised the TST for victim-related elements of the secondary investigation such as statement

taking. This is partially mitigated by the data timeframe used, which began in September 2021, two months after the team had been set-up.

5.5.2 Measurement Reliability and Validity

This research has used data from the MPS's CRIS, given the Home Office crime recording standards, all crimes which come to police attention should be recorded, and therefore CRIS is a reliable source of data (Home Office, 2023). The results generated could be reproduced if the same searches were run, and therefore measurement reliability is high.

Measurement validity is more challenging to establish, in the UK there is an unclear 'grey' figure related to unreported crime (Sutherland et al., 2021). Thus, with CRIS results measuring only recorded crime, this presents as a measurement validity limitation, the extent of which is unknown. The effect of this in the current study is mitigated due to the severity of injury, and the associated causal crimes placing a positive duty on the NHS to notify police due to the risk of reciprocal violence.

Another key challenge relating to measurement validity is crime classifications and outcome codes. There is subjectivity when classifying a crime, for example whether an incident is classified as a GBH or the more serious crime of GBH with intent, whereby the intent of the suspect was to do grievous bodily harm (Offences Against the Person Act, 1861). When initially classifying this crime, it is hard to establish whether this intent was present and therefore incorrect classification may occur. This is mitigated in the MPS by the presence of the Crime Management Unit whose role is to ensure compliance with the crime recording standards by reviewing crime reports and amending classifications where necessary. Likewise, there may be inconsistency

in the application of outcome codes. When considering the importance of knowing whether a victim has engaged with police for this research, incorrect recording presents a limitation, however the extent of this is again not known and would require further investigation. Finally, when Outcome 1A is utilised, for the data used in this research, the alternate offence charged is not known, presenting another measurement validity issue.

5.5.3 Internal Validity

Internal validity assesses the degree to which the results are due to the changes the independent variable, in this case which MTC was attended, rather than other factors (Ariel et al., 2022). Firstly, the results show that there are clear differences between the populations attending each site in size, socio-demographic characteristics, and offence type. When considering then the overall results which show the differing outcomes by site, it could be speculated this is due to these disparities rather than due to the change of MTC, thus undermining internal validity. However, this has been mitigated by the analysis of these demographic factors as individual sub-variables, enabling the reader to understand differences by site on individual demographic factors. It was beyond scope to look at the intersectionality of these factors, this therefore remains a risk to internal validity.

Extending this, whilst it is acknowledged that this is not an impact study of the TST, the broader issues regarding internal validity are the differences in the set-up of each MTC. As discussed in the methods section, whilst all four MTCs have a HVIP operating, the RLH is the only site with the St Giles Trust, which recruits individuals with lived experience and works with victims throughout their stay in hospital. The

other three sites have Redthread which does not focus on recruiting those with lived experience and work at point of admission in the Emergency Department. Likewise, whilst it is mandated that all MTCs have an NHS trauma coordinator post, the interpretation of this role varies site to site. Collectively, this means that the trauma pathway for victims of crime would vary depending on which MTC they attend, this may impact upon their engagement with police and other services. This means any change in dependent variable may be down to the broader differences between sites rather than any adaption of police approach. An RCT at one site on the TST would eliminate this risk to internal validity.

Finally, level of engagement by the TST has not been recorded, raising another internal validity issue. Firstly, not all those who attend the RLH will be engaged with by the TST due to the lack of 24/7 coverage, but also the amount of engagement applied will vary. Whilst for the current research the impact of this is limited as this is a comparison of outcomes between sites, rather than a direct impact assessment of the TST, this should be considered as a risk to internal validity for ongoing research which could be mitigated by understanding the level of engagement applied to each individual.

5.5.4 External Validity

External validity concerns the generalisability of the study findings to other populations (Ariel et al., 2022). This research was focussed on victims where the offence occurred within London, and they attended one of London's four MTCs. These MTCs also service London's surrounding counties, however the data utilised for this research was solely from the MPS. This means any victims who attended whereby the

offence had occurred outside of London would not form part of the population for this research. It can therefore not be established whether any differences between sites apply to the same level to victims from outside of London, limiting generalisability to these populations.

There is a level of consistency across the UKs MTCs due to the mandated criteria a hospital must meet to be classified an MTC. However, whilst there will be broad similarities in the way police officers deal with serious injury victimisations nationally, policing practice does differ force by force. Further, with knife and sharp instrument offences concentrated in urban areas (Home Office, 2023), police officers working in these localities may be more versed in initial and secondary investigation for these crime types . This may mean there is improved generalisability to MTCs which service other large urban areas, with reduced external validity when more rural MTCs are considered.

Finally, considering generalisability to populations beyond the UK, the differences in socio-political landscapes, crime reporting standards and policing practice means that further research would be required in other settings internationally before assessments can be made.

5.6 Chapter Summary

The novel adoption of a trauma-informed approach by police officers at the RLH presents as a shift in police approach to victims of serious crime. Despite the lack of significant differences in outcomes for victims attending the four MTCs in London, policy implications are apparent as presented in this chapter, for example, how trauma-informed approaches align with current strategic MPS direction, with

consideration for training to be provided to police officers more generally on this approach. Next, opportunities for further qualitative and quantitative research into the impact of this approach were detailed, for example how an RCT which randomises the shift pattern of the team may present as the most ethical and feasible randomised design. Theoretical implications including how this research provides mixed support for both the solvability and devaluation perspectives is outlined. Finally, the limitations associated with the research were discussed, such as how external validity may be limited due to the lack of data from forces outside of the MPS, and the lack of comparability to non-urban areas.

CHAPTER SIX: CONCLUSION

This study sought to describe the implementation of a novel trauma-informed team at the Royal London Hospital (RLH), an approach which has been previously adopted in healthcare (Aaron et al., 2013). Increasingly, serious violent crime is being viewed as a public health issue which necessitates the application of innovative, multi-agency approaches to reduce the associated harm (Home Office, 2018). In the healthcare setting, a systematic review of hospital violence intervention programmes (HVIPs) showed they reduce violent re-victimisation and ongoing offending by victims (Brice and Boyle, 2020). Further, trauma-informed practice has been widely adopted by women's health providers having been evidenced to reduce re-traumatisation to survivors of child abuse and sexual assault (Dunleavy and Kubo Slowik, 2012; Muzik et al., 2013). However, no evidence was found that showed the implementation of a trauma-informed approach in law enforcement, despite this having been mooted as potentially beneficial (Ko et al., 2008; Rich, 2019).

From the literature review, we know that serious victimisations are more likely to come to police attention, however some sub-groups, such as high risk individuals, are reluctant to engage with the police due to prior negative experiences (Brunson and Wade, 2019). For non-domestic violent crime, the focus of the literature was initial reporting to police rather than ongoing support, this presented as a gap in the current evidence base. Likewise, with regard to disparities in police outcomes and the mixed support for the two main theoretical explanations for this, the devaluation and solvability perspectives (Vaughn, 2020), the focus of research thus far has been in North America.

The literature review also discussed the victim-offender overlap and theories proposed as to why this population of individuals who are both victims and offenders exists (Lauritsen and Laub, 2007). This included the sub-cultural norms theory which suggests communities where 'honour' culture is entrenched see a greater victim-offender overlap (Berg et al., 2012).

To answer all questions, the MPS' Crime Report Information System (CRIS) was searched to identify the population of victims who attended one of London's four MTCs with serious injury between 01/09/2021 and 31/05/2022. This data was then cleaned to ensure participants were removed where key data was missing (name or DOB) or where the crime classification identified them ineligible (e.g. non-crime incidents). The data was analysed to develop answers to the three research questions. Answering research question one, the descriptive presentation showed that there were differences in the populations attending each site, for example the RLH had the lowest mean victim age (31.5 years old) and the highest proportion of the more serious offence of GBH with intent (RLH=46.5; KCH=37.7; SGH=34.2; SMH=38.8). For research question two, focussed on criminal justice outcomes, the findings showed disparities based on socio-demographic characteristic and offence classification, for example, the charge rates when the victim was ≤25 years old were lower than for victims' ≥26 years old, however the variation between the two age groups for charge rates was smallest at the RLH.

Answering research question three, the RLH has the lowest re-victimisation rate at 13.9% (KCH=19%; SGH=16.1%; SMH=15.6%), this figure was particularly low for victims aged 25 or under attending the RLH (8.7%). However, the overall site-by-site difference was not found to be statistically significant when ANOVA statistical test applied (p=0.33). The application of ANOVA to site-by-site recorded offending in the

year post attendance likewise showed a lack of statistically significant difference (p=0.78). The CCHI was also applied to the re-victimisation and recorded offending data. This application showed that for both individuals re-victimised and those recorded as offenders there was a ‘power few’ population, with 15 individuals causing 76.4% of the offending crime harm, and 20 individuals receiving 60.9% of the re-victimisation crime harm.

Whilst throughout the research, the measurement reliability is high, there are challenges presented regarding measurement validity, for example the unknown figure of unreported crime. There are differences between the four MTCs in the populations attending in size, socio-demographic characteristics and offence type, and in also broader set up at each site, for example the which HVIP is operating at the MTC, threatening internal validity. Likewise, the generalisability of this research is limited due to the use of only MPS data. However, these limitations present exciting opportunities for ongoing research.

Setting up a new TST utilising an RCT methodology to randomise the shift pattern worked would improve internal validity and enable an assessment of the impact the TST is having on victims. Further, qualitative research with victims of serious violent crime would help establish whether a trauma-informed approach does reduce re-traumatisation in a law enforcement context, and whether it assists with building perceptions of police legitimacy amongst victims. It is suggested that this research occurs prior to broad policy changes on the implementation of TSTs.

Mixed support was found for both the devaluation and solvability perspectives, victims classified as ‘White European’ had the highest suspect charge rate for any offence (24.2%), arguably supporting the devaluation perspective. However, the more serious

crimes of attempted murder and GBH with intent have higher suspect charge rates (56.3% and 28.2% respectively) than the less serious offence of GBH (12%) supporting the solvability perspective.

It is proposed that the Home Office consider the introduction of a new outcome code to record when a crime is closed whereby the victim is supportive of police investigation, but no suspect is identified. Given the current focus on rebuilding the trust of our communities, the fact that outcome code 18, which provides no detail on victim support, was the most prevalent outcome code (26.8% all-site average) presents challenge when trying to establish how successfully the police are building trust amongst victims.

Finally, it is suggested that officers taking a trauma-informed approach aligns with the current MPS Commissioner's direction as outlined in the NMfL plan given the focus on taking a compassionate victim-focused approach. Training police officers in how to take a trauma-informed approach may lead to officers being more empathetic to victims and understanding of the trauma they have experienced. This relatively inexpensive training opportunity could in turn build perceptions of legitimacy amongst victims.

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APPENDICES

Appendix A

Major Trauma Centre Search Terms

* is used to denote any word ending to account for differing use of apostrophes.

Royal London Hospital - ‘Royal London Hospital’, ‘RLH’, ‘Royal London’, ‘RLH MTC’

Kings College Hospital - ‘King* College Hospital’, ‘KCH’, ‘King* Hospital’, ‘KCH MTC’, ‘KC MTC’

St Georges Hospital - ‘St George* Hospital’, ‘SGH’, ‘St George*’, ‘SG MTC’

St Mary’s Hospital - ‘St Mary* Hospital’, ‘SMH’, ‘St Mary*’, ‘SM MTC’

Appendix B

Home Office Crime Outcome Codes

- Outcome 1 - Charge or summons
- Outcome 1A - Charge with alternative offence
- Outcome 2 - Youth Caution
- Outcome 2A - Youth Caution with alternative offence
- Outcome 3 - Adult Caution
- Outcome 3A - Adult Caution with alternative offence
- Outcome 4 - TIC (taken into consideration)
- Outcome 5 - Offender has died
- Outcome 6 - PND (penalty notice for disorder)
- Outcome 7 - Cannabis or Khat warning
- Outcome 8 - Community resolution (with or without restorative justice)
- Outcome 9 - Prosecution not in the public interest (CPS decision)
- Outcome 10 - Prosecution not in the public interest (Police Decision)
- Outcome 11 - Suspect below age on criminal responsibility (under 10)
- Outcome 12 - Suspect too ill or died before crime was reported to police
- Outcome 13 - Victim or key witness dead or too ill
- Outcome 14 - Suspect not known – victim does not support or does not engage
- Outcome 15 - Suspect known – victim does support but evidential difficulties
- Outcome 16 - Suspect known – victim does not support or does not engage
- Outcome 17 - Prosecution time limit has expired
- Outcome 18 - Suspect not known

- Outcome 19 - NFIB – Fraud case
- Outcome 20 - Other agency dealing
- Outcome 21 - Not in the public interest to investigate further
- Outcome 22 - Diversionary, educational or intervention activity has been taken

Appendix C

Data Protection Six Principles – College of Policing APP

1. ‘lawfulness, fairness (and transparency in the case of general processing)
2. purpose limitation
3. data minimisation
4. accuracy
5. storage limitation
6. integrity and confidentiality (security)’