

Exploring the developmental trajectory of dual harm exhibited by young adult men in prison

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Abstract

Rates of self-harm and interpersonal violence are high in UK prisons, although there is a smaller subset of people (around 11% of the prison population) who engage in both harmful behaviours (termed dual harm herein). As a group, adults who dual harm cause disproportionate instability in prisons. They perpetrate high rates of fire-setting, disorder and property damage in prison and engage in a greater variety of self-harm methods, including lethal methods. However, despite research exploring dual harm among adolescents and young adults in the community, no research has explored dual harm by young adults (age 18-21) in prison. Due to this, both a qualitative (e.g., how they make sense of their behaviours) and quantitative (e.g., the prevalence of dual harm and the population's distinct characteristics) understanding of dual harm by this population is lacking. This thesis uses an exploratory sequential mixed method design to address this and explore the developmental trajectory of dual harm exhibited by young adult men in prison.

The first empirical study ($n = 5$) qualitatively explored the life stories of young adult men in prison with a history of dual harm. This considered participants' life trajectories and how they made sense of their self-harm and violence. The second study ($n = 10,202$) ascertained the prevalence of dual harm by young adult men in prison using routinely collected prison data. Using this data, the study also explored whether relationships between demographic, developmental, criminological and clinical variables differed across young adult men who engage in dual harm, sole self-harm, sole violence and those who do not engage in either harmful behaviour in prison. Lastly, the third study ($n = 10,201$) identified which variables from the previous study successfully distinguished young adult men who dual harm in prison from those who engage in sole self-harm, sole violence and those who do not engage in either harmful behaviour in prison.

The findings for this thesis emphasised several key areas in the developmental pathway of dual harm among this population. First, narratives of dual harm were embedded in broader stories of adverse childhood experiences, protection and emotion regulation. Moreover, as a group, young adults who dual harmed in prison were younger when in contact with the police and admitted to prison, spent longer in custody as a young adult, and had fewer qualifications, compared to other population groups. In the final chapter, a theoretical framework is proposed to explain the trajectory of dual harm among young adult men in prison. Practical and methodological implications of the thesis are discussed, along with limitations and suggested directions for future research.

Table of Contents

Acknowledgements	3
Abstract.....	5
Acronyms	9
List of Tables.....	11
List of Figures	12
Dissemination Activities	13
Chapter 1: Introduction	14
1.1 Research context.....	14
1.2 Thesis research question and aims.....	17
1.3 Thesis structure and outline of chapters	18
Chapter 2: Literature review	21
Chapter overview	21
2.1 Defining self-harm	21
2.2 Risk factors for self-harm in prison.....	24
2.3 Defining violence	33
2.4 Risk factors for violence in prison.....	37
2.5 Defining dual harm	43
2.6 The dual harm profile	47
2.7 Summary	52
Chapter 3: Theoretical considerations.....	54
Chapter overview	54
3.1 Theoretical models of self-harm.....	54
3.2 Theoretical models of suicide.....	62
3.3 Theoretical models of violence.....	67
3.4 Theoretical models of dual harm.....	73
3.5 Summary	77
3.6 Research questions and aims	78
Chapter 4: Methodology.....	79
Chapter overview	79
4.1 Methodological approach	79
4.2 Research process.....	81
4.3 Reflections.....	103

4.4 Summary	105
Chapter 5: Exploring the life stories of young adult men in prison with a history of dual harm	106
5.1 Introduction.....	106
5.2 Research aims.....	107
5.3 Method.....	107
5.4 Analysis and discussion.....	110
5.5 Discussion.....	147
Chapter 6: Exploring relationships between factors across young adult men in prison who engage in dual harm, sole self-harm, sole violence and those who do not engage in either harmful behaviour.	
.....	152
6.1 Introduction.....	152
6.2 Research aims.....	154
6.3 Method.....	155
6.4 Results	159
6.5 Discussion.....	170
Chapter 7: Identifying factors which distinguish young adult men who dual harm in prison, from those who engage in sole self-harm, sole violence, and those who do not engage in either harmful behaviour.	177
7.1 Introduction.....	177
7.2 Research aims and hypotheses	178
7.3 Method.....	179
7.4 Results	183
7.5 Discussion.....	190
Chapter 8: General discussion	199
Chapter overview	199
8.1 Synthesis of the research findings	199
8.2 Implications and applications of the thesis	204
8.3 Limitations	220
8.4 Recommendations for future research	223
8.5 Personal reflections	224
8.6 Concluding remarks.....	227
References	228
Appendices.....	292
Appendix 1. Participant Information Sheet	292

Appendix 2. Expression of Interest Form.....	294
Appendix 3. Consent Form	295
Appendix 4. Debrief Form	297
Appendix 5. Life Story Interview Protocol (adapted from McAdams, 2008 and Canter & Youngs, 2015)	298
Appendix 6. Demographic Characteristics for Whole Sample and Across Groupings (Irrespective of Layer 3 Assessment).....	301
Appendix 7. Percentage and N Number for Whole Sample and Across Groupings, for Each Layer Three Variable	303
Appendix 8. All Correlation Coefficients for Study 2 (BGM).....	305

Acronyms

AAM	Anger Avoidance Model
ACCT	Assessment, Care in Custody and Teamwork
ACE	Adverse Childhood Experience
AP	Analytical Platform
APA	American Psychiatric Association
BGGM	Bayesian Gaussian Graphical Model
CEM-DH	Cognitive Emotional Model of Dual Harm
CEM-NSSI	Cognitive Emotional Model of NSSI
DSM	Diagnostic and Statistical Manual of Mental Disorders
EAM	Experiential Avoidance Model of Deliberate Self-Harm
FFM	Four Function Model of Non-Suicidal Self-Injury
GAM	General Aggression Model
GCSE	General Certificate of Secondary Education
GGM	Gaussian Graphical Model
HMIP	His Majesty's Inspectorate of Prisons
HMPPS	His Majesty's Prison and Probation Service
ICD	International Classification of Diseases
IMV	Integrated-Motivational-Volitional Model of Suicidal Behaviour
IPTS	Interpersonal-Psychological Theory of Suicidal Behaviours
LSI	Life Story Interview
MLR	Multinomial Logistic Regression
MoJ	Ministry of Justice
NICE	National Institute for Health and Clinical Excellence
NRC	National Research Committee
NSSI	Non-Suicidal Self-Injury
OASys	Offender Assessment System
PD	Personality Disorder
p-NOMIS	Prison National Offender Management Information System

PPAS	Prison and Probation Analytical Services
PPO	Prison and Probation Ombudsman
PTSD	Posttraumatic stress disorder
VIF	Variance Inflation Factor
YOI	Young Offender Institution

List of Tables

Table 1. FFM: reinforcement type and associated functions adapted from Nock (2009)	55
Table 2. Variables ascertained from OASys case identification and offending information and associated scoring for studies 2 and 3	93
Table 3. Variables ascertained from OASys criminogenic need information and associated scoring for studies 2 and 3	94
Table 4. Study 1 participant demographic information.....	108
Table 5. Narrative superordinate and subordinate themes	110
Table 6. Descriptive statistics as a product of group allocation.....	158
Table 7. Variable categories and variable names entered into each GGM.....	160
Table 8. Comparing the posterior predictive distribution, in edge strength, across groups	166
Table 9. Descriptive statistics as a product of group allocation.....	182
Table 10. Multinomial logistic regression analyses examining associations between type of harm and OASys correlates.....	188

List of Figures

Figure 1. Definitions along the harm to self continuum. Based on Turecki et al. (2019) and Favril (2021)	24
Figure 2. The Integrated Theoretical Model of the Development and Maintenance of NSSI (Nock, 2009, p. 79)	57
Figure 3. The Experiential Avoidance Model of Deliberate Self-Harm (Chapman et al., 2006, p. 373)..	58
Figure 4. The Cognitive-Emotional Model of NSSI (Hasking et al., 2017, p. 1549).....	59
Figure 5. The Interpersonal-Psychological Theory of Suicidal Behaviour (Joiner, 2005; Van Orden et al., 2010, p. 42)	63
Figure 6. The Revised Integrated Motivational-Volitional (IMV) Model of Suicidal Behaviour (O'Connor & Kirtley, 2018, p. 2)	65
Figure 7. The General Aggression Model (GAM): distal and proximate causes and processes. (Allen et al., 2018, p. 76).....	68
Figure 8. Loeber et al.'s (1993) Ordered-Pathway Model of Delinquency (Loeber & Burke, 2011, p. 18)	70
Figure 9. A two-stage model of suicide and violence (Plutchik et al., 1989)	74
Figure 10. The Cognitive Emotional Model of Dual Harm (Shafti et al., 2012, p. 8).....	76
Figure 11. Example of a simple GGM plot (Epskamp et al., 2018, p. 455).....	102
Figure 12. Visual (GGM) representation of the partial correlation network between OASys predictor variables among young adults with a history of dual harm in prison.....	161
Figure 13. Visual (GGM) representation of the partial correlation network between OASys predictor variables among young adults with a history of sole violence in prison	162
Figure 14. Visual (GGM) representation of the partial correlation network between OASys predictor variables among young adults with a history of sole self-harm in prison.....	163
Figure 15. Visual (GGM) representation of the partial correlation network between OASys predictor variables among young adults who have not harmed in prison	164
Figure 16. A proposed theoretical framework to explain dual harm among young adult men in prison	205

Dissemination Activities

External activity and impact

Thurston, L. (August, 2021). The Life Stories of Young Adults in Prison with a History of Dual Harm.

Online training delivered for HMPPS Senior Forensic Psychologists (Senior Points of Contact for Prison Safety).

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Conference Talks

Thurston, L., Slade, K., Baguley, T., & Blagden, N. (June, 2021). *An Exploration of Dual Harm Among Young Adult Males in the Criminal Justice System*. The British Psychological Society, Division of Forensic Psychology Annual Conference, Online.

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Conference Posters

Thurston, L., Slade, K., Baguley, T., & Blagden, N. (2019). *Exploring the Life Stories of Young Adults in Prison with a History of Dual Harm*. The British Psychological Society East Midlands Conference, University of Derby, Derby, England.

Chapter 1: Introduction

1.1 Research context

Self-harm and interpersonal violence are problematic behaviours frequently exhibited by people in prison (Slade, 2019). In the year to September 2022, approximately 534 self-harm incidents and 256 assault incidents per 1,000 males in prison were reported (Ministry of Justice [MoJ], 2023). These rates equate to approximately 40,000 self-harm and 20,000 assault incidents by men in prison per year. Despite the two behaviours appearing paradoxical in their outward manifestation, research suggests that people who either self-harm or are violent are more likely to engage in the second behaviour (Kottler et al., 2018; McMahon et al., 2018; Nijman & à Campo, 2002; O'Donnell et al., 2015; Slade, 2018; Slade et al., 2020). Internationally, around 40%-60% of adults with a history of self-harm in prison also have prison violence on their record (Kottler et al., 2018; Slade, 2018; Slade et al., 2022; Slade et al., 2020). Based on official prison records (which may underestimate the extent of self-harm and violence in UK prisons due to not all incidents being witnessed and reported), around 11%-16% of adult men exhibit both self-harm and violence in prison, a concept that has recently been termed 'dual harm' (Slade, 2018, p. 98).

The link between self-harm and violence is long-established, with self-harm previously considered as aggression turned inwards (Plutchik et al., 1989; Plutchik, 1995). One explanation for this link is that both behaviours share similar aetiologies such as emotion dysregulation, impulsivity and aggression, as well as similar risk factors such as adverse childhood experiences (ACEs) and substance misuse (C. Chen et al., 2020; Daffern & Howells, 2009; Hall et al., 2006; Harford et al., 2018; Plutchik et al., 1989; Shafti et al., 2021). However, despite this known link, no widely accepted theoretical model exists to explain dual harm. The only model of dual harm proposed is the Cognitive Emotional Model of Dual Harm (Shafti et al., 2021), discussed in detail in Chapter 3 (section 3.4.2). This model theorises that biological and environmental factors influence a person's personality type, predisposing them to exhibit harmful behaviours. The model suggests that since self-harm and violence both serve the same emotion regulation and interpersonal functions, it is the person's situation and their beliefs about the two behaviours which influence which behaviour is displayed in the scenario. Nonetheless, with dual harm research in its early infancy, the model is yet to be empirically tested.

From research that has been conducted, there is evidence that dual harm should be considered a unique construct, as opposed to it being understood within a framework of self-harm or violence (Slade, 2019). This is underpinned by findings that people who dual harm are different from those who engage in either sole self-harm or sole violence (Kottler et al., 2018; O'Donnell et al., 2015; Slade, 2018; Slade et al., 2022; Slade et al., 2020). For instance, compared to people with a history of sole

self-harm in prison (in the UK and the US), those who had dual harmed used a greater variety of self-harm methods, including lethal methods such as ligature use, self-strangulation and overdose (Kottler et al., 2018; Slade et al., 2022; Slade et al., 2020). People who had dual harmed in prison were also more likely to have perpetrated more refractory behaviours in prison, particularly fire-setting, disorder and damage to prison property, compared to people who sole harmed (i.e., either self-harmed or were violent) or engaged in neither harmful behaviour (Kottler et al., 2018; Slade, 2018; Slade et al., 2022; Slade et al., 2020). Differences have also been identified between the offending histories of people who have dual harmed in prison and those who have not. On average, people who had dual harmed had spent longer in prison, and, whilst they were more likely to be imprisoned for a minor violent offence, they were less likely to have a drug supply index offence (Kottler et al., 2018; Slade, 2018; Slade et al., 2020). From these initial findings, some evident characteristics distinguish the dual harm population from those who sole harm or engage in neither harmful behaviour.

The research presented above has provided an initial insight into people who dual harm in prison. By focusing on adult men aged 18 and over (with a mean age of approximately 34), the research has enabled dual harm to be investigated amongst a broad subset of individuals (Slade, 2018; Slade et al., 2020). However, whether these findings can be generalised to other distinct groups, such as young adults (aged 18-21) in prison, remains unknown. Very little research has been conducted to understand the complex needs of young adults in prison generally (His Majesty's Inspectorate of Prisons [HMIP], 2019), with such individuals named the "lost generation" (Prison Reform Trust, 2012, p. 3). This is surprising given that self-harm and violence are typically first exhibited during adolescence or young adulthood (Sahlin et al., 2017), with the prevalence of dual harm doubling in community populations between ages 16 and 22 (Steege et al., 2023). Young adults also perpetrate high levels of violent offending and self-harm and violence in prison (HMIP, 2019; MoJ, 2020a). In particular, young adult men account for disproportionately high levels of assault perpetrators and fighters in prison, despite only representing one-fifth of the UK prison population (MoJ, 2020b; Sturge, 2020). In addition, and of particular importance for this thesis, adults who dual harm in prison tend to be younger than those who sole harm (Kottler et al., 2018; Slade et al., 2020) and engage in self-harm and violence at a younger age (Slade et al., 2020). Despite this, no research has explored dual harm exhibited by young adults in UK prisons.

Non-forensic, epidemiological research has explored dual harm amongst adolescents and young adults, albeit the prevalence of dual harm is far less in community settings compared to prisons (C. Chen et al., 2020; Harford et al., 2012; Harford et al., 2016; Steinhoff et al., 2022). Nonetheless, several variables have been found to differentiate those with a history of dual harm from those

without such a history. These factors include low childhood self-control, low childhood intelligence, poor educational grades, ACEs, alcohol and cannabis dependence and lifetime illicit drug use (C. Chen et al., 2020; Harford et al., 2012; Richmond-Rakerd et al., 2019; Swahn et al., 2013). Furthermore, whilst it has been found that young adults who dual harm are more likely to self-report having depression than people who sole harm (Harford et al., 2012) and engage in more lethal acts of self-harm, they are not more likely to have contact with mental health services (Harford et al., 2012; Richmond-Rakerd et al., 2019). Therefore, young adults who dual harm may not actively seek support for their psychological difficulties or do not receive it despite asking. However, whilst these findings offer a basis to understand the development of dual harm in community populations, the extent to which they relate to young adults in prison remains unknown.

Additionally, many studies investigating dual harm have defined self-harm and violence using hospitalisation records and conviction data (Carr, Steeg et al., 2020; Mok et al., 2018; Sahlin et al., 2017; Webb et al., 2017). This outcome-derived definition disregards incidents of self-harm and violence that do not require hospital treatment or have not been reported to the police and convicted. In doing so, these identified risk factors and developmental pathways are limited to lethal acts of self-harm and serious acts of violence and potentially disregard less serious incidents. However, less serious acts may still be considered important to the individuals exhibiting such behaviours. In light of this, qualitative research is needed to shed insight into how people who dual harm construe and attribute meaning to their acts of self-harm and violence, irrespective of the severity or outcome of the act. A richer understanding is also required to understand the life events or experiences people who dual harm think are important to their displayed harmful behaviours. Despite this need, only two studies have qualitatively explored how people understand their dual harm behaviours, with both studies being conducted with adults in prison (Hemming, Bhatti et al., 2020; Pickering et al., 2022). Indeed, to date, no research has qualitatively explored the importance and meaning of dual harm amongst young adults (in prison or community settings), or the developmental trajectory of the behaviours, as perceived by this population.

In summary, recent research has highlighted the need to consider people who dual harm as a specific group based on their distinct characteristics and traits. However, more research is needed to explore dual harm specifically among young adults in prison. Therefore, this population's trajectory to dual harm, and the meanings behind their dual harm behaviours, remain unknown. As a result, qualitative research is first required to explore how young adults in prison make sense of their behaviours, and the experiences or life events that they feel were important in their pathway to dual harm. This would aid a richer and more holistic understanding of the developmental trajectory of dual harm amongst young adults in prison. Research should also be conducted to identify whether young adults who dual

harm in prison share similar characteristics to those found to increase dual harm risk among community populations. Understanding if and how these variables relate to others, and whether they distinguish young adults who dual harm in prison, is essential to help understand which young adults may be most likely to engage in dual harm and inform interventions to help reduce their risk.

This early identification is needed to reduce the number of people who cause harm not only to themselves or others, but also impact the wider prison environment through their perpetration of disruptive behaviours (Slade, 2019). At present, the Safety Diagnostic Tool is used in UK prisons to identify people who have dual harmed in prison (His Majesty's Prison and Probation Service [HMPPS], 2019). This tool is embedded into the prison's computer system and provides an overview of self-harm and violence in prison, with a dual harm marker introduced in 2019 (HMPPS, 2019). Although this is a progressive move forward, the reactive nature of the marker means that interventions can only be introduced once an individual has engaged in both self-harm and violence in prison. It is likely that a lack of understanding concerning the dual harm population, especially dual harm exhibited by young adults, prohibits the development of an evidence-based, proactive strategy to inform the identification of people who may be at risk of engaging in dual harm, prior to them doing so. This would allow staff to provide tailored support for individuals who pose the greatest risk of engaging in dual harm and intervene prior to them crossing the dual harm 'threshold'.

1.2 Thesis research question and aims

Developed to address gaps in the literature outlined above, this thesis's overarching research question and main aims are presented below.

For this thesis, the overarching research question is:

- What is the developmental trajectory of dual harm exhibited by young adult men who are in prison?

The main aims of the thesis are:

- To explore the life stories of young adult men in prison with a history of dual harm to ascertain the key factors or events which individuals feel led them to engage in dual harm.
- To ascertain the prevalence of dual harm exhibited by young adult men in prison.
- To explore the relationships between a range of demographic, developmental, criminological, and clinical variables across young adult men in prison who engage in dual harm, sole self-harm, sole violence, and those who do not engage in either harmful behaviour.

- To identify factors which distinguish young adult men in prison who engage in dual harm from those who engage in sole self-harm, sole violence, and those who do not engage in either harmful behaviour.
- To propose an integrated risk model of dual harm among young adult men in prison.

The first aim of the research is to qualitatively explore the life stories of young adult men in prison who self-report a history of dual harm. This will provide an understanding of how such individuals narrate their life stories to make sense of their previous life experiences and ascertain the factors, experiences or life events they feel led them to engage in dual harm.

The second aim of the research is to ascertain how many young adult men in prison exhibit dual harm to establish the prevalence of dual harm amongst this population. The third aim of the research is to explore the unique relationships between a range of demographic, developmental, criminological and clinical variables across dual harm, sole self-harm, sole violence and no harm populations, using a series of network plots. Secondary data from HMPPS (described in detail in Chapter 4, section 4.2.3.2) will be analysed to achieve aims two and three. This will provide insight into how variables co-vary with each other, highlighting potential pathways to dual harm. Importantly, exploring the similarities and differences between groups will also offer a nuanced understanding of how young adult men who dual harm in prison differ from those who engage in sole self-harm, sole violence and those who do not engage in either harmful behaviour in prison.

The fourth aim of the research is to identify demographic, developmental, criminological and clinical variables which statistically distinguish young adult men who dual harm in prison from those who engage in sole self-harm, sole violence and those who do not engage in either harmful behaviour in prison. Again, secondary data from HMPPS will be used to achieve this aim. This will highlight which characteristics, based on the information sought from HMPPS systems, differentiate young adults who have dual harmed in prison.

Lastly, the final aim of the thesis is to propose an integrated risk model of dual harm amongst young adult men in prison. This will be presented in Chapter 8 (section 8.2.1) and will represent the link between self-harm and violence, utilising knowledge gained from the three empirical studies in this thesis.

1.3 Thesis structure and outline of chapters

This thesis contains eight chapters, each of which is outlined below:

Chapter 1: Introduction. This chapter briefly outlines the research context, the rationale and aims of the research and the structure the thesis will follow.

Chapter 2: Literature review. This chapter reviews the definitional debates concerning self-harm, violence and dual harm, and the definitions utilised in the thesis. It also reviews and critically discusses the relevant literature on risk factors of self-harm, violence, and dual harm, specifically focussing on young adult men in prison where possible.

Chapter 3: Theoretical considerations. This chapter outlines several theoretical models of self-harm, suicide and violence and critically evaluates their ability to explain dual harm. The chapter also critically discusses a model recently proposed to explain dual harm.

Chapter 4: Methodology. This chapter provides a rationale for the methodological approach taken within the thesis. It also details the research process, including ethical considerations, sampling, data collection, extraction of secondary data, and analysis. Although this chapter broadly discusses the methodology of each empirical study, more specific details can be found in the relevant empirical chapters (Chapters 5-7).

Chapter 5: Exploring the life stories of young adult men in prison with a history of dual harm. This chapter uses a narrative psychological approach to qualitatively explore the life stories of young adult men in prison with a history of dual harm. This chapter details a cross-case analysis and presents three superordinate themes across participants' narratives.

Chapter 6: Exploring relationships between factors across young adult men in prison who engage in dual harm, sole self-harm, sole violence and those who do not engage in either harmful behaviour. This chapter utilises secondary data to explore the relationships between demographic, developmental, criminological and clinical variables across young adult men who engage in dual harm, sole self-harm, sole violence and those who do not engage in either harmful behaviour (referred herein as the 'no harm' group). This chapter presents a network analysis in which the unique relationships between variables are mapped, and the similarities and differences between the strength and direction of these relationships are explored between groups.

Chapter 7: Identifying factors which distinguish young adult men who dual harm in prison, from those who engage in sole self-harm, sole violence and those who do not engage in either harmful behaviour. This chapter uses secondary data to confirm which variables (demographic, developmental, criminological and clinical variables informed by the previous chapter) can distinguish young adult men who have dual harmed in prison from those who have engaged in sole self-harm, sole violence and those who do not engage in either harmful behaviour (referred herein as the 'no harm' group).

Chapter 8: General discussion. This chapter synthesises the findings from the three previous empirical studies. It outlines the theoretical, practical and methodological implications of the thesis. Furthermore, an integrated risk framework is proposed to explain dual harm among young adult men in prison. The chapter ends by discussing the thesis' limitations, future research recommendations and personal reflections on the PhD journey.

Chapter 2: Literature review

Chapter overview

This chapter will discuss the definitional issues associated with the term self-harm, operationalise the definition of self-harm used in this thesis, and review the relevant literature on risk factors of the behaviour amongst prison and community populations. Similar sections will then consider violence. Here, the broad definitions used to define violence, the definition employed in this thesis, and the risk factors of the behaviour will be reviewed. The chapter will end by introducing dual harm. Here, the current evidence base for dual harm, working definitions of the concept and the dual harm 'profile' will be discussed.

2.1 Defining self-harm

When defining self-harm, "ambiguous terminology is more the rule than the exception" (Linehan, 1997, p. 304), with overlapping definitions having nuanced differences (Dixon-Gordon et al., 2012; Linehan, 1997). The following section will provide an overview of the current debates regarding definitions of self-harm and suicide, specifically regarding *whether* and *how* the behaviours differ. To do this, factors commonly used to differentiate the behaviours will be explored before the thesis definition is operationalised.

2.1.1 Suicidal intent

The National Institute for Health and Clinical Excellence (NICE) defines self-harm as intentional self-injury or self-poisoning, irrespective of motivation (NICE, 2022). This categorises self-harm into self-injury and self-poisoning, and different to other definitions (e.g., non-suicidal self-injury), suggests that motivations can be flexible (i.e., suicidal or not suicidal). HMPPS and the MoJ adopt an equally broad stance, defining self-harm as "any act where a prisoner deliberately harms themselves irrespective of the method, intent or severity of any injury" (MoJ, 2018c, p. 7). This takes an all-encompassing approach to the method used, the intent underpinning the behaviour and the severity of any injuries caused. Similarly broad is the term self-inflicted deaths which HMPPS uses to refer to all deaths (including drug-induced deaths) which appear to be the consequence of an individual's actions, irrespective of intent (PPO, 2014).

Contrasting these broad definitions, suicidal behaviours have been distinguished from non-suicidal behaviours based on intent (i.e., whether an individual intends to die from their actions). A suicide attempt is a deliberate effort to take one's life through implementing methods one would expect to die from (Kenny et al., 2008). By contrast, the terms deliberate self-harm (Gratz, 2001; Klonsky et al., 2003; Laporte et al., 2017; Lohner & Konrad, 2007), self-mutilative behaviour (Guertin et al., 2001;

Nock & Prinstein, 2004) and non-suicidal self-injury (Glenn et al., 2011; Klonsky, 2011; Klonsky & Glenn, 2009; Nock & Kessler, 2006) have been defined as the intentional destruction of bodily tissue for purposes not socially sanctioned, exhibited without suicidal intent (Dixon-Gordon et al., 2012; Gratz, 2003; Klonsky & Muehlenkamp, 2007; Nock & Prinstein, 2004). These behaviours do not reflect an intent to die and could signify a person's coping strategies to help endure life (Butler & Malone, 2013).

Although suicidal and self-harm behaviours may both indicate distress (Dear, 2006), differences between the behavioural characteristics, risk factors and prevention strategies for the behaviours have been established (Dixon-Gordon et al., 2012; Hawton et al., 2014; Klonsky & Muehlenkamp, 2007; Marzano et al., 2016). However, gauging suicidal intent is challenging (Linehan, 1997) as an individual may not be able to recall, remember or verbalise whether their act of harm was accompanied by suicidal intent (Marzano et al., 2009). Additionally, individuals may reveal ambivalence towards their intentions (Gratz, 2003; Pickard, 2015) as research has found that not all men intend to die from their suicide attempts (Rivlin, Ferris et al., 2013). Therefore, not all behaviours may be successfully distinguished as either self-harm (without suicidal intent) or a suicide attempt. Language should therefore reflect the possibility that motivations may not be known, recalled or understood.

2.1.2 Lethality of harm

A second consideration concerns the outcome of the act. The terms near-lethal self-harm, near-lethal suicide attempt and near-fatal deliberate self-harm encompass acts of harm which, had it not been for chance or emergency treatment, would have likely ended in death (Douglas et al., 2004; Marzano et al., 2009; Potter et al., 1998; Rivlin et al., 2012; Rivlin, Fazel et al., 2013). This suggests that the method signifies a vital distinction between self-harm and 'near-fatal' self-harm or a suicide attempt. Methods including overdose, ligature use, self-poisoning or jumping from height typically result in more lethal outcomes than cutting, hitting or head-banging (Walsh, 2012), and are subsequently more closely related to suicide (Hawton et al., 2014). Additionally, previous self-harm, particularly that of high lethality, predicts later suicidal behaviours (Hawton et al., 2014; Marzano et al., 2009), which is drawn upon within psychological models of suicide (Joiner, 2005) discussed in Chapter 3.

Another debate relates to whether suicidal intent can be inferred from enacting lethal acts of self-harm or whether lethality and intent constitute two distinct constructs. Walsh (2012) argues that "the chosen method of self-harm often tells us a great deal about the intent of a self-destructive person" (p. 8). Despite this, adults in prison have reported engaging in self-harm of low lethality accompanied by moderate suicidal intent (Dear et al., 2000), and some women in forensic mental health

institutions have exhibited life-threatening self-harm without suicidal intent (Oakes-Rogers, 2020). Conversely, adults in the community have reported self-harming whilst ideating about suicide (Klonsky, 2011). Therefore, inferring intent from lethality may overestimate, or arguably of greater concern, underestimate suicidal intent based on a person's method of self-harm.

2.1.3 Self-harm frequency

Self-harm (without suicidal intent) is considered more frequent than behaviours accompanied by suicidal intent (Klonsky & Muehlenkamp, 2007; Slesinger et al., 2019), although links between the two have been made. For instance, previous self-harm (particularly multiple and severe acts) increases the risk of future suicidal behaviours among people in prison (Hawton et al., 2014) and doubles the risk of dying by suicide in community populations (Gratz, 2001; Zahl & Hawton, 2004). This leads to arguments about whether research should differentiate between people who occasionally self-harm (i.e., one to three times a year) and those who do so more frequently (i.e., five times a year; Brunner et al., 2007). However, this would require knowledge regarding the number of previous acts of self-harm and their underpinning motivations to investigate what constitutes 'frequent self-harm'. Moreover, since self-harm can help some people cope with unwanted emotions, frequent acts may prevent suicidal behaviours, instead of motivating them (Klonsky, 2007; Rickford & Edgar, 2005). These reasons may explain why the presence/absence of a history of self-harm is generally explored in research (e.g., Favril, Yu et al., 2020; O'Connor et al., 2012; O'Connor et al., 2018), as opposed to ascertaining the frequency of the behaviour.

2.1.4 Continuum of harm

In addition to the definitions previously discussed, the term death by suicide is also used (Edwards et al., 2021; Erlangsen et al., 2020). One standpoint is that this exists along a continuum and sits at the opposite end to self-harm without suicidal intent, as demonstrated in Figure 1 (Muehlenkamp & Gutierrez, 2004; Turecki et al., 2019). Importantly, despite relationships between behaviours (e.g., previous self-harm is associated with future self-harm and suicidal behaviours), most people do not progress through the continuum and attempt or die by suicide (O'Connor et al., 2018; Turecki et al., 2019). The second position rejects this concept and argues that self-harm without suicidal intent is entirely distinct from behaviours enacted with suicidal intent (Butler & Malone, 2013; Klonsky & Muehlenkamp, 2007; Whitlock et al., 2015).

Figure 1.

Definitions along the harm to self continuum. Informed by Turecki et al. (2019) and Favril (2021)

Non-suicidal self-harm	Self-harm	Suicidal ideation	Suicide attempt	Suicide
Self-injurious behaviours without any intent to die.	Non-fatal self-injurious behaviour with or without intent to die. Does not distinguish between suicide attempt and non-suicidal self-injury.	Thoughts about ending one's own life, with or without a clear plan for suicide. Suicidal ideation is used interchangeably with suicidal thoughts.	Non-fatal self-injurious behaviour with inferred or actual intent to die.	Intentionally ending one's own life.

2.1.5 Thesis definition

In alignment with the MoJ (2018c) and the NICE guidelines (2022), self-harm is defined in this thesis as ‘any act in which an individual deliberately harms themselves, regardless of the method, severity or intention of the overall outcome’. This includes methods relating to the destruction of bodily tissue and ingesting substances in quantities greater than recommended. This is important since dual harm populations are more likely to engage in lethal methods of self-harm, such as an overdose (Slade et al., 2020). The definition encapsulates non-suicidal acts, those exhibited with ambivalence, and suicidal behaviours. This relieves individuals from the pressure of having to understand why they harmed themselves and the intent underpinning their behaviour (Pickard, 2015). If it is evident in the literature cited or in the empirical research that a person self-harmed with or without suicidal intent, or whether the research clearly relates to one specific behaviour (e.g., non-suicidal self-injury) this will be outlined. Lastly, the definition prioritises the presence of self-harm rather than the frequency of the behaviour. This will provide a broader understanding of people who self-harm instead of a smaller subset of people who repeatedly self-harm (Klonsky, 2011; Sornberger et al., 2012).

Indirect acts of self-harm such as smoking and having piercings or tattoos are excluded from this definition. This is because these behaviours cause unintentional harm, are socially sanctioned and may be performed for aesthetic reasons (Nock, 2009; Rickford & Edgar, 2005). Furthermore, although motivations for some indirect self-harm can overlap those of direct self-harm (e.g., eating disorders), they generally have different motivations (Marzano-Parisoli, 2001). Causing intentional psychological harm to oneself, such as seeking an abusive relationship, is also excluded from the definition of self-harm since this is not a physical infliction of harm perpetrated by the self (NICE, 2004).

2.2 Risk factors for self-harm in prison

Worldwide, self-harm is more prevalent among prison populations than community populations (Dixon-Gordon et al., 2012). Approximately 9%-30% of young adults in prison self-harm each year (Kenny et al., 2008; Lader et al., 2000; MoJ, 2021d). This substantially exceeds that observed among adults (1%; Klonsky, 2011) and young adults (3%; O’Connor et al., 2018) in the community. Young

adults in prison are also significantly more likely to self-report self-harming than those serving community orders (Borschmann et al., 2014).

No single aetiological pathway exists to explain self-harm (Crowell et al., 2014). However, risk factors which increase the likelihood of the behaviour have been investigated (Favril, Yu et al., 2020; Pope, 2018; Zhong et al., 2021). A risk factor of self-harm is a preceding characteristic or circumstance that can facilitate or cause the behaviour, which can be static or dynamic (MoJ, 2013a). Static risk factors are historical (e.g., a history of ACEs) and cannot be changed throughout an individual's life or be used to assess changes in risk over time (Craig et al., 2013). Dynamic risk factors can change over time (e.g., a current psychiatric disorder diagnosis) and differ in relevance depending on an individual's current experiences (PPO, 2014). Dynamic risk factors can be relatively consistent over time or quickly change; these are referred to as stable (e.g., a person's education history) and acute (e.g., current substance misuse) dynamic risk factors, respectively (Craig et al., 2013). In addition to risk factors of self-harm, factors which are correlated with the behaviour will also be discussed. These factors are associated with self-harm, albeit the underpinning relationship of why and how the factors relate remains unknown.

This section will consider the risk factors of self-harm by male prison and community populations. Some of the research in this section will include adults over 21, although studies that solely refer to young adults will be noted.

2.2.1 Demographic factors

2.2.1.1 Age

Internationally, people younger than 30 are more likely to self-harm in prison, and do so at higher rates, than older adults (Favril, Yu et al., 2020; Hawton et al., 2014; Kaba et al., 2014; Pope, 2018). Providing context for this, every additional year in age has been found to decrease the odds of self-harming in prison by approximately 9% (Smith & Kaminski, 2010). Amongst males in the community, the lifetime prevalence of self-harm is higher amongst 18-23-year-olds than 24-34-year-olds (O'Connor et al., 2018), with rates peaking between the ages of 20 and 24 (Griffin, McMahon et al., 2018). Evidence also suggests that the lethality of these behaviours exhibited by young adults is increasing, demonstrated by growing rates of self-harm-related hospital admissions (Griffin, McMahon et al., 2018; McManus et al., 2019).

Echoing the increase of lethal self-harm acts in the community, rates of self-inflicted deaths are also rising amongst young prison populations. In 2021, people in prison aged 21-24 and 30-39 had the same rate of self-inflicted deaths per 1,000 people in prison (MoJ, 2022c). This contrasts consistent findings that adults have higher prevalence rates of fatal self-harm (acts of self-harm which have a

high probability of causing death or significant disabilities) and suicide attempts than those younger in prison and the community (Kaba et al., 2014; O'Connor et al., 2018). Indeed, the consensus in research is that adults, particularly males older than 30, are more likely to self-harm using lethal methods, attempt suicide and die by suicide than those under 30 in the community (O'Connor et al., 2018) and prison (Blaauw et al., 2005; Hawton et al., 2014; MoJ, 2021c; Pope, 2018). One explanation is that older individuals may have previously attempted suicide and learnt which methods cause severe harm (Joiner, 2005; Rivlin et al., 2012). Therefore, in summary, young adulthood is associated with self-harm, whereas mid-older adulthood (from age 30) is more strongly associated with lethal acts of self-harm, attempted suicide, and death by suicide.

2.2.1.2 Education

Progressive self-harm risk has been associated with lower academic attainment among adults in the community (Lunde et al., 2021) and adults in prison (Lanes, 2009; Pope, 2018). Amongst adults aged 18 and older, those who reported secondary school qualifications were twice as likely to have self-harmed or attempted suicide than those who reported university qualifications (or equivalent) and were approximately three times more likely to have done so in prison (Ford et al., 2020). A similar relationship is suggested amongst 15-18-year-olds in prison (Kenny et al., 2008), which is concerning given that many young adults in prison report no educational qualifications (Lader et al., 2000). Adolescents who self-report school absenteeism are also at higher risk of engaging in self-harm in the community (Epstein et al., 2020). Having said this, no clear association was found between not having formal education past secondary school and death by suicide in prison (Zhong et al., 2021). As such, whilst low academic attainment in secondary school and having no formal education past this point is associated with self-harm and attempted suicide in prison and the community, the association may not extend to death by suicide.

2.2.2 Historical factors

2.2.2.1 Adverse Childhood Experiences (ACEs)

ACEs refer to traumatic and chronic stressful events (i.e., sexual, emotional, and physical abuse and physical and emotional neglect) that occur before age 18 (Corcoran & McNulty, 2018; Ford et al., 2020). ACEs also include events which may challenge a child's sense of safety, such as parental separation or having parents who are in prison, have a mental illness or experience substance misuse problems (Centers for Disease Control and Prevention, 2020; Hughes et al., 2017). ACEs are over-represented among people in contact with the criminal justice system, with most individuals reporting more than two ACEs (Perez et al., 2016). Four or more ACEs have increased the risk of self-harm and attempted suicide among prison and community populations (Björkenstam et al., 2018; Cleare et al.,

2018; Ford et al., 2020; Hughes et al., 2017; Perez et al., 2016). For instance, compared to people in prison who reported no ACEs, those who reported more than four were ten times more likely to self-harm (in prison or the community) and 15 times more likely to self-harm in prison (Ford et al., 2020). People with high ACE counts are also four times more likely to be imprisoned during young adulthood (Ford et al., 2019).

Associations between specific ACE types and self-harm can differ between populations. Kenny et al. (2008) reported that emotional and physical abuse in childhood predicted a history of self-harm amongst 15-18-year-olds in prison, yet sexual abuse and neglect did not. By contrast, sexual abuse predicted self-harm and attempted suicide by adults and young adults in prison more than physical abuse (Angelakis et al., 2020; Favril, Yu et al., 2020; Morgan & Hawton, 2004). As such, the relevance of specific ACE types in relation to self-harm and attempted suicide may differ throughout the life course and by population (i.e., prison or e community populations). However, whilst some report a direct relationship between ACEs and self-harm, elsewhere it is suggested that this relationship is at least partially mediated by aggression, anxiety, depression and mental illness (Brown et al., 2018; Ford et al., 2020; Reyes et al., 2019; Swogger et al., 2011). Therefore, in addition to ACEs directly predicting self-harm, they may also do so indirectly through other risk factors which predict self-harm.

2.2.2.2 Previous self-harm or attempted suicide

Previous self-harm (with or without suicidal intent) strongly predicts future self-harm and suicidal behaviours in prison (Favril, 2019; Favril, Yu et al., 2020; Favril, O'Connor et al., 2020; Hawton et al., 2014; Pope, 2018; Slade et al., 2014) and in the community (Klonsky et al., 2013; Mars et al., 2019a; Whitlock & Knox, 2007). Enacting self-harm without suicidal intent increases the risk of future suicide attempts among people in prison with a history of suicidal ideation three-fold (Favril, O'Connor et al., 2020; Favril & O'Connor, 2021). Risk estimates are increased further if previous acts of self-harm were of moderate to high lethality, defined as an incident requiring resuscitation or hospitalisation, particularly amongst males in prison (Hawton et al., 2014). This contrasts with research conducted in the community, in which previous self-harm requiring hospital treatment increased the odds of future incidents more for females than males (Bennardi et al., 2016). Therefore, previous lethal acts of self-harm may increase the risk of future self-harm and suicidal behaviours more for males in prison, but females in the community.

The relationship between the frequency of previous self-harm and future suicidal behaviours also differs by population. Having five or more acts of self-harm in the past year predicted suicidal behaviours amongst people in prison (Hawton et al., 2014), yet engaging in six acts of self-harm in the past year did not strongly predict suicide attempts amongst young adults in the community (Mars et

al., 2019a). Instead, when assessing lifetime self-harm frequency, Whitlock et al. (2013) found that previous self-harm needed to be of extremely high frequency (more than 20 times) to strongly predict future suicidal thoughts and behaviours amongst young adults in the community. Similar risk increases are observed amongst 18-24-year-olds, whereby the odds of future suicidal ideation and behaviours increased more than three-fold following 11-50 previous incidents of self-harm (Whitlock & Knox, 2007). This suggests that whilst the presence of previous self-harm is a robust predictor of future suicidal behaviours, particularly in prison, for self-harm frequency to predict future self-harm amongst young adults in the community, it must be very high (i.e., greater than 20). The relationship between previous self-harm (particularly frequent or lethal incidents) and future self-harm and suicidal behaviours is theorised in Chapter 3.

2.2.3 Clinical factors

2.2.3.1 Substance misuse

According to the latest Diagnostic and Statistical Manual of Mental Disorders (DSM), substance use disorders encompass a set of symptoms which result from persistent use of a substance, despite being aware of it causing such symptoms (American Psychiatric Association [APA], 2013). A diagnosed substance use disorder has been found to double the odds of self-harm in prison (Favril, Yu et al., 2020; Maden et al., 2000). Similar findings are reported when substance misuse is defined through self-report records, whereby current and recent (within 12 months) substance-related issues have been associated with self-harm in prison (Favril, 2019; Lanes, 2009) and in the community (Griffin, Arensman et al., 2018; Ness et al., 2015). It has also been found to distinguish adolescents in the community (Mars et al., 2019b) and adults in prison (Favril & O'Connor, 2021) who think about suicide from those who attempt it. However, recent and historical issues have been linked to attempted suicide and death by suicide in prison (Blaauw et al., 2005; Favril, 2019; S. Fazel et al., 2008; Humber et al., 2013). Therefore, current and recent substance misuse problems appear to better predict self-harm in the community and prison, whereas historical issues more strongly predict death by suicide.

Differences between substances are also reported. Compared to drug misuse, alcohol misuse and dependence have been found to more consistently increase the risk of self-harm and suicidal behaviours in prison (Favril, Stoliker & Vander Laenen, 2020; S. Fazel et al., 2008; Humber et al., 2013; Maden et al., 2000; Stoliker, 2018; Zhong et al., 2021) particularly when analyses account for co-morbid psychiatric disorders (Favril, Indig et al., 2020). In fact, research has consistently not found associations between a history of drug misuse and self-harm (Maden et al., 2000), suicide attempts (Favril, Indig et al., 2020; Favril, Stoliker & Vander Laenen, 2020), self-inflicted deaths (Humber et al., 2013), or deaths by suicide (Zhong et al., 2021) in prison. These findings also extend to studies

conducted with adolescents and young adults in prison and those in youth offending teams (Kenny et al., 2008; Knowles et al., 2011; Spink et al., 2017). However, drug use in prison and recent cannabis dependence (defined by DSM criteria) have been associated with the transition from suicidal ideation to suicidal behaviours and self-harm amongst young adults in prison and those serving community orders (Borschmann et al., 2014; Lader et al., 2000). Therefore, alcohol-related problems more consistently predict self-harm than drug-related problems. However, specific drugs and drug use in prison can increase the risk of self-harm and suicidal behaviours among people in the criminal justice system.

2.2.3.2 Suicidal ideation

Suicidal ideation refers to thoughts or plans to engage in behaviours to end one's life (Nock, 2010). These thoughts are more prevalent among prison populations than community populations (Favril, O'Connor et al., 2020; Favril & O'Connor, 2021; Favril, Stoliker & Vander Laenen, 2020; Stoliker et al., 2020). Suicidal ideation has also been consistently found to be more prevalent among adolescents and young adults in prison than those in the community (Abram et al., 2008; Kenny et al., 2008; Lader et al., 2000; Morgan & Hawton, 2004; Nock et al., 2013). Therefore, it seems likely that aspects of the prison environment increase the risk of suicidal ideation, affecting adults and young adults (Trainor et al., 2017).

Suicidal ideation is associated with self-harm in prisons (Favril, Yu et al., 2020; Ryland et al., 2020) and in the community (Duarte et al., 2020; see Ribeiro et al., 2016 for a meta-analytic review).

Demonstrating the strength of this risk factor, Favril (2019) reported that amongst people in prison with a history of self-harm, suicidal ideation increased the odds of a suicide attempt 18-fold. More specifically, current or recent suicidal ideation has been found to increase the odds of self-harm in prison more than a lifetime history of suicidal ideation (Favril, Yu et al., 2020). This is concerning given that aspects of the prison environment, such as segregation, can directly increase self-reported depression and suicidal ideation (Bonner, 2006). As such, specific aspects of prison life, such as segregation, may directly increase the risk of developing suicidal ideation or indirectly through factors like depression (Nock et al., 2013; Stokes et al., 2015; Stoliker et al., 2020). Suicidal ideation has also been linked to personality disorder (PD), psychosis and trauma in young adult and adult populations (Jenkins et al., 2005; Spink et al., 2017; Stokes et al., 2015; Stoliker et al., 2020). Therefore, suicidal ideation is associated with other risk factors for self-harm, perhaps explaining the over-representation of people who think about suicide in prison. However, most individuals with suicidal ideation do not go on to enact suicidal behaviours (Nock et al., 2008), and therefore additional factors are theorised to contribute to the transition from suicidal ideation to suicidal behaviours, as discussed in Chapter 3 (section 3.2).

2.2.3.3 Psychiatric disorders

Compared to adolescents and young adults in the community, people in prison are more likely to have diagnosed or assessed (via screening tools) psychiatric disorders (Beaudry et al., 2021; Fazel, Doll & Långström, 2008). A current or previously diagnosed psychiatric disorder, measured by DSM or International Classification of Diseases (ICD) criteria or through self-report measures, has been associated with self-harm (Favril, 2019; Favril, Yu et al., 2020; Lanes, 2009), attempted suicide (Favril, 2019), and death by suicide (Blaauw et al., 2005; S. Fazel et al., 2008; Humber et al., 2013; Zhong et al., 2021) in prison.

Depression is also noted as a risk factor for self-harm. Evidence suggests that depression is twice as likely among adolescents and young adults in prison than among their community counterparts (Beaudry et al., 2021; Fazel, Doll & Långström, 2008). In both settings, associations between having diagnosed depression or major depressive disorder and self-harm are reported (Q. Chen et al., 2020; Favril, Yu et al., 2020; Rivlin et al., 2010; Trainor et al., 2017; Witt et al., 2019), with the latter increasing the odds of self-harm and near-lethal suicide attempts in prison up to nine times (Favril, Yu et al., 2020; Rivlin et al., 2010). Proxies of depression, such as being prescribed antidepressant medication and reporting symptoms of depression, have also been found to increase the odds of self-harm and attempted suicide among adolescents and young adults in the community (Moran et al., 2012; Rodway et al., 2016; Witt et al., 2019), and in prison (Howard et al., 2003; Kenny et al., 2008; Morgan & Hawton, 2004). Borschmann et al. (2014) found that 14-18-year-olds in prison or serving community sentences with a history of self-harm were three times more likely to screen positive for depression than those without a self-harm history, which differs from that observed amongst adults in prison (Slade et al., 2014). This suggests that whilst depression and major depressive disorder are consistently reported as risk factors for self-harm and suicide, the strength of the factors differs between age groups.

Furthermore, rates of psychosis are approximately ten times higher amongst adolescents and young adults in prisons than those in the community (Fazel, Doll & Långström, 2008). A diagnosed psychotic disorder, or symptoms of one, are associated with self-harm (Favril, Yu et al., 2020; Lanes, 2009) and attempted suicide (Favril, Indig et al., 2020; Favril, Stoliker & Vander Laenen, 2020; Rivlin et al., 2010) by people in prison, including adolescents (Borschmann et al., 2014). However, the strength of this association differs between definitions. A self-reported diagnosis of psychosis was found to increase the risk of self-harm and attempted suicide amongst men and women in prison two-to-four-fold, independent of PD and alcohol and drug abuse (Favril, Stoliker & Vander Laenen, 2020; Favril, Yu et al., 2020). Nevertheless, when assessed through a structured diagnostic interview, psychotic disorders significantly increased the risk of suicide attempts eight-fold (Rivlin et al., 2010). This further contrasts

research using medical records, which found no association between psychotic disorders and self-harm (Lanes, 2009). As such, whilst psychosis and psychotic disorders increase the risk of self-harm and attempted suicide, the strength of the risk factor differs depending on how a diagnosis is measured.

The prevalence of diagnosed PD is also high amongst young adults in prison, with 18-21-year-olds having higher rates of cluster B PDs (characterised by difficulties regulating feelings and behaviours), particularly borderline PD, than people older than 22 (M. Fazel et al., 2008; Lader et al., 2003). Diagnosed PDs and symptoms of the disorder have been associated with self-harm and attempted suicide in prison (Favril, Indig et al., 2020; Favril, Stoliker & Vander Laenen, 2020; Favril, Yu et al., 2020; Gardner et al., 2014; Lanes, 2009; Maden et al., 2000; Pope, 2018), including young adults (Kenny et al., 2008) and people in the community (Q. Chen et al., 2020; Witt et al., 2019). One review found that PD doubled the risk of repetitive self-harm among young adults, with borderline PD increasing risk three-fold (Witt et al., 2019). The link is likely bi-directional since the DSM-5 outlines self-harm and suicidal behaviours as behavioural traits of borderline PD (APA, 2013). Indeed, evidence highlights that rumination fully mediates the association between borderline PD traits and self-harm, suggesting that traits of the disorder motivate self-harm (Gardner et al., 2014). For these reasons, it has been questioned whether borderline PD should be considered a true risk factor of self-harm (Pope, 2018).

2.2.4 Criminological factors

2.2.4.1 Violence index offence

Young adults in prison in England and Wales are predominantly sentenced for violence against the person offences (MoJ, 2020a). A violent index offence has been positively associated with an elevated risk of self-harm (Favril, Yu et al., 2020; Gullotta et al., 2021; Hawton et al., 2014; Lanes, 2009; Smith & Kaminski, 2010; Vinokur & Levine, 2019; Wichmann et al., 2002), attempted suicide and near-lethal self-harm (Favril, 2019; Marzano et al., 2011) and death by suicide in prison (Blaauw et al., 2005; S. Fazel et al., 2008; Humber et al., 2013; Zhong et al., 2021). In some research, risk of harm to self is doubled following a violent index offence (Favril, 2019; Favril, Yu et al., 2020; Stoliker, 2018; Zhong et al., 2021), which increases further following extreme violence such as murder (Jordan & Samuelson, 2015; Zhong et al., 2021). Interestingly, physical violence accrues greater self-harm risk than sexual violence (Favril & O'Connor, 2021). However, whilst a violent offence has been found to distinguish people in prison who ideate about suicide from those who attempt it, and play an independent role in the transition from suicidal thoughts to behaviours (Favril, O'Connor et al., 2020; Favril & O'Connor, 2021; Favril, Stoliker & Vander Laenen, 2020), this relationship was not found when controlling for

previous suicide attempts (Farvil, 2019). Furthermore, a violent offence did not distinguish between men who made near-lethal suicide attempts and those who died by suicide in prison (Rivlin et al., 2012). Therefore, there are mixed findings regarding this relationship, with evidence suggesting that the ability of violence to predict self-harm may depend on the type of violence exhibited and the definition of self-harm used.

Mixed findings are also reported in research with people aged 12-18, whereby neither a violent index offence nor a history of violent offending was associated with self-harm amongst adolescents in prison (Borschmann et al., 2014) or those serving community sentences (Borschmann et al., 2014; Spink et al., 2017). Ireland (2000), however, found that a higher percentage of 16-21-year-olds convicted of violent offences had multiple 'Assessment, Care in Custody and Teamwork' (ACCT) forms opened compared to those with only one form. The ACCT process is employed within HMPPS to identify and provide individualised support for people in prison at risk of self-harm and suicide. Although ACCT documents do not discriminate between individuals who self-harm and those who state that they might self-harm, the link between a violent index offence and self-harm may be stronger amongst individuals older than 18. The theory underpinning the link between self-harm and violence is discussed in Chapter 3.

2.2.5 Institutional factors

2.2.5.1 Early stages of imprisonment

Institutional factors, particularly being in the early stages of imprisonment, cannot predict self-harm in the community but does increase the risk of self-harm in prison (Lohner & Konrad, 2007; Marzano et al., 2011; Pope, 2018). This has been explained by feelings of defeat, entrapment and increased rumination during this period, which has been associated with subsequent suicidal ideation and self-harm in prison (Scowcroft, 2019; Slade & Edelman, 2014; Slade et al., 2014). These feelings may be prominent amongst young people and young adults in prison since research with 15-18-year-olds found that almost 90% of participants on an ACCT and self-harming were new to prison and serving their first prison sentence (McDermott, 2017). Offering further perspective, whilst the average sentence length for a young adult is 19-29 months (MoJ, 2018a), between 20% and 30% of all self-inflicted deaths in prison are by individuals who have been in their current prison for less than 30 days (MoJ, 2021c; Shaw et al., 2004). In keeping, compared to men who did not make a near-lethal suicide attempt in prison, those who did were 17 times more likely to be within their first 30 days of reception (Rivlin, Hawton et al., 2013). Therefore, it is a consistent finding that being in the early stages of imprisonment strongly increases the risk of self-harm across young adult and adult prison populations.

2.2.5.2 Disciplinary infractions

Disciplinary infractions (or adjudications) are punishments for rule-breaking in prison. In research, these are typically categorised as those which result from violence (assaults and fights), non-violence (e.g., property damage), or a broad category including both violent and non-violent behaviours. Disciplinary infractions for physical violence are independently associated with self-harm by males in prison (Lanes, 2009, 2011). In fact, Slade's UK-based research (2018, 2020) found that 60% of men who had self-harmed in prison also had violent infractions on their record, with slightly lower percentages recorded in the US (Slade et al., 2022). This equates to an approximate four-fold risk of violence amongst self-harming prison populations, around double the risk identified in community populations (Sahlin et al., 2017). Similarly, each self-harm incident in one US study increased the number of previous disciplinary infractions on record (violent and non-violent, within the last 12 months) by around 37% (Smith & Kaminski, 2010). However, when violence included both sexual and physical violence, a meta-analysis found that risk of self-harm was only increased for females, with non-violent infractions increasing risk for both sexes (Favril, Yu et al., 2020). As such, generally, there is a consistent relationship between disciplinary infractions and self-harm in prison, although physical violence tends to hold the strongest association. Explored more in section 2.5.1, this indicates a link between harm to others and self (e.g., Dixon-Gordon et al., 2012; Lohner & Konrad, 2007).

2.2.6 Summary

This section has provided an overview of the strongest risk factors associated with self-harm in prison and the community and outlined institutional factors, such as a violent index offence and disciplinary infractions, which are unique to self-harm exhibited in prison. Where relevant, research concerning young adults has been discussed to highlight how the strength of specific factors (such as cannabis use disorder) may vary between young adult and adult populations.

2.3 Defining violence

Mirroring the self-harm definitional debate, no universal definition is used to describe violence or violent behaviours (Hamby, 2017; Kaufmann, 1965). Violence is also used interchangeably with aggression throughout research and practice (Hollin, 2016), despite some claiming they denote different meanings, perceptions, behaviours and situations (Alvarez & Bachman, 2016; Berkowitz, 1993). The following section will explore the current debates regarding aggression and violence and explain *whether* and *how* the behaviours differ. The section will end by operationalising the definition of violence in this thesis.

2.3.1 Aggression

Aggression is considered a form of behaviour (Allen & Anderson, 2017; Baron & Richardson, 2004), an underlying disposition (Korn et al., 1992) and a psychological demeanour (Alvarez & Bachman, 2016). Social psychology focuses on the former, defining aggression as a behaviour that intends to harm a person who is motivated to avoid such harm (Allen & Anderson, 2017; DeWall et al., 2011). First, aggression must be observable, suggesting that thinking about harming someone is not considered aggression (Baron & Richardson, 2004). Second, aggression has an intentional goal of harming others, and this outweighs the actual harm caused (Allen & Anderson, 2017). Accidental harm, such as unintentionally bumping into someone, is not considered aggression because although the victim may have been hurt, the harm was not intentional. Third, the victim must be motivated to avoid the harm inflicted upon them (Allen & Anderson, 2017; Anderson & Bushman, 2002; Baron, 1977; Baron & Richardson, 2004; DeWall et al., 2011). Therefore, if the inflicted harm is delivered for the individual's own benefit (e.g., medical surgery to prolong or save a life), it is not aggression. Likewise, sadomasochism, in which the recipient actively encourages the infliction of pain, is not aggression. Fourth, humans must be the intended victims as opposed to inanimate objects (Allen & Anderson, 2017). For example, kicking an object would not be considered aggression unless it was thought that the object would deflect and harm an individual. By contrast, damaging the tyres on an enemy's car would be aggression since the intent was to ultimately cause harm to the individual.

2.3.2 Dichotomies of aggression

Reasons motivating aggression have been dichotomised into reactive, also referred to as hostile, and proactive, also referred to as instrumental or premediated (Baron, 1977; Baron & Richardson, 2004; Buss, 1961; Crick & Dodge, 1996; Feshbach, 1964). Reactive aggression is an impulsive or affective response to a previous provocation or threat (Berkowitz, 1993; Feshbach, 1964). This has been developed through the Frustration-Aggression Theory, whereby aggression is an unplanned response, such as retaliation (Berkowitz, 1989). On the other hand, proactive aggression can occur without a social threat and devoid of emotion. Instead, it is premediated, controlled and goal-oriented (Anderson & Bushman, 2002; Berkowitz, 1993). For instance, a person may hit their enemy in front of others to improve their social status (Allen & Anderson, 2017). If an individual plans an act of aggression yet impulsively enacts the plan sooner than intended due to being provoked, both proactive and reactive motivations occur within the same act. As such, despite the traditional dichotomy, one aggressive act may have both reactive and proactive motivations (Allen & Anderson, 2017).

The form of aggression has been traditionally dichotomised as direct or indirect (Berkowitz, 1993). Direct aggressors use physical methods to inflict harm, causing physical or psychological harm (Baron

& Richardson, 2004; Berkowitz, 1993; Marsee et al., 2011). According to the Overt Aggression Scale (Yudofsky et al., 1986), direct aggression includes threatening verbal and physical behaviour towards people and objects. Non-direct aggressors use methods such as gossiping and manipulating social circles or relationships (Crick et al., 2007). These harm others by damaging the victim's interpersonal relationships or their feelings of inclusion and acceptance within a social group (Archer & Coyne, 2005; Crick et al., 2007) and often go unnoticed, resulting in fewer ramifications for the perpetrator (Ireland & Archer, 1996).

2.3.3 Extending aggression to violence

Social psychologists suggest that violence is an extreme form of aggression which intends to cause severe harm to a victim (Allen & Anderson, 2017; Anderson & Bushman, 2002; DeWall et al., 2011). Here, the intention of causing severe harm differentiates violence from aggression. Like the self-harm literature, this suggests that aggression and violence may be best understood along a continuum ranging from harmful (aggression) to severely harmful behaviours (violence). This coincides with the assertion that all instances of violence are aggression, though not all instances of aggression are violent (Allen & Anderson, 2017; Seddig & Davidov, 2018). However, 'extreme' and 'severe' may be characterised by intensity or chronicity. More specifically, death and physical injuries have been proposed as examples of severe harm, suggesting that violence encapsulates physically harmful behaviours (Allen & Anderson, 2017; Seddig & Davidov, 2018). This coincides with research conducted with adolescents in which violence was described as physical acts such as punching (Sundaram, 2013; Yonas et al., 2005). In keeping with this, Bushman and colleagues (2016) question whether extreme harm can be achieved through threats or verbal exchanges. Nevertheless, there is support for psychological trauma to be recognised as a type of harm caused by violence (Kemshall et al., 2015), particularly in reference to domestic violence (Kaur & Garg, 2008).

This definition of violence also states that a person must intend to cause severe harm to their victim, which is also highlighted in definitions of aggression (Kaufmann, 1965). As such, acts causing accidental or unwanted harm are not violent (Allen & Anderson, 2017). However, as mentioned in reference to self-harm and suicide (see section 2.1.1), accurately gauging intent poses challenges. Intent has been described as a hidden thought process which cannot be directly observed or measured (Buss, 1961), albeit, some instances of intent can be noted. For instance, although harm may be caused in acts of self-defence, the principal aim is to protect the self. As self-defence is used to prevent crime, this differs to the definition of violence (Crown Prosecution Service, 2019; Hamby, 2017). Therefore, although ascertaining active intent to harm may be challenging, it may be easier to discern acts exhibited without a direct intent to harm others.

The public health approach differs to the social psychology approach when defining violence. Krug and colleagues' (2002) World Health Organisation report defines violence as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation." (p. 5). This definition includes intentional acts of physical force or power, referring to physical (direct) and non-physical (indirect) behaviours. Use of physical force or power can also be threatened or perpetrated, which reflects the definition offered by Douglas et al. (1999) within their violent risk assessment and management tool (the Historical, Clinical, Risk Management-20). Despite this, it could be argued that given the qualitative difference between threatening and perpetrating harm, the definition is unhelpfully broad and covers both violent thinking and violence perpetration. This definition also broadly conceptualises harm, including the impact of physical and psychological harm.

2.3.4 Thesis definition

This thesis defines violence as 'extreme aggression, in which a physical act is intentionally perpetrated to cause severe physical harm to another human', in line with previous violence literature (Anderson & Bushman, 2002). This definition states that violence is an intentional behaviour physically exhibited (i.e., not threatened) to cause physical harm to a human victim. This is important as it aligns the definition of violence to self-harm, whereby thoughts resulting in no physical action are considered qualitatively different to perpetrated behaviours. It also captures the categorisations of violence applied by HMPPS, which includes assaults on peers or staff and fights between peers (MoJ, 2021e). The thesis definition only includes intentional behaviours to best capture violent behaviours exhibited by individuals who wish to harm others instead of doing so accidentally or in self-defence.

Although self-harm has been considered an act of violence towards the self (Plutchik et al., 1989), self-harm is not considered violence in this thesis. Instead, self-harm will be understood as a separate behaviour within the conceptualisation of dual harm. Lastly, sexual violence, encompassing sexual abuse, sexual assault, sexual harassment, sexual coercion, alcohol-induced sexual assault, threat of rape, attempted rape, and completed rape (Asaolu & Koss, 2017), are excluded from the definition of violence utilised in this thesis. This mirrors previous research investigating prison violence (McGuire, 2018) and reflects the distinction between theories and conceptualisations of physical violence (Anderson & Bushman, 2002; Baumeister & Vohs, 2004; Megargee, 2009) and those explaining sexual violence (Finkelhor, 1984; Ward & Siegert, 2002; Ward & Beech, 2006).

2.4 Risk factors for violence in prison

Young adult men have been described as some of the most violent individuals held in prisons (HMIP, 2021). They are predominantly sentenced for violence against the person offences (MoJ, 2020) and, despite representing a small proportion of the overall prison population, account for disproportionately high levels of violence (MoJ, 2020a; Moran et al., 2020; Sturge, 2020). To decrease violence, the Prisons Strategy White Paper highlighted the need to understand the complex causes of the behaviour, including the individual and environmental factors driving it (MoJ, 2021b). This section indicates that the reasons and factors motivating violence are multifaceted and cannot be explained by a singular causal pathway (Haylock et al., 2020; Mann & Hendrick, 2015).

This section will consider risk factors associated with violence. Similar to the section above concerning risk factors of self-harm, this section will highlight differences between factors predicting violence perpetrated in prisons and the community. Therefore, literature concerning violent offending will be filtered throughout to provide an understanding of whether risk factors are specific to prison violence or violence more generally. Some of the research presented in this section will include populations older than 21, which, although may include some young adults, often includes more older adults. This is because research investigating risk factors for violence perpetrated explicitly by young adults is limited (Tasca et al., 2010). Where relevant, literature directly relating to young adults will be highlighted.

2.4.1 Demographic factors

2.4.1.1 Age

Young adults (aged 18-21) are more likely to be violent in prison (McGuire, 2018; Moran et al., 2020; Schenk & Fremouw, 2012) and violently offend (Haylock et al., 2020) than older adults, and do so at higher rates (Butler et al., 2020; Kuanliang et al., 2008).

Ford et al. (2019) found that among people in prison, young adults were more than three times more likely to self-report hitting someone in the past year (in the community or prison) than those aged 40 and older. Similarly, when strictly focusing on prison violence, young adults were significantly more likely to have an act of violence on record than people aged 31 to 35 (Cunningham et al., 2005; Cunningham & Sorensen, 2007). The strength of this relationship was greater in research where violence was operationalised as perpetrating physical violence compared to planning, conspiring, or perpetrating physical and sexual violence (Berg & DeLisi, 2006; Cunningham et al., 2005; Cunningham & Sorensen, 2007). Therefore, young age may better predict the perpetration of physical violence than thinking about or perpetrating sexual violence in prison. Albeit, a point to consider is that these studies measured violence using official prison records where acts were observed or, at the very least,

reported, which likely underestimates the extent of the problem (Schenk & Fremouw, 2012). Having said this, young adults have also been found to be more likely to self-report assaulting prison staff than older adults (Lahm, 2009). Therefore, young age, particularly younger than 21, consistently predicts prison violence when defined through official records and self-report measures.

2.4.1.2 Ethnicity

Research evidence suggests that people from certain ethnic groups, particularly those from ethnic minority backgrounds, have higher rates of violence perpetration in prison (McGuire, 2018; Piquero, 2015). However, as this section will suggest, factors such as increased scrutiny and low socioeconomic status may better explain this relationship.

In research which has categorised ethnicity into 'White ethnic group' and 'Other ethnic groups combined', the latter category was more likely to self-report or be convicted of a violent offence and have more recorded prison infractions, including for violence (Gonçalves et al., 2016; White et al., 2015). In US research where ethnicity has been more narrowly categorised, males who identified as African American had the highest rates of recorded prison violence and violent offending (Butler et al., 2020; Loeber et al., 2017). Similarly, in the UK, MoJ statistics (2021e) suggest that people from a Black ethnic group have the highest recorded rates of assaults and fights in prison compared to people from Asian, White, Mixed or Other ethnic backgrounds. The term 'recorded rates' is emphasised, however, since a review of racial biases in the UK justice system reported that prison staff made more charges against Black men and people from a Mixed ethnic background, potentially suggesting biases or more targeted staff scrutiny towards people from specific ethnic groups (Lammy, 2017).

Regarding violent offending, whilst people who identified as being African American reported, on average, engaging in more violence than people in the White ethnic group, it is argued that they also have greater exposure to risk factors for violence, including disadvantage and deprivation (Loeber et al., 2017; Piquero, 2015). As a result, such individuals may be more likely to turn to criminality to help with financial or social problems, which coincides with research conducted with UK gang members (Densley & Stevens, 2015; Momen, 2014; Mpiani, 2020). Indeed, associations between young adults from Black ethnic groups, gang membership and weapon use have been reported (House of Commons Home Affairs Committee, 2007; Pitts, 2020). This may explain why *statistically*, people from ethnic minority backgrounds are considered at greater risk of being violent. That is, whilst statistics suggest a link between ethnic minority groups and violence in prisons and the community, environmental factors such as low socioeconomic status, deprivation, gang membership, or experience within the criminal justice system may drive these associations.

2.4.1.3 Gang membership

The Crown Prosecution Service (2021) has defined a gang as a group of three or more people with at least one identifying characteristic (e.g., a name) who engage in criminal behaviour such as violence. Street gangs perpetrate high rates of self-reported violence and violent offending in the community (Alleyne et al., 2016; HM Government, 2011; Phillips, 2012). However, being a part of a prison gang more consistently predicts violence in prison directly (Kuanliang et al., 2008) and indirectly through additional risk factors for violence, such as drug and alcohol dependence (Coid et al., 2013).

Findings from a predominantly White male adult sample found that only street gang members convicted of homicide were more likely to have rule violations (including physical and sexual violence) on record (Drury & DeLisi, 2011), which contrasts other US-based research (DeLisi et al., 2004), despite both being conducted in the US. Here, street-gang members were more likely to have violent misconduct on record than people who were not gang-affiliated. However, the finding that prison gang membership (suspected or confirmed) can predict violence in prison is more consistent (Cunningham & Sorensen, 2007; Kuanliang et al., 2008). Research suggests that prison gangs are predominantly made up of young adults, and once initial gang-related behaviours are exhibited, the likelihood of an individual engaging in prolific violence increases (Butler et al., 2020; Kuanliang et al., 2008). This suggests a direct relationship between prison gang membership and prison violence. However, young adult gang members are also more likely to self-report drug and alcohol dependence, ACEs, and hold negative views about legitimate employment and education than individuals who are not gang-affiliated (Coid et al., 2013; Densley & Stevens, 2015; Wood et al., 2017). Therefore, gang membership may also have indirect relationships with violence through risk factors including young age, ACEs, and low academic attainment.

2.4.1.4 Education

Research suggests that lower levels of education (i.e., no reported qualifications) are a risk factor for violence in prison and the community (Ford et al., 2019). Proxies of lower education, such as school exclusion, have also been linked to violence, although the direction of this relationship is unknown.

Research conducted in the US and UK has found that people in prison who spend less than 12 years in formal education, and those with no qualifications, are more likely to engage in violence in the community and prison than people who spend longer in education or hold university qualifications (Cunningham et al., 2005; DeLisi et al., 2004; Ford et al., 2019). In addition, MoJ reports demonstrate that young adults convicted of violence are less likely to achieve General Certificate of Secondary Education (GCSE) qualifications or equivalent compared to those not convicted of violence (MoJ, 2018b). In addition, although proxies of education such as school truancy, suspension and

exclusion may be considered behavioural markers (and not educational), they have also been linked to violent offending. For instance, young adults who were excluded or truanted from school were more likely to use or possess a weapon (Smith & Wynne-McHardy, 2019). This is concerning since around 86% of young adults in prison have a history of school exclusion, with rates higher amongst people from ethnic minority backgrounds, particularly people who identify as White or Black Caribbean (Department for Education, 2023; MoJ, 2014). However, the direction of this relationship is unknown since a person may be excluded as a punishment for violence or become violent following exclusion.

2.4.2 Historical factors

2.4.2.1 ACEs

As defined in section 2.2.2.1, ACEs are overrepresented among people in prison and have been reported as a risk factor for prison violence and violent offending perpetrated by young adults (Haylock et al., 2020; Welfare & Hollin, 2012).

Over 85% of people in prison have been found to report at least one ACE, with such individuals being significantly more likely to self-report being violent in the past year or to have been convicted for a violent offence, than those without ACEs (Ford et al., 2019). This relationship is also observed amongst young adult populations, whereby those who report ACEs are around twice as likely to engage in violence, including fights and robbery, even when variables such as sex and ethnicity are controlled for (Björkenstam et al., 2018; Salo et al., 2021; Smith & Wynne-McHardy, 2019). However, whilst a history of ACEs may predict violence generally, research indicates that different ACEs better predict violence during young adulthood than others. For instance, having an imprisoned parent in childhood has been found to successfully predict self-reported and officially recorded violence in young adulthood (Björkenstam et al., 2018; Farrington, 2007, 2019) but not self-reported recent violence (in prison or the community) amongst adults in prison (Ford et al., 2019). By contrast, previous sexual abuse predicted violence perpetrated by adults in prison (Ford et al., 2019) but not violent offending by young adults in Amsterdam (Segeren et al., 2020) or prolific violence by imprisoned juveniles in the US (Butler et al., 2020). Therefore, whilst the presence of ACEs predicts violence in the community and prison, specific ACEs, such as parental imprisonment, are more strongly associated with violence perpetrated by young adults than older adults.

2.4.3 Clinical factors

2.4.3.1 Substance misuse

Diagnosed drug and alcohol use disorders are reported as risk factors associated with higher rates of violent offending (Fazel et al., 2018), whereas self-reported drug use in prison, particularly the use of psychoactive substances, has been linked to violence in prison (HMIP, 2016; Klatt et al., 2016).

Research has found that people with a diagnosed substance use disorder, categorised using DSM or ICD criteria, have a four-to-ten-fold increased risk of perpetrating violence in the community compared to people without a substance use disorder (Duke et al., 2018; Fazel et al., 2014; Fazel et al., 2018; Sariaslan et al., 2020; White et al., 2015; Zhong et al., 2020). Similarly, being diagnosed with alcohol dependence (now categorised under alcohol use disorder in the DSM-5) between ages 18 and 30 resulted in nine times higher odds of perpetrating a violent crime than those who did not meet such criteria (Fergusson et al., 2013). Therefore, being diagnosed with drug or alcohol use disorder strongly predicts violent offending, though less research has investigated its relationship with prison violence.

When investigating prison violence, adults who self-reported 'drug or alcohol problems' within the last year were almost twice as likely to receive infractions for violent behaviour than those who did not report such problems (Arbach-Lucioni et al., 2012). However, 'problems' was not defined, and whether 'the last year' referred to substances in the community or in prison remains ambiguous. This is unfortunate since risk may differ between people who report recent alcohol or drug use in the community and those who report it in prison. Being more specific, Klatt et al. (2016) found that young adults who reported one or more incidents of drug use in prison (i.e., cannabis) were around four times more likely to self-report being violent in prison. Synthetic cannabinoids, otherwise termed psychoactive substances, have previously been considered legal alternatives for illicit drugs but have since challenged approaches to drug surveillance in prisons, not least because of their unknown ingredients and side effects such as psychosis (Corazza et al., 2020; Peacock et al., 2019). These substances have been linked to violence in the community (Liakoni et al., 2018), but more predominantly, violence in prisons (HMIP, 2016; Ralphs et al., 2017; Tompkins, 2016; Wakeling & Lynch, 2020). This association is stronger amongst males (Liakoni et al., 2018), suggesting that males may be more violent than females or they consume psychoactive substances at a greater frequency. As such, self-reported drug use in prison, particularly psychoactive substances, appears to better predict violence in prison than diagnosed substance use disorders.

2.4.3.2 Psychiatric disorders

A diagnosed PD (according to ICD or DSM criteria) increases the risk of violence in the community (Yu et al., 2012) and in prison (Young et al., 2003), although the types of PD which drive this association differ between populations. Other psychiatric disorders, particularly psychosis, have stronger links to violent offending than prison violence.

Yu et al.'s (2012) meta-analysis found that the risk of perpetrating a violent crime among people diagnosed with any PD was three times higher than control populations and 12 times higher among people diagnosed with antisocial PD. Similar effect sizes have been reported, whereby an antisocial PD diagnosis in young adulthood increased the risk of a violent crime conviction in adulthood almost three-fold (Moberg et al., 2015). This is perhaps unsurprising since being aggressive is one of the DSM criteria for antisocial PD (APA, 2013). Among adults in prison, however, people with diagnosed antisocial PD were no more likely to self-report being violent than those without the disorder (Moore et al., 2018). Instead, diagnosed borderline PD successfully distinguished men who assaulted others in US prisons (Coid, 2002; Young et al., 2003) but not those who self-reported fighting (Moore et al., 2018). Therefore, antisocial PD may better predict violence in the community than violence in prisons. In addition, most evidence linking antisocial PD to violence is drawn from adult populations, likely because the DSM-5 stipulates that an antisocial PD diagnosis can only be given to people aged 18 and older (APA, 2013). As such, even if symptoms are present, most young adults may not receive a diagnosis, making it less likely to be a risk factor for violence amongst young adults.

Regarding psychiatric disorders, a self-reported psychotic disorder diagnosis (such as schizophrenia) has been found to predict violence in prison after controlling for previous violence and substance misuse (Felson et al., 2012). However, as a risk factor, a diagnosis of schizophrenia more consistently predicts violent offending (Fazel, Långström et al., 2009; Fazel, Gulati et al., 2009; Fazel et al., 2014; Sariaslan et al., 2016; Whiting et al., 2021). These findings were consistent between measurements of violence (i.e., self-reported or officially recorded), countries (i.e., US and Norway) and diagnosis (i.e., schizophrenia or other psychoses). Therefore, as a factor, a psychotic disorder appears more relevant for violent offending than prison violence.

2.4.4 Criminological factors

2.4.4.1 Previous violence

A history of violence is considered a risk factor for prison violence (McCallum, 2018) and violent offending (Farrington, 2019; Smith & Wynne-McHardy, 2019). However, there are mixed findings regarding whether a violent index offence predicts violence in prison.

Longitudinal research has found that receiving a violent conviction aged between 10 and 20 predicted violent convictions later in life (Farrington, 2012, 2019). Although this may indicate increased police targeting, strong continuity in self-reported violence (during adolescence and adulthood) has also been found (Farrington, 2012; Smith & Wynne-McHardy, 2019). However, there are mixed findings regarding whether a violent offence conviction predicts violence in prison. Some evidence suggests that people convicted of a violent crime are no more likely, or are even less likely, to be violent in prison (Arbach-Lucioni et al., 2012; Cunningham & Sorensen, 2006; Cunningham & Sorensen, 2007; Lahm, 2009). However, others have found that people convicted of violence, including young adults, are more likely to assault or fight in prison (Griffin & Hepburn, 2006; McCallum, 2018). There is also some indication that a violent index offence better predicts assaults and fights between peers than assaults on prison staff (Lahm, 2009). However, people with a history of being violent in prison are up to 14 times more likely to engage in future rule violations in prison, including violence (Arbach-Lucioni et al., 2012; Butler et al., 2021; Cunningham & Sorensen, 2007; Drury & DeLisi, 2010). Therefore, whilst evidence supporting a link between having a violent offence and future violence is mixed and may differ depending on the specific population and victim type, previous prison violence has consistently been found to predict future prison violence.

2.4.6 Summary

This section has provided an overview of risk factors associated with violence and where relevant, has outlined how factors may differ between violence exhibited in prison compared to violence exhibited in the community. As highlighted, some risk factors, such as young age, consistently predict both violent offending and violence in prison. Other factors, such as ACEs and substance misuse, are less clear. For instance, differences in the measurement and definition of substance misuse and violence can affect whether the factor is more strongly associated with violence in one setting over another. Although this section and Section 2.2 do not provide exhaustive lists of risk factors for violence and self-harm, it has demonstrated consistent overlap (i.e., education, ACEs, substance misuse and psychiatric disorders) in the factors predicting both behaviours.

2.5 Defining dual harm

2.5.1 Statistical association between self-harm and violence

A link between self-harm and violence is long founded (Apter et al., 1993; Cleary, 2000; Hillbrand, 1995; Hillbrand, 2001; O'Donnell et al., 2015; Plutchik et al., 1989). Previously, self-harm and suicidal behaviours have been termed inward-directed forms of aggression (Apter et al., 1993; Korn et al., 1992; Plutchik et al., 1989), with self-harm and violence more recently been described as “positively correlated constructs” (McMahon et al., 2018, p. 391). This overlap is suggested to be explained by

both behaviours sharing similar underpinnings such as deficits in emotion regulation (Harford et al., 2018; Ryding et al., 2008), manifesting through similar emotions such as anger and aggression (Hall et al., 2006; Sadeh et al., 2011; Vaughn et al., 2015) and sharing similar functions (Nijman & à Campo, 2002; Shafti et al., 2021). Moreover, as alluded to in sections 2.2 and 2.4, the behaviours also share risk factors including education levels, ACEs and substance misuse (Abidin et al., 2013; Korn et al., 1992; Lubell & Vetter, 2006; Plutchik, 1995).

The extent of the overlap between self-harm and violence has been examined, with one systematic review reporting that people who engage in either self-harm or violence are significantly more likely to also engage in the other behaviour (O'Donnell et al., 2015). Among community, clinical and forensic populations, the authors found that around 20%-30% of adults who engaged in violence also self-harmed. In keeping, research has found that between 12%-21% of adults in the community (Carr, Steeg et al., 2020; Harford et al., 2018), 30%-35% of adults in prison (Kottler et al., 2018; Slade, 2018; Slade et al., 2020) and around 55%-60% of adult psychiatric patients (Daffern & Howells, 2009; Plutchik et al., 1989) who were violent also self-harmed. Similar statistics have been reported amongst adolescents and young adults in the community (i.e., 14%-25%; C. Chen et al., 2020; Harford et al., 2012; Harford et al., 2016; Richmond-Rakerd et al., 2019). This relationship is notably higher amongst youths in psychiatric hospitals and those with behavioural and emotional problems (Boxer, 2010; Spaan et al., 2022). These statistics, gathered from a range of populations, suggest that people who engage in violence are at increased risk of having also engaged in self-harm.

However, the overlap between those who self-harm also being violent appears stronger. This likely reflects the increased base rates for violence (compared to self-harm), resulting in more people who self-harm being violent than vice versa (Slade et al., 2020). Research has found that between 13%-28% of adults who self-harmed in the community were also violent (Carr, Steeg et al., 2020; Harford et al., 2018), as were up to 39% of adolescents and young adults (C. Chen et al., 2020; Harford et al., 2012; Harford et al., 2016; Richmond-Rakerd et al., 2019). This relationship is even stronger amongst youths with emotional and behavioural problems (up to 50%; Spaan et al., 2022). The overlap is also consistently stronger amongst forensic and clinical populations. Research has found that 33%-60% of adults in prison (Kottler et al., 2018; Slade, 2018; Slade et al., 2022; Slade et al., 2020) and 53%-78% of psychiatric patients who self-harmed were also violent (Nicholls et al., 2006; Nijman & à Campo, 2002; Plutchik et al., 1989). Therefore, whilst there is a consistent overlap of self-harm and violence across various populations, risk is particularly increased amongst young adult and institutionalised populations. Individuals who enact both self-harm and violence are considered to have engaged in "dual harm" (Slade, 2018, p. 98).

2.5.2 Definitions of dual harm

This section will explore various definitions of dual harm used in research. The differences between these definitions reflect the varying definitional issues concerning self-harm and violence, as discussed in sections 2.1 and 2.3.

Slade (2018) was the first to term the co-occurrence of self-harm (with or without suicidal intent, irrespective of method or injury) and interpersonal violence exhibited by the same individual, dual harm. Echoed by Kottler et al. (2018), this definition encompasses individuals who had engaged in at least one act of self-harm and interpersonal physical violence during their prison sentence, ascertained through institutional records. Within other dual harm research, self-harm has been ascertained by asking participants if they had ever self-harmed to cope with emotional pain or stress (Richmond-Rakerd et al., 2019), attempted suicide in the last year (Harford et al., 2012), attempted suicide, self-harmed or had recurring suicidal ideation (Garbutt et al., 2022; Harford et al., 2018; Spaan et al., 2022), and by checking medical records for self-harm-related hospital admissions (Sahlin et al., 2017; Steeg et al., 2019). There are three critical differences between these definitions. First, whilst most refer to the enaction of harm, some include thoughts of harm. Second, the time in which self-harm may have been exhibited ranges from age 15 to within a person's lifetime. Third, some definitions only include self-harm requiring hospital treatment which overlooks acts which may be less 'medically' serious but are nonetheless acts of self-harm. These discrepancies may have important implications regarding the prevalence rates of dual harm through potentially underestimating the presence of self-harm.

Dual harm research conducted in UK prisons has defined violence as physical assaults and fights (Kottler et al., 2018; Slade, 2018; Slade et al., 2020), which extends to broader behaviours such as throwing substances at staff in US research (Slade et al., 2022). In other dual harm research, violence includes being cautioned or convicted for a violent offence according to MoJ and police records (Richmond-Rakerd et al., 2019; Sahlin et al., 2017), self-reported violent offending (Richmond-Rakerd et al., 2019), fighting in the past year (Harford et al., 2012), aggressive behaviour within the past six months (Spaan et al., 2022), and self-reported violence (including threatening, physical and sexual violence) since age 15 (Harford et al., 2018). Only one piece of dual harm research has included psychological and physical acts of harm in their definition of violence (Garbutt et al., 2022). Similar to the above, here the manifestation of the behaviours differ (threatened vs physical violence), as does the timeframe during which violence was perpetrated (during a person's lifetime or within the past year), the manifestation of the behaviour (i.e., physical or psychological) and the seriousness of the behaviour (convicted or not).

Despite these differences, most definitions of dual harm require an individual to have engaged in at least one act of self-harm and violence during their lifetime. Generally, the frequency of these behaviours is not accounted for, meaning that those who engage in both self-harm and violence repeatedly are not considered distinct from those who have only done so once. Similarly, despite some inconsistencies, there are predominantly no distinctions made between people who engage in self-harm and violence throughout their lives, those who do so during adolescence but refrain thereafter, and those who self-harm and are violent during different periods (i.e., were violent during adolescence and self-harmed during mid-adulthood). Therefore, despite being considered a homogenous group, there may be substantial differences between the behaviour patterns of those who dual harm.

2.5.3 Thesis definition

Despite the varying definitions of dual harm, similar statistics have been reported in research utilising broad definitions (i.e., including self-reported aggression, violence, self-harm and suicidality; Spaan et al., 2022) and those which are stricter (i.e., being convicted of a violent offence; Richmond-Rakerd et al., 2019). Therefore, this thesis adopts a flexible definition of dual harm, describing it as ‘at least one act of self-harm (defined as ‘any act in which an individual deliberately harms themselves, regardless of the method, severity or intention of the overall outcome’, see section 2.1 for specifics) and violence (defined as ‘extreme aggression, in which a physical act is intentionally perpetrated to cause severe physical harm to another human’, see section 2.3 for specifics). This definition is in keeping with findings that relational aggression should not be included in the definition of dual harm due to the behaviours not being strongly associated with each other (Shafti et al., 2022). It will also align the empirical research in this thesis to previous dual harm research conducted within UK prisons (Kottler et al., 2018; Slade, 2018; Slade et al., 2020) to explore whether findings are consistent between adults and young adults.

This definition encompasses those who engage in both self-harm and violence once and those who do so regularly and does not specify a time period in which the behaviours must be exhibited (i.e., during the past year). Since no research has been conducted specifically with young adults in prison who dual harm, it is important to use a flexible definition to include the broadest population possible. Although this approach has been criticised (Shafti et al., 2021), by only researching dual harm amongst young adults, which is when self-harm and violence are typically first exhibited (Sahlin et al., 2017), it is less likely that individuals will have engaged in the behaviours during very different developmental periods.

2.6 The dual harm profile

Research suggests that people who dual harm have a distinct profile (O'Donnell et al., 2015; Slade, 2018, 2019). The dual harm profile is made up of qualitatively different traits to those associated with sole self-harm or sole violence, which cannot be accounted for by overlapping risk factors. Instead, this population has more complex needs and is extremely risky (Slade, 2019). Before outlining this distinct profile, the prevalence of dual harm and the extent of the profile will be discussed.

2.6.1 Prevalence of dual harm

Prevalence rates of dual harm amongst community populations range from 0.4% to 6.8% (Carr, Steeg et al., 2020; Harford et al., 2018; Sahlin et al., 2017), with similar figures observed among adolescent and young adult samples (up to 4.7%; C. Chen et al., 2020; Harford et al., 2012; Harford et al., 2016; Richmond-Rakerd et al., 2018; Swahn et al., 2013). This drops substantially when violence is defined as intentional behaviours which intend to inflict serious harm, potentially only capturing acts of serious violence (Harford et al., 2016). By contrast, amongst adolescents with behavioural and emotional problems, when a broader definition of violence is applied, dual harm prevalence rises to around 17% (Spaan et al., 2022). However, it is worth noting that this is still much lower than that recorded amongst young psychiatric patients (aged 10-17), in which between 27% and 59% of participants had dual harmed (Boxer, 2010; Inamdar et al., 1982).

Dual harm prevalence rates are between 20% to 46% for adult psychiatric patients (Daffern & Howells, 2009; Plutchik et al., 1989) and 11% to 16% for adults in UK prisons (Slade, 2018; Slade et al., 2020). This decreases for US and female prison populations (Kottler et al., 2018; Slade et al., 2022). However, the difference between female and male prevalence rates may be explained by methodological differences. Slade's research with males in prison (Slade, 2018; Slade et al., 2020) utilised incident reports (i.e., staff's observations/understandings of an incident) from several prisons to ascertain violence, whereas Kottler et al. (2018) used proven adjudication records (i.e., acts an individual was found guilty for) from just the prison the women were currently located. Kottler's research also collated data from a shorter timeframe (three years vs seven years), which may have underrepresented dual harm amongst females. Methodological differences are also apparent between forensic and community research, with the latter being more likely to use self-report data to ascertain self-harm and violence (Harford et al., 2012; Harford et al., 2018; Richmond-Rakerd et al., 2019), with both types of data having the potential to skew prevalence rates. Lastly, prevalence rates of dual harm also increase substantially in forensic populations when the definition of violence includes physical and psychological harm to others (Garbutt et al., 2022). Nevertheless, the consistently higher rates amongst clinical and forensic populations illustrate that dual harm is

overrepresented among institutional samples (Slade, 2019). However, no research has investigated rates of dual harm specifically among young adults in prison.

2.6.2 Demographic factors

2.6.2.1 Education and intelligence

Lower educational achievement has been found to distinguish some dual harm populations from those who engage in sole harm (e.g., C. Chen et al., 2020; Slade et al., 2022). For instance, consistent findings have reported that adolescents who dual harm are significantly more likely to achieve poorer grades in school and college (C. Chen et al., 2020; Swahn et al., 2013), although this was not observed amongst adults in the community (Harford et al., 2018). Despite this, adults who had dual harmed in prison were found to have spent fewer years in education, were less likely to have gained high school qualifications, had significantly lower reading scores on admission to prison and demonstrated the least improvement with reading throughout their sentence, than people who sole harmed or did not harm in prison (Slade et al., 2022). Therefore, not only do people who dual harm have a stalled educational history prior to imprisonment, their development remains inhibited during their prison sentence (Slade et al., 2022).

There is also evidence that adults who dual harm in prison have lower IQ scores than those who sole harm or do not harm in prison (Slade et al., 2022). Similar findings have been reported among adolescents in the community, whereby lower childhood IQ (measured using a scale specifically designed to measure IQ amongst young people) differentiated adolescents who had dual harmed from those who had sole self-harmed (Richmond-Rakerd et al., 2019). However, Spaan et al. (2022) found no differences between adolescents who had dual or sole harmed (self-harm or violence) when using non-age-specific IQ measures (i.e., that can be used for people younger than 60). Moreover, most participants in this study were measured as having emotional and behavioural problems; therefore, differences in IQ may be less pronounced amongst this group. These differing findings may also relate to methodological differences pertaining to the measure of IQ used or indicate that lower IQ in childhood is more relevant in the pathway to dual harm than IQ during adolescence.

2.6.3 Historical factors

2.6.3.1 ACEs

Single ACEs not only appear to be more prevalent amongst people who dual harm, but such individuals are also more likely to be exposed to multiple ACEs (Carr, Steeg et al., 2020; C. Chen et al., 2020; Richmond-Rakerd et al., 2019; Webb et al., 2017). For instance, Carr, Steeg et al. (2020) found that whilst experiencing five or more ACEs was associated with an eight to ten-fold increased risk of sole harm, it represented a 23-fold increased risk of dual harm. Regarding specific ACE types, the

prevalence of sexual abuse, parental death, parental criminality, and parental substance use disorder is higher among adolescents, young people and adults who dual harm compared to those who sole harm (Carr, Mok et al., 2020; Carr, Steeg et al., 2020; C. Chen et al., 2020). In addition, childhood maltreatment and violence victimisation has been found to significantly increase the odds of engaging in dual harm during adolescence and young adulthood, as opposed to sole harm (Richmond-Rakerd et al., 2019). Consistent findings suggest that ACEs are more prevalent amongst dual harm populations and increase the likelihood of a person engaging in dual harm. This may explain why it has been suggested that dual harm should be understood within the broader attachment and trauma literature (Pickering et al., 2022; Slade et al., 2022).

2.6.4 Clinical factors

2.6.4.1 Substance misuse

The relationship between substance misuse and dual harm differs between populations. Drug-related index offences or substance-related incidents in prison do not consistently distinguish adults who dual harm in prison from those who engage in sole or no harm (Kottler et al., 2018; Slade, 2018; Slade et al., 2022; Slade et al., 2020). For instance, in Slade's (2018) research concerning two prisons, only the dual harm group in one prison was more likely to have drug-related incidents recorded, suggesting that the relationship was inconsistent across prison types. Additionally, women who had dual harmed in prison were only found to be more likely convicted for a drug-related index offence when time in prison was not controlled for (Kottler et al., 2018). Therefore, other factors, such as time spent in prison, may have a stronger relationship with dual harm in prison than substance misuse.

Research conducted with community populations has observed a more consistent relationship between substance misuse and dual harm. For instance, substance misuse (e.g., alcohol, cannabis, cocaine and heroin) in adolescence or earlier is more prevalent amongst young people and adolescents who dual harm than those who sole harm or do not harm (C. Chen et al., 2020; Harford et al., 2012; Harford et al., 2016; Spaan et al., 2022; Swahn et al., 2013). Drug and alcohol use has also been associated with progressing from sole self-harm to dual harm between ages 16 and 22 (Steeg et al., 2023). In addition, Steeg et al. (2019) found that around two-thirds of adults with a history of dual harm received treatment for a substance use disorder, with multiple substance use disorders also being linked to death by overdose. Interestingly, differences have been found between substances that increase the risk of dual harm compared to sole violence and those that increase the risk of dual harm compared to sole self-harm. Self-reported frequent binge drinking (defined as drinking more than four alcoholic drinks in short succession, at least ten times in the last month) and meeting more than four criteria for alcohol use disorder has been found to significantly increase the odds of

engaging in dual harm over self-harm, but not sole violence, when all other DSM substance use disorders were controlled for (Harford et al., 2012; Harford et al., 2016). However, evidence suggests that the more traits of drug-use disorder a person has, the more likely they are to engage in dual harm than sole violence (Harford et al., 2016). Therefore, when measured through DSM-IV criteria (APA, 1994), alcohol use disorder differentiates dual harm from sole self-harm populations, whereas drug-use disorder differentiates dual harm from sole violent populations.

As an example of specific types of substances, evidence suggests that adolescents who dual harm are more likely to start smoking cannabis younger and meet the DSM-IV criteria for cannabis dependence than those who sole harm (C. Chen et al., 2020; Harford et al., 2016; Richmond-Rakerd et al., 2019). This finding was not observed among adults (Harford et al., 2018), suggesting that cannabis dependence is more relevant for dual harm among adolescents. Alcohol use disorder and frequent binge drinking, however, more consistently predict dual harm throughout the life course, including adolescents (C. Chen et al., 2020; Harford et al., 2016; Swahn et al., 2013), young adults (Richmond-Rakerd et al., 2019) and adults (Harford et al., 2018). This may reflect the base rates of the behaviour since research has found that young adults tend to use higher quantities of cannabis and use the drug at a greater frequency than older adults (Haug et al., 2017; Manthey et al., 2021), whereas older adults are more likely to meet the criteria for alcohol use disorder (Kendler et al., 2016). Therefore, linking to assertions that substance misuse is a stable dynamic risk factor of dual harm (Slade, 2019), the use of specific drugs may alter in prominence throughout the life course and, as such, become less relevant to exhibited dual harm behaviours.

2.6.4.2 Psychiatric disorders

Psychiatric disorders and comorbidity are over-represented among people who dual harm, yet such individuals are not more likely to receive support from mental health professionals (Harford et al., 2018; Richmond-Rakerd et al., 2019). Despite such findings, there are inconsistencies regarding which psychiatric disorders predict dual harm across different populations.

Diagnosed antisocial and borderline PDs are overreported among dual harm populations (Steege et al., 2019). However, whilst they have been found to distinguish adults who dual harm from those who sole harm (Harford et al., 2018), evidence regarding young adults is lacking. Therefore, whether PD is a risk factor for dual harm amongst younger populations remains unknown. By contrast, adolescent dual harm populations are distinguished by higher rates of self-reported psychotic symptoms (Richmond-Rakerd et al., 2019), though this has not been tested amongst adults.

Posttraumatic stress disorder (PTSD), self-reported depression and major depressive disorder have also been investigated in relation to dual harm. PTSD disorder differentiated adults and adolescents

who had dual harmed from those who were solely violent, but not those who had sole self-harmed (Harford et al., 2018; Richmond-Rakerd et al., 2019). This is similar to self-reported depression and major depressive disorder, which distinguished adolescent dual harm from sole violence and no harming populations (Harford et al., 2012; Richmond-Rakerd et al., 2019; Steinhoff et al., 2022; Swahn et al., 2010). Moreover, one study found that depression was associated with progressing from sole self-harm to dual harm between ages 16 and 22 (Steeg et al., 2023). Amongst adults, however, those who dual harmed were less likely than those who sole self-harmed to meet the criteria for major depressive disorder (Harford et al., 2018).

To summarise, there is mixed evidence regarding the relevance of psychiatric disorders among people who dual harm. The prevalence of PTSD and depression tend to differentiate people who dual harm from those who are solely violent, with the exception of one study with adults (Harford et al., 2018). Psychotic symptoms have distinguished young dual harm populations, whereas diagnosed PD has distinguished adult dual harm populations. The relevance of substance use disorders is discussed in section 2.6.4.1.

2.6.4.3 Self-harm method

People who dual harm are more versatile in their self-harming behaviours. Accounting for time in prison, men and women who had dual harmed in prison used a wider variety of self-harm methods and were more likely to use lethal methods (i.e., ligature and overdose) than people who had sole self-harmed (Kottler et al., 2018; Lanes, 2011; Slade et al., 2022; Slade et al., 2020). This finding is echoed among adolescents and young adults in the community (Richmond-Rakerd et al., 2019). Here, people who dual harmed were not more likely to engage in prolific self-harm (more than 50 incidents) but did typically engage in more lethal self-harm, particularly ligature use, overdose and drowning. Discussed more in Chapter 3, since a history of lethal self-harm is associated with later suicidal behaviours (Hawton et al., 2014), this may explain why people who dual harm are at higher risk of dying by suicide (Steeg et al., 2019).

2.6.5 Institutional factors

2.6.5.1 Disruptive behaviours

Evidence suggests that people who dual harm have a disproportional effect on wider prison incidents. Adult men who had dual harmed in one English prison accounted for approximately 55% of all reportable incidents (Slade et al., 2020). Across men and women, those who dual harm are more likely to engage in reactive behaviours such as property damage and fire-setting than people who sole harm (Kottler et al., 2018; Lanes, 2011; Slade, 2018; Slade et al., 2022; Slade et al., 2020). Early findings from the US also extend this to sexual violence, threats of violence, disorder and refusal

(Slade et al., 2022). This demonstrates the behavioural versatility of people who dual harm, which likely explains why such individuals experience greater punishments, including spending longer in segregation or on basic regime (Kaba et al., 2014; Lanes, 2009, 2011; Slade et al., 2020). Less consistent findings concerning drug-related incidents in prison are reported, with the overall consensus that they do not form part of the dual harm profile amongst prison populations (see section 2.6.4.1.).

Despite these findings, no evidence suggests that these behaviours lead to dual harm and vice versa. In addition, despite being a consistent finding in prison, it remains unknown whether these refractory behaviours, such as fire-setting and damage to property, are more likely to be exhibited by people who dual harm in the community. What is indicated, however, is that people who dual harm in the community are young (i.e., an adolescent) when first in contact with the criminal justice system, which can include being arrested for arson (Harford et al., 2016; Richmond-Rakerd et al., 2019). Therefore, despite not necessarily being in prison, the evidence does suggest that people who dual harm are disruptive and display early problematic behaviours.

2.7 Summary

A link between self-harm and violence is long-established, with evidence suggesting that the behaviours have overlapping risk factors and aetiological pathways (O'Donnell et al., 2015; Ryding et al., 2008; Terzi et al., 2017). Until recently, prevalence rates and an understanding of co-occurring self-harm and violence was limited to research conducted with psychiatric populations (Boxer, 2010; Daffern & Howells, 2009; Inamdar et al., 1982; Plutchik et al., 1989). Within these studies, the statistical link between self-harm and violence was prioritised, and therefore insights into the dual harm population were lacking. Contemporary research has made progress in this area. Now a distinct dual harm profile, comprised of several characteristics and biopsychosocial risk factors, distinguishes this group from sole harm and no harm populations. However, people who dual harm are not simply a group who encompass the same risk as self-harming and violent populations. Instead, they are a riskier subset of individuals whose characteristics and traits cannot merely be explained by overlapping risk factors of self-harm and violence.

Not every variable associated with dual harm is listed in the review above, for instance, low childhood self-control, low social support and being less likely to be married, due to the limited evidence base on such variables (Richmond-Rakerd et al., 2019; Slade et al., 2022; Spaan et al., 2022). Therefore, only variables which have been consistently found to form part of the dual harm profile were discussed. However, from the discussion above, it is clear that most factors and characteristics associated with dual harm suggest that this population struggle throughout their lives, particularly

during childhood and adolescence. This is evidenced through life experiences such as ACEs, poor education levels, early contact with the criminal justice system and early substance misuse. These individuals are also more likely to have psychopathological problems (Slade et al., 2022; Spaan et al., 2022) and complex needs (Slade, 2019; Steeg et al., 2019). Given the evidence that people who dual harm are at greater risk of suicide and accidental deaths (Steeg et al., 2019), understanding these struggles and needs is imperative.

At present, some risk factors and behavioural traits associated with dual harm have only been explored amongst one type of population (such as adults in prison) and therefore need to be considered from a broader life course perspective. For instance, although Slade and colleagues have been instrumental in exploring the dual harm profile amongst adult men in prison aged 18 and older (average age range is between 27 and 35; Slade, 2018; Slade et al., 2022; Slade et al., 2020), there remains a lack of research concerning young adults in prison, despite research stating the need (Pickering et al., 2022). This is important given that both self-harm and violence typically occur during adolescence and young adulthood (Mok et al., 2016; Pickering et al., 2022; Sahlin et al., 2017), and the prevalence of dual harm has been found to double between ages 16 and 22 (Steeg et al., 2023). In addition, dual harm populations tend to be younger, engage in self-harm and violence earlier and are younger on entry to prison than sole harm or no harm populations (Boxer, 2010; Harford et al., 2012; Harford et al., 2018; Slade et al., 2022; Slade et al., 2020). Therefore, it is crucial to understand how young people develop dual harm, particularly since they may be at risk of perpetrating lethal self-harm behaviours.

In addition to a lack of research amongst specific populations, many hypotheses are yet to be tested. For instance, regarding the engagement of disruptive behaviours, it is hypothesised that dual harm populations share similar vulnerabilities to people who engage in fire setting, including impulsivity and behavioural and emotional regulation difficulties (Gannon et al., 2012; Richmond-Rakerd et al., 2019; Sahlin et al., 2017; Shafti et al., 2021; Slade et al., 2022). Given the few theoretical frameworks of dual harm, with even fewer being empirically tested (Shafti et al., 2022; Slade et al., 2022), the accuracy of these hypotheses remains to be determined. These theoretical frameworks, and their utility to explain dual harm, will be outlined and discussed in detail in the following chapter.

Chapter 3: Theoretical considerations

Chapter overview

This chapter will discuss leading theoretical explanations of self-harm, suicide and violence and their ability to explain dual harm based on emerging findings. In doing so, the chapter will describe and evaluate each theory before critically discussing its ability to apply to dual harm. The chapter will also outline and critically evaluate current theoretical explanations of dual harm.

3.1 Theoretical models of self-harm

The following section will outline the Four-Function Model of Non-Suicidal Self-Injury (NSSI), The Integrated Theoretical Model of Development and Maintenance of NSSI, The Experiential Avoidance Model of Deliberate Self-Harm and the Cognitive-Emotional Model of NSSI. This section will end with a critical discussion regarding how well these theories align with the emerging dual harm literature.

3.1.1 The Four-Function Model of NSSI (FFM)

The FFM posits that several vulnerabilities predispose an individual to NSSI, including exposure to early-life stressors (e.g., ACEs), social and verbal deficits, physiological hyperarousal and genetic predispositions (Bentley et al., 2014; Nock, 2009, 2010). These vulnerabilities can cause deficits in communication and emotion regulation, which increase an individual's likeliness of exhibiting NSSI following stressful or challenging life events (Nock, 2009, 2010). For instance, research suggests that ACEs can harm the mechanisms involved in stress responses, causing subsequent problems with stress regulation (Dempster et al., 2021). Therefore, following a stressful life event, a person may use NSSI to regulate emotions (Nock, 2009). Gratz and Roemer (2004) define emotion regulation as the awareness, understanding and acceptance of emotions and the ability to use appropriate approaches following negative emotions. By contrast, emotional dysregulation is an inability to understand or respond to emotions appropriately. This has been found to mediate the relationship between childhood maltreatment and NSSI frequency, even when controlling for self-reported depressive symptoms (Peh et al., 2017; Titelius et al., 2018). These consequences (i.e., poor communication or emotion dysregulation) map onto the functions of NSSI, which are the main focus of the FFM (Nock & Prinstein, 2004; Nock, 2009, 2010). The model asserts that NSSI is maintained through automatic negative reinforcement, automatic positive reinforcement, social negative reinforcement, and social positive reinforcement (Nock & Prinstein, 2004; Nock, 2009). Reinforcement types and associated functions are outlined in Table 1.

Table 1.

FFM: reinforcement type and associated functions adapted from Nock (2009)

Reinforcement type	Negative	Positive
Automatic (intrapersonal)	Distracts from or alleviates an aversive emotional or cognitive state(s)	Generate a desirable emotional or cognitive state(s)
Social (interpersonal)	Escape from undesired social events and interpersonal demands	Elicit help-seeking, care or other positive responses from others

Research with adolescents and young adults (Harvey, 2007; Nock & Prinstein, 2005; Rasmussen et al., 2016; Zetterqvist et al., 2013) and adults (Bentley et al., 2014; Dixon-Gordon et al., 2012; Gardner et al., 2016; Power et al., 2015; Power et al., 2016; Taylor et al., 2018; Turner et al., 2012) in the community and prison settings has supported the FFM. Specifically, people in prison have previously understood NSSI as a means of coping and escaping from negative memories associated with ACEs (Power et al., 2015; Smith & Power, 2014). Not only does this support the FFM, but it also discredits the view held by some prison staff that self-harming behaviours are primarily manipulative or attention-seeking (Smith et al., 2019). Research by Power et al. (2015, 2016) has also identified that among people in prison, NSSI can serve prison-specific (e.g., to obtain medication or move cell) and non-prison-specific interpersonal functions (e.g., gain attention from people outside of prison). Therefore, the FFM is well supported, particularly in relation to the functions proposed, and has provided an understanding of why NSSI is maintained among various populations, including people in prison.

Despite this support, the FFM does not explain why an individual may initially enact NSSI to serve a specific function instead of other maladaptive behaviours. Smith (2015) found that people first engaged in NSSI to reduce an emotional build-up, which helped individuals to feel less stressed. However, similar functions have been associated with other avoidant behaviours, such as alcohol use (Cook et al., 2020). Therefore, whilst the model has received considerable empirical support, its ability to explain why NSSI is first enacted before it becomes reinforced is limited.

3.1.2 The Integrated Theoretical Model of the Development and Maintenance of NSSI

Informed by the FFM, Nock (2009) developed an Integrated Theoretical Model of NSSI. This model incorporates predisposing vulnerabilities (termed distal risk factors in Figure 2), the consequences of such factors (termed interpersonal and intrapersonal vulnerability factors), and the functions which reinforce future NSSI (termed regulation of affective experience and regulation of social situation). Through NSSI-specific vulnerability factors, the model also hypothesises why an individual may first engage in NSSI to serve such functions. These are:

Social Learning Hypothesis – A person observes others enacting effective NSSI (e.g., it reduces unwanted emotions). The person learns from such observations and engages in NSSI themselves.

Self-punishment Hypothesis – NSSI represents self-inflicted punishment, particularly after previous abuse or criticism from others.

Social Signalling Hypothesis – NSSI is a form of communication when less extreme forms of communication (e.g., speaking) prove to be or are considered ineffective. As NSSI is a more costly behaviour, it is more likely to elicit a desired response from others.

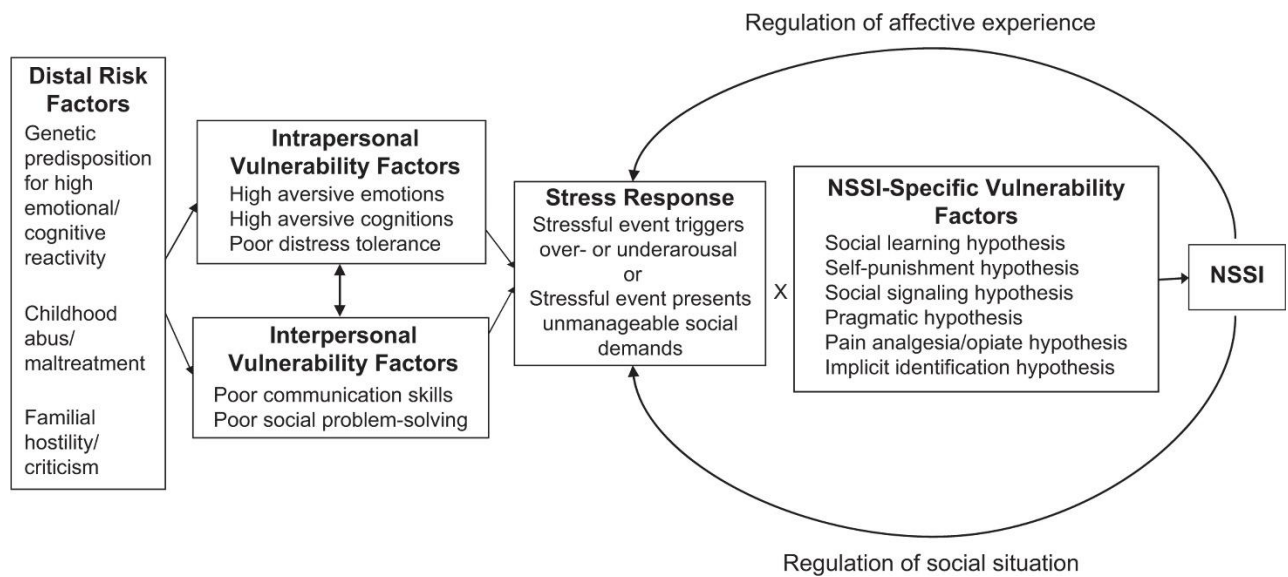
Pragmatic Hypothesis – NSSI is easily accessible, inexpensive, fast and can be exhibited in different settings. It does not require access to materials or substances, such as drugs or alcohol, but can serve similar functions (Nock, 2009).

Pain Analgesia/Opiate Hypothesis – Although some may associate NSSI with pain, those who engage in the behaviour often report little to no pain (Hooley & Fox, 2019). Some suggest that people who engage in NSSI do not feel pain or have higher pain thresholds than those who do not engaged in NSSI (Kirtley et al., 2016; Nock, 2010; St Germain & Hooley, 2013).

Implicit Identification Hypothesis – Once NSSI is enacted to serve a particular function, an individual may identify with using NSSI, reinforcing it further. For instance, if NSSI once helped to reduce anxiety, a person may identify with NSSI and use it to reduce their anxiety levels in the future.

Figure 2.

The Integrated Theoretical Model of the Development and Maintenance of NSSI (Nock, 2009, p. 79)



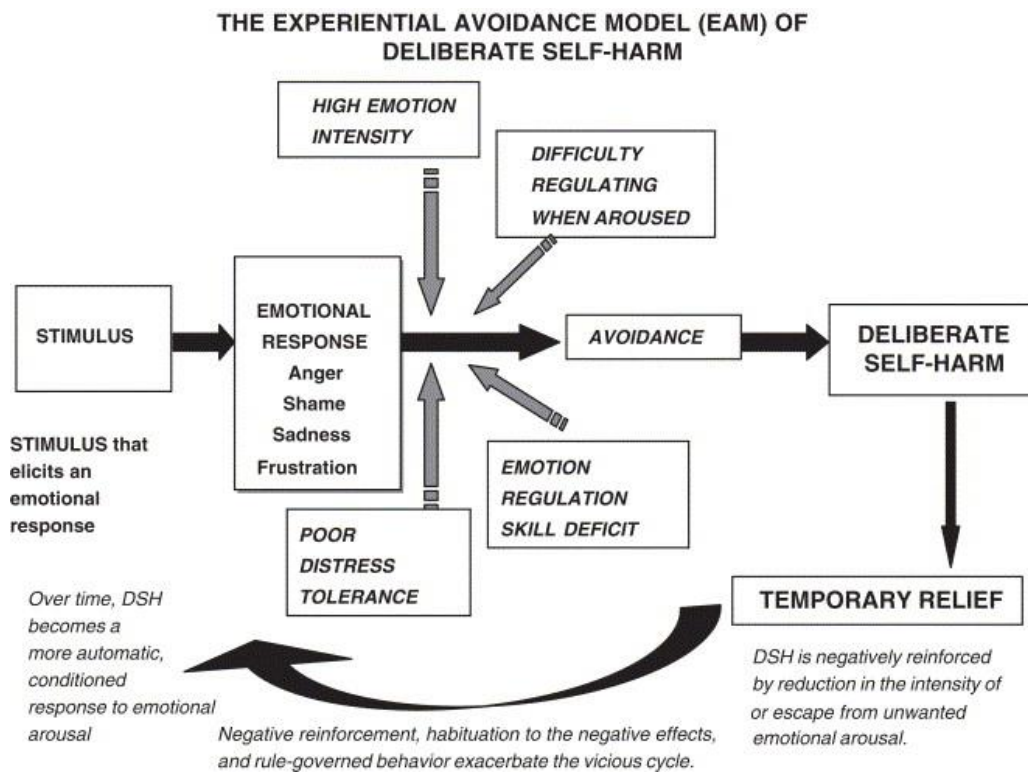
Arguably, some of the hypotheses which inform the NSSI-specific vulnerability factors do not state why a person may initially engage in NSSI. For instance, the Implicit Identification Hypothesis suggests that a person is more likely to identify with a behaviour once it is first exhibited. By contrast, it is unlikely that a person will identify with a behaviour that they have never exhibited. As such, there are still doubts about why a person may choose NSSI over other behaviours to fulfil a particular function. Therefore, whilst this model adds clarity to the FFM, its limitations in explaining NSSI initiation are still acknowledged.

3.1.3 Experiential Avoidance Model (EAM) of Deliberate Self-Harm

Experiential avoidance refers to any behaviour that aims to avoid or escape from unwanted thoughts, feelings or memories (Hayes et al., 1996). According to the EAM (see Figure 3), deliberate self-harm is the deliberate destruction of bodily tissue enacted without suicidal intent, and therefore mirrors the definition of NSSI. However, the term deliberate self-harm will be used in keeping with the EAM, which posits that the behaviour is enacted to temporarily diminish or terminate a person's unwanted arousal (Chapman et al., 2006). Through providing a sense of relief from the arousal, deliberate self-harm is negatively reinforced and is likely to be maintained. Support for negatively reinforced properties of self-harm has been found among community (Brereton & McGlinchey, 2020; Rasmussen et al., 2016; Stänicke et al., 2018; Wadman et al., 2017) and forensic (Gardner et al., 2016; John-Evans et al., 2019; Power et al., 2015; Power et al., 2016) populations. Positive associations between self-reported experiential avoidance and deliberate self-harm have also been found in research with adolescents and young adults (Greene et al., 2019; Howe-Martin et al., 2012; Nielsen et al., 2016).

Figure 3.

The Experiential Avoidance Model of Deliberate Self-Harm (Chapman et al., 2006, p. 373)



In the model, having high emotion intensity, difficulty self-regulating when aroused, poor emotion regulation skills and poor distress tolerance can increase the likelihood of exhibiting experiential avoidance behaviours (Chapman et al., 2006). Supporting this, having limited emotion regulation strategies has been found to mediate the relationship between emotional distress and avoidant behaviours, suggesting an independent role in the pathway to deliberate self-harm (Anderson et al., 2018). Furthermore, young adults with a history of self-harm are significantly more likely to have fewer emotion regulation skills and endorse greater experiential avoidance than people without such a history (Anderson & Crowther, 2012; Gratz et al., 2016; Nielsen et al., 2016). The role of high emotional intensity, however, has received mixed support. Some suggest that people who harm themselves report greater emotional reactivity than those who do not (Glenn et al., 2011; Nock & Mendes, 2008), whereas Davis et al. (2014) reported no difference. This may be due to methodological differences between the studies since Mayo et al. (2021) found that people with a history of deliberate self-harm (termed NSSI in the research) did not self-report greater emotional reactivity than people without such history, yet physiologically, they displayed greater reactivity to affect-inducing images.

Whilst it is acknowledged that the EAM is a model of deliberate self-harm, similar to the FFM, there is nothing to suggest why an individual would first harm themselves to avoid their emotions when

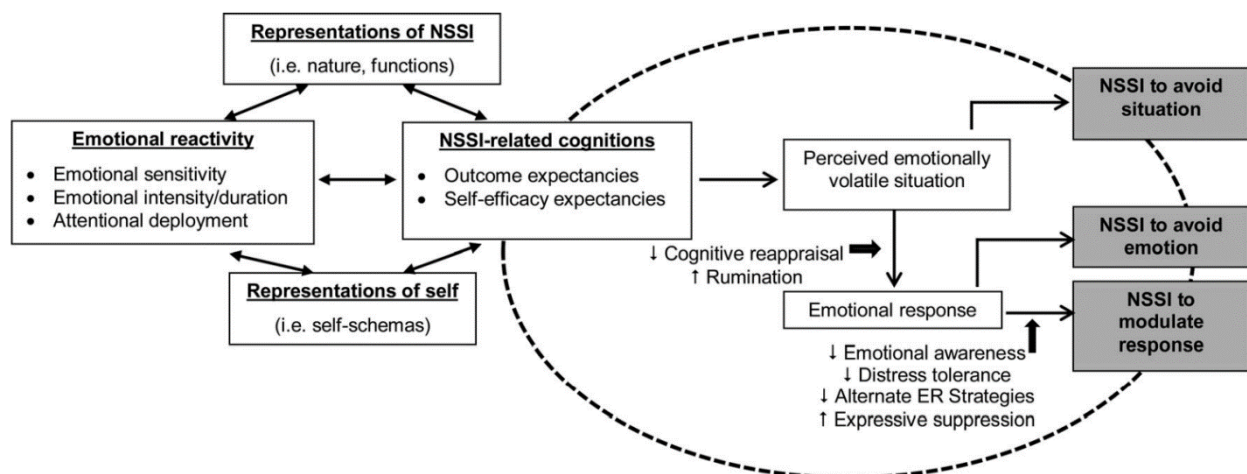
several other behaviours (e.g., gambling and mindfulness) can serve similar functions (Hayes et al., 1996; Riley, 2014). Lastly, although several populations endorse automatic, negatively reinforced functions of deliberate self-harm, additional reasons, including ascertaining a sense of self-mastery and self-validation, are also reported (Edmondson et al., 2016). Therefore, rather than solely reducing the intensity or escaping from unwanted emotional arousal, the behaviour can also increase positive emotional arousal (Franklin et al., 2013; Hooley & Fox, 2019). Deliberate self-harm can also serve interpersonal functions, particularly among forensic populations (e.g., Dixon-Gordon et al., 2012; Gardner et al., 2016). As such, by intensely focusing on one subset of functions, the EAM cannot explain all acts of deliberate self-harm.

3.1.4 The Cognitive-Emotional Model of NSSI (CEM-NSSI)

The CEM-NSSI, proposed by Hasking et al. (2017), draws upon models of emotion regulation (Chapman et al., 2006; Gratz & Roemer, 2008), the Emotional Cascade Theory (Selby et al., 2008; Selby et al., 2013) and Social Cognitive Theory (Bandura, 1989). First, the CEM-NSSI (see Figure 4) suggests that each individual holds NSSI-specific cognitions and a unique level of emotional reactivity. Following an emotionally volatile situation, a person's response is influenced by their tendency to ruminate and emotion regulation strategies (Hasking et al., 2017). People who have high emotional reactivity, negative representations of the self, positive outcome expectancies about NSSI (i.e., that it can help people feel better), a lack of self-efficacy to resist NSSI urges, a tendency to ruminate and a lack of effective emotion regulation strategies are more likely to engage in NSSI to avoid volatile situations or related emotional responses (Hasking et al., 2017). These factors, which are cognitive-emotional in nature, moderate the relationship between emotional reactivity and NSSI.

Figure 4.

The Cognitive-Emotional Model of NSSI (Hasking et al., 2017, p. 1549)



Aligning with the model's assertion, compared to people without a history of NSSI, those with tend to report stronger negative emotional experiences and have greater difficulties regulating negative emotions (Anderson & Crowther, 2012; Mettler et al., 2021; Peh et al., 2017; Zerkowitz et al., 2017). NSSI has also been associated with negative self-representations, such as high levels of self-criticism, self-hatred and hopelessness among adolescents (Gong et al., 2019; Xavier et al., 2016). Contrariwise, self-compassion can be a protective factor for NSSI (Jiang et al., 2017; Xavier et al., 2016). Research has found that adolescents who reported no previous NSSI engagement in the last 12 months self-reported more self-compassion than those who did report recent NSSI engagement (Jiang et al., 2017). This supports the model's assertion that low representations of the self may increase the risk of NSSI engagement.

Links between the emotion-specific and cognitive variables have also been reported. Gong et al. (2019) found that higher levels of self-reported rumination strengthened the relationship between self-criticism and hopelessness and between hopelessness and NSSI. Similar to the CEM-NSSI, these findings suggest that without other strategies to regulate emotions, people who ruminate may engage in NSSI as a way to escape from or avoid their emotions. Rumination has also been associated with a history of NSSI amongst people who report high distress tolerance, suggesting that it may facilitate NSSI use even amongst people considered less at risk of engaging in the behaviour (Slabbert et al., 2018). Similarly, regarding NSSI-specific cognitions, people with a history of NSSI report being less able to resist NSSI (Dawkins et al., 2021b; Hasking & Rose, 2016), whereas those without are more likely to perceive the behaviour as being physically painful (Dawkins et al., 2019; Dawkins et al., 2021a, 2021b; Hasking & Rose, 2016). This is likely because an individual's understanding of their ability to enact a specific behaviour, and the associated consequences of it, influences whether the behaviour is exhibited (Bandura, 1989), a theory which is not specific to NSSI alone.

3.1.5 Application of self-harm models to dual harm

Although the models above explain NSSI or deliberate self-harm, both of these definitions are captured within the broader definition of self-harm used in this thesis. However, research is yet to apply these models to dual harm, or assess their applicability to violence more generally, despite distinct overlaps. For instance, the FFM and the Integrated Model include distal risk factors, including ACEs, which increase the risk of self-harm. As discussed in section 2.6.3.1, ACEs are overrepresented amongst dual harm populations and subsequently increase the odds of exhibiting dual harm as opposed to sole harm (Björkenstam et al., 2018; Carr, Steeg et al., 2020; Harford et al., 2012; Harford et al., 2018; Richmond-Rakerd et al., 2019; Steeg et al., 2019). Therefore, in addition to predisposing people to self-harm, ACEs also form one of the strongest characteristics of the dual harm 'profile'.

According to theory, ACEs elevate self-harm risk by causing deficits in communication, emotion regulation or both (Nock, 2009, 2010). This is consistent with literature which has suggested links between significant life experiences, poor emotion regulation and dual harm (Richmond-Rakerd et al., 2019; Sahlin et al., 2017), with poor emotional regulation hypothesised to be an underlying aetiology of dual harm (C. Chen et al., 2020; Harford et al., 2018; Slade et al., 2020). One of the reasons for this is that people, particularly those in prison, have difficulties identifying, understanding and communicating their emotions and subsequently exhibit maladaptive coping strategies such as dual harm (Hemming, Pratt et al., 2020). Whilst emotion regulation difficulties have been found to distinguish young adults who dual harmed from those who sole harmed (Richmond-Rakerd et al., 2019), this finding was not replicated amongst adult men in prison (Hemming et al., 2021), indicating that prison populations may be more likely to conceal their vulnerabilities. Nonetheless, the first theoretical framework of dual harm denotes that both self-harm and aggression, covered more in-depth in section 3.4.2, can serve emotion regulation and interpersonal functions (Shafti et al., 2021), aligning with the theories of self-harm discussed above.

Research conducted with people who had repeatedly self-harmed in US prisons reported that self-harm was used to relieve stress, yet by contrast, violence was exhibited following the suppression of emotions (Smith, 2015). Others have reported clearer overlaps between the functions of self-harm and violence. For instance, Hemming, Bhatti et al. (2020) found that both self-harm and violence resulted from experiencing emotional overload or emotional dissociation. However, this does not indicate why an individual would choose violence over self-harm during any incident or vice versa. Indeed, the Integrated Model and the CEM-NSSI both attempt to explain why self-harm may be preferred over other behaviours. These reasons are also highlighted in the violence and dual harm literature. For instance, the Social Learning Hypothesis is built on the tenet of Social Learning Theory (Bandura, 1973), which has been incorporated into theories of violence (Anderson & Bushman, 2002) and dual harm (Shafti et al., 2021). Discussed in section 3.4.2, Shafti et al. (2021) suggest that individuals who dual harm may learn which behaviour best serves a specific function in a particular scenario. As an example, people in prison have been found to enact self-harm to avoid the associated punishments of being violent to others (Pickering et al., 2022; Power et al., 2016). Therefore, whilst the functions of self-harm and violence may overlap, additional considerations may be made when deciding which behaviour is exhibited (Slade et al., 2022).

Next, mapping onto the EAM, the Anger Avoidance Model (AAM; Gardner & Moore, 2008) conceptualises violence as a form of avoidance from clinical anger (i.e., anger with high intensity, frequency and duration). The AAM states that in the presence of a specific life event, a person may experience heightened arousal (i.e., anger). If this arousal is deemed intolerable, when lacking

emotion regulation skills, a person may engage in aggression or violence as a form of avoidance (Gardner & Moore, 2008). Through providing a temporary sense of relief, violence can become negatively reinforced and strengthened. Although the EAM and AAM explain sole self-harm and sole violence, respectively, aspects of the models have relevance for dual harm. The two models state that self-harm and violence are experiential avoidant behaviours used to avoid or reduce unwanted affect, which coincides with the functions described by dual harm populations (Hemming, Bhatti et al., 2020; Pickering et al., 2022). Adult men who dual harm in prison have also suggested that feelings such as sadness contribute to feelings of self-harm, whereas those of anger and frustration contribute to violence (Pickering et al., 2022). Therefore, if the function of either behaviour is to avoid these feelings, both the EAM and AAM may have utility in explaining dual harm.

Despite these overlaps, according to the reinforcing properties of the models discussed above, if self-harm successfully reduces a person's stress levels or serves other functions, the behaviour would be reinforced and strengthened. Other behaviours, such as violence, would be unnecessary if self-harm is successfully reinforced. Although the lack of research prohibits a thorough understanding of the functions of self-harm and violence as perceived by dual harm populations, early findings suggest that the environment, consequences, and specific emotions preceding the incident determine which behaviour is exhibited (Pickering et al., 2022; Power et al., 2016). This limits the applicability of the models of self-harm discussed above in relation to dual harm.

3.2 Theoretical models of suicide

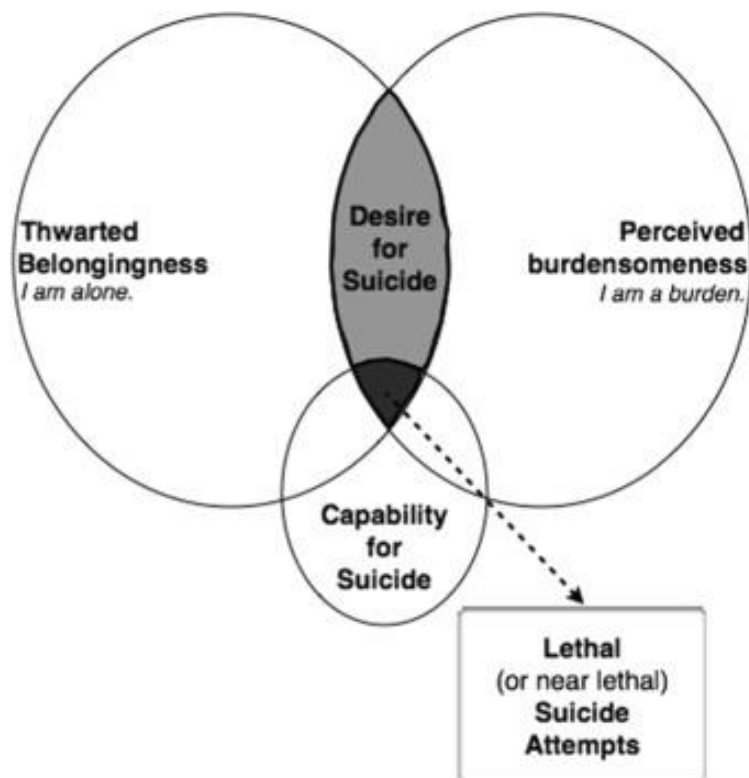
The following section will discuss the Interpersonal-Psychological Theory of Suicidal Behaviour and the Integrated Motivational-Volitional Model of Suicidal Behaviour before evaluating how well the theories account for findings from dual harm research.

3.2.1 The Interpersonal-Psychological Theory of Suicidal Behaviour (IPT)

The IPT (Joiner, 2005) explains *how* individuals develop suicidal ideation and *why* they might act upon such desires. First, suicidal ideation is suggested to develop through simultaneous feelings of perceived burdensomeness and thwarted belongingness. Suicidal thoughts only transition to suicidal behaviours if the person has the capability to do so (see Figure 5).

Figure 5.

The Interpersonal-Psychological Theory of Suicidal Behaviour (Joiner, 2005; Van Orden et al., 2010, p. 42)



According to the IPTS, perceived burdensomeness - the belief that one's existence burdens others- is instrumental to developing suicidal ideation (Joiner, 2005). This has been associated with experiencing unemployment, homelessness, physical illness and imprisonment (Mandracchia & Smith, 2015; Van Orden et al., 2010). For instance, regarding the latter, people in prison have reported worrying about burdening others with their emotional struggles (Hemming, Bhatti et al., 2020). In support of the model, research with adults and adolescents in prison found an association between perceived burdensomeness and strong suicidal ideation, even when controlling for measures of depression and hopelessness (Cero et al., 2018; Dhingra et al., 2020; Mandracchia & Smith, 2015). However, perceived burdensomeness is not significantly associated with an all-encompassing outcome variable of past suicidal ideation and suicide attempts (Simlot et al., 2013). Therefore, perceived burdensomeness increases suicidal ideation but not suicidal behaviours, supporting the distinction between ideation and behaviours.

Thwarted belongingness, whereby one feels disconnected from others through loneliness and a lack of reciprocal relationships, is also required for suicidal ideation to occur (Van Orden et al., 2010). Indeed, people who experience thwarted belongingness tend to have limited social connections and

feel socially isolated (Christensen et al., 2014; DeCou et al., 2018; Joiner, 2005; Smith et al., 2018; Van Orden et al., 2010). Since young adults are often located far away from their family home (HMIP, 2021), this may increase their social isolation and decrease their sense of belonging. This perhaps explains why high levels of thwarted belongingness are reported among young adults in prison (Cero et al., 2018). Indeed, despite not necessarily measuring thwarted belongingness, Slade (2011) found that perceived social support protected against suicide risk among people in prison. It is theorised that thwarted belongingness interacts with perceived burdensomeness to cause suicidal ideation. However, research conducted with people in prison, undergraduate students and psychiatric inpatients has found little evidence of an interaction between these two variables (Cero et al., 2015; Cero et al., 2018; Ma et al., 2016). Although reasons for these results may include small samples or noisy measures, it may also be that both variables are not needed simultaneously for suicidal ideation to develop.

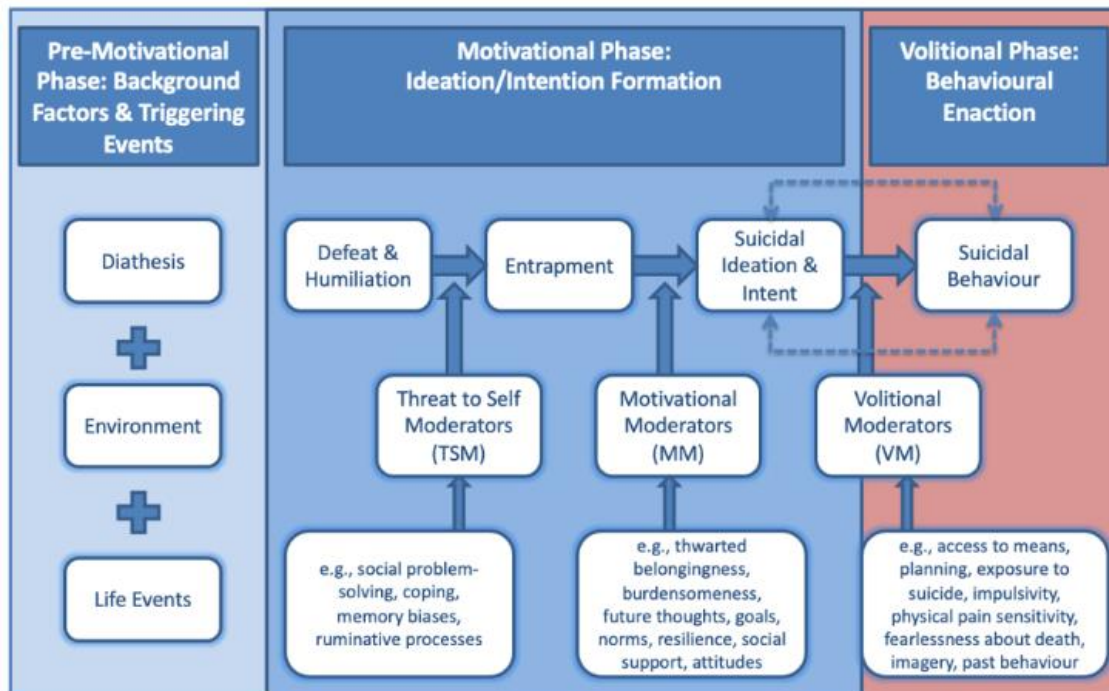
Lastly, the IPTS argues that one must have the capacity to engage in suicidal behaviours. This can be acquired through repeated exposure to painful and provocative stimuli, which increase pain tolerance and fearlessness of death (Ribeiro & Joiner, 2009; Van Orden et al., 2010). Previous self-harm, suicide attempts and being the victim of abuse can reduce self-preserving biological drives to protect the self and increase one's capacity to attempt suicide (Bebbington et al., 2009; Joiner, 2005; Van Orden et al., 2008; Van Orden et al., 2010). As discussed in section 2.2.4.1, violence perpetration is also a strong predictor of self-harm and suicidal behaviours in prison, suggesting that this increases a person's ability to engage in suicidal behaviours. However, this third tenet has limitations, perhaps due to being the least researched element of the IPTS (Hjelmeland & Knizek, 2019; Ma et al., 2016). Specifically, previous violence or suicide attempts may not increase a person's pain threshold and capacity to enact suicide if a previous incident (e.g., an overdose) was not experienced as painful (Hjelmeland & Knizek, 2020). Moreover, reviews have reported weak relationships between capacity and past suicide attempts (Chu et al., 2017; Ma et al., 2016), suggesting additional variables may be needed to influence whether an individual acts upon their suicidal thoughts.

3.2.2 The Integrated Motivational-Volitional Model (IMV) of Suicidal Behaviour

Integrating elements from the IPTS, the IMV model provides a biopsychosocial framework to explain suicidal behaviour (O'Connor, 2011). It outlines predisposing vulnerabilities of suicide, how suicidal ideation develops, and how it can transition to suicidal behaviours (O'Connor, 2011; O'Connor & Kirtley, 2018). These are represented in three phases of the model: the pre-motivational, motivational, and the volitional (see Figure 6).

Figure 6.

The Revised Integrated Motivational-Volitional (IMV) Model of Suicidal Behaviour (O'Connor & Kirtley, 2018, p. 2)



The pre-motivational phase suggests who may be at risk of developing suicidal ideation (O'Connor, 2011). Risk factors for suicidal ideation include genetic factors, perfectionism, ACEs, grief, relationship breakdowns and imprisonment (O'Connor, 2021; O'Connor & Kirtley, 2018). ACEs and cumulative trauma, which are prominent among people in prison (Angelakis et al., 2020; Ford et al., 2019; Ford et al., 2020; Marzano, Ciclitira & Adler, 2016; Stensrud et al., 2019), have been associated with increased suicide risk (ideation and attempts) amongst adolescents, young adults and adults (Choi et al., 2017; Dube et al., 2001; Pournaghash-Tehrani et al., 2019; Thompson et al., 2019). Therefore, as a standalone factor, ACEs (and other pre-motivational factors such as imprisonment) may not effectively predict people at greater risk of suicide in prison since they account for a large proportion of the population.

The motivational phase encompasses key factors relating to the emergence of suicidal ideation. Informed by previous theory (the Cry of Pain model; Williams & Pollock, 2001), the model suggests that defeat and humiliation, characterised by loss and social rejection, increase the risk of developing suicidal ideation (Burrell et al., 2017; O'Connor & Kirtley, 2018; Williams et al., 2017). Indeed, feelings of defeat have been found to predict suicidal ideation amongst people in prison (Slade & Edelman, 2014), a relationship which has also been mediated by internal entrapment (Scowcroft, 2019). Following feelings of defeat, a tendency to ruminate is likely to increase the chance that a person will

feel entrapped, which has been found among people in prison (Scowcroft, 2019). Feelings of entrapment may transition to suicidal ideation if factors such as poor social support, being unable to visualise a positive future, perceived burdensomeness and thwarted belongingness are present (O'Connor, 2011). In the presence of these factors, an individual may perceive suicide as being their only viable option to resolve or escape from the problems that they are experiencing.

The volitional phase of the IMV captures the dynamic relationship between suicidal ideation and suicidal behaviours (O'Connor & Kirtley, 2018) and the factors which bridge this transition (O'Connor, 2021). Building on from the IPTS, the IMV suggests that exposure to suicidal behaviours (through friends and family), high impulsivity, physical pain sensitivity/endurance, fearlessness about death and past suicidal behaviour increase the risk of engaging in suicidal behaviours (O'Connor & Kirtley, 2018). Taking impulsivity as an example, O'Connor (2021) notes that if an individual tends to act rashly, they may be more likely to act quickly on their thoughts. Supporting this, research with people in prison has found that impulsivity positively correlates with suicide risk (Mai et al., 2021), with some evidence suggesting that the odds of making an impulsive suicide attempt are greater amongst young adults than older adults (Beckman et al., 2019), albeit this is not a consistent finding (Anestis et al., 2014; Beckman et al., 2019; McHugh et al., 2019). Therefore, evidence suggests that the IMV model has utility in explaining suicidal ideation and suicide attempts by people in prison. However, more research is needed to test the model as a whole, particularly the volitional factors (Kirtley et al., 2016).

3.2.3 Application of suicide models to dual harm

The most notable link between the theories of suicide presented above and dual harm arguably relates to the capacity to engage in suicidal behaviours. Capacity can be acquired through previous fear-inducing and painful experiences, which increase a person's risk of engaging in both suicidal and violent behaviours (DeWall et al., 2011). Although previous victimisation has been found to increase the risk of attempting suicide (Burke et al., 2018) the association between ACEs and suicidal behaviours can be mediated by aggression (Swogger et al., 2011) and adolescent violent offending (Björkenstam et al., 2018). Indeed, research conducted in the US found that people in prison who perpetrated several acts of serious violence were at greater risk of attempting suicide, and doing so with high suicidal intent, than those who had witnessed or been the victim of violence (Jordan & Samuelson, 2015; Smith et al., 2013; Smith et al., 2016). Moreover, in the UK, 39% of self-inflicted deaths in prison were by people sentenced or charged with violence against a person offences (MoJ, 2021c). Therefore, the link between violence and suicide may be that inflicting pain through one behaviour (e.g., violence) heightens a person's propensity to inflict pain through the second behaviour (e.g., self-harm or suicide). Interestingly, however, recent research found that the

perpetration of sexual violence did not distinguish between people in prison who thought about suicide from those who enacted it (Favril et al., 2021). This supports the distinction applied in this thesis, whereby sexual crimes are differentiated from violent crimes.

As indicated, aggression and violence appear to form part of the pathway to suicidal behaviours. These overlapping pathways may explain why people who dual harm in prison engage in a greater variety of methods (including lethal methods) of self-harm than people who solely self-harm (Kottler et al., 2018; Slade et al., 2020). That is, by engaging in self-harm and violence, people who dual harm may have acquired the capacity to engage in lethal self-harm or suicide attempts. However, as previous research has utilised prison data which combines acts of self-harm with and without suicidal intent (Kottler et al., 2018; Slade, 2018; Slade et al., 2020), the intent accompanying such acts remains unknown. As such, whilst aspects of the IPTS and IMV models, particularly that relating to the capacity to engage in high-risk behaviours, may provide an understanding of some of the dual harm profile, it does not account for people who engage in lethal self-harm without suicidal intent.

3.3 Theoretical models of violence

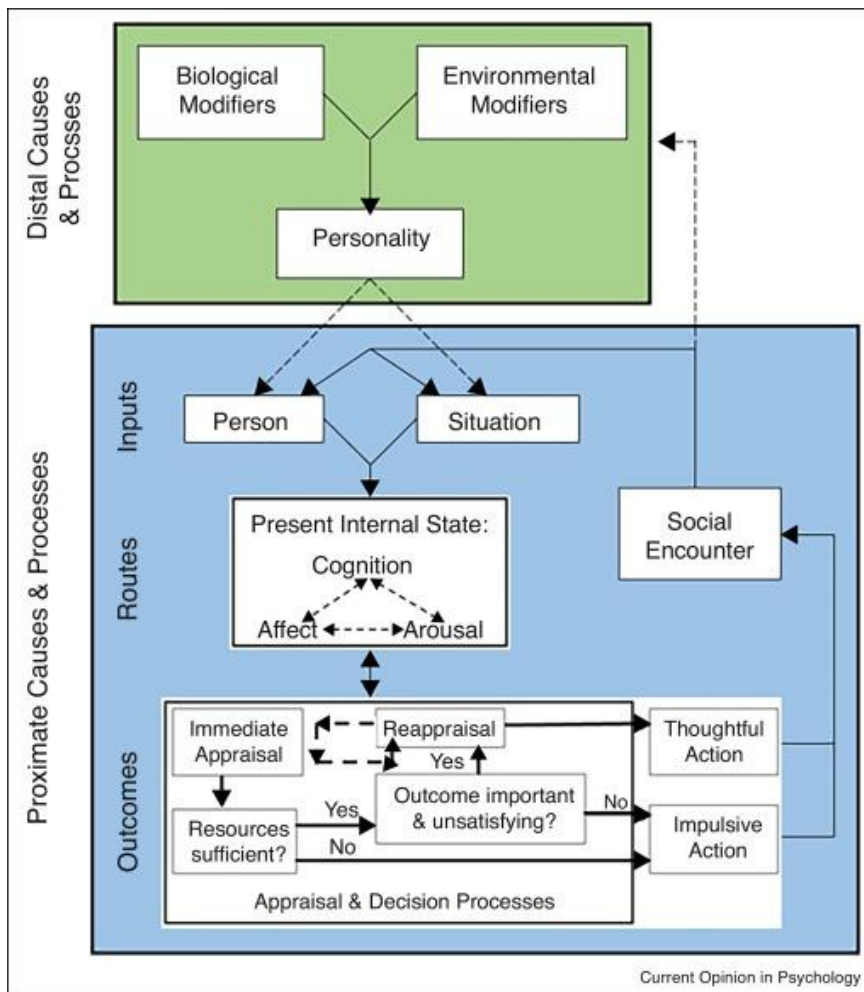
The following section will discuss the General Aggression Model and developmental pathway explanations of violent criminality before evaluating their applicability in relation to dual harm. It should be acknowledged that although these models are well-researched and considered, they attempt to encompass a broader range of contexts and behaviours than the models discussed previously in this chapter.

3.3.1 General Aggression Model (GAM)

The GAM (see Figure 7) is a theoretical model of aggression (Anderson & Bushman, 2002) and violence (DeWall et al., 2011). It incorporates several theories, including Cognitive Neoassociation Theory (Berkowitz, 1989), Social Learning Theory (Bandura, 2001) and Script Theory (Huesmann, 1986, 1998) and splits the pathway to aggression and violence between distal and proximate causes and processes (Allen et al., 2018; Anderson & Carnagey, 2004). Distal processes concern how environmental and biological factors influence a person's personality. For instance, being raised in coercive family environments (an environmental factor) is suggested to be positively associated with developing an aggressive personality (Carré & Archer, 2018; Patterson et al., 1989). This personality style then feeds into the proximate processes within the second half of the model, which explain a single episode of aggression using inputs (person and situation variables), routes (a person's present internal state) and outcomes (appraisal and decision processes).

Figure 7.

The General Aggression Model (GAM): distal and proximate causes and processes. (Allen et al., 2018, p. 76)



Inputs – Inputs are person-related (e.g., genetic predispositions, violence-supporting beliefs, belief in one’s ability to be successful at violence) and situational variables (e.g., provocation, alcohol, violence exposure) which may decrease or increase the likelihood of aggression occurring (Allen et al., 2018; Anderson & Bushman, 2002).

Routes - Routes are concerned with how input variables (e.g., alcohol) affect an individual’s cognition, affect and arousal to increase the likelihood of violence (Allen et al., 2018; Anderson & Bushman, 2002). For instance, being exposed to violence during childhood can increase self-reported anger (affect) among forensic populations (Kimonis et al., 2011). Feelings of anger can also increase the likelihood of hostile thoughts, which can further increase arousal (Allen et al., 2018). As such, a person’s affect can affect arousal through cognitions, as indicated in Figure 7.

Outcomes - Outcomes relate to how a person’s internal state affects their decision-making processes. First, a person immediately appraises the situation and produces a situational inference (e.g., the

room is crowded and therefore the push was unintended) or a trait inference (e.g., he meant to push me; Anderson & Bushman, 2002). These automatic appraisals differ between individuals and depend on a person's current internal state and personality traits (Anderson & Bushman, 2002). If the outcome of the immediate appraisal was deemed insufficient, depending on resources (e.g., time), a person might engage in reappraisal in which alternative and more measured views of the situation are considered, resulting in more thoughtful action (Allen & Anderson, 2017). After more careful consideration of an event, reappraisal may lead to violent or non-violent actions. The chosen action then influences the social encounter, feeding back into a person's present internal state and their person and situation input factors (e.g., they see violence as being beneficial in certain situations), which may increase the likelihood of engaging in future violence (Gilbert et al., 2017).

The GAM has been credited for explaining multiple types of aggression and violence, including those with reactive and proactive motivations and acts which combine the two (Allen & Anderson, 2017). However, despite appearing comprehensive, the GAM is not without its limitations. First, other than through the reappraisal process, there is little focus on how aggression or violence is inhibited, yet not all individuals with predispositions go on to be aggressive or violent, perhaps because inhibiting forces may counterbalance an aggressive impulse (Finkel, 2007; Plutchik et al., 1989). Therefore, beyond the reappraisal, additional factors likely mediate the process between predisposition and behaviour. There is also limited peer-reviewed evidence demonstrating the GAM's empirical validity amongst clinical and forensic samples (Ohlsson, 2016). In research with forensic populations, individual components of the model tend to be tested as opposed to the applicability of GAM as a whole (DeLisi et al., 2013; Gilbert et al., 2013; Hosie et al., 2014). This may be because the GAM has been predominantly applied to media violence (e.g., playing video games). Learning aggressive behaviours through media content is likely different to displaying aggressive and violent behaviours in everyday life (Ferguson & Dyck, 2012). As such, the GAM may only provide a limited explanation of violence which is witnessed, learned and exhibited within the real world.

3.3.2 Developmental pathway models

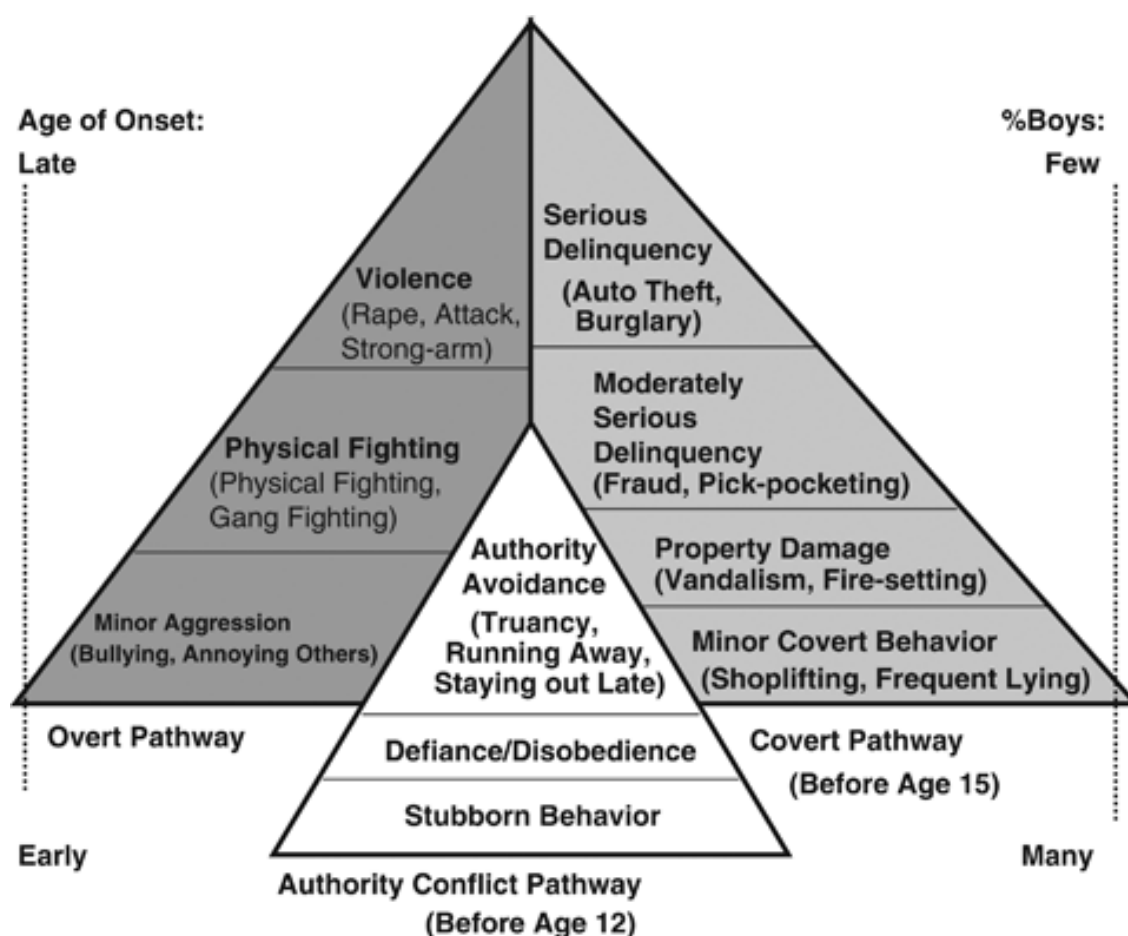
Developmental pathway models aim to identify people most at risk of developing problematic behaviours, including violence (Loeber & Burke, 2011). Two prospective longitudinal studies inform the models discussed in this section, the Cambridge Study in Delinquent Development (see Farrington, 1995, 2003) and the Pittsburgh Youth Study (see Loeber et al., 2017). These explore males' lives and criminal trajectories in London and Pittsburgh.

The Ordered-Pathway Model of Delinquency (see Figure 8) explains delinquency, including violence, through three pathways (Loeber et al., 1993). The authority conflict pathway details the trajectory to

authority avoidance behaviours (e.g., truancy), and the covert pathway details the trajectory to serious delinquency (e.g., burglary). Important for this thesis, the overt pathway details the transition from continuous acts of minor aggression, such as bullying, to physical fighting and later serious violence (defined as physical attacks and sexual violence; Loeber et al., 1993). Homicidal crimes have been considered a fourth stage of the overt pathway (Loeber et al., 2005; Loeber et al., 2017). Although it is acknowledged that this thesis excludes sexual violence from the definition proposed in section 2.3.4, physical attacks and homicide/murder fall within the definition specified.

Figure 8.

Loeber et al.'s (1993) Ordered-Pathway Model of Delinquency (Loeber & Burke, 2011, p. 18)



Most individuals who perpetrate violence follow a pathway which increases in seriousness. They engage in aggression before physical fighting (Farrington et al., 2008; Loeber et al., 1993). Some, however, jump from aggression to serious violence (e.g., assault) without an intermediary step (Loeber et al., 1993). People may also span multiple pathways. This is consistent with findings that over 80% of youths on the overt pathway had also exhibited serious delinquency, and those with the highest rates of self-reported violence had engaged in behaviours spanning multiple pathways (Lacourse et al., 2008; Loeber et al., 1993). Therefore, people who are violent are likely to engage in

various types of delinquency, and those with the most extensive and versatile criminal careers are also likely to be violent.

In a second developmental pathway model, Moffitt (1990, 1993) proposed two types of offending groups; life-course-persistent and adolescent-limited. It is theorised that life-course-persistent individuals begin offending during childhood and continue perpetrating crimes throughout their life course (Moffitt, 1990). This persistence is reportedly due to neurodevelopmental impairments, including cognitive deficits, which cause deficits in self-control and verbal and executive functioning (Moffitt, 2018). Despite only representing approximately 5% of the general population, life-course-persistent individuals engage in disproportionately high offending rates (Moffitt et al., 2001), potentially because individuals convicted before adolescence are likely to be reconvicted and have more chronic offending histories (Farrington et al., 2008; Farrington, 2021; Kazemian & Farrington, 2006). Indeed, Farrington (2018, 2019) found that self-reported and officially reported violence in childhood is positively associated with violence in adulthood. This suggests that life-course-persistent individuals who engage in aggression and violence early in life are more likely to have long-standing criminal trajectories. By contrast, adolescent-limited individuals are less likely to engage in violence (Jolliffe et al., 2017). Instead, they tend to perpetrate minor criminality (e.g., theft) during adolescence, often due to mimicking and imitating the behaviours of life-course-persistent individuals to acquire social power and status, yet desist after adolescence (Jolliffe et al., 2017; Moffitt, 1993). Unless they become entrapped by the consequences of their delinquency (e.g., school exclusion may inhibit a successful trajectory to adulthood) most adolescent-limited individuals enter adulthood without the need to continue to mimic others' delinquent behaviours (Widdowson et al., 2020).

Differing to Moffitt's taxonomy, one meta-analysis investigating developmental pathways of aggression, violence and delinquency identified up to seven pathways, with four pathways being the most consistently reported (Jennings & Reingle, 2012). Despite this, some studies in the review coded participants as either being a life-course-persistent or adolescent-limited individuals. These studies may have skewed the findings due to shoehorning individuals into groups that their behaviours were not reflective of. For instance, late-onset individuals, who start offending aged 21 or later, are also acknowledged within the literature (Jennings & Reingle, 2012; Jolliffe et al., 2017; Kratzer & Hodgins, 1999; Zara & Farrington, 2020). Since these additional pathways to offending and violence have been recognised, a strict taxonomy based on a person's behaviour may restrict how such individuals are understood. Moreover, given that evidence suggests differences between risk factors of violent offending and other types of offending, such as property offences (Coid et al., 2013; Farrington, 2018;

Fazel et al., 2018; Loeber et al., 2017; Wang, 2018), the ability for one taxonomy to explain multiple types of perpetrators is unlikely.

The developmental pathway models discussed in this section do not claim to be specific to violence. However, they have strengths in explaining the trajectory from aggression to violence and suggesting which individuals are most likely to engage in such behaviours. Although, given the limited number of pathways, nuanced understandings of the differences between peoples' exhibited violence and the causes and functions of different acts of violence remain unknown.

3.3.3 Application of violence models to dual harm

Of importance for this thesis, the GAM has also been proposed as a framework to explain suicidal behaviours (DeWall et al., 2011). This implies that harm to self and others share underlying mechanisms, which is echoed in the dual harm literature (Sahlin et al., 2017) and assertions that self-harm and suicide are aggression directed inwards (Korn et al., 1992). This is further supported by findings that some men in prison self-harm to release unwanted aggression (Dixon-Gordon et al., 2012; Pope, 2018). First, according to the GAM, through serving as an input, ACEs increase the risk of violent and suicidal behaviours, which has been reported in empirical research (DeWall et al., 2011; Joiner, 2005; Klonsky & May, 2015; Klonsky et al., 2018; O'Connor, 2011). Whilst the self-harm and suicide literature may suggest that violence increases a person's capacity to harm themselves, the GAM suggests that violence may become a learnt behaviour or influence a person's personality style. Indeed, experiencing multiple traumas has been found to predict aggressive personality traits among justice-involved young adults in the US, which in turn increased a person's suicide risk (Perez et al., 2016). Therefore, in addition to ACEs directly increasing the likelihood of dual harm, personality style may be a mediating factor. Specifically, people who dual harm have been found to have poor impulse control (Carr, Steeg et al., 2020; Richmond-Rakerd et al., 2019). According to the GAM, such individuals may only engage in immediate appraisal, thus being more likely to engage in impulsive harmful behaviours. Therefore, despite suggested overlaps between the pathways to self-harm, suicide and violence, the theoretical explanations differ.

Furthermore, evidence suggests that people who dual harm have less childhood self-control, are younger and exhibit violence earlier in their prison sentence than individuals who do not dual harm (Boxer, 2010; Harford et al., 2012; Kottler et al., 2018; Richmond-Rakerd et al., 2019; Slade et al., 2020). This aligns with the life-course-persistent offending group which accounts for disproportionate offending rates. Similarly, despite representing around 11% of the prison population, people who dual harm account for more than half of all recorded incidents and, on average, spend significantly longer in prison (Kottler et al., 2018; Lanes, 2011; Slade et al., 2020). However, whether this reflects

persistent criminality throughout the life course remains unknown. What has been recognised, however, is that this group are more likely to perpetrate damage-related and fire-setting offences (Kottler et al., 2018; Slade, 2018; Slade et al., 2020). This supports assertions that people who are violent span multiple pathways on Loeber's taxonomy (Farrington, 2018; Lacourse et al., 2008; Loeber et al., 1993). However, differing from the life-course group, people who dual harm are not more likely to have a violent index offence (Slade et al., 2020), and only one (US) study has reported that people who dual harm in prison have higher rates of violence in prison (Slade et al., 2022). That is, little to no evidence suggests that people who dual harm become progressively more violent. As such, in relation to a development pathway, this warrants the need for a distinct trajectory which focuses on the development of dual harm behaviours, coinciding with the view that dual harm should be considered theoretically distinct from sole violence (Slade, 2019).

3.4 Theoretical models of dual harm

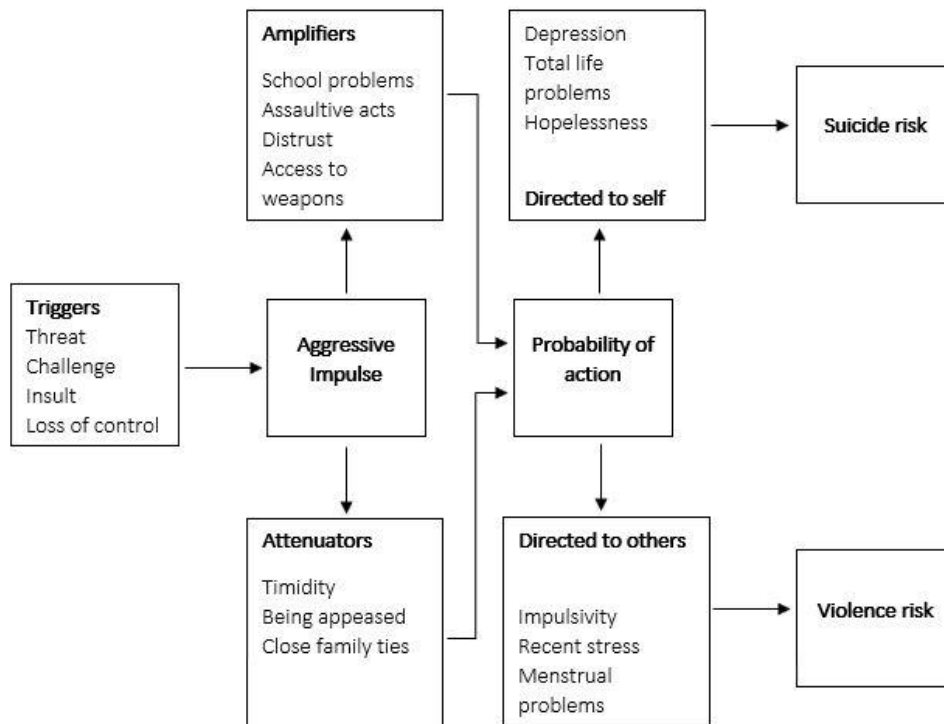
The following section will outline the Two-Stage Model of Countervailing Forces and the Cognitive-Emotional Model of Dual Harm before considering how successfully both models apply to dual harm.

3.4.1 The Two-Stage Model of Countervailing Forces

The Two-Stage Model of Countervailing Forces (Plutchik et al., 1989; see Figure 9) theorises that insults, threats and challenges can trigger an aggressive impulse (Plutchik et al., 1989). An impulse can be amplified or attenuated depending on the absence or presence of other factors. Having access to weapons, a mental illness, or a history of previous violence amplifies the aggressive impulse, whereas being timid or having close family ties attenuates it (Plutchik et al., 1989). These amplifying and attenuating factors are risk and protective factors for aggression, which likely coexist. Therefore, the strength of the aggressive impulse is determined by the resulting counterbalance (i.e., if the presence of one set of factors outweighs the other; Plutchik et al., 1989). If the aggressive impulse is strong enough, action is likely to occur, with the direction (suicide or violence) determined by variables correlated to each behaviour. In the presence of hopelessness, depression, many life problems and recent psychiatric symptoms, the aggressive impulse will likely be directed towards the self (Plutchik et al., 1989). Conversely, having high trait impulsivity, recent life stressors and being in trouble with the law predisposes an individual to direct their aggression outwards. Lastly, the model asserts that suicidal and violent actions have a negative feedback function. If the behaviour achieves a desired state or course of action, it will likely be considered effective in modifying the initial trigger (Plutchik et al., 1989). For instance, following an insult, if violence causes the insulter to withdraw, violence may be perceived as effective in regaining a sense of calm and normality in similar circumstances.

Figure 9.

A two-stage model of suicide and violence (Plutchik et al., 1989)



One limitation of the model concerns how the direction of aggression is determined. For instance, the model asserts that in the presence of depression, aggressive impulses would consistently be directed towards the self. As discussed in section 2.4.3.2, mood disorders, including depression, have been positively associated with violence (e.g., Fazel et al., 2015; Kelly et al., 2019; Yu et al., 2017). Higher self-reported depression has also distinguished prison and community populations who think about or perpetrate dual harm, from those who think about or perpetrate sole harm (Harford et al., 2012; Hemming et al., 2021). Therefore, depression does not consistently increase suicide risk over violence risk and as such, the Two-Stage Model does not explain dual harm well. Similarly, according to the model, an impulsive person would direct their aggression outwards through violence. However, strong correlations between impulsivity and suicide have been reported (Apter et al., 1993; Plutchik et al., 1995; Plutchik, 1995) which is reflected in theoretical models (O'Connor, 2011; O'Connor & Kirtley, 2018). Instead, evidence suggests that the factors determining the direction of aggression may increase the risk of both behaviours (Hall et al., 2006; Harford et al., 2018; Lubell & Vetter, 2006; McMahon et al., 2018). Put simply, people who dual harm may have traits owing to both sets of risk factors, thus explaining why they exhibit both behaviours.

In further critique, the model operationalises aggression towards the self as suicide risk, measured by a 'Suicide Risk Scale' (Plutchik & Van Praag, 1990). This scale has successfully distinguished people

who have attempted suicide from those who have not (Josepho & Plutchik, 1994; Plutchik et al., 1989; Plutchik & Van Praag, 1994). Albeit, just as there are differences in factors predicting those who think about suicide and those who enact it (Joiner, 2005; O'Connor, 2011; O'Connor & Kirtley, 2018), there are likely differences in the factors predicting suicide risk and suicidal behaviours. Indeed, as outlined in section 2.5.3, this thesis defines dual harm as exhibited self-harm (with or without suicidal intent) and violence, not just increased risk. Therefore, the ability to apply the Two-Stage Model to exhibited dual harm behaviours may be limited.

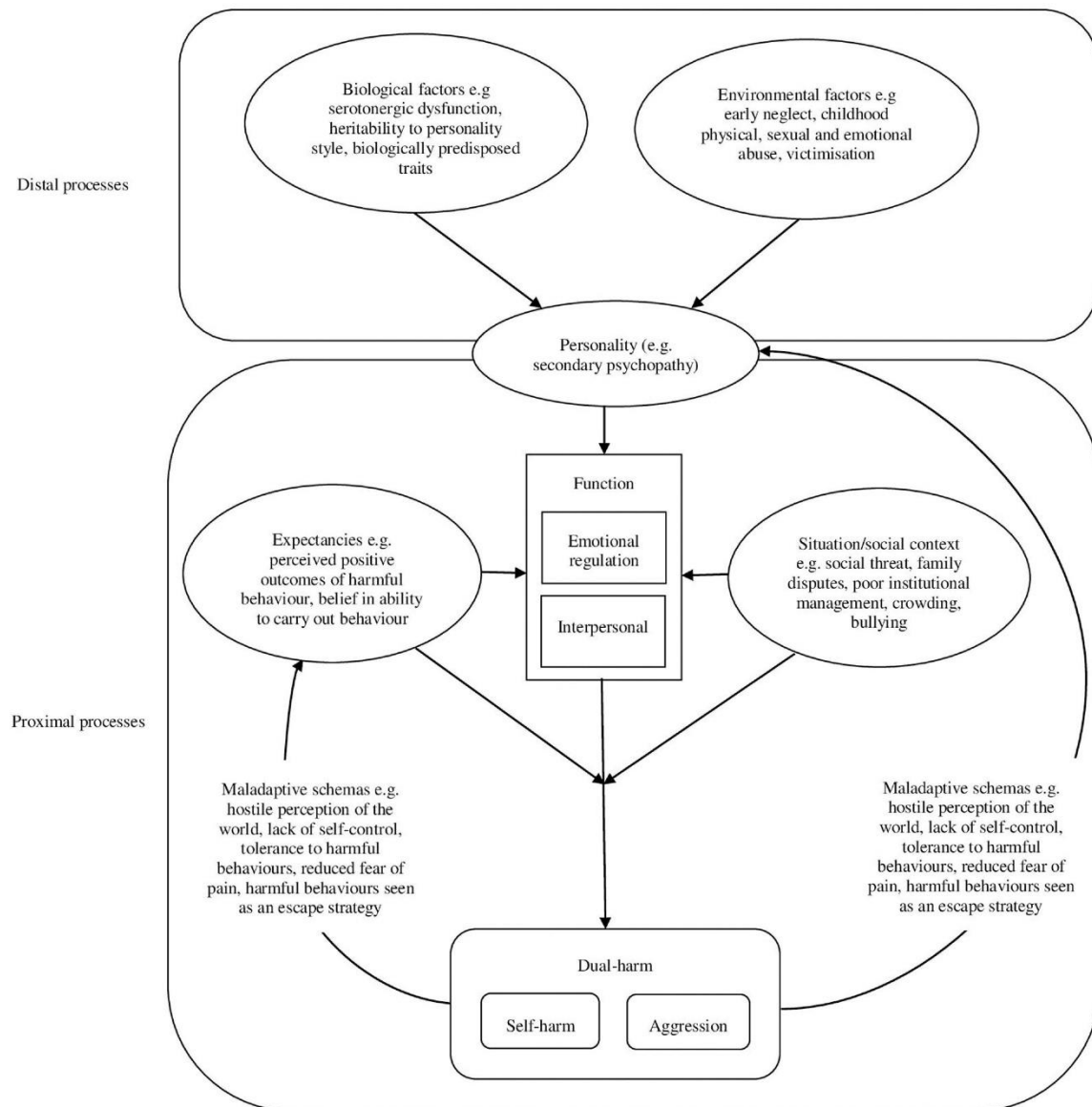
3.4.2 The Cognitive-Emotional Model of Dual Harm (CEM-DH)

The CEM-DH (see Figure 10) is informed by the GAM and affect regulation theories of self-harm and aggression (Shafti et al., 2021). Unlike the Two-Stage Model, the CEM-DH operationalises dual harm as a unique clinical construct. This aligns with evidence suggesting that people who dual harm are qualitatively different from those who sole harm (Kottler et al., 2018; O'Donnell et al., 2015; Richmond-Rakerd et al., 2019; Slade, 2018; Slade et al., 2020).

Distal processes within the pathway to dual harm include biological and environmental factors, such as predisposed traits and ACEs (Anderson & Bushman, 2002; Shafti et al., 2021). People with a history of dual harm have reported feeling trapped by their ACEs, which strengthens an argument for it to be considered from a trauma-informed perspective (Pickering et al., 2022; Slade et al., 2022). Shafti et al. (2021) theorise that these factors indirectly predispose an individual to dual harm by influencing their personality style. Specifically, the model asserts that secondary psychopathy increases the risk of dual harm, due to its associated traits of impulsivity, poor anger control and emotional instability (Hare, 2016), as well as its links to suicide and aggression (Douglas et al., 2006; Pennington et al., 2015; Smith et al., 2014). Whilst some of these traits have been positively associated with dual harm (Harford et al., 2018; Richmond-Rakerd et al., 2019), no research has explored the specific link between dual harm and secondary psychopathy. Nonetheless, according to the CEM-DH, personality styles predispose a person to exhibit self-harm and violence, both of which have interpersonal and emotion regulation benefits. The outcome expectancies of the behaviour and the situational context determine the specific behaviour exhibited at any one time. For instance, when needing to regulate emotions, young adults in prison may perceive self-harm as having more positive outcomes than violence (Harvey, 2007; Power et al., 2016). Despite this, Pickering et al. (2022) found that for some people in prison, the direction of aggression depended on whether an individual wished to conceal their emotions from the world or share them. Therefore, the CEM-DH does not holistically explain why one behaviour is chosen over the other in any specific situation.

Figure 10.

The Cognitive Emotional Model of Dual Harm (Shafti et al., 2012, p. 8)



Lastly, the CEM-DH argues that dual harm behaviours are reinforced by maladaptive cognitive schemas (Anderson & Bushman, 2002; Shafti et al., 2021). After exhibiting dual harm, a person may develop schemas relating to their heightened ability to withstand pain or behave fearlessly, which subsequently reinforces and potentially increases the severity of the behaviour (Joiner, 2005). This may explain why people who dual harm engage in a greater variety of self-harm methods, including those of high lethality, compared to those who sole self-harm (Kottler et al., 2018; Lanes, 2011; Richmond-Rakerd et al., 2019; Slade et al., 2020). As such, through its feedback loop, the CEM-DH successfully explains one of the key characteristics of the dual harm profile.

Despite this, the authors acknowledge that the CEM-DH does not offer a fully comprehensive model of dual harm (Shafti et al., 2021). For instance, the model asserts that a person may dual harm to

regulate their emotions, yet it fails to acknowledge the specific nuances of this. Within the all-encompassing term 'emotion regulation', a person may wish to reduce or entirely avoid an unwanted state, or create a sense of calm (Pickering et al., 2022). Moreover, the function of emotion regulation does not also capture other reported functions of self-harm, such as self-punishment (Edmondson et al., 2016; Nock, 2009). Similarly, there is no explanation regarding why dual harm is used to regulate emotions or gain interpersonal benefits as opposed to other maladaptive behaviours. For instance, it is known that people who dual harm in prison typically also engage in fire setting and property damage behaviours (Kottler et al., 2018; Lanes, 2011; Slade, 2018; Slade et al., 2020), which may also be a form of emotional dysregulation (Sahlin et al., 2017). A further limitation is that the model is yet to be empirically tested and was developed following a narrative review. Therefore, research is needed to test the hypotheses Shafti et al. (2021) suggest to determine the model's ability to explain dual harm. Lastly, and reflecting much of the dual harm literature, the CEM-DH does not differentiate between people who have engaged in prolific dual harm and those who have just done so once. Similarly, no theoretical distinction is made between someone who has exhibited dual harm throughout their life course, from those who did so only within one developmental period (e.g., young adulthood). Whilst the timings of dual harm might be challenging to ascertain, it again warrants the need for the model to be empirically tested.

3.5 Summary

This chapter has discussed some of the leading theoretical models of self-harm, suicide and violence and has critically reviewed their ability to explain dual harm. In addition, models that explain the co-occurrence of self-harm and violence, and dual harm, have been considered in light of emerging dual harm literature.

The previous chapter identified factors that increased the likelihood of self-harm and violence, with several overlaps apparent. Some of these risk factors, such as ACEs, are also included in the theoretical models discussed in the current chapter. However, despite the overlapping risk factors of self-harm and violence, and these being included within theoretical models of the individual behaviours, these models are limited in their ability to explain dual harm. This reflects arguments that rather than being understood within a self-harm or violence framework, dual harm is a unique construct (Slade, 2019). Indeed, people who dual harm typically have a distinct set of characteristics, presented as the dual harm profile in section 2.6, and overlapping risk factors cannot explain these characteristics and the increased risk posed by such individuals.

The Two-Stage Model and the CEM-DH discussed in this chapter broadly represent a changing understanding of the link between self-harm and violence. The Two-Stage Model outlines the

overlapping risk factors of self-harm and aggression and explains why and how the two behaviours co-occur. The CEM-DH, however, aims to not only explain dual harm as a distinct construct, but also why self-harm and violence may be used interchangeably based on their shared functions and aetiologies, with some considerations regarding why one is chosen over the other in a specific situation. However, given that relatively little research has explored the dual harm profile, the latter theory is yet to be empirically tested. As part of this dearth of research, no research has explicitly focused on dual harm amongst young adults in prison, nor has it sought to understand the development of dual harm amongst this population. Owing to this, and the arguments presented in section 2.7, the present thesis seeks to address the following research questions and aims.

3.6 Research questions and aims

As outlined in Chapter 1, the overarching research question for this thesis is:

- What is the developmental trajectory of dual harm exhibited by young adult men who are in prison?

The main aims of the thesis are:

- To explore the life stories of young adult men in prison with a history of dual harm to ascertain the key factors or events which individuals feel led them to engage in dual harm.
- To ascertain the prevalence of dual harm exhibited by young adult men in prison.
- To explore the relationships between a range of demographic, developmental, criminological, and clinical variables across young adult men in prison who engage in dual harm, sole self-harm, sole violence, and those who do not engage in either harmful behaviour.
- To identify factors which distinguish young adult men in prison who engage in dual harm from those who engage in sole self-harm, sole violence, and those who do not engage in either harmful behaviour.
- To propose an integrated risk model of dual harm among young adult men in prison.

Further research aims for the empirical studies are presented in their respective chapters.

Chapter 4: Methodology

Chapter overview

This chapter will explain the methodological approach employed in the thesis. It will present a rationale for implementing a mixed methods design and describe the intricacies of the research design (covering ethical considerations, data collection, data analyses and the complexities of utilising secondary data). Whilst this chapter will discuss overarching methodological concerns, specific details regarding the individual studies will be presented in the empirical chapters (Chapters 5-7).

4.1 Methodological approach

To determine an appropriate methodological approach, researchers must first consider their research paradigm (Lincoln et al., 2011) or worldview (Creswell, 2014). Broadly, these terms refer to the philosophical position taken by the researcher regarding how knowledge is constructed, researched and interpreted. Worldviews differ in their ontology (nature of reality), epistemology (nature of acquired knowledge), methodology (the process of research) and axiology (ethics in research; Denzin & Lincoln, 2011). Whilst various worldviews exist, positivism and constructivism are important for this thesis. Pragmatism, defined as a research approach (as opposed to a worldview), will also be discussed (Hussain et al., 2013).

Positivism assumes that one reality can be objectively measured and understood (Shankar et al., 2001). Due to this, the worldview is associated with unbiased, quantitative methods and deductive theory, which aim to reduce ideas to discrete variables (Coolican, 2017; Creswell, 2014; Lyons & Coyle, 2016). These methods prioritise precision, causal relationships, reliability and generalisability. However, due to relying heavily on objectivity, positivism rejects the importance of an individual's unique and subjective experience (Park et al., 2020). By contrast, constructivism (also referred to as interpretivism) asserts that reality is negotiated through social interactions and cultural norms, and as such, constructivists argue that multiple and varied interpretations of reality exist (Creswell, 2014). This worldview assumes that knowledge is interpreted by the researcher, often through qualitative research methods (Bryman, 2008). Using such methods, constructivists prioritise participants' idiographic experiences and the meanings ascribed to these and build upon individual perspectives to establish broader understandings of phenomena (Creswell & Plano Clark, 2017). Pragmatism, on the other hand, is not concerned with the nature of reality (i.e., one singular or multiple socially constructed) and instead prioritises the need to answer the research question(s) (Hussain et al., 2013) using the most effective research method(s) (Creswell, 2014). This thesis followed a pragmatic approach, whereby the most effective methods to address the aims of three empirical studies were

used. Like much research by pragmatists, this included using a mixed methods approach (Morgan, 2014).

4.1.1 A mixed methods approach

Mixed methods research involves collecting and analysing quantitative and qualitative data to investigate research questions concerning the same underpinning phenomenon (Creswell & Plano Clark, 2017; Leech & Onwuegbuzie, 2009). There are three predominant mixed method designs. First, in a convergent design, researchers collect both qualitative and quantitative data to answer the same research question. However, they conduct analyses separately to investigate convergence (or divergence) between findings (Creswell & Plano Clark, 2017; Morgan, 2014). If both methods, each with different strengths and weaknesses, lead to similar findings, the results can be interpreted with greater certainty. This echoes the notion of triangulation, whereby researchers explore “the same phenomenon from different vantage points, on the assumption that similar findings from each perspective indicate that the research has presented a valid picture” (Lyons & Coyle, 2016, p. 141). The second design is embedded mixed methods. This includes using one data type (e.g., qualitative) to support a research project that primarily consists of the other data type (e.g., quantitative). This provides ‘additional coverage’ whereby the strengths of different methods are assigned to meet specific aims in the research project (Morgan, 2014). Lastly, a sequential mixed methods design includes collecting and analysing one type of data (e.g., quantitative) and using its findings to inform the second (e.g., qualitative) phase of the research (Creswell, 2014). There are two types of sequential mixed methods design. The explanatory sequential design begins by collecting and analysing quantitative data before using qualitative data collection and analysis to build upon the results (Creswell & Plano Clark, 2017). The opposite of this approach is an exploratory sequential design, whereby exploratory qualitative data collection and analyses are followed up using quantitative data.

This thesis used an exploratory sequential mixed methods design (Creswell, 2014). This design is particularly useful for underexplored topics (Onwuegbuzie & Leech, 2005), such as dual harm. Qualitative data was collected and analysed to grasp the topic before testable hypotheses were developed. Specifically, a qualitative approach was first conducted to explore the life stories of young adult men in prison with a history of dual harm. This provided a deeper understanding of the meanings that participants ascribed to their dual harm behaviours and how these experiences were integrated into their broader life stories. Applying a quantitative method at this stage would have likely restricted the nuances and insights gained from the qualitative exploration. The life experiences shared in this study informed the variables included in the first quantitative study. This quantitative study was explorative in nature, and the findings fed into the second quantitative chapter, which

employed confirmatory statistical analyses. Confirmatory testing was performed to ensure that the factors identified in the first two studies statistically distinguished young adult men who had dual harmed in prison. Therefore, an exploratory sequential mixed methods design was used to gain a detailed insight into a small sample of young adult men in prison with a history of dual harm, before investigating the generalisability of these findings on large-scale data.

4.2 Research process

4.2.1 Ethical considerations and approval

The British Psychological Society guidelines govern psychological research conducted in the UK. These guidelines inform researchers how to conduct their work professionally and ethically. Ethical concerns relating to each empirical study were considered throughout the research.

For study 1 (Chapter 5), the director of one custodial establishment was informed about the research and provided informal approval to facilitate the study. The prison was chosen as it housed young adults (i.e., the population of interest) and was familiar to the lead researcher because she had previously worked there (see section 4.3.1 for more information). A main point of contact (Head of Psychological Services) was sought, and discussions concerning safety, security and research protocols were held. As the researcher had previously worked in the prison, she had completed Assessment, Care in Custody and Teamwork (ACCT) and Intelligence Report training. This was required to ensure that the researcher could confidently follow the correct procedures should any individual (participant or otherwise) indicate a risk of harm to self or others during her time at the prison.

As studies 2 and 3 (Chapters 6 and 7, respectively) used secondary data, a scoping meeting was held between the research team and members of the Prison and Probation Analytical Services (PPAS) team in the MoJ, the HMPPS Evidence-Based Practice Team and the Policy, Communications and Analysis Group. Here, research needs and ongoing dual harm research were discussed. Once research ideas were formed, the Head of the Prison Safety Team was informed and agreed to be an internal sponsor for the research, subject to ethical approval. Next, the Head of PPAS (whose team oversees data analysis in the MoJ) was consulted to ensure that the variables sought were appropriate, and approval from the Data Asset Owner was sought.

For all studies, ethical approval was granted by both the Nottingham Trent University College of Business, Law and Social Sciences College Research Ethics Committee and the HMPPS National Research Committee (NRC). These committees are designed to ensure all research adheres to ethical guidelines which protect the participants' and researcher's safety. For study 1, after seeking approval from both committees, data collection could commence; however, as this required working with

young adults in prison with a history of dual harm, many additional ethical concerns had to be thoroughly considered.

4.2.1.1 Informed consent

Following the British Psychological Society's ethical research guidelines (2014, 2018), full informed consent, without deception, was obtained from each participant. Consent was viewed as a dynamic process (Barnett et al., 2007) and was requested multiple times. First, all potential participants were provided with a participant information sheet (see Appendix 1). This detailed the purpose of the study, what the individual's involvement would entail and their right to withdraw (participation or data) from the research. Second, in keeping with the finding that men in prison may participate in research to receive better treatment from staff (Moser et al., 2004), it was made explicitly clear that participation was not incentivised. To address this and any other beliefs that participation may positively affect sentence plans or conduct reports, the information sheet stated that no rewards (other than being able to share experiences, which may be therapeutic) were associated with the research. This was also verbally reinforced by the researcher, ensuring that potential participants could make an informed decision about participating and were doing so for the right reasons (Bryman, 2016). Third, potential participants were encouraged to ask questions and voice concerns throughout. Fourth, before data collection, participants read the consent form (or had it read to them, if needed) and signed the document. All information sheets and consent forms were written in a clear and accessible manner which were subjected to readability checks utilising a Microsoft Word function. Lastly, explicit consent (both written and verbal) was sought from all participants before the audio recording began.

The consent process differed for Studies 2 and 3, which utilised secondary data shared by the MoJ (see section 4.2.1.3 for details regarding the data share). Data included information from the Prison National Offender Management Information System (p-NOMIS) and the Offender Assessment System (OASys), which both contain information routinely collected by prison and probation staff (p-NOMIS and OASys are discussed in section 4.2.3.2). No data was requested other than that which may be reviewed as part of a service evaluation or audit of service. Due to this, no explicit participant consent was required.

As the data included personal data (e.g., ethnicity and previous criminality), a Data Protection Impact Assessment and a Data Sharing Agreement were requested by the MoJ. The former of these documents was required to explain the nature, context and purpose of the processing of personal data, assess the necessity of the data share, identify risks to individuals within the data and explain how such risks would be mitigated. The latter document specifically outlined how the MoJ would

share the data with Nottingham Trent University and the legal basis for this data share. Completing these documents involved multiple teams from the university and the MoJ and caused considerable delays for the PhD. However, it was later discovered that PPAS were fully anonymising the data prior to it being transferred. Therefore, these documents were not required for the final data share.

4.2.1.2 Confidentiality

For study 1, the researcher had to consider the balance between participant confidentiality and anonymity whilst protecting others from potential harm. Highlighting this ethical dilemma in his own research, Cowburn (2005) outlined the concept of limited confidentiality. This includes identifying boundaries to confidentiality and explaining these to participants. Participants are then made aware of the circumstances in which confidentiality is compromised. In keeping with these recommendations, the information sheet clearly explained the boundaries to confidentiality and the associated consequences, which were verbally reinforced. Each participant was encouraged to ask questions if any further explanation was needed. Boundaries to confidentiality included: disclosing crimes for which the individual had not been prosecuted, disclosing that they had been the victim of a crime not reported, stating an intention to harm themselves or others, and stating intentions to breach prison security. It was made clear that if this information were disclosed, it would be passed on to the police, prison staff and/or the prison security team. Each participant's understanding of this was checked via the consent form. Some risks were more likely than others, specifically the risk of harm to self or others, therefore, protocols were in place throughout the research to ensure information was reported promptly. Following indications of harm to self, prison custody officers were to be alerted at the first possible opportunity. Next, safer custody staff were to be consulted, and if needed, future assistance would be requested (such as support opening an ACCT document). Following indications of harm to others, prison custody officers were to be the first alerted, followed by the security department. All information referring to any indicated risk would be filed as an Information Report in the prison.

For Studies 2 and 3, all data were fully anonymised (i.e., there was no identifying information). High-profile cases, which may have been identified given extensive media coverage, were not included in the data share.

4.2.1.3 Data security

During study 1, interviews were recorded using a password-protected dictaphone. As per the National Research Committee's requirements, no identifying information left the prison. Therefore, transcription was completed in a designated office in the prison's psychology department. To ensure anonymity, each participant was given a pseudonym during transcription, and all other identifying

information (e.g., locations) were omitted. In the prison, all transcripts were stored on a password-protected computer which only the researcher had access to. Upon completion, transcripts were transported out of the prison via an encrypted IronKey USB and stored on a secure platform hosted by Nottingham Trent University on a password-protected computer. All interview recordings were then deleted. Documents containing identifying information, such as expression of interest (see Appendix 2) and consent forms (see Appendix 3), were stored in a locked filing cabinet in the prison's psychology department, which only the researcher had access to. The researcher was transparent with participants in stating that their data may be published in reports, articles or conference presentations, though all identifying information would be removed or changed.

Anonymised data for Studies 2 and 3 were shared by PPAS using the MoJ's Analytical Platform (AP). Only the lead researcher and two supervisors had access to the AP. The AP is a cloud-based system which provides tools for storing, analysing and presenting data. The AP contains a pipeline to Amazon S3 data files, which can be loaded into analysis software, such as RStudio, through a line of code (MoJ, 2022a). These data files required a specific package in RStudio to open, and as such, they could not be downloaded to a personal computer. Moreover, the AP is designed for data considered 'OFFICIAL' and 'OFFICIAL-SENSITIVE' as per the MoJ security classifications, which means it is a suitable platform for storing confidential information. The AP also has two-factor authentication upon sign-in, encrypts data stored on the system and tracks the behaviour of all users (MoJ, 2022a).

4.2.1.4 Risk of harm

Participants

Potential risk in research is heightened when sensitive and socially sanctioned behaviours are the phenomena of interest (Carrier, 1999) and when researching vulnerable populations (Liamputtong, 2007). Participants in study 1 were all young adults in prison with a history of dual harm and were therefore considered vulnerable. Moreover, findings have suggested that young adults who dual harm experience early life trauma (e.g., Richmond-Rakerd et al., 2019, see Chapter 2, section 2.6.3.1) and therefore interviews had the potential to cover sensitive topics. Sharing personal and sensitive stories can make participants feel vulnerable and uncomfortable (Alexander et al., 2018), which may be particularly the case for young adults in prison who are not used to participating in research interviews. Due to this, it was crucial to protect participants and mitigate any potential risks.

Before consent, potential participants were informed about their role in the research, their right to bypass questions, and their right to withdraw from the research (both during and after data collection) and that their contribution was entirely voluntary. The researcher also explained what a life story interview was and the types of questions likely to be asked. This information allowed

individuals to fully understand the nature of the research prior to them deciding whether to participate.

Throughout individual interviews, each participant's body language was monitored as although there were no requirements to discuss sensitive topics or traumatic life events, participants may have discussed challenging times. To encourage rapport, the researcher presented with care and empathy and provided participants space to express their feelings and experiences without judgement (Dickson-Swift et al., 2007; Elmir et al., 2011). The researcher also paid specific attention to verbal and non-verbal signs of distress, and if it seemed like the participant was becoming uncomfortable, they were offered a comfort break. When appropriate, consent was re-confirmed, and the interview continued. Only one participant showed signs of distress during the interview, and during this time, the researcher was guided by the participant. Having 'checked in' with the participant, the interview was paused, the dictaphone was turned off, and the participant was offered a tissue and a drink. After a few minutes, the participant was asked whether he would like to continue, reschedule or withdraw from the interview. The participant stated that he found telling his story cathartic and enjoyed being listened to, which has been noted in previous self-harm research (Biddle et al., 2013). Narrative interviewing, specifically free-flowing storytelling, has also been found to have therapeutic benefits amongst young people (Mooney, 2014), which may explain why the participant wished to continue. As such, the researcher resumed the interview. After this, and indeed, every interview, the researcher 'checked in' with the participant to ensure they were emotionally ready to leave the interview setting. Lastly, when working with vulnerable populations, signposting support services that extend the duration of the research is vital (Paradis, 2000). A debrief form (see Appendix 4) highlighted avenues of support should participants have experienced distress or needed to discuss the research further. Support services included the prison's chaplaincy service and Listeners Scheme, although guidance was also provided on how best to contact the researcher if needed.

The individuals included in the samples for Studies 2 and 3 were less likely to be at risk of harm due to the nature of fully anonymised data and the provisions outlined in section 4.2.1.3.

Researcher

When conducting research in prisons, the researcher should also consider potential risks they may incur. One of the most important aspects of qualitative research, particularly with people in prison, is building rapport and trust with participants (Elmir et al., 2011; Shafi, 2020), which occurred during the recruitment and interview process. This allowed the participant space to ask questions and talk openly without judgement from the researcher. Further, appropriate self-disclosure is advocated to provide participants with a safe environment (Elmir et al., 2011). This can be challenging in prisons as

researchers must actively consider what information is safe to share. Despite this, revealing shared vulnerabilities can equal imbalances of power (Shafi, 2020). Whilst this was a difficult balance, the researcher felt comfortable sharing her age and subtle (yet anonymous) aspects of her background. This often facilitated conversation, aligned any power imbalances perceived by participants, and kept the researcher safe as their position was not considered threatening.

Due to the volatile environment, personal safety within the prison was also paramount. The researcher completed Personal Protection Training prior to entering the prison. In addition, personal safety requirements (i.e., wearing a personal alarm and identifying people who pose a risk to staff or females) were discussed with security and safer custody staff. Despite always wearing a personal alarm, this remained hidden from participants so that they did not feel untrusted (Shafi, 2020). Further, the researcher avoided walkways during mass movement times (during which people in prison are free to move around the building). An interview room was sought within the amenities building that prison officers patrolled to ensure physical safety when interviewing. The researcher ensured that she was aware of her surroundings throughout and adhered to a thorough risk assessment. As per security and safety policies, the researcher completed enhanced security vetting procedures and key holder training before entering the prison.

Undertaking qualitative research, particularly interviewing vulnerable participants on sensitive topics, also warrants considerations around emotional harm (Dickson-Swift et al., 2009). As the interviews were sensitive and sometimes included traumatic life events, it was important the researcher had emotional support. First and foremost, this was provided by her academic supervisors. All three supervisors have expertise in research, two of whom have conducted research in prisons. Supervision was scheduled on an 'as and when needed' basis, allowing the researcher to debrief, reflect and share any concerns when necessary (Fenge et al., 2019). Furthermore, as there is now an awareness that researchers exploring a sensitive topic may require therapeutic support (Dickson-Swift et al., 2009), the researcher familiarised herself with the university's confidential counselling service, which, although was available throughout the PhD journey, was not sought. Colleagues and prison staff also provided support as and when needed. Specific reflections on the emotionality of the interviews are reflected upon in section 4.3.1.

4.2.2 Sampling

To meet the aims of study 1, access to a specific population (i.e., young adults in prison with a history of dual harm) was needed, and therefore a purposive sampling method was employed. This method allowed for 'information-rich' participants to be selected, specifically those who had vital knowledge or expertise relevant to the research (Patton, 2005).

The inclusion criteria were men aged between 18 and 21 who were currently housed in the prison facilitating the research and self-identified as having previously exhibited dual harm. Here, it should be noted that the term 'young adult' has been used to define various ages. For instance, some suggest that young adults are those aged 18-25 as the brain can keep developing up until mid-20s (House of Commons Justice Committee, 2018). However, Young Offender Institutions (YOIs) hold people aged 18-21 years (HMIP, 2021), and by increasing the upper age limit from 21 to 25, the distinction between young adults and adults may be less distinct (MoJ, 2017). In keeping with this, this thesis defines young adults as those aged 18-21.

Moreover, in keeping with the definitions of self-harm and violence used in this thesis, the inclusion criteria did not extend to individuals who had disclosed, but not acted upon, thoughts of self-harm and violence. Posters detailing the research and the inclusion criteria were displayed on each wing of all house blocks and clearly explained how to access a participant information sheet. Those who self-selected gave the researcher their name, prison number and a convenient day to meet in an expression of interest form. A meeting was scheduled with this information. The meeting began with the researcher verbally presenting the information sheet and asking the individual if they had any questions. Upon answering all queries, potential participants were offered time to reflect on the information provided. If the participant was still interested, written and verbal consent was sought, and data collection commenced.

Studies 2 and 3 were a representative sample of all 18-21-year-old males held in UK custodial establishments between 01/01/2014 and 31/12/2019. The reasons for selecting these cut-off dates, and a description of the data, are provided in the sections 4.2.3.2 and 4.2.3.3. It should be noted that this data included individuals held in male prisons, and therefore although may include people who identify as female or non-binary, will be referred to as either males or men in prison herein.

4.2.3 Data collection and extraction

For study 1, primary data from life story interviews were sought from young men in prison. Studies 2 and 3 utilised secondary data from databases that prison and probation staff frequently use.

4.2.3.1 Life story interviews (LSIs)

To explore the life stories of young adult men in prison with a history of dual harm, a qualitative approach was required. As Chapter 5 aimed to ascertain how young adults narrate their life stories to make sense of their experiences and dual harm behaviours, a data collection method in which participants narrated their life stories was crucial. LSIs allow participants to become storytellers and narrate their life as they have made sense of it (Atkinson, 1998). Therefore, LSIs foster extended accounts of an individual's life, and the experiences shared are those considered relevant and

meaningful to the participant (Murray, 2018). Moreover, LSIs are led by the participant and do not tend to follow a strict topic-based interview schedule developed by researchers, where pre-conceived ideas may influence the interview. Instead, participants narrate life experiences which they perceive as meaningful. For instance, informed by the dual harm literature, using a semi-structured interview technique, researchers may have directly asked about ACEs, self-harm and violence. In LSIs, these topics would only be discussed if the participant found them to be important and relevant to their life story.

LSI's can be guided, though not dictated, by an interview schedule which details broad areas (e.g., key life events) instead of specific topics (Smith, 2008). This provides a structure for the interview, which can be adopted or changed based on participants' responses and allows participants to remain in control of re-telling their stories (Murray, 2018). Various protocols to facilitate LSIs have been created. For instance, Canter and Young's (2015) protocol asks participants to consider their life as if it were being made into a film. Through a set of guided questions, this protocol explores participants' narratives and how they position themselves in stories through 'narrative roles' to better understand triggers of offending behaviours (Youngs & Canter, 2012). However, the narrative roles created (e.g., the 'Professional', 'Victim', 'Tragic Hero' and the individual on a 'Revengeful Mission') may not accurately reflect all participants' personal narratives of offending (Ward, 2012). Therefore, the set questions in this approach may be too narrow to delve effectively into the lives of young adults with a history of dual harm. Although they may capture narratives towards offending and violence, they may not capture how they make sense of their dual harm in relation to their broader life stories.

A second LSI protocol is offered by McAdams (2008). This enables participants to construct an in-depth account of their life by encouraging them to consider it as if it were a book. This includes guided questions around key experiences such as high points, low points and turning points, which the participant presents as several chapters. This protocol offers a means by which individuals can self-reflect on and articulate their life stories (McAdams, 2008) and has been used with forensic (Maruna, 2001) and non-forensic populations (Murray, 2018). However, the utility of this protocol has been criticised, with some saying that people in prison may struggle to understand the notion of their life as a book with separate chapters (Canter & Youngs, 2015). Instead, the film analogy is considered more culturally appropriate for people in prison who may struggle to coherently narrate their life using the book analogy, potentially due to lower levels of education or intelligence (Canter & Youngs, 2015).

Study 1 did not solely focus on participants' offending behaviours, so the questions in McAdams' (2008) book-based protocol were used. These questions extend those in the life as a film protocol

that primarily focuses on offending behaviours by asking participants about various life experiences, including their high and low points, most influential relationships and hopes for the future. However, as opposed to framing these questions using the book analogy, questions were framed using Canter and Youngs' film analogy. In addition to the reasons presented above (i.e., a book analogy being difficult to understand), the film analogy allows narrators to distance themselves from being the protagonist in the story (Canter & Youngs, 2015), which encourages greater momentum as participants are less likely to justify their actions and decisions. The modified protocol was also amended so that irrelevant questions (i.e., those relating to late adulthood) were deleted. Finally, prompts were also drafted, which, if required, could facilitate an in-depth conversation surrounding topics of interest (see Appendix 5 for adapted protocol).

4.2.3.2 Secondary data

Secondary data from p-NOMIS and OASys was used for Studies 2 and 3 (Chapters 6 and 7, respectively).

p-NOMIS is an operational database used in prisons in England and Wales to collate information about people in prison (MoJ, 2016). The system contains demographic information, such as a person's age, address (upon reception, release and curfew), type of offence(s) and sentence length. It also documents a person's movements inside and outside the prison, disciplinary infractions, visits history and activities such as paid work, education and rehabilitation programmes (MoJ, 2016). All information is referenced to a person's prison number, which remains constant over time, should an individual serve more than one prison sentence. As such, information regarding an individual's previous sentences can also be retrieved (including sentences served in Young Offender Institutions).

This thesis sought reports concerning an individual's history of self-harm and violence in prison during any sentence served between the ages of 18 to 21 within the specified dates. Following an act of self-harm or indications of thoughts of harm to self, in addition to triggering the ACCT process (the prison's process to support people at risk of self-harm and suicide), the person's p-NOMIS files are updated. Following an act of self-harm, a new entry, completed by a prison staff member, is created via a "Deliberate Self-Harm Report" to describe the incident, including the time, date and method of harm. Similarly, following an act of violence, an "Incident Involvement Report" is completed on p-NOMIS. In this report, a prison staff member states the role of each person involved in the incident, including 'fighter' and 'perpetrator', which remains visible on the individual's prison file. It should be noted that at the time of completing this report, the act of violence has not been 'proved' through the prison's investigation procedures. Because of this, the perpetrator is yet to be adjudicated. For Studies 2 and 3, a history of exhibited self-harm as per the "Deliberate Self-Harm Report" and a

history of violence as per the “Incident Involvement Report” was of interest. Narratives can be written in both these reports, although these were not sought for the thesis. The information from these reports informed the categorisations of four groups: dual harm, sole violence, sole self-harm, or no harm, as detailed in the empirical chapters.

The OASys is a risk assessment and management system used by prison and probation services across England and Wales (Howard, 2011). It enables probation staff to make structural professional judgements regarding how to best manage a person’s prison sentence and journey from prison into the community. In its entirety, an OASys is used to assess the likelihood a person will reoffend, identify risks and needs relating to offending behaviour, assess the risk of serious harm and develop individual sentence and management plans (Howard, 2011).

There are three different types of OASys assessments. Starting with the most comprehensive, a layer three assessment contains all OASys sections, including an offence analysis, criminogenic needs, a risk management plan and a sentence plan (MoJ, 2018d). Within this, criminogenic needs relating to a person’s offending behaviours are assessed, including accommodation, education, training and employability, relationships, lifestyle and associates, drug misuse, alcohol misuse, emotional well-being, thinking and behaviour, and attitudes. These are standardised routine assessments which are predominantly for individuals serving long or indeterminate sentences, people with sexual offence convictions, and those with violent offence convictions considered to be at mid-high risk of reoffending (HMPPS, 2015; MoJ, 2018d). A basic layer one assessment is a shortened version of a layer three and is used for individuals with fewer needs. In this version, a person’s risk of serious harm to others is assessed in addition to an offence analysis, risk management, and sentence plan. Lastly, the most basic assessment is completed for low-risk cases in prison, which considers a person’s risk of serious harm to others (including other peers in prison, prison staff, children and the public). Initial OASys assessments must be completed by probation staff within eight weeks of a person entering prison and reviewed at least once a year (HMPPS, 2015).

For Studies 2 and 3, information was obtained from the offending information section of an OASys, and the criminogenic need sections within the layer three assessment. In these assessments, an OASys assessor will interview a person in prison, and ask them several questions relating to a number of criminogenic needs. Based on the answers provided, the assessor will form a judgment of the degree of the problem and score the variable accordingly. The data ascertained in an OASys assessment is vast; therefore, only information regarding specific variables was requested. Tables 2 and 3 provide a complete list of the variables requested for the thesis, and a brief justification for their inclusion. Although OASys assessors can write qualitative answers on the assessment, this

information was not sought for this thesis. Finally, during instances where a person had several layer three assessments completed, data from the earliest assessment was retained. Details of the full sample included in the data share and demographics can be found in Appendix 6 and 7.

4.2.3.3 Sample size

Qualitative research aims to capture a depth of understanding as opposed to breadth, and therefore acknowledges the insights provided by individual cases (Boddy, 2016; Smith, 2015). Similarly, study 1 did not seek to generalise findings but to explore how participants made sense of their lives in a way that provided a rich and detailed understanding. Indeed, qualitative, idiographic methods advocate for small sample sizes to generate these rich and detailed understandings (Eatough & Smith, 2017), acknowledging that even a single case study can provide value to research (Boddy, 2016). However, no set sample size has been prescribed for narrative research. A sample size of six has been used within narrative research exploring self-harm (Hill & Dallos, 2012) and violence (Shaw, 2004), whilst others state that samples should be comprised of a 'few' individuals (Muylaert et al., 2014). Therefore, as study 1 aimed to explore each participant's idiographic life story in detail, a sample size of five was considered appropriate.

The sample sizes for Studies 2 and 3 were much larger. Both studies were conducted to explore whether the factors gauged from the qualitative exploration were generalisable to a larger sample of young adults in prison, how these factors were related to one another, and how specific they were to dual harm populations. As such, there was a requirement to have a large, representative sample. Having said this, it was decided that due to collecting information regarding self-harm and violence, only young adults in prison prior to the COVID-19 pandemic would be included. This is because the prison imposed several restrictions to limit the spread of COVID-19, which ultimately meant that people spent approximately 22.5 hours a day in their cells (HMIP, 2021). By reducing the opportunity to mix, rates of violence declined dramatically (HMIP, 2021). This would have likely skewed the overall findings of the studies since violence was less likely to occur, meaning that rates of dual harm were likely much lower and not representative of 'normal' prison life.

The earliest OASys files available were dated from 01/01/2014, and as such, the sample consisted of all 18-21-year-old males held in UK custodial establishments between 01/01/2014 and 31/12/2019. This included a total sample of 43,515 young adult men in prison. However, the inclusion criteria for Studies 2 and 3 specified that all young adults in the sample must have a layer three OASys assessment completed. In total, 47% (N= 20,403) of individuals met these criteria, which is similar to percentages reported previously (MoJ, 2018d). Half of these individuals (N= 10,202) formed the

sample for the exploratory analyses in study 2, and the other half (N= 10,201) formed the sample for the confirmatory analyses in study 3.

The sample size in studies 2 and 3 represents all young adult males in prison who met the inclusion criteria. This is because PPAS only deleted high-profile cases, cases whose data could not be linked, and individuals with multiple identifiers on the system from the data share. In addition to being nationally representative, the sample sizes for both quantitative studies vastly exceed the sample sizes required for correlational and regression analyses (the data analyses performed, as detailed in sections 4.2.4.2 and 4.2.4.3) according to guidelines (Wilson VanVoorhis & Morgan, 2007). Therefore, the sample sizes for both quantitative studies were considered large enough to gain sufficient statistical power to detect important effect sizes.

Table 2.

Variables ascertained from OASys case identification and offending information and associated scoring for studies 2 and 3

OASys section	Question	Scoring	Reason
Case identification	Ethnicity	Specific ethnicity code	Demographic information.
	Age first admitted to prison	Numeric variable, rounded to years	
Offending information	Number of court convictions at which convicted at a juvenile court under age 18	1 – 0 court appearances	People who dual harm in the community have early contact with the criminal justice system and are younger on entry to prison (Harford et al., 2016; Richmond-Rakerd et al., 2019; Slade et al., 2022).
		2 – 1 to 2 court appearances	
		3 – 3+ court appearances	
	Number of court appearances at which convicted aged 18 years and over (not including current appearance(s))	1 – 0 court appearances	
		2 – 1 to 2 court appearances	
Age at first conviction at any court	3 – 3+ court appearances		
	1 – age 18+		
	2 – age 14-17		
Age first in contact with police for a recorded caution, reprimand or final warning	3 – younger than 14		
	1 – age 18+		
	2 – age 14-17		
Offence category for primary offence	3 – younger than 14		
	Specific offence category	Demographic information.	

Table 3.

Variables ascertained from OASys criminogenic need information and associated scoring for studies 2 and 3

Criminogenic need	Question	Scoring (example)	Brief justification for each variable
Accommodation	Currently of no fixed abode or in transient accommodation	1 – permanent address 2 – no fixed abode	Gain demographic information on the transition from community to prison.
Education, training and employability	School attendance	1 – no problems (no disruption to education) 2 – some problems (truanted occasionally) 3 – severe problems (were excluded, expelled or did not attend school for long periods)	Adolescents who dual harm are more likely to achieve lower grades in school and college than those who do not dual harm (C. Chen et al., 2020; Swahn et al., 2013). Adults who dual harm are less likely to gain high school level qualifications or equivalent, have lower IQ reading scores on admission to prison, and demonstrate little improvement throughout their sentence (Slade et al., 2022).
	Problems with reading, writing or numeracy	1 – no problems (no revealed deficits or difficulties) 2 – some problems (reasonably confident in abilities with some problems impact day-to-day life) 3 – severe problems (problems in any of these areas)	
	Problems with learning difficulties	1 – no problems (no evidence of learning difficulties) 2 – some problems (mild learning difficulties) 3 – severe problems (severe learning difficulties)	
	Educational or vocational qualifications at or above GCSE level	1 – some qualifications 2 – no qualifications	
Relationships	Experience of childhood	1 – no problems (stable and satisfying relationships during childhood) 2 – some problems (short-term fostering during childhood) 3 – severe problems (inconsistent care, neglect or abuse)	ACEs consistently predict dual harm in previous research (Carr, Steeg et al., 2020; C. Chen et al., 2020; Richmond-Rakerd et al., 2019) and were highlighted in study 1.

	Current relationship status	1 – in a relationship living together 2 – in a relationship not living together 3 – not in a relationship	Adults who dual harm in prison are less likely to be married than people who sole self-harm (Slade et al., 2022).
Drug misuse	Drugs ever misused (in custody or community)	1 – no evidence of drug misuse 2 – previous drug misuse	A consistent relationship between drug use and dual harm is reported among adolescents and young adults (C. Chen et al., 2020; Harford et al., 2016; Spaan et al., 2022).
Emotional well-being	Difficulties coping	1 – no problems (feels able to cope with day-to-day life) 2 – some difficulties (poor concentration or upset for no known reason) 3 – severe difficulties (unable to cope with day-to-day life)	Highlighted within study 1 of this thesis.
	Current psychological problems/depression	1 – no problems (no recorded history of depression) 2 – some problems (unknown duration of documented psychological problems) 3 – severe problems (documented, prolonged history of depression)	Depression distinguishes dual harm from sole violent and no harming populations (Harford et al., 2012; Richmond-Rakerd et al., 2019; Steinhoff et al., 2022; Swahn et al., 2010).
	Current psychiatric problems	1 – no problems (no evidence of diagnosed psychiatric problems) 2 – some problems (has been recommended for psychiatric assessment) 3 – severe problems (documented psychiatric problems over prolonged periods)	Psychiatric disorders are over-represented among dual harm populations (Harford et al., 2018; Richmond-Rakerd et al., 2019).
	History of self-harm, attempted suicide, suicidal thoughts or feelings	1 – no previous acts or thoughts of harm to self 2 – previous acts or thoughts of harm to self	Adults and adolescents who self-harm are also likely to have engaged in violence (Richmond-Rakerd et al., 2019; Slade et al., 2020; Spaan et al., 2022)
Thinking and behaviour	Aggressive/controlling behaviour	1 – no problems (no evidence that violence has been used to control others)	Men in prison have reported that they self-harm to regulate their emotions, which

	<p>2 – some problems (does not consistently use violence in their offences or lifestyle)</p> <p>3 – severe problems (prolonged history of aggression and violence)</p>	<p>includes releasing unwanted aggression (Dixon-Gordon et al., 2012; Pope, 2018).</p>
<p>Problem solving skills</p>	<p>1 – no problems (recognises and works through problems effectively)</p> <p>2 – some problems (recognises the need to solve problems, albeit struggles to do so)</p> <p>3 – severe problems (uses aggression to solve problems)</p>	<p>Problem-solving skills are considered an interpersonal vulnerability factor within theories of self-harm (Nock, 2010) and were alluded to within study 1 of this these.</p>

4.2.4 Data analysis

This section details how the data from each study were analysed. The qualitative data analysis method is discussed, and considerations around why this method was most appropriate and how quality was assured throughout the study are outlined. The quantitative analyses utilised in Studies 2 and 3 are also justified.

4.2.4.1 Narrative analysis

In keeping with the aims of study 1, a narrative psychological approach was employed. This approach is influenced by a social constructivism worldview, which maintains that people construct the world based on the meanings they have taken from their life experiences (Walker, 2015). However, narrative psychology extends this and seeks to understand people's lives through the narratives they tell and share with others (Langdridge & Hagger-Johnson, 2013). That is, it considers how people use language and narratives to 'story' their lives. As study 1 aimed to explore the life stories of young adult men in prison with a history of dual harm, it followed logic that storied data, or rather narratives, were collected. This data could then be analysed to shed light on how participants use narratives to reconstruct their life experiences and understand themselves (Howitt, 2016).

Narrative theorists propose that people seek order and coherence in their experiences and use stories to make sense of and describe their lives (Crossley, 2000; Murray, 2015). These narratives are constructed by organising and linking together plots, events, and characters, often based on temporal structures (Polkinghorne, 1988; Sarbin, 1986). Temporal configurations can present a 'past-present-future' (Crossley, 2000) or 'beginning-middle-end' (Murray, 2015) format. Ordering and connecting information in this way enables individuals to bring a sense of meaning and coherence to experiences which could otherwise be considered random or disconnected (Murray, 2015; Polkinghorne, 1988; Salmon, 2013) and provides a sense of continuity (Murray, 2015).

Not only do narratives reveal a person's previous experiences, but they have also been found to guide and shape future behaviours (McAdams, 1993). Specifically, McAdams (1985) states that people align their actions with the stories they tell about themselves. However, it should also be noted that narratives may not reveal 'organic' truths and therefore do not perfectly describe how a person lived through a specific reality (Crossley, 2000). Instead, narratives are important because they reveal how an individual made sense of and chose to frame their reality (Maruna, 2001). For instance, research investigating narratives of trauma found that participants framed their experiences into 'rebirth plots', whereby following adversity, they became a 'new' person (Robinson & Smith, 2009). As such, it is not only the information told in the narrative which is important, but also how the information is framed.

Due to the ability for stories to provide connection and coherence, narrative approaches have been specifically recommended to understand how individuals with previous trauma and those who exhibit self-destructive behaviours make sense of their experiences (Epstein & Erskine, 1983; Sharp et al., 2018). It was therefore considered that narrative analysis was appropriate to explore how people who dual harm narrate and make sense of their life experiences, including their dual harm, and how these are integrated within their broader life stories.

4.2.4.1.1 Analytical procedure

Researchers are yet to form a consensus regarding how a narrative analysis should be performed (James, 2017). Despite this, through researchers documenting their analytical procedures, patterns of standard practice have emerged. When analysing the data for study 1, some of these patterns were drawn upon.

Step 1. Becoming familiar with the transcripts

First, all interviews were transcribed verbatim, a technique of converting spoken language to text-based data. Significant pauses and emotional responses (e.g., laughing or crying) were noted in the transcripts. To ensure accuracy, after each transcript was completed, it was checked against the original recording and was re-read multiple times, aiding familiarity (Crossley, 2000). Notes were made to capture initial themes or patterns within and between participants' transcripts (Sawer et al., 2020).

Step 2. Identifying tone, rhetoric and identity work

Next, going beyond purely what was said in the interview, the overarching tone of each transcript was documented, along with any variations throughout (Crossley, 2000). To achieve this, the researcher was required to consider how the narrator constructed their narratives and through what emotions. Although Crossley (2000) notes tones such as optimism or pessimism, Langdridge (2007) warns against using predetermined descriptors and instead promotes using the most appropriate descriptor to capture the data. To reveal rhetoric functions, the specific aim and function of each narrative was identified (Langdridge, 2007), for instance, whether the narrative was presented to justify a behaviour, criticise a situation or distance the narrator from an event. Lastly, participants' positioning throughout their narrative, and the consistency of this, was identified (Langdridge, 2007).

Step 3. Composing a narrative summary

Combining Murray's (2003) concept of a narrative summary and James' (2017) narrative construction, a chronological timeline was created for each narrator. This documented significant life events, the initial patterns from the familiarisation process and the narrative tone, rhetoric and identity work

previously highlighted. Here, the coherence of each narrative was also explored, which pertains to whether the overall account remained consistent throughout and made sense as a coherent whole (Atkinson, 1998; Riessman, 2008). In constructing a coherent narrative, the narrator must i) position the story within a specific context ('orientation'), ii) follow a logical structure ('structure'), iii) use affective tones to signify significance and relevance ('affect'), and iiiii) communicate broader meanings of the experiences in relation to one's identity ('integration') (Baerger & McAdams, 1999). Any discrepancies within the narratives were highlighted and noted.

Step 4. Identifying themes of convergence and divergence across participants

Lastly, while not losing sight of the described narratives, key themes were identified within and across participants' narratives. By doing so, the aim was not to create individual codes but to capture themes within the data (Langdrige, 2007). Each theme was transferred onto a post-it note with related extracts and line numbers and was clustered together based on shared meanings and/or broken down into sub-themes if needed. This was an iterative process during which several refinements and adjustments were made. Throughout this step, the original transcripts were re-visited to ensure all themes were grounded in the data.

4.2.4.1.2 Considerations for alternative qualitative methodologies – Interpretative Phenomenological Analysis (IPA)

Whilst narrative analysis was determined as the most appropriate qualitative methodology for this research, other analytic methods, such as IPA, were considered. IPA has philosophical underpinnings of phenomenology, idiography and hermeneutics (Smith, 2017). IPA seeks to gain access into an individual's life world and the experiences that comprise this (Smith et al., 2009). As such, it follows the belief that individuals are not passive in experiencing reality but seek to understand and interpret it (Brocki & Wearden, 2006). Considering this, IPA could have been used as a suitable analytic method for study 1 as it would have provided insight into how young adults in prison made sense of their dual harm behaviours. However, although IPA is useful for understanding individual experiences, narrative analysis focuses more holistically on several experiences throughout a person's life, in keeping with the study's aim of understanding participants' broader life stories. Here, the aim was not to simply understand how young adults made sense of their dual harm behaviours but to explore how they integrated such experiences into their broader life stories. This aim aligns with narrative analysis, which explores how participants re-tell their experiences in relation to their broader understandings of their life and sense of self. Therefore, narrative analysis offered a deeper understanding of how participants had processed their experiences and how these were used to shape and re-mould their understanding of themselves.

Quality control

Reliability (the reproducibility of findings) and validity (the extent to which findings accurately measure the topic being investigated) have become criteria for assessing rigour within quantitative research. However, Lincoln and Guba (1985) state that reliability and validity should not be used as criteria for research within the constructivist paradigm. Instead, they claim that quality should be assessed through trustworthiness, which consists of four criteria: credibility, transferability, dependability, and confirmability. Each of these criteria was considered throughout study 1 to ensure the trustworthiness of the research.

Credibility

Credibility is considered the equivalent of internal validity in quantitative research (Lincoln & Guba, 1985). Credibility establishes whether the research findings are drawn from the original data and accurately reflect participants' experiences (Graneheim & Lundman, 2004). To ensure credibility, the research should be planned and conducted in line with good practice principles and guidance (Bryman, 2016). Consistent with this, ethical procedures were fully adhered to, data collection methods considered most appropriate were used, and the analysis was conducted in accordance with the research aims. Another credibility technique is to have prolonged engagement in the research establishment, allowing the researcher to gain insight into participants' lives (Onwuegbuzie & Leech, 2007). Linked to this, the researcher was previously employed by the prison where the qualitative data were collected, representative of having prolonged engagement in the field (Anney, 2014). Within the job role, she would interview people before leaving prison and was therefore able to conduct a successful interview and generate quality data. This prior experience also enabled the researcher to build rapport and trust with young people in prison, which can also improve the credibility of accounts (Shafi, 2020). Lastly, triangulation has also been achieved, which involves using different methods and sources to corroborate findings concerning the same phenomenon (Onwuegbuzie & Leech, 2007). For instance, findings from the qualitative study were tested in studies 2 and 3 using different data collection and analysis methods. This has allowed for a multi-dimensional understanding of dual harm, which will likely increase the credibility of the findings.

Transferability

Transferability is in preference to the quantitative terminology of external validity or generalisability, whereby findings are used to make predictions regarding different populations. However, the qualitative study aimed to explore participants' life stories, which prioritised the need for rich and in-depth data. As such, the small sample size dictates that generalisability to the broader population is not possible (Shenton, 2004). Instead, in the context of qualitative inquiries, transferability refers to

the extent to which findings can be applied across similar populations (Polit & Beck, 2010). For instance, the findings from study 1 may apply to other young adults in prison who dual harm. To further establish transferability, Lincoln and Guba (1985) suggest that it is the researcher's responsibility to ensure that sufficient information is provided regarding the context of the study and data collection, also referred to as a 'thick description'. This enables others to replicate the research with similar populations to explore whether the findings can be transferred (Anney, 2014). Information representative of a 'thick description', which details the research procedures and participants, is further provided in Chapter 5.

Dependability

Parallel to reliability within quantitative research, dependability refers to the stability of findings and is established using an auditing process (Bryman, 2016). It is proposed that researchers create an audit trail which accounts for decisions and activities regarding data collection and analysis. Akin to this, the researcher kept detailed records of the research process, including research aims, ethical considerations, participant recruitment, interview transcripts and data analysis, each of which were cross-checked by the supervision team. Peer examination is another technique to ensure dependability. In keeping with this, all data analyses and subsequent interpretations were discussed within supervision meetings to ensure all findings were grounded in the data (Anney, 2014; Sandberg, 2005).

Confirmability

Confirmability refers to the extent to which the researcher's biases, motivations and perspectives influence their interpretations (Baxter & Eyles, 1997). Whilst qualitative research cannot be entirely objective, the researcher must ensure that a 'bottom-up' approach to analysis is adhered to, meaning that all interpretations are grounded in the data and not influenced by their own pre-judgements or beliefs (Tobin & Begley, 2004). Through researchers making themselves aware of their pre-biases or theoretical judgements, these personal values can likely be somewhat managed in the research process, which increases the confirmability of the analysis (Willig, 2013). As highlighted previously, using an audit trail helped achieve confirmability as it outlined the research process and evidenced how data analysis decisions arose (Bowen, 2009). This documented how the analysis was grounded in the data and was based on the original transcriptions, and allowed the researcher to reflect on her decision-making processes to recall whether her biases influenced the analysis.

4.2.4.2 Gaussian Graphical Model (GGM)

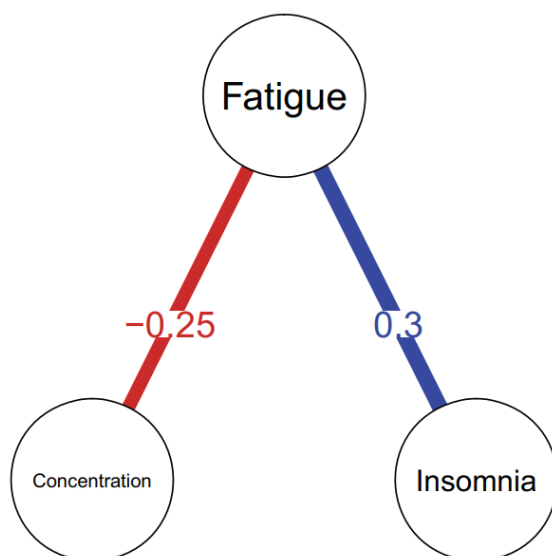
As noted, study 2 utilised secondary data from two national prison databases. The variables collected for this study were informed by the narrative analysis specified above and previous dual harm

literature. To meet the main aim of this study, which was to explore the relationships between a range of demographic, developmental, criminological and clinical variables across four distinct groups of young adult men (dual harm, sole violence, sole self-harm and no harm), a GGM was considered most appropriate. Aligning with the exploratory nature of this study, a GGM is useful to explore relationships between variables and ascertain whether they are correlated (Bhushan et al., 2019). Specifically, GGMs examine the partial correlations between variables, the correlation between two variables while controlling for all other variables in the model (Bhushan et al., 2019; Epskamp et al., 2018).

As GGMs are a type of network analysis, the partial correlations between variables are visually depicted through a network (Epskamp et al., 2018). Taking Figure 11 as a simple example, each variable in the study is presented as a 'node' within the plot (e.g., fatigue). Nodes can represent single variables, full scales or sub-scales (Hevey, 2018). Partial correlations between variables are represented by 'edges', depicted by lines between each variable. The line's thickness demonstrates the partial correlation's strength, with thicker lines indicating stronger correlations and thinner or absent lines indicating weak or non-existent correlations, respectively. Lastly, red or orange lines indicate negative partial correlations, whereas blue or green lines indicate positive correlations (Epskamp et al., 2018). By visually representing the partial correlations, researchers can gain initial insight into which variables relate to each other (Bhushan et al., 2019; Epskamp et al., 2018).

Figure 11.

Example of a simple GGM plot (Epskamp et al., 2018, p. 455)



Plotting one GGM for each sub-group within the analysis allows similarities and differences between the relationships to be explored across groups (Bhushan et al., 2019). This aligns with study 2 which sought to explore how relationships between variables differed across the four different population

groups. Therefore, by visually inspecting the plots and confirming similarities and differences with the corresponding partial correlation coefficients, the aims of study 2 were met.

4.2.4.3 Multinomial Logistic Regression (MLR)

Lastly, study 3 aimed to investigate whether the variables identified as important within the life stories and GGM analyses could statistically distinguish young adults who had dual harmed in prison from those who had engaged in sole violence, sole self-harm, or had not engaged in either harmful behaviour. MLR is an extension of a binary logistic regression and allows for more than two levels of an outcome variable so long as the categories are independent (Bayaga, 2010). The outcome variable in study 3 met these criteria since individuals could only be in one of the four outcome groups. Moreover, within MLR, predictor variables can be either categorical, continuous, or both, aligning with the OASys variables used to predict group membership within study 3 (El-Habil, 2012). As such, MLR was considered the most appropriate statistical test to investigate which variables distinguish the dual harm population from other groups.

4.3 Reflections

4.3.1 Additional ethical considerations

It is important to recognise how I could have impacted the research process. In Chapter 8 (section 8.5.1), I reflect on an issue initially highlighted by the NRC regarding how I would manage having previously been employed as a Resettlement Coordinator within the prison visited during study 1. Here, however, I will discuss the ethical considerations regarding how my previous role could have affected the research.

Initially prompted by the NRC, prior to data collection I considered how to effectively manage instances in which people I had previously worked with wished to participate in the study. First, as the prison houses people serving less than 12 months unless an individual was reconvicted, I would not likely interview people I had worked with, having left my professional role in December 2018. Moreover, the prison only houses up to 200 young adults, further reducing the likelihood of interviewing someone I had once supported. To the best of my knowledge, I had never worked with or supported any of the five men interviewed for study 1. However, once, someone I had worked with came to speak to me whilst I was introducing myself to a potential participant. The potential participant (who was friends with the man I had previously supported) explained that he was considering participating in the research. The man I had worked with applauded this and replied “yes, definitely help Lindsay out, she’s done a lot for me in the past.” As a result of this comment, I was worried that the potential participant might have felt pressured to continue engaging with the research, thus threatening the essence of *true* consent. To help ensure that the individual’s decision

to participate in the study was firmly his (i.e., without being influenced by his friend's comment), during this interaction, and again in private, I reiterated that participation was entirely optional and that there were no repercussions, nor would anybody else know, if he did not wish to take part in the research.

The second ethical reflection concerns the emotionality of the LSI interviews. In the 'Risk of harm' section, I noted that I did not access counselling services following the data collection period. Nonetheless, the statement that research can be "distressing and emotionally isolating" (Hallowell et al., 2005, p. 11) resonated with me. As mentioned, whilst participants did not have to speak about traumatic life events, many re-told such stories. Working with people in prison previously had helped to improve my emotional resilience when listening to harrowing accounts, as generally, I was able to detach from the interviews I had conducted. Having said this, some stories, particularly those which resonated with aspects of my own life, were difficult to process. Following these instances, I found myself privately reflecting during the drive home from the prison. It was beneficial to be aware of how similarities between participants' life stories and my own made me feel somewhat uncomfortable, and I was able to 'check in' with myself in subsequent interviews if a similar scenario occurred. In addition, the interview with the emotional participant (discussed previously) took its toll. The interview left me feeling drained, and I questioned whether I was right to continue the interview or if I should have terminated it as soon as he began to get visibly upset. Following this, I found it reassuring to discuss the matter in supervision and read articles highlighting the importance of being guided by a participant's wishes, despite sometimes being uncomfortable by their outward emotion (Kavanaugh & Ayres, 1998).

4.3.2 The impact of COVID-19 on the methodological approach

The COVID-19 pandemic posed several methodological implications. Prior to March 2020, I had planned to conduct three studies, each using primary data collection methods. I created a questionnaire to understand the functions of self-harm and violence as understood by young adult men in prison with a history of dual harm. The questionnaire included items generated from a literature search on the functions of self-harm and violence, an existing scale of the functions of self-harm (Klonsky & Glenn, 2009) and knowledge gained from study 1 of this thesis. As I was keen to ensure the questionnaire was accessible to its target population, I organised a peer review group (10 young adults in prison) to pilot the questionnaire and provide initial feedback. Once edited, the questionnaires were due to be distributed to young adults across numerous custodial establishments. However, the National Research Committee curtailed all primary data collection in March 2020, and external researchers could not enter prisons. It was unlikely that the restrictions preventing external

researchers from entering prisons, especially for face-to-face research, would be lifted prior to the third year of the PhD. As such, Studies 2 and 3 had to be adapted.

After many discussions, it was concluded that the most feasible option to complete the thesis was to use secondary data from p-NOMIS and OASys. Utilising these databases, I was able to access information regarding self-harm and violence in prison, in addition to information about a person's life prior to imprisonment. When drafting the two new studies, I had to ensure that both studies: i) met the thesis aims, ii) created a coherent narrative throughout the thesis, and iii) accounted for ongoing pandemic restrictions. From this, a new angle from which to investigate dual harm was decided upon and the final studies were re-drafted. As such, whilst the thesis had always planned to adopt an exploratory sequential mixed methods design, the studies and research aims which constitute this differ. I also reflect on the impact of COVID-19 on the PhD journey and thesis in Chapter 8 (section 8.5.2).

4.4 Summary

This chapter has outlined the methodological approach taken in this thesis. It has justified the use of an exploratory sequential mixed methods approach, discussed the relevant ethical considerations for the research, and outlined the research process for all three empirical studies. The following chapters (Chapters 5-7) detail the empirical studies in more detail.

Chapter 5: Exploring the life stories of young adult men in prison with a history of dual harm

5.1 Introduction

As discussed in section 2.6, it is suggested that people who dual harm have a distinct profile and should be considered different from those who sole harm (Slade, 2019). For instance, adults (aged 18+) who engage in dual harm in prison are more likely to use highly lethal methods of self-harm, set cell fires and damage prison property than those who exhibit sole self-harm or sole violence in prison (Kottler et al., 2018; Slade, 2018; Slade et al., 2022; Slade et al., 2020). However, whilst the evidence base for dual harm exhibited by adults in prison is growing, no research has specifically explored dual harm by young adults in prison, with only 7.4% of participants younger than 21 in Slade et al.'s (2020) research. This is concerning given that self-harm and violent behaviours typically emerge during young adulthood (Sahlin et al., 2017), and the prevalence of dual harm has been found to double between ages 16 and 22 (Steeg et al., 2023). As such, an individual may exhibit dual harm prior to adult imprisonment, yet the pre-prison developmental pathways to dual harm remain largely unknown.

At present, risk factors form an understanding of the pathways to dual harm amongst adolescents and young adults. Young adults who report exposure to childhood maltreatment and multiple types of victimisation are more likely to dual harm than sole self-harm (Richmond-Rakerd et al., 2019). Moreover, adolescents with a history of dual harm are more likely to report low self-control, childhood hospital admission, higher rates of psychotic symptoms, frequent binge drinking and cocaine use than those who engage in sole harm (Harford et al., 2012; Steinhoff et al., 2022; Webb et al., 2017; Webb et al., 2012). Having said this, due to the lack of idiographic research, the contextual relevance of these factors, as perceived by people who dual harm, are unknown (Webb et al., 2017).

Rich insight into the developmental trajectories of self-harm and violence, and how people make sense of such behaviours, has only typically been provided by sole harm populations. As an example, people in prison with a history of violence have identified ACEs, a lack of support for previous trauma, anger issues, poor coping skills, substance misuse issues and low academic attainment and achievement as being crucial in their life trajectories (Elison et al., 2016; Honorato et al., 2016; Jansson, 2019). Some of these life experiences (including ACEs, academic pressures and anger issues) also coincide with the life stories of young adults with a history of self-harm and suicidal behaviours (Séguin et al., 2014; Wojciechowski, 2017). Specifically, young adults have recognised that following ACEs, in the absence of effective coping mechanisms, self-harm can help them to cope with negative

arousal (Wojciechowski, 2017). However, at present, only two studies have qualitatively explored dual harm, both of which have been conducted with adult men in prison (Hemming, Bhatti et al., 2020; Pickering et al., 2022). This is despite half of the participants in Pickering et al.'s (2022) research first engaging in dual harm before adulthood. Therefore, research is needed to explore how young adults in prison with a history of dual harm make sense of their life experiences and the importance of these in relation to their self-harm and violence.

This research will consider how young adults (aged 18-21) in prison with a history of dual harm understand their life experiences, particularly their self-harm and violence. A narrative psychological approach will be employed as narratives attach meaning to experiences and behaviours, particularly those which deviate from social norms (Maruna & Butler, 2013; Presser, 2010b).

5.2 Research aims

The main aim of this study is to explore the life stories of young adult men in prison with a history of dual harm. To achieve this, the secondary aims are:

- To explore how participants narrate their life history to make sense of their experiences;
- To ascertain the key factors or life events within participants' life trajectories that they feel led them to engage in dual harm;
- To identify thematic commonalities and differences across participants' narratives.

5.3 Method

5.3.1 Participants

Participants were sought from a category B local resettlement prison in South Yorkshire, which houses up to 200 young adults. To gain a volunteer sample, posters advertising the research were located on all prison wings. A prison wing consists of a number of cells where people in prison sleep, shower etc. and one communal area. The prison had a total of 12 prison wings. Posters referred potential participants to a paper-based expression of interest form and an alternative electronic technique to contact the researcher. Using these, individuals could express interest and indicate their availability to meet with the researcher, following which a meeting was scheduled and communicated to the potential participant. Chapter 4 (section 4.2.2) details the sampling methods used in this study, and the inclusion and exclusion criteria.

Five young adult males aged 18-21 ($M = 19.60$; $SD = 1.14$) participated in the research, all of whom confirmed a history of dual harm. Three participants had dual harmed in the community, and two had progressed from sole harm in the community (one sole violence and one sole self-harm) to dual harm in prison. Participants were White British ($n = 4$) or Mixed, White and Black Caribbean ($n = 1$) and had

spent between 47 and 246 days ($M = 136.40$; $SD = 85.52$) in prison during their current sentence. Table 4 displays participant demographic information using pseudonyms provided by the researcher.

Table 4.

Study 1 participant demographic information.

Participant pseudonym	Age at time of interview	Ethnicity	Days in prison, on current sentence	Total interview length
Ethan	20	Mixed, White and Black Caribbean	246	3hrs 4mins
Ben	20	White British	197	1hr 55mins
Matty	18	White British	62	2hrs 35mins
Shaun	19	White British	130	3hrs 19mins
Brendon	21	White British	47	1hr 15mins

5.3.2 Data collection

Upon arrival, participants were given the option to re-read the participant information sheet or have it read to them. It was made explicit that no rewards were offered in exchange for participation, and individuals were encouraged to ask any further questions. Participants were asked to complete a consent form confirming that they understood the information presented and knew what the research entailed. The researcher also explained the consent form verbally to ensure each participant fully understood its content. Finally, before being interviewed, each participant was asked to provide verbal consent for the interview to be audio-recorded.

Life story interviews (LSI) were conducted in private rooms within the prison's amenities building. People in prison attend this building for educational, psychological and religious purposes. The corridors of the building are patrolled by prison officers, and it is predominantly a calm and quiet setting. Whenever possible, rooms within the chapel were sought, though education classrooms were also booked if needed. These rooms allowed participants to narrate their life stories in private, without worrying about being overheard or interrupted by others. Interviews lasted between 75 and 199 minutes ($M = 145.60$; $SD = 50.83$). On average, LSIs with adults last approximately three hours onwards (Atkinson, 2002). Therefore, the LSIs in the current study were of suitable length considering the young age of the participants.

Interviews were guided by a semi-structured interview schedule. This consisted of an adapted version of McAdams' (2008) 'Life as a Book' and Canter and Youngs' (2015) 'Life as a Film' template. As

described previously (section 4.2.3.1), both LSIs facilitate participants to construct an in-depth narration of their life by encouraging them to consider their life as if it were a book or film, respectively. Questions were primarily adapted from McAdams' slightly longer protocol; however, an overarching topic of a film was presented. The rationale for this, and more information on the protocol used can be found in Chapter 4, section 4.2.3.1.

First, each participant was asked to envision their life as if it were being made into a film and consider how it could be deconstructed into several scenes, each depicting an important life event. After this overview, additional key episodes in the participant's life were explored. These included:

- Key scenes – high point, low point, turning point, positive childhood memory, negative childhood memory, vivid adolescent memory, vivid adult memory, wisdom event
- Personal ideology – religious beliefs
- Challenges – greatest challenge, health, loss, failure or regret
- Influences on the life story – positive, negative
- Future – next scene, dreams, aspirations, projects
- Life theme – the genre of the film, the central message
- Reflection

Interviews were completed across up to three sessions per participant. One participant (provided with the pseudonym Ben) only completed half the interview schedule due to being granted release on bail between interview sessions. Following interview completion, the researcher answered all questions posed by participants, explained their right to withdraw, and signposted additional support if it was required. This information was provided in both verbal and written form. All interviews were audio-recorded using a password-protected dictaphone and transcribed verbatim.

5.3.3 Analytic technique

Interviews were analysed using a narrative psychological approach to understand the life of people who dual harm as it is "lived, experienced and interpreted" (Crossley, 2000, p. 45). Narrative analysis emphasises that individuals create and internalise psychologically meaningful stories which link together their past, present and anticipated future life. These narratives provide coherence and meaning to otherwise incongruent experiences and are considered a tool for which people make sense of and describe their life history (McAdams, 2012). Incoherent narratives also provide valuable insights into a person's life, as they represent unfinished or disjointed accounts and reveal truths about experience and meaning making (Murray, 2015). Of relevance for this thesis, incoherent accounts often result from a chaotic, traumatic and dysfunctional life (Crossley, 2000; Lundin, 2017). Having said this, narrative researchers understand that narratives are unlikely to describe an event in

exact detail; rather, they are representations of lived experiences that can be changed or reinterpreted over time (Gilbert, 2002). These representations are also subject to how the narrator wishes to present themselves, as people live and act in a way that corresponds with the stories they tell (McAdams, 1993). Therefore, how an individual narrates their life says as much about their identity and personality as it does about the events they have experienced. Due to this, narratives are considered a vehicle for identity management, particularly during adolescence and emerging adulthood (McLean & Pratt, 2006). More information regarding the methodological approach and a detailed description of the analytical procedure can be found in Chapter 4, section 4.2.4.1.

5.4 Analysis and discussion

Within their life story, each individual made sense of their experiences by using narrative patterns (Crossley, 2000). Specifically, life stories were presented with a beginning, middle and end formation (Murray, 2015), held together by plots, events and characters (Sarbin, 1986). Significant life events were linked to past experiences and relationships, ranging from narratives of childhood through to teenage years, and lastly to present day and anticipated future. Reflecting this, three superordinate themes were generated from the data (see Table 5). The overarching themes of ‘Making sense of a traumatic childhood’, ‘Exploring challenges during late adolescence’ and ‘Present me vs possible future me, in addition to each underlying subtheme, are discussed below.

Table 5.

Narrative superordinate and subordinate themes

Narrative Superordinate Themes	Narrative Subordinate Themes
1. Beginning: Making sense of a traumatic childhood	1.1. Turbulent family relationships 1.2. False dawns 1.3. Navigating peer relationships
2. Middle: Exploring challenges during late adolescence	2.1. Striving for agency 2.2. The highs and lows of communion 2.3. The self as a protector
3. End: Present me vs possible future me	3.1. Grappling with the present self 3.2. Custodial dual harm 3.3. Hopeful for the future self

5.4.1 Superordinate theme 1: Beginning: Making sense of a traumatic childhood

The crux of this theme is the commonality of a turbulent, largely negative childhood. Participants struggled to recall a 'positive childhood memory' claiming that "*No, there's nothing, hell no*" (Shaun), "*I'm not really too sure*" (Ben), and "*I don't even have a positive time in my childhood*" (Matty). By contrast, when asked about a 'negative childhood memory', participants described life scenes in great detail. These scenes centred around ACEs, including being the victim of abuse or neglect or witnessing intimate partner violence. However, despite the nuances of their individual experiences, all participants understood their childhood as pivotal to their later identity, behaviours and relationships. Within their narratives of childhood, three themes were apparent: 'Turbulent family relationships', 'False dawns', and 'Navigating peer relationships'.

Subordinate theme 1.1: Turbulent family relationships

Childhood narratives were rooted in stories of relationships. Participants wished to feel safe and cared for, though this was often far from their experienced reality. This desire to relate closely to others is fundamental to human existence (Bakan, 1966). McAdams et al. (1996) argue that 'communion' is a central theme within life story narratives, as it captures one's motivation for love, attachment, and nurture. For Shaun and Ethan, the family members expected to provide such care were the very people denying the young men communion.

Extract 1, Shaun

*My dad abused me. Before I got put in care my dad and my auntie both abused me and my sister, I got stabbed by my mother, I got my bedroom set on fire by my auntie, when I was still in the bed obviously, I got starved, I got left in the house on my own when I was just a baby... was covered in cuts, scars and bruises and had to have all my teeth taken out, which must explain why I look like a vampire now, but you know, roll with the punches *Shaun laughs*.*

Extract 2, Ethan

It was always my job to protect mum, it's who I am... Telling my dad to not hit my mum. Probably that is the worst negative because that was horrible, and seeing my mum cry, screaming and that to then like, telling my dad to get off her and that, she used to scream 'help' as well like, 'help, help me please, my kids are here please don't do it to me' and shit like that and then when mum was pregnant it all changed, changed him man... I felt happy, I felt like I finally had my family back again... he treated my mum like a fucking, you don't even understand, he used to go, he used to

do everything for her... I can picture it now, my mum was sat, like sat on the, like, leant against the side and my dad was on his knees kissing my mum's belly.

Shaun described being a victim of physical abuse perpetrated by immediate and extended family members, and Ethan recalled witnessing intimate partner violence within the family home. Compared to Ethan, whose narratives of childhood were embedded in emotion, Shaun depersonalised his experiences and pragmatically expressed the need to “*roll with the punches*”. This softening technique deflected the conversation away from his harrowing accounts, perhaps indicative of Shaun’s detaching from the painful experience. According to Douglas (1984), people seek to detach from painful experiences which threaten the self by refusing to invest their emotions, and instead, they project a sense of indifference. As such, Shaun’s expression may have functioned as a self-preservation technique to position himself further from the abuse he experienced. Equally, this distancing could signify Shaun not wanting to engage with the topic or the interview more generally, on an emotional level. Through doing so, he diminished the emotional and psychological effects of his experience.

Despite Shaun’s softening techniques, both young men positioned family members as villains within their narratives. Shaun clearly described the abusive roles that his father, mother and auntie played. Ethan, on the other hand, presented a juxtaposition. First, he positioned his violent father as the villain in the story. However, towards the end of the narrative, Ethan fondly recalled how his father had “*changed*” and would dote on his mother during her pregnancy. This presented an initial incoherence in the narrative whereby at first, his father was presented as someone who prevented a sense of communion, yet was then the reason Ethan recalled having his “*family back again*”. This reflects a redemption sequence whereby the narrator transforms a negative life scene into a positive life scene (McAdams et al., 1997). That is, Ethan storied his negative experiences (witnessing intimate partner violence in the family home) as a way to appreciate happier, more idyllic family moments, akin to how suffering has been described as a worldview moderator (Hall et al., 2010).

ACEs, or ‘crisis episodes’, can be an integral part of identity development (Robinson & Smith, 2009), which appeared to be the case for both participants. Shaun positioned himself as a helpless and powerless victim by illustrating the extent of his abuse (the variety of events and the number of perpetrators). His recollection of “*I got my bedroom set on fire by my auntie, when I was still in the bed obviously*” reinforced his innocence and the inability to protect himself from his abusers. Ethan, on the other hand, made sense of his ‘negative childhood memory’ by construing himself as his mother’s protector. Despite being young, he described intervening and protecting his mother and by

doing so, he narrated himself as a courageous child. The quote “*it’s who I am*” suggests that this protective role remains part of his current narrative identity.

Whilst Ethan rigidly associated care and compassion with his mother, others reported turbulence in their mother-son relationship. Ben’s narrative contrasted the need to protect his mother with the lack of care she provided him, whereas Matty blamed his mother for the scenes he witnessed as a child.

Extract 3, Ben

One time my mum and my brother had a problem, like my brother said summats, but like my head went, because that’s my mum, she’s the only person I’ve looked up to like, from ever since I was young like, my brother said summats dumb, and I tried to get a knife and tried to stab him but I only done it because that’s my mum... My mum took me to the walk in doctors and they said that my mum was starving me and I’m trying to break it to them that like all I’m doing is eating sweets and drinking pop, which I’m not even allowed because of the sugar, but it’s all she gave me.

Extract 4, Matty

I say it to my mum now that she was like partly to blame because if she walked out of that household I wouldn’t be, I wouldn’t have seen what I seen. I wouldn’t have seen my mum getting beat up and plates getting thrown in her face and stuff like that, so, that’s obviously when she finally got up and left... If I was to, if I hadn’t seen what I seen in that house, I wouldn’t be the way I am.

Ben’s narrative revealed the conflicted feelings he had towards his mother. As per extract 3, it was initially suggested that Ben idolised his mother, having “*looked up*” to her since he was a young boy. This may explain why Ben felt the need to protect his mother against potential threats, even if the threat was posed by his brother. In constructing the event, Ben factually and flippantly re-told how he “*tried to stab*” his brother, although he did not position violence at the narrative’s core. Instead, he was keen to explain why such a response was necessary, and presented himself as a loyal and protective son. By contrast, Ben implied a lack of care and understanding from his mother, particularly concerning his medical condition, diabetes. Although Ben never used the term neglect, he re-told how healthcare professionals believed that his unstable blood-sugar levels indicated starvation. This aligns with the definition of medical neglect offered by The National Society for the Prevention of Cruelty to Children (NSPCC, 2021). Despite this, Ben did not blame his mother, which differed to how Matty presented his mother-son relationship.

Matty also witnessed intimate partner violence within the family home. However, unlike those who sought to protect their mothers from violence, Matty blamed his mother for the violence he witnessed. This positioned both his stepfather and mother as villains in the narrative, as according to Matty, both played a role in the traumatic scenes he witnessed. As such, Matty positioned himself as the only real victim in the narrative. This was strengthened by his construction of a coherent identity, whereby he used his past experiences to construct his current identity (i.e., *“if I hadn’t seen what I seen in that house, I wouldn’t be the way I am”*). This resonates with literature which suggests that following a traumatic experience, a person seeks to find coherence and meaning in the event and evaluate its implications in relation to the self (Tuval-Machiach, 2004). Indeed, Matty found coherence by creating a narrative of order; he made sense of his identity and behaviours by storying them as predictable due to his early life experiences (Kroch et al., 2021).

In keeping with the concept of turbulent family relationships, stories of love and compassion interrupted the trauma narratives. In particular, a sense of communion was associated with the participants’ grandparents. Here, Matty referenced how his grandfather was *“more like a father”*.

Extract 5, Matty

I’ve looked up to my grandad as a dad, like, every time my mum argued with that partner of hers we’d go straight to my grandad’s and stay there for a couple of weeks and he’d sort everything out. He would just mould everything back together so everything was alright again... My grandad even took me to school. That’s the sort of stuff you should be doing with your mum and dad when you’re growing up. Learning to ride bikes and stuff but that’s what my grandad did. So that relationship with my grandad is more like a father. I looked up to me grandad because he was basically my dad.

Matty storied his grandfather as someone who provided safety and security as he *“moulded everything back together”* when things went wrong. This differed from how Matty made sense of his relationship with his mother, who he felt should have left her violent relationship to protect him from witnessing traumatic scenes. In narrating this difference, Matty understood that his grandfather’s simple acts of care provided a sense of communion that was lacking elsewhere, which signifies the respect and connection embedded within the relationship. This narrative also resonated with Ben. For both participants, the relationship resulted in a ‘contamination narrative’ (in which a positive life scene becomes negative) when their beloved grandparent passed away (McAdams et al., 2001).

Extract 6, Ben

I think I was about 10 or 11.... we used to have exact timelines of seeing her

[grandmother], like my brother's high school was right outside her house so we'd go there like every time, we'd stay there, have food, and then sometimes it would just hit me, that she weren't there. I just wanted to take the pain out, so then I just tried taking it out on myself really, I like, I started cutting on my arms. Nothing bad, like, my mum didn't even notice once, or my stepdad, and if they did know they'd have gone mad at me, so I know they definitely didn't.

Extract 7, Matty

I tried killing myself when my grandad died... That person who used to put everything right, the person who used to put everything together, had gone. My family will never be together again, that won't change, it won't get better... One day, my head went and I went straight up into the loft, pulled some rope out the loft, jumped down and tied a load of bed sheets together, double knotted them, and lucky enough coz I jumped, but when I jumped, I had double knotted all the way down but I hadn't double knotted where I tied it around my neck, and fell down the stairs, woke up in hospital.

Ben and Matty constructed a narrative of order whereby their self-harm and suicidal behaviours were triggered and explained by the loss of their beloved grandparent (Kroch et al., 2021). Ben's narrative progressed from being reminiscent to reflecting on how he self-harmed to "take the pain out". This may signify that due to Ben's young age and his childhood experiences, he may have struggled to regulate his emotions effectively. Indeed, exposure to ACEs has been linked to emotion dysregulation, which in turn has been linked to adolescent self-harm (Peh et al., 2017). It could also be that Ben was unable to grieve healthily, perhaps due to the emotion being unfamiliar to a young boy. Interesting here, however, is Ben's wish to take the pain 'out' rather than 'away', as the latter receives greater recognition in self-harm literature (e.g., Csordas & Jenkins, 2018; Laye-Gindhu & Schonert-Reichl, 2005). This subtle distinction implies that Ben actively sought to remove his pain through self-harm, instead of being a passive victim of it. The term may also refer to the extent and depth of his internal pain, which needed to be deliberately cut 'out' of his body, as opposed to being taken 'away'. This is akin to Harris' (2000) findings that some people cut themselves to 'cut the bad out' and recent dual harm research in which self-harm has been understood as providing momentary relief from psychological pain (Pickering et al., 2022). Moreover, it may be that Ben believed that cutting himself would alleviate his emotional pain, as whilst emotional pain is hard to remove definitively, the removal of physical, self-induced pain is much simpler to revoke and reduces negative affect (Hooley & Franklin, 2018).

Conversely, Matty did not explicitly refer to emotions when making sense of his suicide attempt, despite him narrating with a tone of loss. This sense of loss likely reflects that Matty's grandfather was the person he felt the greatest attachment to. As such, the presence of pain and a simultaneous lack of connectedness may have motivated Matty's suicidal ideation (Klonsky et al., 2018). Emotional pain, hopelessness and a lack of connectedness form two stages of a three-step theory of suicide (Klonsky & May, 2015). However, Matty's account revealed that the act was impulsive; therefore, he may not have been ideating about suicide long before the act. Nonetheless, theories suggest that suicidal ideation can progress if an individual has the capability to attempt suicide (Joiner, 2005; Klonsky & May, 2015; O'Connor, 2011). Being repeatedly exposed to violence and fear-inducing experiences, as Matty was during childhood, may have increased his capacity to engage in suicidal behaviours (Van Orden et al., 2010).

Lastly, one final difference between the accounts is that an element of self-punishment was apparent for Ben but not Matty. Ben referred to "*taking it out on myself*" and expressed an inability to confide in his parents. This may have been due to feeling unsupported with other concerns, such as his medical condition, or feeling ashamed of his strong emotions following the death of his grandmother. Given the neglect Ben experienced as a child, he may have felt that even if he could articulate his emotions, they would not have been validated in the family home. Despite this, coinciding with previous qualitative research with young people who self-harm, it is clear that Ben's act was private and personal; it was not a means of help-seeking or a way of communicating distress to others (Wadman et al., 2017).

Subordinate theme 1.2: False dawns

Each participant indignantly viewed their childhood as significantly harder than most other children's. However, disrupting the overriding tones of frustration and sadness was a 'false dawns' narrative, during which participants were hopeful that life would take an upward trajectory. Ben, Ethan and Shaun were hopeful that a football career would provide a positive outlet from their negative childhood.

Extract 8, Ben

Probably my football career when I was like 11, because like, to be honest like, before like, I used to always have like a bit of anger and that but I never used to do anything like, like, criminal or illegal because I was always against it like. My friends used to smoke weed and that but I'd never smoke, I never used to smoke a cig I'd only like drink alcohol on like occasions and I wouldn't ever do it when I was like 11 because, my head, I was only like set for a football career, I wanted to go far in it.

Extract 9, Ethan

I want to play football again but, I think, it upsets me a bit to be honest, because like, look at where I was and look where I am now, do you know what I mean? Like, I played professional football and like, I was one step away from playing for the first team that's like the proper team... it would've made me. It would've meant that I'd of had money, had things around me. I've got money and that but it's not, it's not the problem. It's like, you always want legit money init.

Extract 10, Shaun

When I got approached to play as a striker for like this decent team, that was probably one of the best moments... he [football scout] gave me his number and he said oh you should come down and play as a striker for us sometimes, its £300 a week... I felt like, yeah summats goods come out of my life, summats good to turn it around, summats good to do... this was probably one of the only time that something positive, could've maintained positive, because all those other moments and situations have ended up pure shit.

Football provided the participants with more than just a hobby; it gave them glimmer of hope that they could turn their lives around. It also enabled participants to present agency where they expanded themselves and took responsibility for their actions (McAdams et al., 1996). By presenting an agentic self, the men idealised who they once were and proudly described how close they were to achieving something positive during their early years. By doing so, the men presented a positive past identity and reflected on times during which they could have done something meaningful with their lives. The positivity surrounding these memories may displace current negative feelings of the self as they compare who they could have been to who they are now – a young adult in prison. If this interpretation is correct, by integrating aspects of the past (e.g., being “*one step away from playing for the first team*”) into the present, the young men were able to construct a (current) purposeful narrative identity and reject feelings of worthlessness (McAdams, 1993). However, whether the retrospective constructions influenced how the experiences were re-told remains unknown. As autobiographical memories are constructed from one’s present perspective, the experience may have been somewhat embellished (Fivush & Nelson, 2004). Indeed, the participants may have over-idealised their possible selves (i.e., who they would like to become), a concept discussed in subtheme 3.3 (Markus & Nurius, 1986).

Whether idealised or not, three participants embedded football opportunities into their ‘false dawns’ narratives, albeit differences in such narratives were apparent. Ben considered football his ‘high

point' in life and perceived football as a source of motivation to keep him 'on the straight and narrow'. During this time period, he actively avoided partaking in drug-related behaviours with his friends and felt able to channel his "anger". Therefore, it could be interpreted that Ben's football career not only provided him with a promising future, but also encapsulated a time during which he could repress emotions which now lead to destructive behaviours. By contrast, Ethan and Shaun understood football as a way to progress and invest in themselves, yet they rooted these stories in a broader narrative of loss. This loss may be the reason why Ethan grappled with his sense of self, as he seemingly struggled to accept his past identity (i.e., "where I was") in relation to his current identity (i.e., "look where I am now"). This reinforces previous findings that young men in prison can experience a selfhood in turmoil as they struggle to construe their 'current' or 'new' sense of self (Crewe et al., 2020). Likewise, Shaun reflected on the dissonance between his previous thriving self to where he is now. As such, the young men used their narratives to demonstrate how close they were to succeeding in life and breaking free from their negative pasts.

Shaun also rejoiced over his scholarly achievements, considering these as his 'positive childhood memory'. Similarly, Brendon explained that studying mechanics in college was a 'high point' in his life.

Extract 11, Shaun

At school I had an aptitude for reading and spelling, I was highest in the class, highest in the school... I ended up entering into a story competition and you had to write a dream story, as if you're in a dream, so I ended up doing that, it came down to the last three people and then basically the last three people met the big man didn't they. I felt proud of myself because I'm just a small town kid getting a break. I've always been creative, be it in art, be it in writing, be it in making something even, I've always been a creative kid and I put my mind to something and yeah, it was one of the best things, well, the best thing from being a kid really. I was ecstatic, happy, over the moon, on top of the world like I was flying.

Extract 12, Brendon

I really liked college when I was doing mechanics and engineering. I learnt stuff while I was doing that, met new people and it was something positive, that's why I chose to do it but then I stopped going because I started getting into trouble again.

In extract 11, Shaun recalled feeling "ecstatic" and "over the moon" after entering a writing competition and meeting his favourite author during his placement at a "behavioural school", having been excluded from mainstream school. Similar to how Ethan described the opportunities football could have offered him, Shaun understood the event as "a small town kid getting a break". Referring to

McAdams and colleagues' (1996) subtheme of agency, Shaun portrayed 'achievement and responsibility', whereby the protagonist reports a significant achievement and feels successful in completing a challenge or task. Within this narrative, Shaun once again positioned himself as an agentic agent who was achieving in life. A similar identity shift was noted within Brendon's narrative. During his LSI, Brendon described being a destructive child who began smoking "weed" from the age of seven, "going off the rails" by age ten and was subsequently excluded from mainstream school. Despite this, Brendon considered his 'high point' as being a college student. A student identity depicted a sense of purpose and competence. However, the narrative also signified a hope to change as he emphasised that college was "something positive, that's why I chose to do it". He understood that his earlier childhood behaviours were problematic and viewed college as a positive step forward in his process of change. This indicates that this progressive step forward was not in keeping with Brendon's 'normal' life. However, normality resumed once Brendon started "getting into trouble again", suggesting that his prior behaviours were perhaps too deeply embedded into his identity and that his 'old' self or 'normal' way of life was too dominant to escape from. This coincides with Maruna's (2001) notion of being 'doomed' to deviance, whereby people struggle to desist from deviant behaviours as they see themselves as being unable to change.

In addition to revealing hope during childhood, these 'false dawns' narratives also suggest an understanding of how actions contribute to later life goals (Polkinghorne, 1996). This links to Snyder et al.'s (1991) model of dispositional hope, whereby a protagonist believes in a) their ability to achieve personal goals and b) the availability of successful pathways for doing so. Some perceived football as a means to achieve their personal goals, whereas others prioritised academic achievements and learning. For Ben, however, the (in)ability to achieve his goal was beyond his control.

Extract 13, Ben

Then when I found out I was diabetic that's when my whole career just went downhill... I felt like gutted to be honest, because like, I was still trying to play and I remember, I remember because like I always had like the best fitness out of like my whole team and I remember like, it was getting to the point where I couldn't even, I felt like, thingy, I felt like sometimes I was like, unfit to play, when I was playing I started to dizzy and I think that was probably because when I was running and that, my blood sugars went up and down and it just felt like it had a big effect on me. So I stopped playing but my mind kept telling me that I wanted to play football, but I felt like my career was done then.

In this extract, Ben reverted to being a victim in his life story, albeit a victim now to his ill health. He presented a narrative of indignation, whereby despite his best efforts to continue training, his diabetes symptoms overruled. This contradicts the initial sense of agency football afforded him, as he could no longer improve himself and maintain a desirable “*career*”. Moreover, this distinction also reflects a sense of incoherence in Ben’s sense of self, as he originally described himself as one of the fittest members of the team. This coincides with findings that one’s sense of self is a central theme within illness narratives, whereby an illness threatens an individual’s body and identity (Frank, 1995). In Ben’s narrative, he presented his pre-illness self (i.e., who was the fittest in the football team) and the person he had become (i.e., being unfit to play). Despite this dissonance, he was keen to portray that this was not due to a lack of mental strength. Therefore, in addition to storying the physical effects of his diabetes, Ben was also keen to share how his condition left him feeling unable to regain a sense of agency.

Subordinate theme 1.3: Navigating peer relationships

Participants also shared the impacts that childhood peers had on their early-life behaviours. The narrative was generally one of progression; the men described innocently playing out on the streets with others, though this ended with them becoming influenced. According to two participants, childhood peers had the ‘greatest negative influence’ on their life.

Extract 14, Brendon

I got involved in the wrong crowd of people from the estate that we used to live on... All the older lot who I got in with, they were the wrong crowd of people, wrong kind of people... I got involved with weed from the older people. All the drugs I were selling at one point was just weed and then they asked me if I wanted to start making some extra money.

Extract 15, Ethan

Friends who I hung around with as a kid, and if you have negative people around you then you’re likely to have negative attention. I was that person yeah, like, everyone was scared of me as a kid yeah, everyone was... but everyone was scared of me miss because I, I will do it init. Like if someone told me to do summats I will do it init. Like if someone told me to go down the hill in the trolley, I would do it... But I like who I am and I wouldn’t be who I am if I didn’t have them friends around me, I’m not a bad, I’m not a bad, I wouldn’t say I was a bad person.

Brendon and Ethan understood their deviance as the consequence of associating with others.

Brendon reported being enticed by his older friends’ proposition to earn money on the streets of his

estate. In contrast, Ethan felt coaxed into 'acting up' during school, ultimately leading to his school suspension. Society's reaction to deviants is to exclude and stigmatise, and therefore such individuals have few opportunities to affiliate with prosocial role models yet are welcomed amongst similarly stigmatised others (Braithwaite, 1989). As such, both men may have felt unable to engage with prosocial children and thus became more deeply ingrained with deviant friendship groups. In particular, Ethan's storying suggests he may have maintained his troublesome behaviours to seek acceptance and belonging from the "*negative people*" he described. This could have also initiated a cyclical process whereby he engaged in deviant behaviours to feel accepted, which provided him with a sense of belonging, which motivated his desire to keep exhibiting behaviours that reinforced his group identity. However, despite recognising the group as having a negative influence on his life, extract 15 revealed that Ethan appreciated his friends for making him the person he had become. He applauded this person and seemingly rejected his earlier admittance of receiving negative attention. Although this appears somewhat disjointed, by linking meaningful narratives (i.e., school memories and relationships) to broader life meanings (i.e., his current identity), he created an integrated, coherent narrative (Baerger & McAdams, 1999; Waters & Fivush, 2015).

This central focus on peers also attributed blame to 'external struggles' (i.e., the environment) rather than individual characteristics. This suggests that participants examined their environments, particularly the influence of peers, to make sense of and give order to their past behaviours (Kroch et al., 2021). In keeping with Presser's (2004) research, this enabled the participants to defend behaviours which contradicted an image of decency to present a positive view of the self. This may also indicate the young men diffusing responsibility for their actions, reflecting Canter and Youngs' (2015) concept of cognitive distortions. Similar to the technique of attributing blame externally, cognitive distortions preserve potential discrepancies between self-conceptions (a person's view of the self) and the actual self (Ward, 2012). By diffusing personal responsibility and placing it onto the "*wrong crowd*" and "*negative people*", the men justified inconsistencies between their identities and behaviours. However, whilst both storied themselves as ultimately good people, there were nuanced differences between the constructed identities. Brendon presented himself as a 'good person being led astray', whilst Ethan seemingly enjoyed being feared or aspired to. By repeating "*I was that person... everyone was scared of me... I will do it init... I would do it*", Ethan emphasised his reputation within the school and acknowledged living up to it.

Another participant, Matty, was also excluded from mainstream education and attended a pupil referral unit. He perpetrated acquisitive crime when socialising with older peers and emphasised the impulsivity and immaturity of his actions. However, the narrative's tone altered when Matty recalled a violent and sexual crime his friends perpetrated.

Extract 16, Matty

I was only about 10 or 11 and meeting up with 16 year olds. I'd just tag along and they'd just buzz off me because I used to just terrorise everyone, I was just an idiot really, like if there was a bike parked outside the shop I just used to pinch it for fun, I didn't even want it... one day though, I seen summats what I shouldn't have, that I didn't want to see. They kicked a door off and beat a man up. I ran down the stairs me and took off, I was young, and they did summats to that man that they went to jail for. They put a sky remote up his arse and that and I didn't see that, I just saw them kick the door down and beat fuck out of him but because they were vallied [sic] up out of their heads and I was scared then, I was fucking terrified, because I'd never seen them be like that. I ran, I just kept on running and running and running until I couldn't see them again. They went to jail for a very long time, they went to jail for man rape. Stuff like that ruins peoples' lives. It can ruin lives, it's the worst ever thing you could do to someone. I just went mad after all that, because I didn't have anyone to look up to no more because I'd looked up to fucking sex offenders. But I'm not a sex offender right miss, I'm not, I'm not just saying that for the tape, I come off mains me.

Unlike Brendon and Ethan, the repeated use of the pronoun “I” suggests that Matty took greater responsibility for his actions. He positioned himself as the ‘troublemaker’ of the group and seemingly enjoyed sharing stories of his previous deviance. Through this, Matty constructed his own ideal version of masculinity and used crime to demonstrate respect and status (Messerschmidt, 1993). Matty’s socio-economic background may also be relevant here. People in prison who were raised in deprived neighbourhoods, like Matty, perform masculinity through crime and violence during their childhood and adolescence (Maguire, 2021). This is likely to be an attempt to live up to the expectation of peers, as noted by some of the men in this study. Having said this, Matty’s positioning changed as the narrative progressed. When storying sexual violence, he positioned himself as a scared young man who knew right from wrong. A sense of morality was presented as he repeated “*stuff like that ruins peoples' lives*”, and in doing so, he presented himself as qualitatively different to those who perpetrate sexual offences. As such, rather than trying to emulate his peers, Matty recognised the crime as a step too far, reflecting the stigma surrounding people with sexual offence convictions (Harper et al., 2017; Maguire, 2019). Indeed, Matty presented a positive view of the self by suggesting that some crimes are unacceptable. In confirming his views, he stressed that he had come off “*mains*” (a residential wing for men not convicted of sexual offences), suggesting that whilst he would perpetrate petty crime, he would not perpetrate a sexual offence.

Other participants spoke positively about their childhood peers, despite them playing key roles in their trajectory to violence and self-harm. Ben understood “*being on the streets*” as his ‘turning point’ in life, although this progressively led to him dealing drugs and becoming gang affiliated by his 14th birthday. On the other hand, Shaun revelled in the attention he received from fellow “*Emo’s*” following his first act of self-harm.

Extract 17, Ben

Just, like, your all like friends in the gang, and like my friend has trouble with him so now we’ve all got trouble with him, and in the end you just end up getting all sucked together, then you are all like just there really. In the gang you soon start playing with like guns, knives, trying to stab people, beating people up... We protect each other. It’s what we do in the group. We all claim to protect each other. We all claim it so we have to show that we mean it and that we have loyalties to each other. I don’t like expect anybody to go out and do something for me, but, when we have that like, family vibe with each other, or say like something happens, then, I know I’ve got you and I kinda expect you to have me.

Extract 18, Shaun

I was about 14 when I started [self-harming]... I was kinda at an Emo stage with two of my mates... everyone seemed to be doing it really, just like cutting wrists and that, nothing particularly bad, it just looked cool, but I thought I’d take it one further, so I just fully stuck a kitchen blade into my arm. (Interviewer: And what was that experience like for you?) Yeah, it was good. My friends who were there at the time couldn’t believe what I’d done, so that was pretty good. The birds thought I was well hard too because I didn’t even feel anything from it, so yeah, it was decent.

Themes of protection and loyalty weaved through Ben’s narrative as he explained how gang members become “*sucked*” together when facing adversity and take on each other’s troubles. The emphasis on group protection may also indicate why Ben joined the gang. Previous research suggests that a person’s desire to feel safe and protected can motivate people to join a gang and maintain a member (Mallion & Wood, 2020). Ben also implied that the “*family vibe*” of the gang naturally elicited reciprocal support, despite this not necessarily being expected, which vastly differed to the support and protection he experienced from his mother during childhood.

Akin to the ‘unity/togetherness’ subtheme of communion, both participants felt a sense of unity and solidarity within their larger subgroups (McAdams et al., 1996), which provided a sense of belonging. Gang affiliation can foster a sense of belonging (Lafontaine et al., 2009), which is crucial to forming a

collective identity (Fischer et al., 2010). Indicative of this, Ben referred to the gang as a collective whole and used the pronoun “we” to illustrate the group being distinct from other populations. Similarly, Shaun referred to being an “Emo” during his childhood; a subculture comprised of individuals who share a collective identity and group-specific values (Young et al., 2014). In keeping with the Social Identity Approach, the men’s group memberships dictated how they saw themselves and behaved (Tajfel et al., 1979). Termed the ‘Alternative-identity effect’, alternative subcultures, particularly ‘Emo’s’, have elevated rates of self-harm (Young et al., 2014). Therefore, Shaun may have self-harmed to seek peer affiliation (Prinstein et al., 2010), which can increase a person’s sense of belonging to a group or subculture (Hooley & Franklin, 2018; Martin, 2006). This is in keeping with the assertion that self-harm is more likely to be enacted to gain social connections to others than to merely ‘fit in’ (Kruzan & Whitlock, 2019) and outlines the positive interpersonal functions associated with the behaviour (Nock & Prinstein, 2004). Further, according to research exploring the functions of NSSI amongst adolescents in Sweden, “nonconformist peer identification”, which included items such as “to be part of a group” and “to be like someone you respect”, formed a part of one factor in a model (Dahlström et al., 2015, p. 310). Like Shaun, adolescents may understand self-harm as a means to feel connected to others.

For Shaun, feelings and emotions relating to the act of self-harm were largely absent, potentially indicating that they did not underpin his understanding of the event. Instead of explaining how he felt before and after cutting himself, Shaun used the narrative to share how his peers positively endorsed the behaviour. This may suggest that self-harm fed into a version of the self that Shaun was happy to project (i.e., someone who was brave, fearless, and felt no pain). Although research has suggested that some people who self-harm report little pain (Ammerman et al., 2016; Nock et al., 2006), it remains unknown whether Shaun hid the pain to gain greater reinforcement from his peers, or construed the event slightly differently to how it was initially experienced. Nevertheless, Shaun’s narrative emphasised the relational aspects of his self-harm rather than prioritising the pain or feelings relating to the act.

5.4.2 Superordinate theme 2: Middle: Exploring challenges during late adolescence

This theme proceeds from childhood events, relationships and identities to explore what happened next in participants’ life stories. It considers how each participant made sense of their mid-late adolescence (age 14-19) and the meanings taken from this developmental period. Primarily, participants narrated a shift in their family life, social groups and intimate relationships. This shift was also met with the development of multiple and dissonant identities, which subsequently related to their self-harm and violent behaviours. Within this superordinate theme, three subordinate themes will be discussed: Striving for agency, The highs and lows of communion, and The self as a protector.

Subordinate theme 2.1: Striving for agency

Narratives in which the men described leaving home, breaking away from the family unit, and living independently were embedded in themes of agency, responsibility and individuality. Shaun recalled an 'important life chapter' in which he secured a room in a semi-independent living facility at the age of 16. Similarly, Brendon re-told having independent accommodation as his 'wisdom event'.

Extract 19, Shaun

Living with my care family I didn't get to do anything I wanted, I couldn't look or dress the way I wanted, I always had to be bald and wear glasses... As soon as I started living there I started changing the way I looked, the way I acted, I started doing drugs, that sorta stuff, not addicted but I was smoking weed, not excessively though, I was one of the kids where if I smoked, I didn't do it 24/7, I didn't do it constantly, I just did it on and off... I started doing my own shopping which I found different.

Extract 20, Brendon

I had my own flat at one point with [housing provider], when I was about 17 or 18, but I ended up losing it for a bladed article, getting caught with a bladed article. It was good though, I'd rather live on my own. I'd rather have my own place than live with my mum because it's time to step up init? You have to know what you're doing then.

Both men considered moving out of the family home a positive step forward in life in the hope of independence and individual exploration (Arnett, 2000). This is akin to McAdams' (2001) 'self-mastery' subtheme of agency, whereby the protagonist strengthens the self by becoming a powerful and wiser agent. The young men understood that living independently gave them control, albeit the reasons for this vastly differed. Shaun felt that his care family restricted his creativity and dictated many facets of his life. For him, agency was centred around being his own person, and correcting the dissonance between the person Shaun was encouraged to be, and the person he understood himself to be. As such, living independently meant he could project an authentic identity without having to comply with others. For Brendon, agency was achieved through being able to "step up" in life. However, consistent with his 'false dawn' narrative (see theme 1.2), Brendon quickly explained why his agentic period was short-lived. When construing the event, he initially took ownership of his deviant behaviours (i.e., "losing it for a bladed article") before correcting himself (i.e., "getting caught with a bladed article"). In this reconstruction, the problem appeared to be getting caught with a bladed article instead of carrying it. By attributing the blame to the environment (i.e., the police for "getting caught"), Brendon defended his behaviours and presented a more positive view of the self (Presser, 2004). Nonetheless, similar to Brendon's previous understandings of criminality (see subtheme 1.3),

he similarly presented a narrative of disorder in which criminality was unrelenting, and despite trying to desist from it, the pull was too hard to resist (Kroch et al., 2021).

Ben also understood agency as autonomously existing as an individual outside the restraints of his family. He referred to “*the clash of relationships*” between himself and his parents throughout his interview as an ‘important life chapter’. However, in his narratives of agency, he described regaining control of the relationship by physically fighting with his stepfather.

Extract 21, Ben

He [stepdad] tried to grab me by like my neck and he’s like pinning me down on the sofa and I kept saying, I said to him like twice, let go because when I do get hold of you I’m gonna punch you, but like, he wasn’t listening... at the back of the sofa I had these like carbon gloves, like motorbike gloves, and I just remember I put them on and hit him twice and I just remember him like falling onto the sofa... So, in the whole, wider situation, like when he’d rag me about, I just felt like I won.

Here Ben described standing up to his stepfather for the first time, which he understood as being a success for the “*whole, wider situation*”, likely referring to the ill-treatment he received during childhood. Ben’s narrative had an ‘overcoming the monster’ plot, as he stood up to and ‘overcame’ the villain of the story (Booker, 2004). Importantly, this narrative represented a significant shift in Ben’s life story, as he described himself as powerful in various other aspects of his life. Extract 22 demonstrates a shift in Ben’s gang-affiliated identity.

Extract 22, Ben

I would sit at home when I was younger than like 12, and I knew all these kids in my area and they wear knives like and go around together, and I don’t know, I went through a phase where I wanted to be like that... Now everyone in the circle, they all know, they all look to up me like I’m the main guy and I have been for years. Still to this day they look up to me like I’m the main guy... he [fellow gang member] said he had done this and that, and that he was gonna stab me in my neck, and I wanted to show people that he isn’t what he makes out to be... so I went downstairs, I got like a kitchen knife and I started sticking it in his leg and then I started stomping on him... I just wanted to like, put him down abit and show others that he isn’t as big as what he makes out, because I knew he wasn’t but nobody else did, and I wanted them to see all that.

This extract highlights the progression from Ben wanting to join a gang to becoming a leading member. Whilst Ben had previously prioritised the sense of belonging and loyalty that the gang had provided him (see subtheme 1.3), his later narratives were centred around power and status. In this construction, he recalled stabbing a fellow gang member who tried to compromise his position. In keeping with McAdams' (2001) subtheme of agency, Ben enjoyed the prestige of being the “*main guy*” in the gang, to the extent that he became violent when his position became under threat. As violence is disproportionately high among gang members (Mitchell et al., 2018), Ben's behaviour (i.e., violence) and his identity (i.e., a gang leader) coherently aligned. In fact, violence may have assisted Ben in mastering his environment and demonstrating agency, as people who present more agency-related attributes within their life story (like Ben) are more likely to be outwardly aggressive (Diehl et al., 2004). In keeping, Ben's performance allowed him to showcase his violence, communicate his self-mastery to others, and convince them of his power. This may have ‘proved’ to others that Ben was the “*main guy*”, which aligned with how he viewed himself.

In addition to projecting himself as agentic and powerful, Ben's narrative identity was also centred around him being the ‘real deal’. This contrasts with his social threat, whom Ben believed lacked authenticity. To some extent Ben justified his behaviour as a response to the perceived social threat, similar to other gang-affiliated youths (Alleyne et al., 2014). However, he also needed to expose his rival as a fraud. Ben wanted to “*show others*” that his rival was not someone to be admired and that others should view him in a much higher regard. This implies that although one aspect of Ben's identity was living up to other's expectations, it was also important for him to remain true to himself, rather than being a charlatan and projecting an inauthentic image.

Subordinate theme 2.2: The highs and lows of communion

The participants also storied their relationships, particularly those of an intimate nature, when reconstructing their adolescence. Relationships offered autonomy, communion and togetherness, and although they were unanimously considered important, the reasons for this differed. Ethan, who had been with his “*first love*” for over five years, boasted about his relationship, whereas Ben felt overwhelmed by the prospect of being in love.

Extract 23, Ethan

I love my mrs, there isn't a day I didn't spend with my mrs, like I took her everywhere, anywhere she wanted to go I'd do it... she's beautiful, she's like, I don't know man, the way she treats me, everything is just perfect about her, do you know what I mean?... The first person I turn to is my girlfriend, I always turn to her, I didn't have someone like that as a kid, but now I go to her.

Extract 24, Ben

I loved the girl, I definitely knew that I loved her, I loved no one how I loved her but then I knew deep down I had to get away from it because I just knew it was going to get worse and worse... I think we were together a bit too much and sometimes we'd argue... I was just too in love, I fell so deep in love with her, too in love and too soon.

In keeping with McAdams' definition of an imago (a personified interpretation of the self that captures distinct characteristics), participants presented 'lover imagoes' as dominating identities within their narratives (McAdams, 1993). While both described their relationship as deeply intense, Ethan described the 'perfect' relationship, as if this was integral to his identity. Exposure to ACEs has been linked to elevated rates of socially prescribed perfectionism (believing others have high standards of oneself) and nondisclosure of imperfection (avoiding verbally disclosing imperfection) among young adults (Chen et al., 2019). Therefore, even if there were flaws in the relationship, Ethan may not disclose them. This perfectionistic presentation could be derived from witnessing a violent relationship in childhood (see subtheme 1.1). Ethan may have made sense of his relationship, and the positivity surrounding it, by comparing it to that of his parents. This may explain why Ethan integrated elements of his childhood into the narrative, emphasising the ability to turn to his girlfriend, which contrasts the feelings he experienced during childhood.

Conversely, Ben struggled to narrate his first intimate relationship coherently, and whilst he was sure of his love, he felt overwhelmed by the relationship's "toxic" intensity. Ben centred his narrative around love, although he described feeling "too in love" which he "had to get away from". It could be that the thought of having to process the emotions relating to loss (which he struggled to deal with in childhood, see subtheme 1.1) was harder than being in control and ending the relationship on his terms. Indeed, some people with prior painful experiences protect themselves in relationships, to the extent of separation, due to fearing losing someone (Woodfin et al., 2021). In keeping, it could also be that Ben ended the relationship because it did not meet his high expectations, as it seemed difficult for Ben to explain why, despite his love, the relationship felt overwhelming and toxic. However, perhaps one way of making sense of this dissonance (i.e., that despite being in love, the relationship felt toxic) was to state that his feelings were too strong and difficult to cope with. This tied in with how Ben understood his 'low point' in life when he tied a ligature around his neck.

Extract 25, Ben

I fell so deep in love with her, too in love and too soon. Then like, this one time I just felt like I'd had enough of it, enough of life in general really... my mum and sister didn't really like me no more, no one really did, and I was arguing with my girlfriend and that,

and it just instantly just started bringing stuff into my head like what's the point of me even being here anymore?... We had this top light window thing with like this white thing going around it and I tied this thing around it and I like put it around my neck, like tied it to my neck and I just had all of this aggression, and like, hate to myself, and it was running through my body but then for like for some reason, after it all I just started to calm down, I felt much calmer, I realised there's a lot more to life than this.

Running concurrent to the complexities of Ben's intimate relationship was complex familial relationships. Impacting his headspace, these relationships led to Ben questioning "*what's the point of me even being here anymore?*". Research with young adults has found that self-rated romantic relationship quality is negatively associated with self-reported suicidal ideation, even when controlling for factors associated with suicidal ideation, such as diagnosed depression (Still, 2020). Similarly, Ben may have questioned his existence because he feared losing his girlfriend or feeling like a failure. In relation to the latter, he may have believed that he was the reason why the relationship did not meet his 'ideal' expectations. Feelings of failure, stress and disappointment have all been linked to Baumeister's (1990) escape from self theory of suicide. According to the theory, Ben may have sought to escape negative self-awareness, driven by his intense thoughts and current life/relationship problems. That is, he may have sought to escape from his 'real' sense of self, which was currently vulnerable and exposed in a relationship that he felt was failing. These feelings may also be embedded in Ben's previous experience of loss, during which he self-harmed to take 'out' the pain. As such, he may have anticipated feeling something similar and been reminded of his struggle to work through and manage emotional pain and distress.

An element of self-directed aggression and self-hatred is also apparent from the extract above, which may have hindered Ben's ability to seek help for his suicidal thoughts. This may derive from how Ben positioned himself in his close relationships, which were under considerable strain from his point of view. Moreover, he may have understood himself as the common denominator, the one person underlying each failing relationship. Therefore, whilst he viewed himself as a protector (of his mum, see subtheme 1.1), the fact that he was failing his own expectations may have had implications on his sense of worth. Low self-worth is highly prevalent among people with suicidal ideation (Butter et al., 2019). In addition to potential feelings of isolation and a perceived lack of social support, this may have been relevant to Ben's plan to tighten the ligature (Calati et al., 2019). Thankfully, however, Ben did not enact his suicidal ideation and plans.

Maladaptive behaviours were linked to relationships on more than one occasion. Shaun explained that as a 17-year-old, his girlfriend sadly passed away, an experience he noted as his 'greatest

challenge'. Relatedly, at 18, Ethan received the news that he was going to be a father, a moment which he recalled as his 'high point' in life. Unfortunately, this also became Ethan's 'low point' as the couple experienced a miscarriage. Both men engaged in violent and self-destructive behaviours in response to such tragedies.

Extract 26, Shaun

I just went on a bender, went on a spree basically... it was underground fighting. Basically you get a phone call, you get took to a place, you get told you're scrapping him and you get paid afterwards...I was at such a low point of my life, I had no feelings, no emotions, I had no one at that point, I didn't really care... I was letting my anger out, though even though I was letting my anger out it didn't help, it didn't change anything. I just didn't have any feelings. Fighting didn't even spark feelings in me, I was still just numb. I'd just lost her so I didn't have anything, I didn't feel nothing, I had nothing to lose did I, because I'd lost everything... I fell head over heels straight away, I seem to go with my heart over my head, because basically, shit that happened when I was younger, obviously I may have attachment issues.

Extract 27, Ethan

I just felt so happy like, I don't know, I just felt myself, I've never felt like that before. And then when I lost my baby, I just felt, I don't know man... I just wanted it all to go away, I feel like that's all led to it, like, all the anti-social behaviour and shit like that... because that was when I started to go off, like, off the rails, a bit aggressive and that, more violent, if anybody said owt I was just reacting.

Both participants anchored their stories of violence within broader narratives of intimate relationships. Again, this suggests that the men made sense of their violence through narratives of order, whereby they understood the events as being predictable given their broader circumstances (Kroch et al., 2021). Shaun began "underground fighting" following his heartbreak, and similarly, Ethan went "off the rails... more violent" following a miscarriage. However, there are nuanced differences between the underlying reasons for Shaun and Ethan's actions. Shaun understood his violence as a way to end emotional numbness and feel something when he felt no feelings or emotions. Although violence has been found to end numbness (Bennett & Brookman, 2009), this appeared ineffective for Shaun. On the other hand, Ethan felt overwhelmed by his intense emotions and was subsequently unable to, or perhaps did not know how to, cope with them. Having said this, both participants struggled to articulate the emotions they had trouble processing, which has been

found among people in prison who dual harm (Hemming, Bhatti et al., 2020). Ethan's narrative suggested that he was overwhelmed by unfamiliar emotions, yet no specific emotion was referred to. As such, although Ethan recalled having an emotional overload during this chapter of his life, he appeared unable to make sense of and label the emotions involved.

Shaun also struggled to explain his emotional numbness, yet referred to anger. The link between anger, aggression and violence has been explained extensively (e.g., Anderson & Bushman, 2002; Howells, 2004; Novaco, 2011, 2020). Anger is not required for violent behaviour to occur, although dysregulated anger has been associated with violence (Novaco, 2020). In addition to being unable to reduce his anger through prosocial methods, Shaun may have also been unable to understand how he was 'supposed' to feel following the death of his girlfriend. In narrating his grief, Shaun felt like he had lost everything, including his feelings and most of his emotions. This could reveal that Shaun's relationship made him feel alive and connected. If this was the case, he may have remained numb since no perpetration of violence would bring back his connection to his girlfriend.

Shaun also implied that the abuse he experienced during childhood may have impacted his attachment style and later relationships (Ainsworth et al., 2015; Bowlby, 1969). Disruptions in early infant-caregiver relationships (such as the absence of love and security) can cause maladaptive reactions to a perceived threat against the self (Renn, 2006). Therefore, Shaun's attachment style may have influenced his behaviours following the death of his girlfriend. Butler's (2008) research with men in prison found that some individuals were insecure in relationships following ACEs and used aggression as a defence mechanism when their sense of self was threatened. Nonetheless, by linking back to childhood, Shaun constructed a coherent narrative that integrated memories of early relationships with a biographical view of the self (Habermas & Paha, 2001). In keeping with the structural properties of a coherent narrative, Shaun oriented the reader (by referencing his childhood), acknowledged the significance of the context, and related it to his current narrative identity (someone who seeks closeness and is unable to regulate emotions if this is not met). Ethan similarly demonstrated autobiographical reasoning as he drew upon his understanding of previous life events (his miscarriage) to make inferences about the violent and anti-social person he had become (Habermas, 2011). Ethan also stated that he felt 'himself' after being told he was due to be a father, suggesting that a paternal role was coherent with how he viewed himself. This was later juxtaposed with the aggressive and violent behaviours he exhibited following the miscarriage when he felt that his identity had been threatened, or greater still, lost.

Brendon also briefly mentioned that the breakdown of his first intimate relationship resulted in him behaving chaotically.

Extract 28, Brendon

I've tried jumping off a bridge before... When I were 18, over a girl, over a woman. (Interviewer: Can you talk to me about that at all?). No, I'm alright about that, I don't want to talk about that... it's like, I've always had depression, even since I was young, but I never got help for it, never saw mental health nor owt... it's the same thing in it, I just deal with stuff and don't talk about it.

Brendon stated that he jumped off a bridge “over a girl” (his first girlfriend), although he refused to endorse a conversation around the event. This dismissal may reflect Brendon’s defence techniques enacting identity work (McAdams, 1998). That is, he may have opted to withdraw from the topic rather than expand upon it and potentially compromise his desired identity and how he wished to be viewed by the interviewer. This may also be linked to how Brendon likened not talking about the event to not seeking help or speaking to others about his mental health concerns. His statement “*I just deal with stuff and don't talk about it*”, corresponds to previous findings that some men seek to maintain an image of self-sufficiency, whereby they are “doers” rather than “talkers” (Chandler, 2021; McKenzie et al., 2018, p. 1252). Moreover, adolescents with a history of dual harm have been found less likely to seek support for their mental health problems (Richmond-Rakerd et al., 2019). This may be because the strive for autonomy and self-sufficiency can serve as a barrier to help-seeking among adolescents (Velasco et al., 2020). Alternatively, the details of Brendon’s story may have been too painful and complex for him to re-live, or he may have been unable to articulate his understanding of the event. The latter may reflect an inability to make sense of what had happened, thus preventing him from being able to construct a narrative about it. This is more likely since Brendon could talk about an incident of self-harm which followed an argument with his mother.

Extract 29, Brendon

My mum phoned the police on me once because we were arguing all of the time about me getting into debt with other people, big people who then kept ringing my mum up... And the police put cuffs on me but said they weren't gonna lock me up and that they were just gonna take me out of the house a minute, so then I sliced my wrist and they ended up locking me up. (Interviewer: How come you cut your wrist?). Because I'd realised everything I'd done and I deserved it.

For Brendon, arguing with his mother over financial issues may have been easier to make sense of than the act “over a girl”. Interestingly, unlike Brendon’s previous diffusion of responsibility (see subtheme 1.3 and 2.1), he understood his wrongdoings here. Brendon understood that his behaviour

had severe consequences for his mother and that this was unacceptable. Aligning with this, Brendon's self-harm appeared to be motivated by guilt and functioned as a form of self-punishment, as per previous research (Edmondson et al., 2016; Wadman et al., 2017). Indeed, some people feel emotional benefits from self-harm if they perceive the behaviour to be deserved (Hooley & St. Germain, 2014). This may have been true for Brendon, as Hooley and Fox (2019) suggest that people with negative perceptions of themselves find self-inflicted pain ego-syntonic or a method of atonement. Furthermore, by construing the narrative with an undertone of self-punishment, Brendon could narrate his self-harm as form of redemption for his wrongdoings.

Subordinate theme 2.3: The self as a protector

In addition to describing turbulent relationships, participants revealed the impact their relationships had on their identity. Through constructing a sense of order, the men storied their violence as an essential, predictable, and necessary means to protect loved ones (Kroch et al., 2021). Within such narratives, the young men presented themselves as good people helping others. In extracts 30 and 31, Shaun and Ethan described physical altercations during incidents in which they sought to protect a loved one.

Extract 30, Shaun

Basically I ended up scrapping with him [daughter's stepdad] and beating 7 bells of shit out of him and I basically rang her [ex-girlfriend] up while he were there, video call and all that, and I were like is this the guy you're getting to try and replace me? Is this the guy you want to be dad to my kid? Love, he can't even protect himself, let alone protect you two. Basically I wanted to teach him a lesson, to prove to her that yeah, I was better than him... coz basically that's the dad's job, to protect and provide for her, and if he couldn't even protect himself what the fuck is he gonna do for a three-year-old kid and a girl.

Extract 31, Ethan

The man tried hitting my mrs. Orrr, listen, I swear to ya, awh the bang I gave him miss, he was snoring, he was snoring [laughs], he was like this in the flat [makes snoring noise] he was snoring. I hit him, I give it him, I couldn't not. Just one chin shot, right on the end of his chin... I'm not big, but I know I've got a good punch init. If I hit you on the end of your chin I know it's peak for ya... But like, you see, you see that, I only done that because he actually went for my mrs. If he didn't go for my mrs and only said fuck off to my mrs, I might have been able to control it.

Both men storied their violence of having interpersonal functions. Shaun's narrative was one of mockery as he recalled wanting to "*prove a point*" to his victim. In addition to protecting his ex-girlfriend and child, the violence also implicitly 'proved' that the child's stepfather was physically incompetent; therefore, only he could successfully protect his loved ones. Ethan's narrative differed in that he recalled retaliating and physically protecting his girlfriend from another man. Firstly, both narratives have underpinning tones of retaliation. Shaun sought revenge on a man who he felt replaced him, whereas Ethan sought justice for the lack of disrespect directed towards his girlfriend. The latter was storied as a more impulsive act of revenge, although research with youths has found that acts of impulsive revenge can still function as a way to seek respect from others and balance a sense of injustice (Recchia et al., 2020).

In addition, Ethan's candid explanation suggests that he felt, in this scenario, violence was his only option. Likewise, interviews with men in prison revealed that violence was perceived as the only viable option when other resolutions were impractical (Wulf-Ludden, 2013). However, when making sense of their violent altercations, both men neutralised their behaviour and reinforced the positive nature of protecting weaker others, such as their child or girlfriend, which aligns with previously identified neutralisation techniques (Sykes & Matza, 1957). By framing violence this way, it is minimised and considered less immoral or deviant. This allowed the men to make sense of their behaviours in a way that had positive implications for their identity. That is, they are 'good' people who protect those who cannot protect themselves.

A sense of masculinity was also woven into the men's narratives. Masculinity is an outward manifestation during which individuals strive to portray a 'manly' front (Jewkes, 2005). According to Goffman's (1959) dramaturgical perspective, people choose how to present themselves and, depending on their environment, whether to reveal (or conceal) specific aspects of the self. An individual may present an aspect of the self to others or keep it private, which is conceptualised as a 'frontstage' and 'backstage' view of the self. In extract 30, Shaun felt he was being replaced by another man and needed to prove to his ex-girlfriend that he was the better partner. Although this likely induced feelings of humiliation or embarrassment, Shaun chose to over-emphasise his masculinity when dealing with the event. This was not only achieved by violence, but by recording the act and brandishing the video. Following Goffman's theory, Shaun's 'backstage' self, which faced humility, was masked by a 'frontstage' performance of violence and revenge. In constructing the event, Shaun masked his vulnerability and storied himself as masculine and powerful. Ethan also used his narrative as a vehicle for identity management as he boasted that his punch left his victim "*snoring*" after "*just one chin shot*". Like the men with violent convictions in Presser's (2004) study, Ethan appeared to use his narrative to construct a preferred identity for himself and perhaps also the

interviewer. His 'frontstage' identity was a protector and a successful fighter who could seriously injure a victim with one punch.

Ben and Matty also implied that their violence was to protect close friends and loved ones' identities. Ben described "retaliating" to a rival gang who (he felt) was responsible for the murder of his two friends, and Matty centred his violence around protecting his grandfather's honour.

Extract 32, Ben

It all added up, so we went and retaliated but when we retaliated, we did it [shot at] to most of them, just to show whichever one it was that it can't happen... two of my good friends have died, I didn't want to leave anything, I want to defend their name I guess... So we just went out. I was angry, sad, upset, loads of stuff. We just wanted to prove a point like that this can't happen, they'd shot and murdered two of my friends, you get what I'm saying?

Extract 33, Matty

There was a smack head outside of prison, I caught him in my grandad's shed after he had died. He was trying to take lawn mowers, grass cutters and little antiques that my grandad would've worked hard for. If there was dust from when my grandad was alive, I wouldn't even clean it you know because it was there when he was, I would never change it. He crossed the line when he went into that shed because everything in that shed was my grandad's, it disrespected my grandad and all the family, so I smashed his head in with a spade and put him in hospital.

Here, participants understood violence as being deserved when someone threatened the social status or honour of a close other. Consistent with research conducted with gang members, Ben storied his violence as a means to defend his friend's honour and protect the gang's reputation (Alleyne et al., 2014). Matty also storied disrespect in his narrative, during which an intruder was found rummaging through his grandfather's belongings. In reference to how his grandfather "would've worked hard" for the items, the violence also appeared to protect his grandfather's legacy. In presenting his disgust, Matty contrasted the intruder, who he referred to as a "smack head", to his hard-working grandfather. Interestingly, as previously analysed in subtheme 1.3, Matty also had a history of theft. Therefore, there is a dissonance between how he viewed himself and his behaviours compared to others. Deeper than this, however, the narrative projected an overwhelming sense of sadness and loss. As such, it seemed that both Matty and Ben (who recognised feeling "angry, sad, upset") masked their 'backstage' self, which appeared to be full of emotion, by performing a 'frontstage' self which

prioritised the broader social context of needing to seek revenge and respect (Goffman, 1959). For Matty, this meant projecting a self that protected his grandad's honour, legacy and physical items. In contrast, Ben projected a self that protected the honour of lost gang members and demanded respect from others. Both participants, however, sought informal justice for a previous, unjustified grievance, which coincides with previously identified functions of violence (Bennett & Brookman, 2009; McMurrin et al., 2010; Raine et al., 2006).

A final point to note in this theme is the consequence of being unable to maintain a protector identity. As referred to previously, the death of Shaun's girlfriend resulted in violence, yet he also internalised blame for failing to protect her.

Extract 34, Shaun

She lived by herself she didn't live with no one else. No one else was around her, those who lived in places near her weren't capable of stopping something like that, they were all old people, old people who wouldn't have been able to lift a finger, I could've, I could've been there, but I wasn't, I was elsewhere. I blame myself for it because in a way it was my fault, I should've, I should've been there and it's messed with my head ever since.

Contradicting Shaun's protector identity, the above was narrated with an underlying tone of guilt and self-blame, as he recalled failing to protect his girlfriend and being absent during her time of need. Being unable to live up to his protector identity may have motivated his anger and violence following the event, during which he participated in organised fights (see subtheme 2.2). Research conducted with men in prison found that narratives of shame were linked to actual and threatened violence towards others (Butler, 2008). In addition, manifestations of shame have been found to mediate the relationship between ACEs and violence among people who dual harm (Garbutt et al., 2022). Therefore, Shaun may have been violent towards others to replace feelings of shame with feelings of pride associated with 'winning' a fight. This may have helped him reject a previously held negative view of the self and accept the feelings of pride and 'manliness' associated with his display of violence.

5.4.3. Superordinate theme 3: End: Present me vs possible future me

The final theme concerns participants' present circumstances, during which they grappled with their identity in prison, which is common (Hardie-Bick, 2018). Whilst some struggled to make sense of a loss or dislocation from their old self, others consciously adapted their identity to meet the needs of the prison environment. Some of the men also found meaning in their prison sentence by

understanding it as a 'turning point' (Sampson & Laub, 2005) and presenting 'possible selves' for the future (Markus & Nurius, 1986). The subthemes 'Grappling with the present self', 'Custodial dual harm', and 'Hopeful for the future self' will be explored.

Subordinate theme 3.1: Grappling with the present self

When narrating their current life scenes, the men revealed narratives indicative of a selfhood in turmoil. Present selves were questioned, compared with old selves, or temporarily reconstructed, leading to three self-conceptions; an existential crisis, a dislocation of the self, and a self that met the environment's needs. Shaun struggled to grapple with his loss of self and questioned his life's fundamental meaning and purpose upon entering prison.

Extract 35, Shaun

I don't really think I can manage anything whilst I'm in here, because, they ripped me away from the whole set up I had in my life, they've stripped me of everything I had in my life. I've lost everything I had because of me being in here, I don't even know who I am anymore.

Shaun embedded his existential crisis in the emotional turbulence of being incarcerated. Illustrative of what Maruna et al. (2006) term "a crisis of self-narrative" (p. 168), Shaun questioned who he was, which resulted in a loss of his individual identity. Instead, he identified as being part of a broader, undifferentiated group "in here". Whilst some people in prison seek to answer existential questions and, through doing so, construct novel, positive identities (Maruna et al., 2006), Shaun appeared to revel in the loss of his old self. This, in addition to the fact that Shaun perceived his life as being ripped away and stripped of everything, suggests he felt he had no agency in the situation and as a result, experienced existential despair and emptiness, which is not uncommon for individuals in prison (Maruna & Ramsden, 2004). However, within this positioning of the narrative, Shaun presented the criminal justice system as villainous. By attributing his crisis to this external source, he implied that blame should be placed on the system more broadly, rather than positioning himself as the villain for allegedly committing a criminal offence (which he denied).

Other participants also re-told stories of how prison affected their current sense of self. Ethan, who had previously identified as someone to be feared or aspired to, now considered himself a "nobody". Likewise, Matty presented a strong dissonance between the person he once enjoyed being compared to the person he had become.

Extract 36, Ethan

Prison. Jail, jail is the biggest failure, definitely. Errr, because, it's not a good place. You can't look after your family, you can't provide for people, it's a loner init. I'm a loner in here. Like, like a nobody. Anybody in prison is a nobody you know... Like if you come to, see me out there yeah, I would've never of thought that I would come to prison, I have money, I have, I have cars, I have motorbikes, I do things, I would never think I would come to prison with the things I do. I do good things. I like, I go sauna's and that, I go gym, I do nice things.

Extract 37, Matty

Out there I used to have the best of cars, wear the best of clothes. Gucci tracksuits, Gucci man bags, I was living nicely, living the dream really... I used to be sweet but now look where I am, I'm in jail and it's shit and I even look shit because I've lost bare weight.

Both Ethan and Matty presented a “dislocation of self” (Crewe et al., 2020, p. 254) as they reminisced over their former selves in the community. Although people aim to maintain inner sameness and have a temporally consistent construction of the self (Rocque et al., 2016), participants re-told aspects of their former selves and incorporated this into their understandings of their present selves. That is, they described how their past selves were qualitatively different to, yet were informed by, their understanding of their present selves (Ross, 1989). For instance, Ethan explained how his old self (who had cars, motorbikes etc.) differed to his current self (a “*nobody*” in prison). Having said this, there are nuanced differences in the positioning of the men’s narratives. Ethan used the present tense (“*I have*”, “*I do*” and “*I go*”) to describe his lifestyle, whereas Matty referred to the past tense (“*I used*”, “*I was*”). This may suggest that during the interview, Ethan, perhaps more so than Matty, was still struggling to understand or accept the incoherence of his current identity.

Conversely, Brendon was less concerned about the discrepancy between his old and current self. Instead, he aimed to achieve a temporary that met the environment’s needs. This adaptive identity needed to respond to the social demands of prison life, and as such, Brendon enacted an intensified version of himself which centred around strength and masculinity. In keeping with Gooch’s (2019) assertion that people in prison respond to threats to their security through hypermasculine performances, Brendon recalled one incident where he needed to be violent to protect himself physically and socially.

Extract 38, Brendon

I owed them [fighter] money so we just had a fight in the toilet, a one to one in the showers to clear the debt. It was them first, they started the fight with me, but I had to fight back to clear the debt because I couldn't pay otherwise. I didn't have the money to pay or whatever... I had to fight back otherwise he'd have battered me, I'd have looked a right dick and more people would've tried battering me probably because I'd look like an easy target.

In the extract above, Brendon described fighting to clear an unmanageable debt, which is common in prisons (Gooch et al., 2015). Brendon fought to maintain face and reputation and to reduce the likelihood of future victimisation. This parallels youths in custody and men with a history of dual harm who have reported the need to be assertive and avoid exhibiting weakness to protect themselves against potential threats (Crewe et al., 2020; Hemming, Bhatti et al., 2020). Brendon actively projected a 'fighter' rather than a 'victim' identity. By constructing this masculine identity and performing it on the residential wing, Brendon hoped to present an image of toughness that would protect against future victimisation. This aligns with Jewkes' (2005) assertion that respect and status are based on a masculine reputation of strength and aggression for most people in prison. Linked to this, what first seemed a fight to clear a debt ended with Brendon implying the need to defend himself physically (against getting "battered") and socially (to prevent himself from looking "a right dick"). As such, Brendon's 'backstage' self of feeling vulnerable was masked by a 'frontstage' construction and performance of masculinity (Goffman, 1959). This coincides with the view that prison selves can be considered inauthentic, as people try to mask their 'real' or 'private' sense of self if it does not meet the demands of the masculine prison environment (Crewe, 2012; De Viggiani, 2012; Jewkes, 2002).

Subordinate theme 3.2: Custodial dual harm

Participants also re-told stories of when they exhibited self-harm and violence in prison, albeit their understandings of the behaviours vastly differed. That is, participants noted multiple causes of dual harm in prison and many different functions of self-harm and violence in this context. For instance, violence in prison was predominantly narrated as a way to protect the self in a world characterised by violence, whereas self-harm differed between being private and communicative. Nonetheless, this theme captures how participants narrated and understood the functions of their dual harm behaviours. Ethan (who had not self-harmed previously) cut his neck with a razor blade and was subsequently put on Assessment, Care in Custody and Teamwork procedures. This act of self-harm

was understood as a form of agency in an otherwise restricted environment and an act of direct communication to prison staff.

Extract 39, Ethan

You have to be on an ACCT to get seen. People who smash up and cut up and that, they get what they want. They get what they want every time. You want a telly or summats, cut your arm, you get a telly... because when you like ask them nicely they don't want to do shit... But when I did that, they did it straight away. I was fuming because I'm trying to say to them yeah, why the fuck do people have to do this for you to pull a foot out or pull a thumb out your arse? It worked. I got what I wanted. But I shouldn't have had to gone down that route because I asked nicely in the first place. (Interviewer: Can you recall why you self-harmed?) I swear they let me out late, they let me out late for my meds or summats. I think it was, or they took me off my meds. Summats, awh man, I can't remember what it was. It was one of the two anyway.

Ethan's protest was in reference to his attention-deficit hyperactivity disorder medication. However, this information was dismissed as Ethan had to be probed by the researcher to provide information regarding the function of his behaviour. Even when asked directly, Ethan was unable to recall what triggered his reaction. Instead, when construing the event, Ethan prioritised his frustration at the prison and its staff. These frustrations revolved around the view that peaceful protests in prison were ineffective and that he, and others, must hurt themselves to get their views heard and acted upon. Otherwise, people in prison are inadequately supported. This view resonates with Wainwright et al.'s (2020) report, in which men in prison resorted to disruptive or violent behaviours to receive the staff's attention. Similarly, Ethan's resentment towards prison staff ignited anger and rage, which seemed to feed into his self-harm. This is in keeping with people in prison who self-harm to express frustration at institutional conflicts (Power et al., 2015). Ethan also recalled "It worked. I got what I wanted" and whilst prison staff may have interpreted this as Ethan using self-harm to achieve environmental gain (Sweeney et al., 2018), he understood it as gaining control and subsequent support in the environment.

Moreover, Ethan and Shaun understood that self-harm allowed them to express intense emotions during their custodial sentence.

Extract 40, Ethan

(Interviewer: Have you self-harmed more than once during this custodial sentence?) I punch my door init... You know if a screw pisses me off and they're at my door, I'll

whack my door towards them, like I'll hit my door, because if I don't hit my door, I'll hit them. And that's why I try and like, like I try and take my anger out... Coz if I hit a person then I'm gonna get into trouble but if I hit a door then I'm not.

Extract 41, Shaun

I self-harmed a few times... I wouldn't come out of my pad, I wouldn't socialise... I didn't want others seeing me like that. (Interviewer: How do you feel in the lead up to self-harm?) I feel like I can't handle shit anymore, like everything is just piling on top of me... when I self-harm everything comes at once. Guilt, regret, sadness, anger, hurt, basically a lot of emotions.

In addition to cutting his neck, Ethan recalled punching his cell door to self-harm. He storied this as less destructive than violence with fewer consequences, yet it allowed him to communicate, control, and reduce his anger. Specifically, Ethan understood that by punching his cell door towards prison staff, he could take his “*anger out*”, which may have been an attempt to directly communicate his emotions to others. Indeed, a meta-synthesis of 12-18-year-olds’ experiences of self-harm found that the behaviour may not only be an expression of anger but also represent the person’s efforts to tame their anger (Stänicke et al., 2018). That is, Ethan may have punched the door towards a staff member to actively try and reduce his anger by removing it from himself and giving it to someone else (the staff member at the door). This may have represented a shift whereby the intensity of anger decreased for Ethan but increased for the staff member. However, whilst Ethan felt frustrated and angry, Shaun felt overwhelmed by a plethora of emotions which were “*piling*” on top of him, suggesting an inability to cope. One common theme in the literature on adolescents’ and young adults’ experiences of self-harm is that it can help them cope with overwhelming feelings (see Lindgren et al., 2021 for a review). Akin to how most participants reported poor emotional regulation, Shaun understood his self-harm as a way to reduce the intensity of his emotions and regain control during a time in which he felt unable to cope.

Both participants also appeared to adapt their behaviours to meet the environment’s needs. Having never self-harmed, Ethan communicated and controlled his anger by punching prison property instead of exhibiting interpersonal violence. He recognised that violence would result in negative consequences and punishments (e.g., segregation). Therefore, Ethan mastered his environment and, without being violent towards the staff member, restored a sense of justice in his perceived unjust situation by communicating his anger. This aligns with findings that people in prison self-harm in situations where they would have been violent in the community to remove the negative consequences associated with violence (Harvey, 2007; Power et al., 2016). Shaun also masked his

vulnerabilities through violence in the community (see subtheme 2.3), enabling him to maintain a positive identity, even when he felt vulnerable. In prison, however, self-harm served a similar function and provided Shaun with a private means to reduce the intensity of his emotions whilst appearing in control to his peers. Hemming, Bhatti et al. (2020) found that people in prison with a history of dual harm spoke about emotional overloads, which resulted in irrational thinking. However, self-harm appeared to help Shaun mask these feelings to others on the wing and avoid being perceived as weak. Distinguishing the two narratives further, Ethan's self-harm was public and communicative, whereas Shaun's act was a private means of coping as he secreted his behaviour and withdrew from the social milieu of the prison. The latter may reflect findings that emotional displays in prison are often considered a sign of weakness (Laws, 2019). Throughout his life story, Shaun repeatedly behaved in a way that would maintain a positive view of the self and projected a strong and masculine identity, which aligns with his decision to self-harm in private and retreat to his cell. Here, Shaun was able to present his 'backstage' self and leave his masculine performance outside the cell door (Jewkes, 2005; Maguire, 2021). Whilst not communicative, the act is likely to have protected Shaun's identity, as self-harming allowed him to maintain face to others on the wing and deny such individuals the opportunity to witness him struggling to manage his emotions effectively. This meant that even when feeling vulnerable and unable to manage his emotions, Shaun appeared in control to those around him.

Narratives of prison violence were less rooted in emotion regulation, although themes of communication were still present. Other than Brendon (see subtheme 3.1), Matty was the only other participant to recall acts of prison violence, during which he referred to the culture of Young Offender Institutions.

Extract 42, Matty

When I was in another jail I got done in, fucked up differently in my pad by a load of [name of county] lads. Beat up on a proper different level just because I was out of area. I went down the block and I ended up getting a nicking. I said right, you either ship me out of this prison or you put me back on the same wing I come off. So they put me back onto the same wing I come off, I split the lad's head up, the same kid who did me over before, I did it with a chair leg. I just smashed his head in, but I did that because he took the piss out of me. Now he's going to look into the mirror and see a scar on his fucking forehead and realise I did that, just like when I look into the mirror and see that he did that to me [points to scar]. Then, when a lad from [name of county] landed in our prison I kettled him and he said 'what was that for' so I said,

your lot got me when I was in [name of county], so I'm getting you while you're in here. It wasn't even the same guy it was some other kid, I shouldn't have done it, I know I shouldn't have done it, but it gets like that dunnit? I just reacted like that because others have done it to me.

In this extract, Matty initially positioned himself as the innocent victim of an unprovoked attack. A person's hometown and local identity can be crucial to shaping their prison experience (Maguire, 2021), and Matty believed that the men local to the area espoused an 'us versus them' mentality. As such, they viewed Matty as qualitatively different due to being "*out of area*" with a distinct regional identity. Despite this, Matty's positioning shifted as he described taking revenge on the perpetrator. Like most of the acts of violence analysed in this chapter, Matty understood the violence as necessary and deserved. The assertion that the man had "*took the piss*" suggests that Matty felt disrespected and humiliated by the initial attack. However, rather than continuing to position himself as a victim, Matty constructed himself as physically powerful and masculine in his response.

Similar to how Brendon made sense of his violence in prison (subtheme 3.1), Matty also appeared to story his behaviour as a way to survive in a world characterised by violence. Whereas narratives of prison self-harm were centred around emotion, those of prison violence were rooted in masculinity and competition. Regarding the latter, Matty's storying suggests that he considered himself to be 'equal' to the initial perpetrator (after leaving him scarred). Research has found that revenge and punishment increase rumination, which prolongs negative affect, and vice versa (Carlsmith et al., 2008). This may explain why Matty perpetrated the second incident of violence (i.e., where he "*kettled*" [threw boiling water over] an innocent victim). Matty may have still been seeking revenge on his initial perpetrator and believed the second act of violence would correct and settle the previous injustice. This may have enabled Matty to feel as though he had reasserted justice but also put on a performance to others to avoid being the victim of future attacks.

In addition to the above, Matty recalled a further incident where he assaulted a staff member who tried to retrieve a SIM card that he had secreted in his sock. This SIM card, according to Matty, was integral for him to keep in contact with his family.

Extract 43, Matty

I bought a phone off someone... I didn't have a SIM card for the phone, so I got a SIM card off another kid for two cards of spice that I was selling... An officer saw me grab it, but he didn't know what it was, so I put it on the inside of my sock and I flipped the sock over. He tried to get it so I punched him and threw my dinner tray at him,

knocked him unconscious because he hit his head on the concrete floor. I got 18 months for that, I needed that SIM card for my phone because I was losing contact with my mum. I used to speak to her everyday but because I was put on basic, I were only getting £4.00 a week. I was gutted. I was also losing contact with my girlfriend, so that phone was important to me. That phone weren't just to take the piss and get drug parcels in, it was to keep contact with my family.

This narrative was centred around Matty's need to maintain family connections. His recollection of the violence was short and factual, which differed to how Matty presented his reasons for being violent. Although Matty did not suggest that the officer deserved the violence, he did construe the violence as being necessary. Through doing this, he scolded the prison's basic regime system and again painted the image that he was trying to survive in an unjust environment. By doing so, Matty positioned himself as a victim of the prison system, whereby he was a good, albeit desperate, individual who was willing to be violent if it meant maintaining his family ties. Within this, Matty projected himself as enduring a 'heroic struggle' (Presser, 2010a): a struggle between doing the right thing by his family, and adhering to the prison rules. In this struggle, Matty established a stark difference between himself (who felt that violence was fair and just due to the reasons presented) and the system more generally (which Matty suggests was not fair by only providing him with £4.00 a week phone credit).

Subordinate theme 3.3: Hopeful for the 'future self'

The final prominent narrative was each participant's hope for an optimistic future. The men scripted future-oriented, possible selves (Markus & Nurius, 1986), which included being role models, doting fathers, and providers. Through their previous suffering, whether in life generally or through imprisonment, the men re-evaluated their priorities and wanted to 'make good' and/or 'give something back' to society (Hall et al., 2010; Maruna, 2001). Brendon and Matty each hoped to become positive role models, whereas Shaun hoped to provide for his child and make a difference.

Extract 44, Brendon

Mostly for my little nephew, I need to be more of a role model than what I am at the minute...I don't want to be like this and lead him to the wrong path. Because I don't want him to see me and then go down the wrong path himself... Yeah, I want to be more of a role model for him.

Extract 45, Matty

I just want to help people, like mental health and that, I want to be a mental health worker. I've been through it all... probably been through similar to what they've been through themselves. There's nowt worse than someone giving you false information, someone saying 'yeah, I've done that myself and I've done this and that', when they've done jack shit and were born with a silver spoon hanging out of the mouth and got a Ferrari for their 1st birthday.

Extract 46, Shaun

I want to eventually see my kid... and to provide. That's the benefit if I do get to see my kid and care for my kid, that I can provide for them. I want to be a better person, possibly, like, give me an opportunity again to make a difference, to be a part of something bigger, not to just be that small town boy who gets involved in big town shit.

The extracts above are akin to a 'generativity script' (McAdams et al., 1993), which considers an individual's concern to promote the well-being of future generations. Within a generativity script, the narrator finds fulfilment through their concern for others, which provides their life with purpose (McAdams et al., 1993). The young men narrated being committed to the well-being of future generations, the very crux of generative concern. Brendon's hope to deter his young nephew from taking a wrong path, Matty's hope to become a mental health worker, and Shaun's hope to provide for his child coincide with the wounded healer narrative (Jung, 1951). In this narrative, people who have experienced adversity and thus see themselves as 'wounded' seek to help others who may go through something similar. It may be that the men sought to find purpose in their future life through internalising this 'wounded healer' or 'helper' identity. As the men placed great emphasis on their personal achievements (see subtheme 1.2) and agency (see subtheme 2.1) throughout their life stories, it may be that healing or positively impacting the lives of others fulfils a sense of achievement and agency. Additionally, being a 'protector', 'breadwinner' or 'provider' all pertain to "hegemonic masculine ideals" and may be perceived by the participants as a way to correctly perform masculinity in the community (Maguire, 2021, p. 186).

Being a role model and a provider also link to the concept of 'possible selves' (Markus & Nurius, 1986). Possible selves encompass a person's goals, motivations, hopes, and aspirations of what they hope to become and what they hope to avoid becoming (Markus & Nurius, 1986). As possible selves are the result of the most important messages in an individual's environment (Markus & Nurius, 1986), it seems that for the participants, being role models, family men, and providers are some of the most important outcomes they hope to achieve after being released from prison. This may be as

possible selves are not only a representation of the self in the future but also derive from versions of the self in the past (Markus & Nurius, 1986). As such, the participants presented their hoped-for selves by reflecting on their past experiences and current situation. This may have allowed them to understand the discrepancies between their previous selves and the experiences which these selves have derived from, and their idealised possible selves. By storying these, the men constructed 'reform narratives' in which the narrator states to have changed and, as a result, have desisted from criminal behaviour (Presser, 2010a). In the current study, despite the discrepancies between participants' current and possible selves, they appeared motivated to achieve and be good people in the community. As people behave in ways which are consistent with the stories they tell about themselves (McAdams, 1993), this may allow the men to break away from their criminal identities and reinforce that they are not 'doomed to deviance' (Maruna, 2001).

Brendon also storied his possible self in his turning point narrative. According to Stein and Markus' (1996) self-concept model, to initiate behaviour change, an individual must identify the tendencies which led them to their current situation and recognise the need to change these. Brendon understood that peers who were his 'greatest negative influence' played a role in his criminal lifestyle. In order to change, Brendon understood the need to avoid such individuals and "*stick*" with his 'greatest positive influences', his family.

Extract 47, Brendon

I always said one day I'd end up in a wooden box or in jail because of the stuff I got up to, stuff I was going around doing. And I've always said karma will come back around and bite me in the arse...I just feel this sentence has changed me because when I get out I'm gonna go out and stick with my family now, try and get a job... Mechanics probably.

Brendon's possible self included being a family man and a hard worker. By incorporating this identity into his future-oriented narratives, behaviours that are inconsistent with his vision are likely to be rejected (McAdams, 1993; Vaughan, 2007). In his extract, Brendon also presented a 'post-traumatic growth' script, which is characterised by his understanding that imprisonment had changed him for the better (Crewe et al., 2020). Originally, Brendon's understanding of his current imprisonment aligned with participants' 'just world' narratives, as he understood his current situation as being determined by deservingness, or "*karma*" (Hafer & Begue, 2005). Despite this, he also narrated how prison had taught him to change his ways, which perhaps motivated him to focus on his family and career. As such, Brendon made sense of his current imprisonment and identity by understanding it as an opportunity to be relieved from his chaotic life in the community (Crewe & Levins, 2019).

Therefore, these positive reconstructions of prison enabled Brendon to attach meaning and value to his current sentence and rewrite his negative past into a positive, worthwhile future (Maruna, 2001).

5.5 Discussion

This chapter has explored the life stories of five young adults in prison with a history of dual harm. Specifically, it has shed light on how participants made sense of their life experiences and sense of self from childhood to the present day and has offered rich insights into the key factors and/or life events that they felt led them to dual harm. Finally, the analysis has revealed patterns of commonalities and differences across participants' life story narratives.

Broadly, all participants in this study were from a homogenous sample. They were all aged between 18 and 21, housed in the same category B adult prison in South Yorkshire, and self-reported a history of dual harm. However, when each life story was independently analysed, several commonalities went beyond the men's demographic characteristics. Consistent with previous dual harm research spanning multiple populations (in prison and the community) was the presence of ACEs, particularly being exposed to violence during childhood (Carr, Steeg et al., 2020; C. Chen et al., 2020; Pickering et al., 2022; Richmond-Rakerd et al., 2019). Whilst each participant positioned their immediate family member(s) as the villain(s) in their childhood narratives, there were nuanced differences between the experiences they described. Shaun was a victim of physical abuse, Ben had his medical needs neglected, and Ethan and Matty witnessed intimate partner violence in the family home.

Beyond their childhood trauma was what these experiences meant for their early-life relationships. Specifically, each participant reported strained child-parent/caregiver relationships, which played key roles in their later lives. Ben and Matty both storied a lack of care from their parents and, through doing so, construed their grandparents as providing a 'safe haven' and sense of communion (McAdams et al., 1996). They also made sense of their first acts of self-harm and suicidal behaviours through storying an inability to process the loss, grief, and intense emotions they experienced following their grandparents' death. These narratives demonstrate a sense of order, whereby participants expressed how their previous experiences and relationships affected their later behaviours (Kroch et al., 2021). Indeed, links between significant early life experiences, emotional and behavioural regulation and dual harm have been suggested (Richmond-Rakerd et al., 2019; Sahlin et al., 2017; Slade et al., 2020). Similarly, intertwining themes of relationships and emotion dysregulation were prominent in Brendon's narrative of self-harm and Ben's narrative of suicidal ideation. Here, the men storied the need to avoid or reduce the intensity of their unwanted emotions following arguments with loved ones, akin to Chapman et al.'s (2006) Experiential Avoidance Model of self-harm.

Participants also storied interpersonal relationships in narratives of violence in the community. Some (Brendon and Matty) presented their peer-related narratives with regret, whereas others (Ethan and Ben) were grateful for their former friendships, which had influenced their identity and sense of self. For instance, Ben understood that his gang-affiliated peers provided him with a sense of belonging and communion, and with this peer group came the progression from sole (self) harm to dual harm. That is, Ben 'stood together' with his peers and fought a rival gang to take revenge, protect the gang's honour and demand respect. These interlinking themes of relationships, protection, revenge, and victims being deserving of violence were also apparent within other narratives of violence. In presenting themselves as 'doing the right thing' and seeking justice from unjust circumstances, Shaun and Ethan recalled protecting 'weaker others', a previously termed neutralisation technique (Sykes & Matza, 1957). Deeper than this, however, violence allowed men to conceal 'backstage' selves who were perhaps struggling to accept vulnerabilities, such as feeling humiliated following a breakup (Goffman, 1959). However, by narrating violence as a way to protect others, they maintained face and projected a masculine identity.

Whilst violence in the community was narrated as a way to protect others, violence in prison was storied as a means to protect oneself in a world characterised by violence. Like previous research with men in prison (Maguire, 2021), violence allowed the participants to project an intensified version of themselves that projected a masculine, strong exterior. This was crucial for Brendon's progression from sole (self) harm to dual harm, as he espoused a temporary version of himself which met the environment's needs. In doing so, Brendon fought a peer to protect himself physically and socially, as "To lose face is to be seen as weak" (Maguire, 2021, p. 110). In another narrative of violence, Matty storied the intertwining roles of identity, balancing a previous injustice and protecting the self from future victimisation. Matty presented violence as an act of justice, whilst making a statement to others that he was willing to 'stand up' for himself. According to one penal scholar, this sustained projection of masculinity is likely to make life easier for people in prison (Maguire, 2021). However, Matty also understood violence in prison as functioning to protect family ties. Here, he presented a 'heroic struggle' (Presser, 2010a) in which his violence was understood as necessary to maintain connections, despite having to assault a prison officer to achieve the end goal. Therefore, whilst there were differences in how the men made sense of their violence, they storied it as necessary and just.

Lastly, anger towards the prison and its staff was crucial within narratives of self-harm in prison. Similar to previous research, Ethan self-harmed in response to frustration caused by interpersonal conflicts in prison (Power et al., 2015) and did so when verbal means of communication were viewed as ineffective. In an environment where violence was met with punishments, self-harm was understood as a way to regain a sense of justice and control whilst simultaneously releasing anger

(Harvey, 2007). This is consistent with Power et al.'s (2016) findings that some men in prison self-harm instead of being violent to avoid such consequences. However, while Ethan's self-harm communicated his anger to others, Shaun storied his self-harm as private and for the self. He retreated to his cell, dropped his 'frontstage' performance, and focussed on his vulnerable 'backstage' sense of self (Goffman, 1959; Jewkes, 2005). Interesting to note here is that in the community, Shaun appeared to mask his vulnerabilities and cope with his emotions (excessive or a lack of them) through violence. In prison, however, self-harm afforded Shaun a means to reduce the intensity of his emotions whilst maintaining face to his prison peers.

To summarise, self-harm and violence were understood as serving conflicting but complementary functions. This may explain why self-harm and violence have previously been described as 'intertwined' amongst dual harm populations (Pickering et al., 2022). Overarching themes of protection (of others or oneself) and emotion regulation (suppressing or evoking emotions) were linked to both self-harm and violence, with nuanced differences between the two. Violence in the community was primarily narrated as a way to protect others and showcase masculinity. In contrast, self-harm also afforded one participant a private means to reduce the intensity of his emotions whilst maintaining face to his peers on the wing. Notably, one of the main differences within these conflicting narratives relates to the men's environment. From these findings, it is proposed that people who dual harm are adaptable, and not only do they understand the need to change their behaviours to master their environment, but they also have the ability to do so. This is likely one of the reasons why people who dual harm pose an elevated risk; they can rely on the complementary functions of self-harm and violence when dealing with life's stressors.

5.5.1 Implications

The findings of this study have various practical implications. This study demonstrates that understandings of self-harm and violence, according to dual harm populations, can be vast and varied. When working with such individuals, particularly in a prison setting, it is important to work with self-harm and violence as the individual understands them. This includes understanding the emotions underpinning the behaviour and the function of the behaviour as the individual describes them. It should not be assumed that peoples' understandings of these behaviours remain consistent over time. Instead, just as understandings of self-harm and violence differ between people, they also differ between incidents. This highlights the importance of talking to individuals and hearing their stories to listen to how they make sense of their behaviours. Additional methodological implications of hearing people's stories are discussed in Chapter 8 (section 8.2.3)

Moreover, given the overlapping functions of self-harm and violence, as per dual harm populations, if the differences are explicitly related to external factors (i.e., the environment), then understanding dual harm through either a self-harm or violence framework becomes problematic. For instance, both self-harm and violence were understood as a way to regulate emotions and states, whether that be to end dissociative states or decrease the intensity of unwanted emotions, as per theories of self-harm (Chapman et al., 2006; Nock, 2009). However, both behaviours were also understood as a means to protect others or reduce anger, which is perhaps better explained by the General Aggression Model (Anderson & Bushman, 2002). As previously suggested, a separate theoretical framework of dual harm, which considers the population's understanding and use of self-harm and violence, is required (Shafti et al., 2021; Slade, 2019). More theoretical implications, and a proposed theoretical framework of dual harm, are presented in Chapter 8 (section 8.2.1).

5.5.2 Limitations

The limitations of this study should also be discussed. First, one participant (Ben) was released from prison on bail the day between his first and second interviews. Due to this, one LSI was incomplete. This meant that some of the commonalities and differences between Ben and the other participants not could be identified. Despite this, the accounts that Ben shared prior to his unexpected release provided such rich and in-depth insights into dual harm that the data was included in the analysis. Ben also felt strongly about his voice being heard and the possibility of helping others. As a researcher, it felt wrong to deny him this.

Another potential limitation of this study concerns the LSI protocol utilised. By combining the Life as a Book (McAdams, 2008) and Life as a Film (Canter & Youngs, 2015) protocol, the researcher hoped to facilitate an in-depth recollection of participants' life stories. The prescribed life scenes and episodes may have allowed for a free-flowing semi-structured interview, but it may have restricted what the participants felt they could speak about. Having said this, as people in prison can often find it difficult to express themselves (Canter & Youngs, 2015), having an unstructured interview or starting with the question "please tell me about your life" is likely to have been too broad and inaccessible for the participants to engage with. This limitation was mitigated somewhat by regularly asking each participant if any other life experience, relationship or aspect of their life was considered important and meaningful to them.

5.5.3 Future research

Drawing upon a limitation noted above, whilst the LSI protocol used in this study was chosen for its depth, its prescribing nature may have limited the types of life events or experiences narrated. Therefore, future research may wish to use a more flexible protocol, with fewer prompts, to see if any

other life experiences are narrated and thus considered important by young adult men in prison with a history of dual harm. Furthermore, this study applied an inductive approach to exploring participants' life stories. Whilst this type of analysis did include some theoretical insights, this was not the aim of the study. As such, future research could explore the life stories of people who dual harm from a theoretical lens to ascertain how dual harm is understood in relation to theories of self-harm and violence. This would provide a greater understanding of where dual harm 'sits' within broader frameworks of self-harm and violence.

5.5.4 Conclusion

This chapter explored the life stories of five young adults in prison with a history of dual harm. The findings have discussed how the men made sense of their life experiences (before and during imprisonment) and understood their exhibited dual harm behaviours. In doing so, this qualitative exploration has provided a holistic insight into this complex group. However, whilst this idiographic approach facilitated a rich understanding of the lives of people who dual harm, investigating these findings on a broader scale may have a greater impact on practice. Therefore, Chapter 6 will identify whether some of the life experiences and events highlighted in this study are representative of a larger population of young adults with a history of dual harm in prison and whether these life experiences relate to one another.

Chapter 6: Exploring relationships between factors across young adult men in prison who engage in dual harm, sole self-harm, sole violence and those who do not engage in either harmful behaviour.

6.1 Introduction

Through life story interviews, Chapter 5 demonstrated how five young adults in prison narrated their life experiences and made sense of their dual harm behaviour. The presence of early developmental factors, such as ACEs and turbulent early family relationships, were identified within each life story, corroborating research with adults who dual harm in prison (Pickering et al., 2022) and adolescents and young adults in the community (Carr, Steeg et al., 2020; C. Chen et al., 2020; Richmond-Rakerd et al., 2019; Spaan et al., 2022; Steinhoff et al., 2022). Extending this, early experiences and relationships were also related to participants' subsequent identities, which had implications for their dual harm. However, ACEs are common among many individuals in the criminal justice system, regardless of whether they have engaged in dual harm, sole harm, or neither (Ford et al., 2019; Ford et al., 2020). Therefore, understanding how ACEs interlink with other factors in the pathway to dual harm is important to understand distinct nuances in the pathway to dual harm.

In addition to ACEs, as outlined in Chapter 2 (section 2.6.3.1), other variables concerning a person's development, such as low(er) educational achievement, have been found to distinguish people who dual harm from those who engage in sole harm (C. Chen et al., 2020; Swahn et al., 2013). Slade et al. (2022) also found this among adults who dual harmed in US prisons. Such individuals entered custody with poorer reading abilities and education levels and, on average, made little improvement during their sentence. Research has suggested that ACEs contribute to lower academic ability and performance through poor school attendance and having to live through chronic stress and fear (Bethell et al., 2014; Hardcastle et al., 2018; Stempel et al., 2017). However, whilst research has identified associations between dual harm and ACEs, and dual harm and educational achievement, no research to date has explored how, if at all, these two factors are related to each other, or if one serves as a mediating variable in the trajectory of dual harm.

Compared to ACEs and educational achievement, which have distinguished people who dual harm from those who sole harm or do not harm in numerous populations, other factors, notably clinical variables, are more specific to sub-populations. As discussed in Chapter 2 (section 2.6.4.1), substance use in prison does not typically differentiate people who dual harm in prison (Kottler et al., 2018; Slade, 2018; Slade et al., 2022; Slade et al., 2020), but is considered part of the dual harm trajectory among adolescents and young adults in the community (Harford et al., 2012; Harford et al., 2016;

Spaan et al., 2022). Moreover, difficulties with coping and problem-solving skills have been linked to sole self-harm (Chapman et al., 2006; Marzano, Ciclitira & Adler, 2016; Pope, 2018) and sole violence (Anderson & Bushman, 2002; Rocheleau, 2015), but have not been explored within the context of dual harm. Evidence also suggests that self-reported poor problem-solving skills predict lifetime drug and alcohol use among adolescents (Jaffee & D'Zurilla, 2009). Therefore, variables such as problem-solving skills and substance use may be uniquely associated with each other in the trajectory to dual harm for adolescents and young adults.

Beyond these developmental and clinical factors, an individual's criminological history has also been explored in relation to dual harm. In the previous chapter, most participants had perpetrated some type of crime during adolescence, which coincides with evidence that adolescents who dual harm in the community have early contact with the criminal justice system (Harford et al., 2016; Richmond-Rakerd et al., 2019). Additionally, adults who have dual harmed in prison have been found to engage in higher rates of refractory behaviours, particularly fire-setting and damage to prison property (Kottler et al., 2018; Lanes, 2011; Slade, 2018; Slade et al., 2022; Slade et al., 2020). Despite this, there is no evidence yet to suggest that specific criminological factors (e.g., specific offences, number of offences, age of offences) lead to dual harm or vice versa. Therefore, greater insight is required to establish whether these criminological factors are important in the pathway to dual harm, and how these may be associated with other variables. For instance, using the earlier examples, evidence suggests that ACEs are overrepresented among people with a history of criminality (e.g., Basto-Pereira et al., 2022; Ford et al., 2019), as are lower levels of educational attainment (Office for National Statistics, 2022). Therefore, it may be that ACEs, educational attainment and criminality are distinctively associated with each other among individuals who dual harm, which would shed meaningful insights on the developmental pathway to dual harm.

Finally, though to a lesser extent than the variables discussed above, demographic variables have also been explored in relation to dual harm. For example, Slade et al. (2022) found that adults who dual harmed in US prisons were less likely to be married than individuals who sole self-harmed or did not engage in either harmful behaviour. Considered together with evidence suggesting an overrepresentation of ACEs and low academic engagement among individuals who dual harm, and findings from the previous chapter (e.g., school exclusion and delinquent peers), this suggests that people who dual harm may have fewer opportunities to build sustained positive social connections. Relatedly, lower perceptions of social connectedness have been associated with higher rates of self-harm and suicidal behaviours (Macrynika et al., 2018) and other adverse outcomes such as homelessness (Manning, 2021). Despite such associations between demographic factors and harming behaviours, these variables have not been explored with adolescents and young adults with a history

of dual harm. Therefore, it remains unknown whether these variables are relevant in the pathway to dual harm among this population.

To summarise, in research, only some factors (which can be categorised into developmental, clinical, criminological, and demographic variables) have been explored specifically in relation to dual harm. Even within the dual harm literature, these variables have not been explored among young adults in prison. Moreover, no research has addressed how factors or characteristics are associated with each other, and whether these associations differ between young adults who dual harm in prison, compared to those who engage in sole self-harm or sole violence and those who do not engage in either harmful behaviour. Identification of such relationships would help form a more nuanced understanding of young adults who may be at high risk of exhibiting dual harm in prison.

In recent psychological literature, exploratory network analyses have been used to identify how complex arrays of variables (such as risk factors of behaviours or clusters of symptoms) relate to each other (Briganti et al., 2022). These analyses have been used to visualise the unique associations between variables in a dataset. This is particularly helpful in research exploring a phenomenon from multiple theoretical perspectives (Bhushan et al., 2019), such as dual harm. Indeed, one study has used a network analysis to explore how harmful behaviours relate to each other in adolescence, to help develop understandings of dual harm (Shafti et al., 2022). However, no research has used exploratory network analyses to explore how variables related to dual harm are associated with each other. Identifying relationships between variables (i.e., those from Chapter 6, previous research and theory) and how these relationships differ between young adults in prison who dual harm, sole harm or do not engage in either harmful behaviour will provide insights into how the groups differ.

6.2 Research aims

This study aims to explore relationships between demographic, developmental, criminological, and clinical variables for young adult men who engage in dual harm, sole self-harm, sole violence and those who do not engage in either harmful behaviour (referred herein as the 'no harm' group), to establish similarities and differences in relationships across groups.

Secondary aims for this study are:

- To ascertain prevalence rates of dual harm, sole self-harm, sole violence, and no harm within the young adult prison estate.
- To create a network plot, mapping unique relationships between variables, for each of the four harm groupings.

- To identify similarities and differences in the strength and direction of these unique relationships between all four network plots.
- To identify variables which have the potential to distinguish dual harm populations from those who sole harm (sole self-harm or sole violence) or do not harm.

6.3 Method

6.3.1 Research design and sampling methods

A retrospective analysis was performed on routinely collected secondary data shared by the Prison and Probation Analytical Services (PPAS) team in the MoJ. The data represented most young adults in UK prisons between 1st January 2014 and 31st December 2019 (see section 4.2.3.2). An unknown number of high-profile cases, whose identity may have been compromised by the depth of data provided, were excluded by PPAS before the data was sent to the lead researcher. According to PPAS, this is standard practice for this type of research, and the number of such cases are expected to be very small. The data includes information from the Prison National Offender Management Information System (p-NOMIS) and the Offender Assessment System (OASys).

As discussed in Chapter 4 (section 4.2.3.2), p-NOMIS is an operational database used in England and Wales to collate information on people in prison. It contains a wealth of information including a person's demographic information, disciplinary infractions and behaviours (including self-harm and violence) inside prison (MoJ, 2016). Information is referenced to a person's prison number, which remains constant over time, and is continually updated throughout a person's time in prison. OASys is a risk assessment and management system used by prison and probation services (such as the Offender Management Unit in prisons) across England and Wales. There are three types of OASys assessments. Of importance for this study is the layer three OASys assessment. Being the most comprehensive type of OASys assessment, this allows for professional judgements to be made regarding the likelihood of a person reoffending, the risks and needs relating to their offending behaviours, and risk of future harm (Howard, 2011). Layer three assessments are standardised (albeit subjective due to the assessor's professional judgment) assessments which are predominantly for people serving long or indeterminate sentences, people with sexual offence convictions, and those with violent offence convictions who are considered to be of mid-high risk of reoffending (HMPPS, 2015; MoJ, 2018d). OASys assessments are completed via a structured interview between a person in prison and a probation staff member, usually within eight weeks of a person entering prison (HMPPS, 2015). They are reviewed at least once a year. For this study, it was the OASys layer three assessment's ability to capture demographic, developmental, criminological and clinical information regarding an individual's life through a series of single-item measures recorded by probation staff,

which was of interest. As such, individuals without a layer three assessment were excluded from this study because insufficient data would be available.

6.3.2 Sample

All individuals within the sample were required to have had a layer three OASys assessment completed during their imprisonment. If multiple layer three assessments were identified for the same individual, the earliest was selected to ensure that the information provided was from as soon into an individual's sentence as possible. This mitigates the influence of having completed offending behaviour or educational programmes, thereby reducing potential confounds. In total, 20,403 individuals in the data had a layer three assessment completed out of the 43,515 individuals included in the whole data share (more information on the logistics of the data share and the full sample can be found in section 4.2.1.3 and 4.2.3.2). As such, 47% of individuals in the data met the criteria. In their own research, the MoJ have noted that having a layer three assessment for 50% of the total population is an acceptable rate (MoJ, 2018d).

Half of the 20,403 individuals with a layer three OASys assessment were selected at random, allowing for a holdout sample to be used for confirmatory analyses in Chapter 7. Therefore, the sample for this study consisted of 10,202 young men aged 18-21 imprisoned in the UK between the dates specified above. The most predominant ethnicity reported was White ($n = 6872$, 67.5%), followed by Black ($n = 1693$, 16.6%), Asian ($n = 833$, 8.2%), Mixed ($n = 661$, 6.5%) and Other ($n = 128$, 1.3%), with 15 missing cases for this variable. In order of sample size, individuals were predominantly imprisoned for a violent index offence ($n = 4699$, 46.1%), followed by a property ($n = 1993$, 19.5%), other ($n = 1466$, 14.4%), drug ($n = 1410$, 13.8%), and sexual ($n = 630$, 6.2%) index offence with four missing cases.

6.3.3 Measures

Information in the data share was primarily gained from OASys layer three assessments, which takes the form of a structured interview, consistent of single-item measures, between a member of probation staff and a person in prison. These single-item measures, from herein, are considered as measures in the current study (detailed below). A list of the OASys information included in the data share, the associated scoring, and a brief justification for including such information can be found in section 4.2.3.2. Information for the outcome variable (type of harm exhibited) was sought from p-NOMIS (see below for more information).

Demographic measures.

Current relationship status was treated as a categorical variable which ranged from in a relationship living together (1), in a relationship not living together (2), to not in a relationship (3). *Current qualifications* (educational or vocational qualifications at or above GCSE level) and *current*

accommodation status were considered binary variables coded as some qualifications (1) and no qualifications (2), and stable/permanent housing (1) or no fixed abode (2), respectively. *Ethnicity* and *primary offence* categories were also included in the data share. However, due to the nature of these variables (i.e., they were unordered categorical variables with multiple levels) and given the *a priori* decision that ethnicity would be included in subsequent confirmatory analyses, the variables were not included in the current study.

Developmental measures. *Current problems with reading, writing or numeracy skills, a history of learning difficulties, previous problematic childhood relationships and previous problems with school attendance* were all included in the study. These were treated as categorical variables which ranged from no problems (1), some problems (2), to severe problems (3).

Criminological measures. *Age first in contact with the police and age at first conviction* were both coded as categorical variables which ranged from 18+ (1), age 14-17 (2), to younger than 14 (3). The *age first admitted into custody* was a continuous variable as age was rounded to the nearest year (ranged from 12 to 20 years). *The number of convictions both under and over the age of 18* were also treated as categorical variables, which ranged from 0 court appearances (1), 1-2 court appearances (2), to 3+ court appearances (3). Lastly, *time in custody aged 18-21* was also coded as a categorical variable which ranged from less than 1 month (1), 1-6 months (2), 6-12 months (3), 1-2 years (4) and 2-3 years (5). This information is not self-reported in an OASys assessment, but rather taken from official records.

Clinical measures: *Current problems with coping, problem-solving skills, psychological problems/depression, psychiatric problems, and a history of aggressive/controlling behaviour* were also treated as categorical variables which ranged from no problems (1), some problems (2), to severe problems (3). *A history of self-harm, attempted suicide, suicidal thoughts or feelings* was a binary variable which ranged from no previous acts or thoughts of harm to self (1) to previous acts or thoughts of harm to self (2). Similarly, *previous drug misuse* (in the community or custody) was also a binary variable coded as no drug misuse (1) to previous drug misuse (2).

Type of harm. The outcome variable was gained from p-NOMIS and consisted of the type of harm exhibited in prison by each individual in the sample. In keeping with previous research (Kottler et al., 2018; Slade, 2018; Slade et al., 2020), the outcome variable was categorised into four groups.

Sole self-harm: At least one act of self-harm recorded through the 'Deliberate Self-Harm Report' on p-NOMIS, irrespective of intent, method, or the severity of the injury, but no acts of violence during any custodial sentence served as an 18-21-year-old, between 1st January 2014 and 31st December 2019.

That is, a person only had to self-harm during any of their sentences, and not during all of their sentences, to be considered to have self-harmed.

Sole violence: At least one recorded act of violence ascertained through the ‘Incident Involvement Report’ on p-NOMIS in which the individual was classified as a ‘fighter’ or ‘perpetrator’, but no recorded acts of self-harm, during any custodial sentence served as an 18-21-year-old, between 1st January 2014 and 31st December 2019. That is, a person only had to be violent during any of their sentences, and not during all of their sentences, to be considered to have been violent.

Dual harm: At least one recorded act of both self-harm and violence as per the definitions above, during any custodial sentence served as an 18-21-year-old, between 1st January 2014 and 31st December 2019. Individuals may have engaged in self-harm and violence across different custodial periods (e.g., self-harmed during their first sentence and been violent during their second sentence).

No harm: No acts of either self-harm or violence as per the definitions above, during any custodial sentence served as an 18-21-year-old, between 1st January 2014 and 31st December 2019. Group frequencies and demographic details for each of the outcome groups are presented in Table 6.

Table 6.

Descriptive statistics as a product of group allocation

Group		Prevalence	Age first admitted	Ethnicity	Primary offence category
	<i>n</i>	(%)	to prison M (SD)	(White) %	(Violence) %
No harm	4,293	42.1	18.8 (1.0)	75.8	41.6
Violence	4,252	41.7	18.1 (1.1)	52.1	50.3
Self-harm	385	3.8	18.6 (0.9)	91.9	41.8
Dual harm	1,272	12.5	17.9 (1.1)	82.5	48.3
<i>Full sample</i>	10,202	100.0	18.4 (1.1)	67.5	46.1

6.3.4 Statistical analyses

Analyses were conducted using R Studio version 4.1.2 (2021-11-01). Logistic regression analyses were performed to predict the risk of violence given that an individual had also engaged in self-harm and vice-versa, as per previous research (Slade et al., 2022; Slade et al., 2020). Next, the main analyses consisted of four Gaussian Graphical Models (GGM; Epskamp & Fried, 2018), which were estimated using the Bayesian Gaussian Graphical Model (BGGM) package (Williams & Mulder, 2020). GGM is an exploratory approach which examines the partial correlations between two variables (i.e., the

correlation between two variables while controlling for all other variables in the model). Relationships between demographic, developmental, criminological, and clinical variables were explored for each harm grouping. A mixed-type model was used as the data consisted of continuous and ordinal variables. Missing values were imputed automatically during the estimation process.

6.4 Results

6.4.1 Association between self-harm and violence

In the sample, 76.8% of young adults ($n = 1273$) who had self-harmed in prison also had at least one act of violence on their record. Moreover, 23.0% of individuals who were violent in prison ($n = 1271$) also had at least one act of self-harm recorded. The simple correlation between having a history of self-harm and violence in prison was $r(10,200) = .155$, 95% CI [.136, .174]. As the data used for this simple correlation included individuals who did not harm, a logistic regression was conducted to ascertain the change in odds of violence occurring among people with a history of self-harm in prison. Compared to those who did not self-harm, the odds of violence for people with a history of self-harm in prison were over three times higher $OR = 3.34$, 95% CI [2.96, 3.77], $p < .001$. The odds ratio (OR) is the preferred measure of the association because it accounts for the different base rates of self-harm and violence, and thus the odds of predicting violence from self-harm are the same as predicting self-harm from violence (Baguley, 2012).

6.4.2 A GGM to explore relationships between variables

Next, the GGM network models were created. Autocorrelation function plots were produced to identify instances of problematic convergence (i.e., where samples were too strongly correlated). Initially, a single model consisting of 5000 iterations was plotted, but this showed convergence problems for the two smallest outcome groups (sole self-harm and dual harm). To overcome this, three models, each with 5000 iterations, were thinned by five and merged. Fitting separate models and merging them reduced the computational burden since having one model with 15000 iterations prior to thinning surpassed the computational capacity of the MoJ Analytical Platform. Networks were estimated using BGGM matrix-F priors, which have been shown to have good frequentist properties (Mulder & Pericchi, 2018). Presumably due to the large sample, varying the scale of the prior (from the default of 0.50) had a negligible impact on the estimates. Once estimated, the networks were plotted using the R package *ggplot2* (Wickham, 2016). Each variable is presented as a *node* around the outer edge within the plots. Partial correlations between nodes are termed *edges*. Positive edges (representing positive partial correlations) are green and negative edges (representing negative partial correlations) are orange. The strength of each edge is depicted through the thickness of the lines, with thicker lines indicating stronger partial correlations. One GGM network representing the

partial correlations between the variables listed above was plotted for each group. Since the probability threshold for the interval estimates was set at 95%, within these figures, relationships that are below this threshold are not shown. The results section below will provide relevant partial correlation coefficients (r_p) for each described relationship, with a full table of all 190 coefficients presented in Appendix 8.

The following sections outline the results from the GGMs. Table 7 provides a reminder of the variables and overarching categories, and network plots are presented in Figures 12, 13, 14 and 15. The first section identifies relationships between variables that were similar across all four sample groups (i.e., dual harm, sole self-harm, sole violence and no harm). Then, the following section will describe how the dual harm group differed to each of the other groups. That is, relationships for the dual harm group were compared to those for the sole violence group, followed by the sole self-harm group, and finally, the no harm group. Within these sections, relationships are depicted by the partial correlation coefficients.

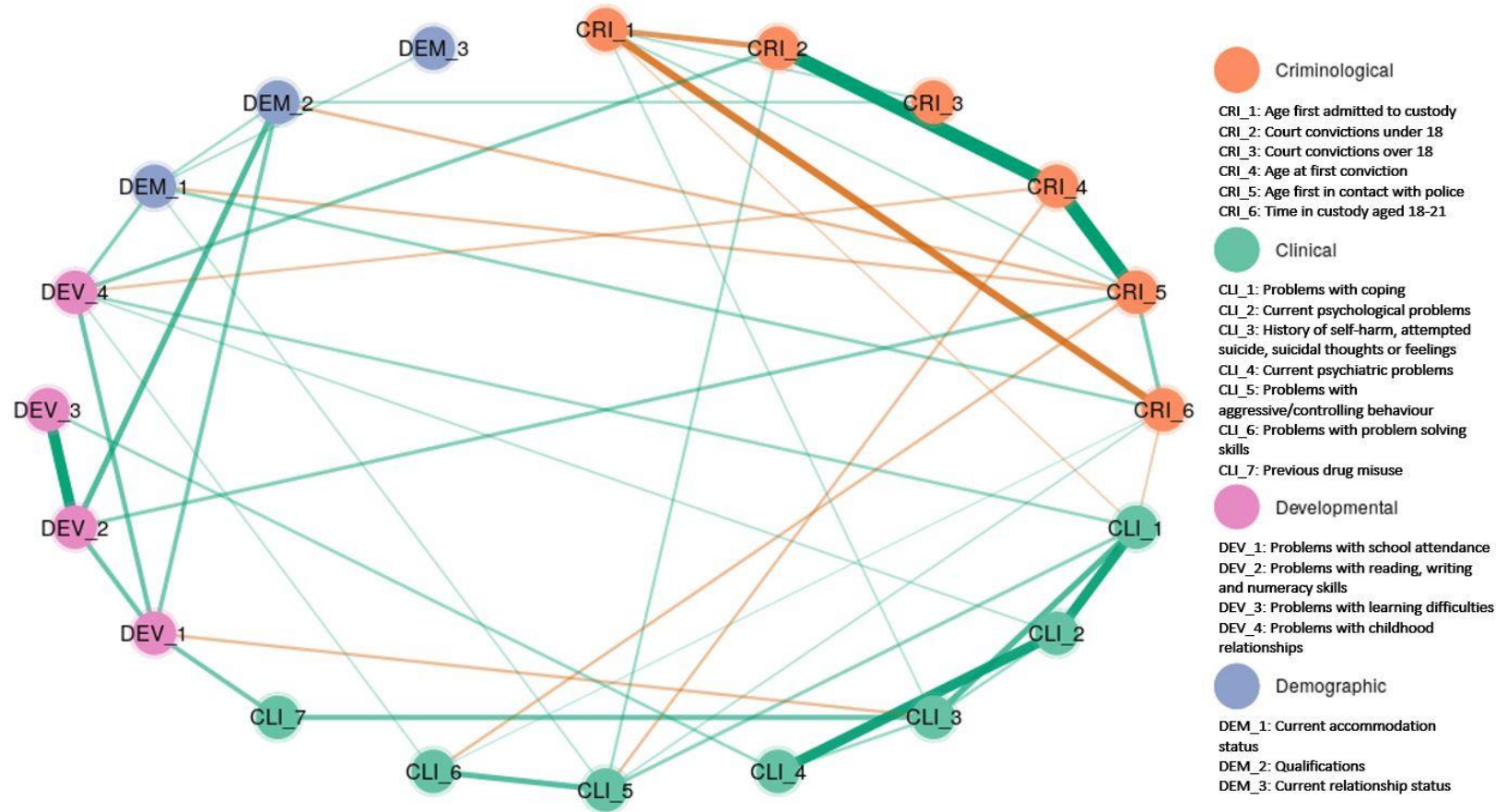
Table 7.

Variable categories and variable names entered into each GGM

Demographic	Developmental	Criminological	Clinical
1. Current accommodation status	1. Problems with school attendance	1. Age first admitted to custody	1. Problems with coping
2. Qualifications	2. Problems with reading, writing and numeracy	2. Court convictions under 18	2. Current psychological problems
3. Current relationship status	3. Problems with learning difficulties	3. Court convictions over 18	3. History of self-harm, attempted suicide, suicidal thoughts or feelings
	4. Problems with childhood relationships	4. Age at first conviction	4. Current psychiatric problems
		5. Age first in contact with police	5. Problems with aggressive/controlling behaviour
		6. Time in custody aged 18-21	6. Problems with learning difficulties
			7. Previous drug misuse

Figure 12.

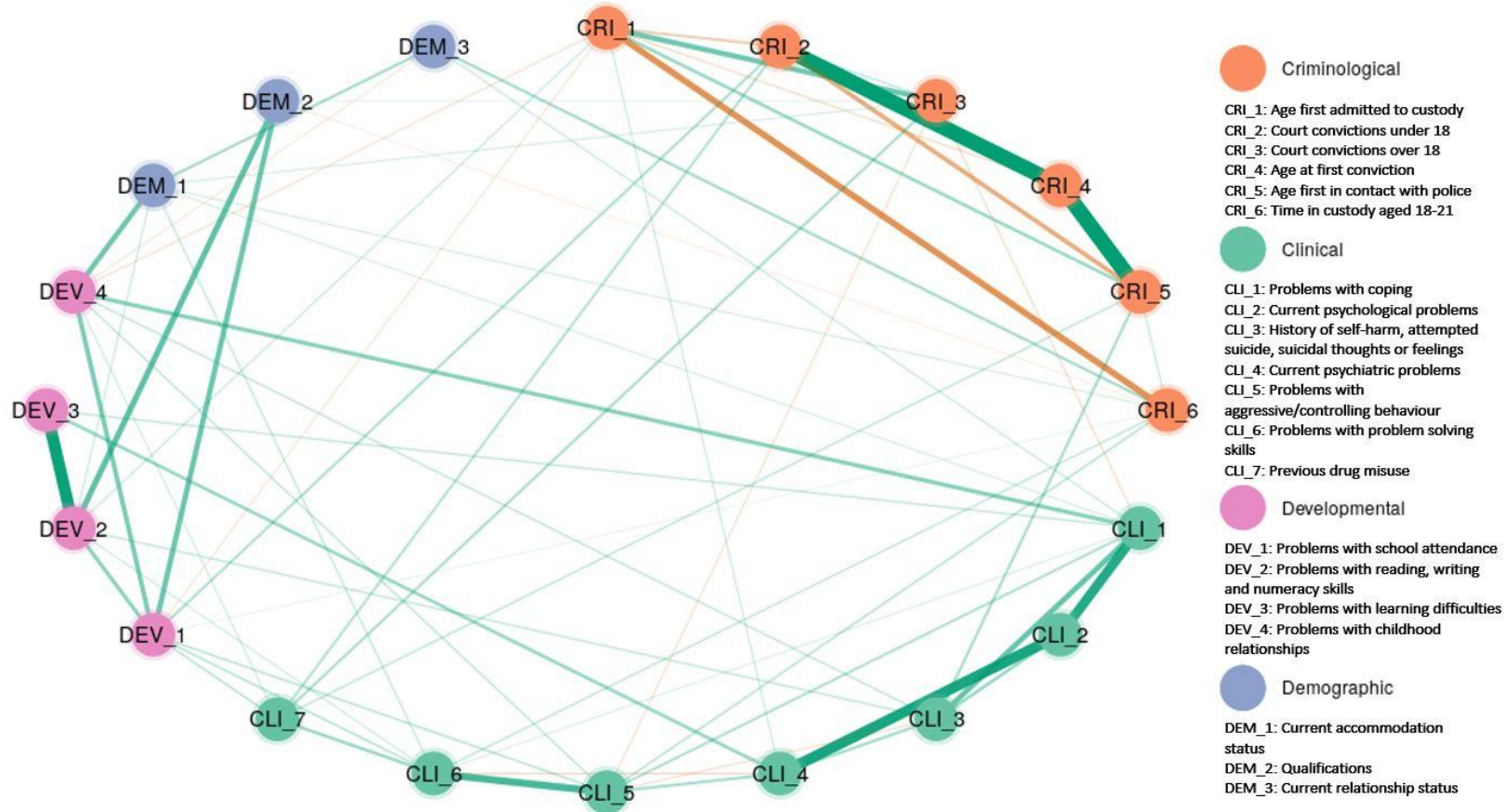
Visual (GGM) representation of the partial correlation network between OASys predictor variables among young adults with a history of dual harm in prison



Note. Nodes (circles) around the outer edge represent variables, colour coded by type (see key). Information regarding the coding of variables can be found above in section 6.3.3. Green lines represent positive partial correlations and orange lines represent negative partial correlations. Stronger correlations are depicted through thicker lines.

Figure 13.

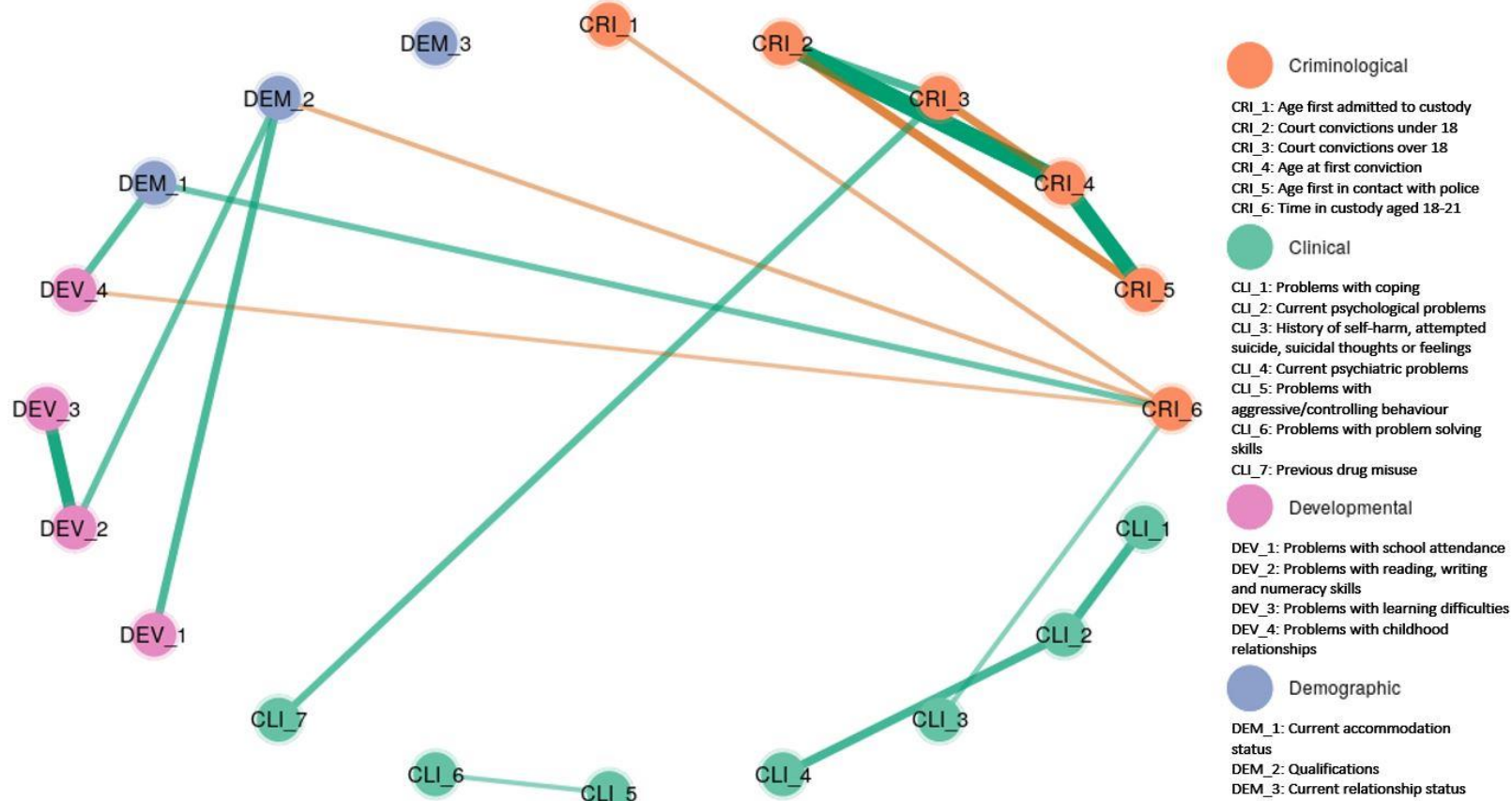
Visual (GGM) representation of the partial correlation network between OASys predictor variables among young adults with a history of sole violence in prison



Note. Nodes (circles) around the outer edge represent variables, colour coded by type (see key). Information regarding the coding of variables can be found above in section 6.3.3. Green lines represent positive partial correlations and orange lines represent negative partial correlations. Stronger correlations are depicted through thicker lines.

Figure 14.

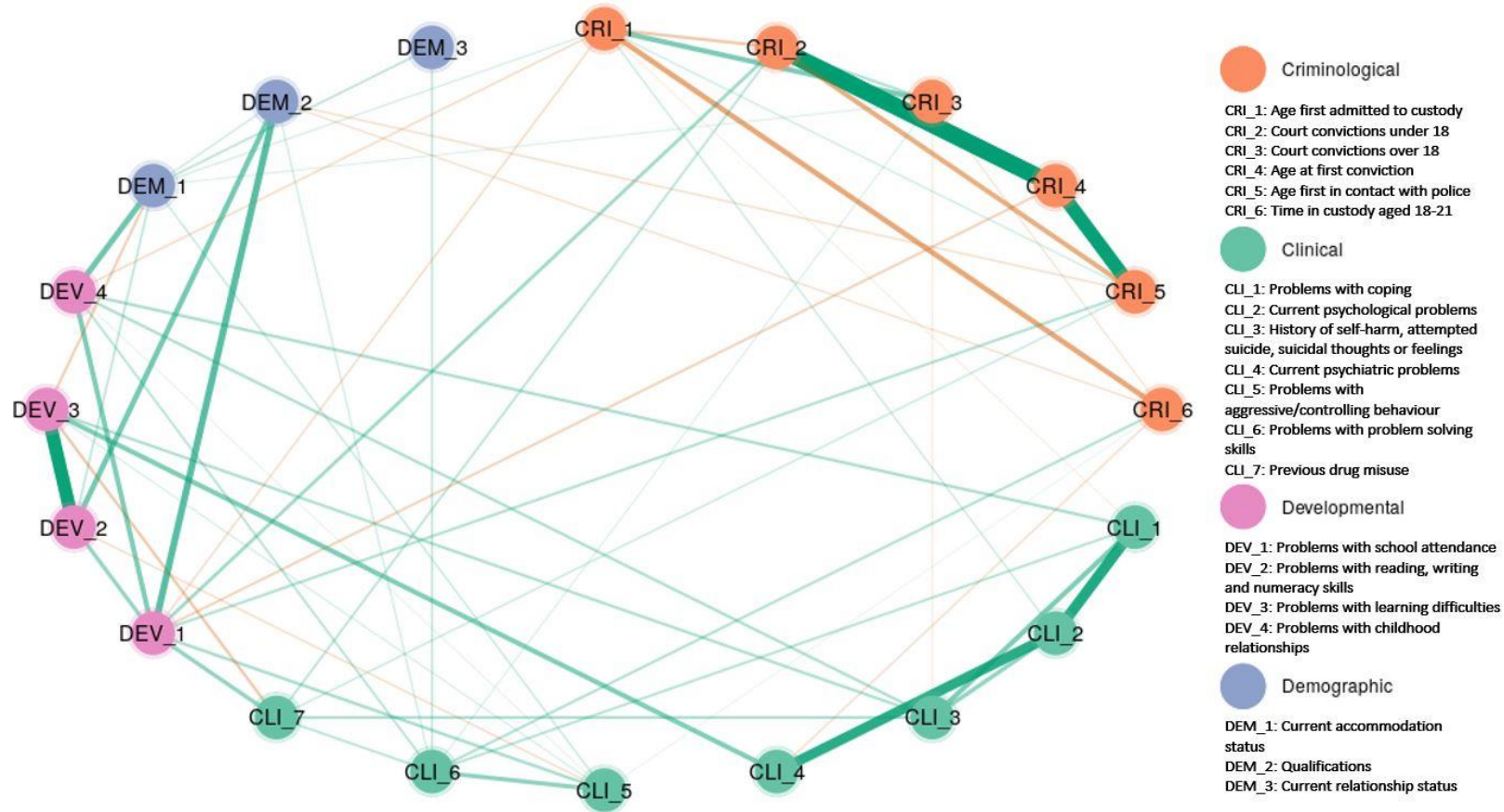
Visual (GGM) representation of the partial correlation network between OASys predictor variables among young adults with a history of sole self-harm in prison



Note. Nodes (circles) around the outer edge represent variables, colour coded by type (see key). Information regarding the coding of variables can be found above in section 6.3.3. Green lines represent positive partial correlations and orange lines represent negative partial correlations. Stronger correlations are depicted through thicker lines.

Figure 15.

Visual (GGM) representation of the partial correlation network between OASys predictor variables among young adults who have not harmed in prison



Note. Nodes (circles) around the outer edge represent variables, colour coded by type (see key). Information regarding the coding of variables can be found above in section 6.3.3. Green lines represent positive partial correlations and orange lines represent negative partial correlations. Stronger correlations are depicted through thicker lines.

5.3.2.1 Similarities between all four group networks

To identify similarities between all young adults in the current sample, regardless of their behaviours in prison, this section explores the ten strongest relationships between any two variables (regardless of whether they are demographic, developmental, criminological, or clinical), which were consistent across all four sample groups.

Unsurprisingly, when inspecting the ten strongest, most consistent partial correlation coefficients across all four sample groups, eight of the relationships consisted of two variables derived from the same overarching category (e.g., two criminological variables). These relationships are described below. However, it should be noted that whilst these were the ten strongest relationships, the partial correlation coefficients for some of these may still be considered weak (Akoglu, 2018).

Relationships within criminological variables

For all groups, the strongest positive relationship was between age of first conviction (CRI_4) and court convictions under 18 (CRI_2; r_p across groups ranged from .668 to .877, r ranged from .728 to .825). Age of first conviction was also strongly related to age first in contact with the police for all groups (CRI_5; r_p across groups ranged from .648 to .752, r ranged from .722 to .765). Therefore, the younger an individual was first in contact with the police, the younger they were when first convicted, which was associated with receiving more court appearances under 18. Moreover, for all groups, age first admitted to custody (CRI_1) had a weak negative association with time in custody aged 18-21 (CRI_6; r_p across groups ranged from -.242 to -.369, r ranged from -.325 to -.376). That is, the younger an individual was admitted to custody, the longer they spent in prison aged 18-21.

Relationships within clinical variables

Current psychological problems (CLI_2) had a moderate positive relationship with difficulties coping (CLI_1; r_p across groups ranged from .439 to .517, r ranged from .577 to .706) and current psychiatric problems (CLI_4, r_p across groups ranged from .421 to .502, r ranged from .492 to .595) across all four groups. As the severity of self-reported psychological problems increased, so did the severity of psychiatric problems and difficulties with coping. In addition, for all four groups, difficulties coping (CLI_1) had a weak positive association with a history of self-harm or suicidal thoughts or behaviours (CLI_3; r_p across groups ranged from .237 to .298, r ranged from .418 and .496). Therefore, as difficulties coping increased, so too did the likelihood that a person reported thoughts or acts of self-harm.

Relationships within developmental variables

A similar positive relationship was found between problems with learning difficulties (DEV_3) and problems with reading, writing and numeracy (DEV_2; r_p across groups ranged from .527 to .636, r

ranged from .465 to .520). As such, learning difficulties were associated with impaired reading, writing and numeracy skills and vice versa. Moreover, problems with childhood relationships (DEV_4) had a consistent weak relationship with problems with school attendance (DEV_1; r_p across groups ranged from .222 to .240, r ranged from .331 to .414). Therefore, the more problems a person reported with their childhood relationships, the more problems they also reported with their school attendance.

Relationships between different categories of variables

Out of the ten strongest partial correlation coefficients in the study, only two spanned multiple categories. Problems with school attendance (DEV_1) had a consistent weak to moderate relationship with qualification status across all groups (DEM_2; r_p across groups ranged from .216 to .403, r ranged from .283 to .393), suggesting that as problems with school attendance increased, fewer qualifications were reported. Problems with reading, writing and numeracy (DEV_2) also had a weak relationship with qualifications (DEM_2; r_p across groups ranged from .261 to .340, r ranged from .283 to .361). Therefore, as the severity of problems with core educational skills increased, the likelihood of having qualifications decreased. However, whilst these two variables were assigned to distinct categories by the researcher, the two variables in these categories topically overlap. As such, the strongest relationships across all four sample groups consist of two thematically similar variables.

5.3.2.2 Differences between the dual harm and sole violence network

A posterior predictive check using Jensen-Shannon divergence compared all four group networks. Significant differences between the overall networks were found between the dual harm and sole violence networks ($p < .001$, see Table 8). Whilst the omnibus test did not explain specific group differences, the dual harm network had fewer, albeit stronger, relationships upon visual inspection. To explore differences between the young adults who dual harmed in prison and those who were solely violent, this section explores the five relationships (between any two variables) in which the partial correlation coefficients differed the greatest between the two sample groups.

Table 8.

Comparing the posterior predictive distribution, in edge strength, across groups

Group	p
Dual harm - Violence	<.001
Dual harm - Self-harm	.721
Dual harm - No harm	<.001
Violence - Self-harm	.148
Violence - No harm	<.001
Self-harm - No harm	.941

Relationships within criminological variables

Age first in contact with the police (CRI_5) had a stronger negative relationship with number of court convictions under 18 (CRI_2) among the sole violence group ($r_p = -.212$) than the dual harm group ($r_p = -.031$). These partial correlations suggest that for both groups, the younger an individual was first in contact with the police, the fewer court convictions they received before the age of 18. However, the strength of this pattern was weaker for the dual harm group.

Relationships within clinical variables

A stronger positive relationship between previous drug misuse (CLI_7) and a history of self-harm or suicidal thoughts or behaviours (CLI_3) was observed for the dual harm group ($r_p = .245$, $r = .102$) relative to the sole violence group ($r_p = .060$, $r = .090$). Therefore, whilst for both groups, as the likelihood of previous drug misuse increased, so too did an individual's risk of harm to self, this relationship was stronger for individuals who had dual harmed during their prison sentence.

Relationships between different category variables (criminological and clinical variables)

The association between age first in contact with the police (CRI_5) and a history of self-harm or suicidal thoughts or behaviours (CLI_3) was positive for the sole violence group ($r_p = .133$, $r = .091$) yet negative for the dual harm group ($r_p = -.055$, $r = -.032$). Therefore for the dual harm group, the older they were first in contact with the police, the higher their risk of self-harm or suicidal thoughts or behaviours, yet this was reversed for the people who had engaged in sole violence in prison. Similarly, the relationship between court convictions under 18 (CRI_2) and current psychiatric problems (CLI_4) was positive for the sole violence group ($r_p = .121$, $r = .032$) but negative for the dual harm group ($r_p = -.079$, $r = -.029$). Therefore, for individuals who went on to dual harm in prison, the fewer court convictions they received under the age of 18, the more severe psychiatric problems they reported, yet this was reserved for individuals in the sole violence group.

Relationships between different category variables (criminological and developmental variables)

Lastly, the positive relationship between problems with reading, writing and numeracy (DEV_2) and age first in contact with the police (CRI_5) was also stronger for the dual harm group ($r_p = .188$) compared to the sole violence group ($r_p = .018$). As such, among the dual harm group, the younger an individual was first in contact with the police, the more problems they reported with core educational skills.

5.3.2.3 Differences between the dual harm and sole self-harm network

According to the predictive check using Jensen-Shannon divergence (see Table 8 above), the overall dual harm and sole self-harm networks, as depicted by the edges, did not significantly differ ($p = .721$). This may partly be because of the lower statistical power for comparisons involving the self-

harm sample group (the smallest of the groups). Despite the outcome of the test, visual differences between the two network plots were observed. The sole self-harm network was markedly sparser than the dual harm network but had several strong relationships between variables. This section explores the five relationships (between any two variables) in which the partial correlation coefficients differed the greatest between the two sample groups.

Relationships within criminological variables

Court convictions under 18 (CRI_2) were weakly associated with court convictions over 18 (CRI_3) among the dual harm group ($r_p = .069$, $r = .053$), yet moderately associated among the sole self-harm group ($r_p = .401$, $r = .114$). Therefore, for both groups, as the number of court convictions under 18 increased, so too did the number of court convictions over age 18, although this pattern was markedly weaker for the dual harm group. Moreover, the negative relationship between age first in contact with the police (CRI_5) and court convictions under 18 (CRI_2) was stronger for the sole self-harm group ($r_p = -.440$, $r = .650$) relative to the dual harm group ($r_p = -.031$, $r = .623$). This is consistent with the relationship between age of first conviction (CRI_4) and court convictions over 18 (CRI_3), which was also stronger for the sole self-harm group ($r_p = -.398$, $r = .072$) relative to the dual harm group ($r_p = -.066$, $r = .041$). Therefore, whilst for both groups, the younger an individual was first in contact with the police and received their first conviction, the fewer court convictions they received under and over the age of 18, the strength of this relationship was weaker amongst those who went on to dual harm.

Relationships between different category variables (criminological and clinical variables)

The relationship between court convictions under 18 (CRI_2) and a history of self-harm or suicidal thoughts or behaviours (CLI_3) was negative in the sole self-harm network ($r_p = -.301$) but positive in the dual harm network ($r_p = .135$). This suggests that amongst people in the dual harm group, as the number of court convictions received under the age of 18 increased, so did their risk of harm to self. Although, the direction of this relationship was not consistent for the sole self-harm group.

Relationships between different category variables (developmental and clinical variables)

By contrast, the association between qualification status (DEM_2) and a history of self-harm or suicidal thoughts or behaviours (CLI_3) was negative for the dual harm group ($r_p = -.070$, $r = .011$) yet positive for the sole self-harm group ($r_p = .227$, $r = .060$). Therefore, among the dual harm, the more qualifications a person reported, the higher their risk of harm to self, although this was not observed among the sole self-harm group.

5.3.2.4 Differences between dual harm and no harm network

The Jensen-Shannon divergence (see Table 8 above) test demonstrated that overall, the edges within the dual harm network significantly differed to the no harm network ($p < .001$). Visually, the dual harm network was marginally sparser and had stronger relationships. This section explores the five relationships (between any two variables) in which the partial correlation coefficients differed the greatest between the two sample groups.

Relationships within criminological variables

Age first in contact with the police (CRI_5) was negatively correlated with court convictions under 18 (CRI_2) for both groups, yet the relationship was much stronger for the no harm group ($r_p = -.233$) relative to the dual harm group ($r_p = -.031$). Therefore, more people in the no harm group who were first in contact with the police as an older adolescent also reported having more court convictions under the age of 18. In addition, age first in contact with the police (CRI_5) was positively associated with time spent in custody between 18 and 21 (CRI_6) for the dual harm group ($r_p = .214$, $r = .169$) but negatively associated for the no harm group ($r_p = -.039$, $r = .049$). That is, for the dual harm group, the younger they were first in contact with the police, the more time they spent in prison as a young adult, although this was not observed for the no harm group.

Relationships between different category variables (criminological and demographic variables)

Age first in contact with the police (CRI_5) was negatively associated with problems with current accommodation (DEM_1) for the dual harm group ($r_p = -.155$, $r = -.015$) but positively associated for the no harm group ($r_p = .050$, $r = .098$). By contrast, age of first conviction (CRI_4) was positively associated with problems with current accommodation (DEM_1) for the dual harm group ($r_p = .137$, $r = .024$) but not the no harm group ($r_p = -.091$, $r = .085$) when all other variables in the network were controlled for. Therefore, among the dual harm group, unstable accommodation (i.e., self-reported NFA) was related to being older when in first contact with the police, but younger when first convicted.

Relationships between different category variables (criminological and developmental variables)

Problems with childhood relationships (DEV_4) had a positive relationship with court convictions under 18 (CRI_2) for the dual harm group ($r_p = .201$, $r = .205$), yet almost no association was found for the no harm group ($r_p = -.002$, $r = .260$). Therefore, among individuals who dual harmed in prison, as the severity of problems with childhood relationships increased, so too did the number of court convictions received under the age of 18.

6.5 Discussion

This study aimed to ascertain the prevalence of dual harm, sole self-harm, sole violence, and no harm among young adults in prison with a completed layer three OASys assessment, and explore how relationships between demographic, developmental, criminological, and clinical variables differ, or were similar, across the four sample groups. Dual harm was much more frequently exhibited than sole self-harm but was exhibited far less than sole violence or no harm. Moreover, relating to relationships between variables, the results suggest differences in the pathways to dual harm, sole harm, and no harm, with dual harm typically distinguished by associations concerning an individual's criminological history. This suggests that an individual's pre-prison behaviours, specifically those relating to criminality during adolescence, may be important in the pathway to dual harm in prison by young adults.

Firstly, in keeping with the aim to establish the prevalence of dual harm by young adults in prison, 13% of the sample had engaged in both self-harm and violence in prison. This is similar to the prevalence reported among adult men in UK prisons (Slade, 2018; Slade et al., 2020), and is substantially more than rates found in research with adolescents and young adults in the community (C. Chen et al., 2020; Richmond-Rakerd et al., 2018; Steeg et al., 2023). The current study also found that the prevalence of sole violence was similar to that of no harm, with each group consisting of 42% of the overall population. Compared to adult men in prison (Slade et al., 2020), young adults in this study evidenced around double the prevalence of sole violence, but almost half the prevalence of sole self-harm (4%). This highlights some key differences between young adults and adults regarding the harmful behaviours they exhibit in prison. The higher base rate of violence in the young adult estate may explain why over 75% of the sample who self-harmed in prison had also engaged in at least one act of violence. This is approximately 15-35% greater than that observed among adult prison populations (Slade, 2018; Slade et al., 2022; Slade et al., 2020) and around 25-40% greater than that reported amongst adolescents and young adults in the community (i.e., C. Chen et al., 2020; Harford et al., 2012; Richmond-Rakerd et al., 2018; Spaan et al., 2022). The high prevalence of violence in prison is in keeping with the high percentage of violent index offences in the current sample (46%), which exceeds that found in Slade et al.'s (2020) research with adult men in prison by 20%. Therefore, the profile of young adults in prison appears to differ to that of adults, both in terms of their offending behaviours and behaviours exhibited in prison.

Next, regarding identifying similar relationships across all four sample groups, the findings revealed that regardless of their harm grouping, young men in prison engage in criminality from a young age. That is, the younger an individual was first in contact with the police, the younger they were first convicted. Relatedly, the younger an individual was when first convicted, the more court convictions

they received under the age of 18. These pathways align with research that found that early contact with the criminal justice system increased the likelihood of reoffending among youths (McAra & McVie, 2007). This also coincides with developmental theories of criminal behaviours, whereby the younger an individual first offends, the more likely they are to continue a criminal trajectory throughout adolescence and early adulthood (Farrington, 2018; Jolliffe et al., 2017; Moffitt, 1990). Considering this, regardless of how an individual behaves during their sentence, the earlier they first have contact with the justice system, the more likely they are to embark on a criminological trajectory (e.g., receiving multiple court convictions) that leads them to be in prison during young adulthood.

Despite these similarities, different criminological trajectories were unique to the dual harm group. For example, being younger at first police contact was related to more future convictions for the dual harm group compared to all other groups. As such, there was a greater likelihood that those who went on to dual harm in prison had early police contact and continued offending during adolescence and young adulthood. One way to explain this is that police contact and intervention has less deterrent effect for people who go on to dual harm in prison. Within a diversion service in England and Wales, the police and youth offending teams work with and support young people who have perpetrated low-level offences, to divert them away from crime (Taylor, 2016). These services are utilised before a person's first arrest and have been found to reduce reoffending among young people (Wilson et al., 2018). Therefore, it may be that these interventions do not meet the needs of people who go on to dual harm (e.g., the interventions do not target key issues or deficits), and therefore do not effectively deter them from engaging in criminality. In addition, violence and crime can be maintained through its reinforcing properties (Anderson & Bushman, 2002), and seeking peer respect through crime was prominent in the previous chapter. Therefore, it may be that people who go on to dual harm are more attuned to these positive reinforcers, and thus engage in criminality to seek such reinforcement, despite police intervention.

Moreover, differences between the dual harm and both sole harm groups (sole self-harm and sole violence) were identified. The relationship between a history of previous drug misuse and an increased likelihood of having a history of thoughts or actions of self-harm or suicide was markedly stronger for the dual harm group than both of the sole harm groups (for which the relationship was very weak). Since a relationship between drug misuse and self-harm among adolescents and young adults in custody and the community has already been established (e.g., Knowles et al., 2011; Spink et al., 2017), it is perhaps not surprising that this relationship was stronger for the dual harm group than the sole violence group. Nevertheless, the relationship being stronger for the dual harm group compared to the sole self-harm group is interesting. This may be explained by the suggestion that self-harm, violence and substance misuse are all experiential avoidant behaviours exhibited to avoid

or escape unwanted thoughts, memories or emotions (Chapman et al., 2006; Gardner & Moore, 2008; Hayes et al., 1996). Moreover, these behaviours have also been positively associated with high levels of anger and impulsivity (Perez et al., 2016), and are typically exhibited by individuals with poor emotion regulation skills (Chapman et al., 2006; Gardner & Moore, 2008). Therefore, people who dual harm may experience more severe deficits in emotion regulation, as has been recognised with adolescents (Richmond-Rakerd et al., 2019), and thus use a greater variety of experiential avoidant behaviours. In keeping, the previous chapter identified instances in which men self-harmed to reduce the intensity of their emotions. Therefore, emotional management, and particularly the interlink between self-harm and drug misuse, appears relevant in the pathway to dual harm among young adults in prison.

The positive correlation between problems with reading, writing and numeracy and having younger police contact was also strongest for the dual harm group, compared to both sole harm groups, particularly the sole violence group. One MoJ (2013b) review found that around 50% of 15-to-17-year-olds in custody had the literacy or numeracy levels of that expected among 7-11-year-olds. As mentioned in the previous chapter, people who dual harm may be more likely to be suspended or excluded from school and less able to continue their educational progression. However, adolescents and young adults who dual harm have been found to score lower on childhood IQ tests and achieve lower grades during high school than individuals who sole harm or do not harm (C. Chen et al., 2020; Richmond-Rakerd et al., 2019; Steinhoff et al., 2022). This suggests that even without the possibility of exclusion, individuals who dual harm may have lower educational capabilities than people who are solely violent. In particular, lower IQ, which can manifest through lower reading, writing and numeracy abilities, can increase a person's social vulnerability (Crews, 2009). In this case, social vulnerability may relate to being more easily misled or influenced by peers, and if these influences promote criminality, such individuals may be more likely to have earlier police contact than those less likely to be influenced or misled.

Other relationships distinguished the dual harm group from only one of the sole harm groups. For individuals in the sole self-harm group, the more court convictions they received under 18, the more they received over 18. However, this relationship was considerably weaker for the dual harm group. This suggests that the pathway to sole self-harm in prison includes a more linear progression of criminality from adolescence to young adulthood. By contrast, the pathway to dual harm in prison appears less fluid. There are several potential reasons for this. First, people who go on to dual harm may offend more sporadically, whereby they begin during adolescence, stop or go undetected for a while, and then return to criminality during young adulthood. Evidence suggests that in prison, people who dual harm engage in higher rates of maladaptive behaviours such as fire-setting and property

damage than those who sole harm (Kottler et al., 2018; Slade, 2018; Slade et al., 2020). If adolescents who go on to dual harm also engage in these behaviours in the community, they are more likely to be convicted and sentenced for a fire-setting incident than a criminal damage incident (MoJ, 2015). Indeed, criminal damage incidents are more likely to go undetected or dealt with by an absolute or conditional discharge. Second, young adults who exhibit dual harm in prison may have perpetrated more serious offences that resulted in custodial sentences earlier in life, thus reducing their opportunity to accrue more court convictions. Although some evidence suggests that adults who dual harm in prison are no more likely to have a violence-related index offence (Slade, 2018; Slade et al., 2020), the findings from the previous chapter (subordinate theme 1.3 and 2.1) suggest that young adults who dual harm engage in serious violence from a young age, and therefore such individuals may be convicted and imprisoned for violent offences, thus reducing their opportunity to accrue further court convictions.

Lastly, there was a considerably stronger relationship between severe problematic childhood relationships and convictions under age 18 for both groups that had self-harmed in prison (either dual harm or sole self-harm), compared to the sole violence and no harm group. This aligns with research which found that ACEs, and more specifically, early complex relationships, parental hostility and harsh parenting, were positively associated with dual harm (Carr, Steeg et al., 2020; Pickering et al., 2022; Richmond-Rakerd et al., 2019; Spaan et al., 2022; Steinhoff et al., 2022; Webb et al., 2017). However, the current study extends this by suggesting that the duality of difficult relationships in childhood and early, repeated criminality is more strongly associated to young adults who engage in self-harm in prison (either dual harm or sole self-harm) than the wider young adult prison population. Evidence suggests that poor attachment to parents during childhood increases the risk of subsequent delinquent behaviour and offending, particularly for young adults (Hoeve et al., 2012; Ogilvie et al., 2013). Therefore, it may be that unstable relationships in childhood underpins the pathway to both prolific offending under the age of 18 and self-harm in prison. Individuals whose problematic childhood relationships are not as strongly associated with increased adolescent court convictions may experience more protective factors against self-harm in prison or offending during adolescence, such as lower social isolation and better social skills (Scottish Government, 2018).

6.5.1 Implications

The findings from this study have various implications for practice. This study has not sought to establish causal relationships of dual harm, although it has highlighted potential aspects which may form part of the pathway to dual harm in prison. In particular, the findings suggest that many of the distinct or stronger pathways to dual harm in prison concern a person's criminological history before the age of 18. There are three important elements of this finding. First, adolescence and young

adulthood may be crucial time-points to prevent individuals from engaging in prolific criminality (Borysik, 2020). Second, these time periods may also be crucial in the pathway to dual harm in prison. Third, individuals who go on to dual harm in prison as a young adult are likely to be in contact with the criminal justice system from a young age. As such, regardless of whether a person has a history of dual harm by this time, interventions may be most effective if they are positioned ‘upstream’ during adolescence. In particular, the findings from this study suggest that interventions should focus on adolescents forming healthy relationships and building effective emotional management skills. For instance, young people involved in the justice system should be supported to increase their emotional management strategies to help prevent them from engaging in maladaptive behaviours such as self-harm, violence and drug misuse, to help disrupt the pathway to dual harm. More practical considerations are discussed in Chapter 8 (section 8.2.2).

In addition, the findings of this study add further knowledge to the dual harm ‘profile’. Coinciding with existing dual harm research and frameworks (Shafti et al., 2021; Slade et al., 2022; Slade et al., 2020), these findings confirm the importance of childhood and adolescence in the trajectory of dual harm, and how developmental, criminological and clinical factors within these periods can relate to each other (Slade et al., 2020). However, going beyond this, this study provides tentative suggestions regarding the developmental trajectories of young men who dual harm in prison, and how these may differ to young men who sole harm or do not harm during their prison sentence. In particular, the findings suggest that in addition to the environmental factors Shafti et al. (2021) outline in their model of dual harm, a person’s education and criminological history may play important mediating roles in the pathway to dual harm. This study also highlights the association between drug misuse and self-harm among young men who dual harm in prisons, which should be reflected in theoretical conceptualisations of dual harm. This is discussed further in Chapter 8 (section 8.2.1), in which a theoretical framework of dual harm is proposed.

6.5.2 Limitations

One limitation of this study concerns the use of the OASys layer three assessment as secondary data. This data relies upon the accuracy of each OASys assessor since the researcher does not monitor or evaluate it. This separation between the researcher and the data also means that nuances from the assessments are lost, such as any definitions or explanations provided by the OASys assessor. For instance, the variable ‘previous drug misuse’ is answered through a binary yes or no response; however, how OASys assessors define ‘misuse’ (i.e., type of drug and method of usage) remains unknown. These subtleties may have provided more insight regarding the nature of the relationship between previous drug misuse and a history of feelings or actions of self-harm, which was strongest for the dual harm group, and the interpretations explaining this. Furthermore, although available, no

qualitative data was sought from the OASys layer three assessment due to the complexities of the data share. However, having access to this data may have shed nuances regarding some of the relationships found within this study (e.g., the circumstances around previous drug misuse) and provided further context and understanding.

A second limitation concerns the size of each sample group. For this research, the MoJ provided information regarding all young adults in prison during the specified period, except those deemed inappropriate (high-profile cases). Following this, only those without a layer three OASys assessment were excluded from the analyses. This provided a representative population with true prevalence of dual harm, sole violence, sole self-harm and no harm in the young adult prison estate. However, for the sample in the current study, sole self-harm was by far the smallest group (3.8%), followed by the dual harm group (12.5%). The size of these groups, particularly the former, may explain why no overall statistical difference was observed between the dual harm and sole self-harm networks. Smaller groups have less statistical power and, as previously noted within GGM literature, a lack of power may result in relationships not being estimated with precision and stability (Epskamp & Fried, 2018; Hevey, 2018). For instance, the relationship between problems with childhood relationships (DEV_4) and court convictions under 18 (CRI_2) looks almost non-existent in the sole self-harm plot, despite the partial correlation coefficient being .219. Indeed, in this relationship, the credible intervals are wide-ranging, indicating a lack of precision in the estimate. Therefore, the small(er) group size may have affected whether some relationships were adequately estimated.

6.5.3 Future research

Whilst the use of secondary data does not detract from the findings, future research should utilise primary data collection methods. Structured interviews conducted by a researcher would ensure that nuanced information during data collection is maintained and used to enhance understandings of the developmental pathways to dual harm among young adult men in prison. In addition, research may wish to explore the cause-and-effect nature of the associations identified in this study using longitudinal methods. Lastly, as this study was exploratory, confirmatory analyses are required to investigate whether the variables in this study, and the relationships between variables, successfully distinguish young adults who dual harm in prison from those who do not.

6.5.4 Conclusion

Using large-scale secondary data from UK prisons, this study is the first to investigate dual harm exhibited by young adult men in prison. It confirms that dual harm by this population is prevalent and that most young men who self-harm in prison will also be violent. This study has also explored how relationships between variables differ, or are similar, across dual harm, sole harm and no harm

groups. For the dual harm group, relationships between early factors (i.e., problematic childhood relationships and core educational skills) and early and sustained contact with the criminal justice system during adolescence were particularly strong. However, this study used exploratory correlational analyses to identify similarities and differences in relationships between variables, across sample groups, to explore those which differentiate the dual harm population. As such, Chapter 7 will conduct confirmatory analyses to investigate which variables successfully distinguish young adults who dual harm in prison.

Chapter 7: Identifying factors which distinguish young adult men who dual harm in prison, from those who engage in sole self-harm, sole violence, and those who do not engage in either harmful behaviour.

7.1 Introduction

The previous chapter explored how relationships between OASys variables differed, or were similar, across dual harm, sole self-harm, sole violence and no harm groups. However, due to the exploratory nature of the study, no statistical distinctions concerning these differences could be confirmed. In light of this, this chapter uses a different sample to confirm which OASys variables successfully differentiate young adults who have dual harmed in prison, from those who have not.

Due to the lack of research investigating dual harm, specifically that exhibited by young adults in prison, it remains unknown how 18-21-year-olds who dual harm in prison differ from those who engage in sole harm or do not engage in either harmful behaviour. Linked to this, despite knowledge of the adult 'dual harm profile' (e.g., Slade, 2018; Slade et al., 2020), no research has sought to investigate how prison staff may begin to identify who might engage in dual harm in prison. For instance, tools to identify risk of future potential violence are used routinely in prisons. Specifically, the OASys violence predictor is used to score a person's risk of future violent offending within 12 and 24 months (MoJ, 2018d). To do this, the tool includes a number of risk factors previously identified as been predictive of violent reoffending, to assess a person's risk. However, recent NICE guidelines (2022) state that screening tools are no better than chance at predicting who might engage in self-harm behaviours in the future. Corroborating this, research has found little evidence to support the use of specific risk assessment tools to predict self-harm and suicide risk in healthcare settings (Saab et al., 2022) and prisons (Gould et al., 2018; Ryland et al., 2020). Therefore, rather than creating a tool to predict dual harm, a tool to identify whether a person has specific needs relating to dual harm may be best placed to guide prioritised interventions.

Reflecting on this, current strategies to manage dual harm in prison are reactive. In UK prisons, the Safety Diagnostic Tool provides an overview of self-harm and violence in prison, with a dual harm marker introduced in 2019 (HMPPS, 2019). This marker allows prison staff to see if a person has previously engaged in dual harm in prison. However, the reactive nature of the marker means that interventions can only be introduced once an individual has engaged in dual harm. That is, the tool does not support the identification of those who might engage in both behaviours in prison prior to them initiating such behaviours. This likely reflects a generic lack of understanding concerning the dual harm population, specifically that exhibited by young adults. Therefore, at present, there is no

proactive strategy to identify people who may be at heightened risk of engaging in dual harm, based on the needs they enter prison with. However, this information would allow staff to provide tailored support for individuals who have the greatest levels of risk and need, and intervene prior to them crossing the dual harm 'threshold'.

OASys data, completed within the first eight weeks of a person entering prison post-sentence (HMPPS, 2015), is arguably best placed to inform the development of a tool to identify those who may have greater risks and needs related to dual harm. This is because an OASys is the most thorough assessment completed at the earliest point within an individual's prison sentence. As such, there needs to be an investigation into which variables from an OASys assessment, if any, can retrospectively distinguish individuals with a history of dual harm from those without, before prospective analyses can be performed.

The previous chapter identified a number of relationships between OASys variables which could differentiate the dual harm group from all other harm groupings. Some of these relationships included variables which had been investigated in relation to dual harm in previous research, such as problematic childhood relationships and problems with reading, writing and numeracy (e.g., Carr, Steeg et al., 2020; C. Chen et al., 2020 Richmond-Rakerd et al., 2019; Slade et al., 2022). Other relationships included variables yet to be explored in dual harm research, such as early police contact and prolonged contact with the criminal justice system. Drawing upon the findings from the previous study, this chapter aims to identify which OASys variables statistically differentiate young adults who have dual harmed in prisons to aid future early identification and inform intervention programmes (more information on the variables taken from the previous chapter can be found in section 7.3.3).

7.2 Research aims and hypotheses

This study aims to identify factors which distinguish young adults who dual harm in prison from those who engage in sole self-harm, sole violence, and those who do not engage in either harmful behaviour (referred herein as the 'no harm' group).

Secondary aims for this study are:

- To confirm prevalence rates of dual harm, sole self-harm, sole violence and no harm within the young adult estate.
- To investigate demographic, developmental, criminological and clinical variables which successfully distinguish young adults who dual harm in prison from those who engage in sole self-harm, sole violence, or no harm.

7.2.1 Hypotheses

Based on the findings from the previous chapter and previous research (e.g., Slade et al., 2022; Slade et al., 2020), a strong relationship between self-harm and violence was hypothesised. Additionally, it was hypothesised that compared to other young adults, those who had dual harmed in prison would:

- H1. Be younger when first in contact with the police and first admitted to prison, have more court convictions and spend longer in prison between ages 18-21;
- H2. Have fewer qualifications;
- H3. Have more severe difficulties with reading, writing and numeracy and learning difficulties;
- H4. Have more severe problems with childhood relationships;
- H5. Be more likely to report a history of drug misuse;
- H6. Have more severe difficulties with coping
- H7. Have more severe psychological and psychiatric problems
- H8. Be more likely to report a history of self-harm or suicidal thoughts or behaviours

Some variables (difficulties with coping, and psychological and psychiatric problems) have no specific, or very little, evidence relating to dual harm. Therefore, although hypotheses have been made, the testing of such hypotheses are more exploratory in nature.

7.3 Method

7.3.1 Design

Similar to the previous chapter, a retrospective analysis was performed on routinely collected secondary data transferred by the Prison and Probation Analytical Services (PPAS) team in the MoJ. The data includes information from p-NOMIS and OASys, which are recorded by prison and probation staff, respectively. Details regarding these two systems can be found in Chapter 4 (section 4.2.3.2).

7.3.2 Sample

In the current study, individuals in the sample were required to be aged 18-21, held in prison between 1st January 2014 and 31st December 2019, and have had a layer three OASys assessment completed during their imprisonment. From the overall sample, almost 50% (N = 20,403) of individuals met these criteria, similar to the percentage reported in previous research conducted by the MoJ (MoJ, 2018d). This sample was halved to allow for half of the data to be used for the previous empirical chapter (Chapter 5) and half to be used as a holdout sample for confirmatory analyses in the current chapter. The holdout sample used in this study concerns data from the remaining 10,201 18-21-year-olds with a layer three OASys assessment completed. More details on the logistics of the data share, the full sample, and the OASys layer three assessment can be found in Chapter 4.

In the sample used for this study, 68.2% self-identified as being White ($n = 6,946$), 15.9% reported being Black ($n = 1,620$), 8.1% Asian ($n = 829$), 6.4% Mixed ($n = 651$) and 1.4% identified as an Other ethnic group ($n = 144$). There were 11 missing cases for this variable. In order of sample size, individuals in the sample were predominantly imprisoned for violent offences ($n = 4,704$, 46.1%), followed by property ($n = 2,047$, 20.1%), other ($n = 1,424$, 14.0%), drug ($n = 1,384$, 13.6%) and sexual offences ($n = 636$, 6.2%), with six missing cases, which is comparable to those reported in the previous chapter (section 6.3.2).

7.3.3 Measures

The findings from the previous chapter informed the variables taken forward as predictor variables in the current study. Primarily, it was essential to take through variables which formed the strongest relationships with dual harm, and those in which the correlation coefficient vastly differed between the dual harm group and all other groups. This ensured that variables associated with dual harm, and those which may potentially distinguish the dual harm group from others, were included in the current study. Therefore, after several iterations of figures, variables were included if they formed part of a relationship in the previous study in which i) the partial correlation coefficient for the dual harm group was greater than 0.299 or less than -0.299, or ii) the partial correlation coefficient differed by more than 0.250 between the dual harm group and any other group. Whilst the use of other figures was explored, they either did not distinguish enough variables to be taken forward (e.g., variables with empirical and theoretical support were missed, such as childhood relationships) or by contrast, too many variables were taken forward (e.g., all variables from the previous study). These inclusion criteria ensured that the variables most strongly correlated with dual harm were included in the current study, as were those with the greatest potential to distinguish the dual harm group successfully. Previous drug misuse was not captured by the figures used to identify variables for the current study, but was included due to being close to these inclusion criteria (i.e., it differentiated dual harm to sole self-harm by -.237) and having strong empirical support within the adolescent literature on dual harm (C. Chen et al., 2020; Harford et al., 2012; Harford et al., 2016; Spaan et al., 2022; Swahn et al., 2013). Out of the 20 variables used in the GGM in the previous chapter, 15 were brought forward to the current study. The variables not brought forward were current accommodation status, current relationship status, previous problems with school attendance, current problem-solving skills and a history of aggressive/controlling behaviour.

Demographic measures. *Current qualification status* (education or vocational qualifications at or above GCSE level) was the only demographic measure included in the current study. This was treated as a binary variable coded as some qualifications (1) or no qualifications (2). *Ethnicity*: White, Black, Asian, Mixed or Other and *primary offence*: violence, drug, property, sexual or other were also

unordered factor predictor variables. Factors represent a variable containing several categories, with an unordered factor specifying that the categories in the variable have no specific order (i.e., no order of importance or severity).

Developmental measures. *Current problems with reading, writing or numeracy, previous problems with childhood relationships and a history of learning difficulties* were included in the study. Each of these was treated as a categorical variable ranging from no problems (1), some problems (2), to severe problems (3).

Criminological measures. *Age first in contact with the police* and the *age at first conviction* were included. These were coded as categorical variables ranging from age 18+ (1), age 14-17 (2), to younger than 14 (3). The *age first admitted into custody* was also a continuous variable as age was rounded to the nearest year (ranging from 12 to 20 years). *The number of convictions both under and over the age of 18* were also treated as categorical variables, ranging from 0 court appearances (1), 1-2 court appearances (2), to 3+ court appearances (3). Lastly, *time in prison aged 18-21* was also coded as a categorical variable, ranging from less than 1 month (1), 1-6 months (2), 6-12 months (3), 1-2 years (4), and 2-3 years (5). This information is not self-reported in an OASys assessment but was taken from official records.

Clinical measures. *Current problems with coping, psychological problems/depression and psychiatric problems* were included in the current study. All of these variables were treated as categorical variables in the analysis ranging from no problems (1), some problems (2), to severe problems (3). A *history of self-harm, attempted suicide, suicidal thoughts or feelings, and a history of previous drug misuse* (in the community or custody) were coded as binary variables consisting of no previous acts or thoughts of harm to self (1) to previous acts or thoughts of harm to self (2), and no drug misuse (1) to previous drug misuse (2), respectively. A list of all variables within the data share, including the variables included in this chapter, and the relevant coding details, can be found in Chapter 4 (section 4.2.3.2).

Type of harm

Identical to the outcome variable in the previous chapter (see section 6.3.3), the type of harm exhibited in prison was the outcome variable in the current study, which was categorised into four groups. Information from two p-NOMIS reports was used to inform the categorisations.

Sole self-harm: At least one act of self-harm recorded through the 'Deliberate Self-Harm Report' on p-NOMIS, irrespective of intent, method or the severity of the injury, but no acts of violence during any custodial sentence served as an 18-21-year-old, between 1st January 2014 and 31st December 2019.

That is, a person only had to self-harm during any of their sentences, and not during all of their sentences, to be considered to have been violent.

Sole violence: At least one recorded act of violence, ascertained through the ‘Incident Involvement Report’ on NOMIS in which the individual was classified as a ‘fighter’ or ‘perpetrator’, but no recorded acts of self-harm (see below), during any custodial sentence served as an 18-21-year-old, between 1st January 2014 and 31st December 2019. That is, a person only had to be violent during any of their sentences, and not during all of their sentences, to be considered to have been violent.

Dual harm: At least one recorded act of both self-harm and violence, as per the definitions above, during any custodial sentence served as an 18-21-year-old, between 1st January 2014 and 31st December 2019. Individuals may have engaged in self-harm and violence across different custodial periods (e.g., self-harmed during their first sentence and been violent during their second sentence).

No harm: No acts of either self-harm or violence, as per the definitions above, during any custodial sentence served as an 18-21-year-old, between 1st January 2014 and 31st December 2019.

Group frequencies and demographic information for each of the outcome groups are presented in Table 9.

Table 9.

Descriptive statistics as a product of group allocation

Group	Prevalence <i>n</i>	Age first admitted to prison M (SD)	Ethnicity (White) %	Primary offence category (Violence) %
No harm	4,331	18.9 (1.0)	76.4	41.6
Violence	4,211	18.1 (1.1)	52.6	50.6
Self-harm	416	18.5 (0.9)	91.6	42.3
Dual harm	1,243	17.8 (1.1)	84.6	48.1
<i>Full sample</i>	10,201	18.4 (1.1)	68.1	46.1

7.3.4 Statistical analyses

Analyses were performed using R Studio version 4.1.2 (2021-11-01). A logistic regression was completed to predict the risk of self-harm, given that an individual was violent and vice-versa. Next, the multicollinearity of the variables was assessed. The Companion to Applied Regression package in R Studio (Fox & Weisberg, 2019) and the Variance Inflation Factor (VIF) function assessed multicollinearity between variables. Of the variables noted above, court convictions under age 18 had

a generalised VIF of 6.9, and age of first conviction had a generalised VIF of 11.1. In accordance with James et al. (2013), these high figures suggested problematic multicollinearity; therefore, the two variables were removed from the model and all further analyses for the study. No other predictor variables were a cause for concern.

After checking all variables for multicollinearity, data cleaning was performed by assessing the presence of missing cases. Missing cases were observed for between 0.1% and 8.6% of the variables, which were categorised as missing at random. As statistical power is reduced when values are missing, multiple imputations were used to estimate these missing cases. Specifically, the Multivariate Imputation by Chained Equations package in R Studio was used (van Buuren & Groothuis-Oudshoorn, 2011) with a predictive mean matching approach. To ensure statistical power when detecting small effect sizes, 40 iterations of this function were completed (Graham, 2009). Auxiliary variables (variables in the dataset which were not utilised in the MLR) were included in the multiple imputations since information from all variables is expected to improve the accuracy of the imputed missing values (Baguley & Andrews, 2016).

Next, a Multinomial Logistic Regression (MLR) was performed using the nnet package in R Studio (Ripley & Venables, 2022) to determine whether any of the demographic, developmental, criminological or clinical variables independently differentiated young adults in the dual harm group from those in the sole violence, sole self-harm and no harm groups. After the MLR was conducted on each imputed dataset, the results from all analyses were pooled to lessen the bias in estimates and improve the overall accuracy of the predicted values (Baguley & Andrews, 2016). All subsequent analyses were performed with these imputed pooled datasets.

7.4 Results

7.4.1 Association between self-harm and violence

In the sample, 74.9% of people who had self-harmed in prison also had at least one act of violence on their record. Conversely, of those who were violent, 22.8% had also engaged in at least one recorded act of self-harm. The simple correlation between having a history of self-harm and violence in prison was $r(10,199) = .17$, 95% CI [.15, .19], $p < .001$. Since this analysis included individuals who had not harmed in prison, a logistic regression was performed to predict the risk of self-harm given that an individual was violent and vice versa. As odds ratio statistics are not sensitive to the different base rates of self-harm and violence, the same odds ratio would be found when predicting self-harm from violence (Baguley, 2012). Compared to people who did not self-harm in prison, the odds of violence for those who did were over three times higher $OR = 3.07$, 95% CI [2.73, 3.46], $p < .001$.

7.4.2 Results from the MLR

As stated in section 7.3.4 above, after the MLR was conducted on each imputed dataset, the results from all analyses were pooled to lessen the bias in estimates and improve the overall accuracy of the predicted values (Baguley & Andrews, 2016). Therefore, all subsequent analyses were performed with these imputed pooled datasets. The following sections will identify variables which distinguished the dual harm from the sole self-harm, sole violence and/or no harm groups.

7.4.2.1 Demographic variables

This section will outline whether ethnicity, offence category and qualification status variables successfully distinguished the dual harm group from other groups.

7.4.2.1.1 Ethnicity

Ethnicity was entered into the model as an unordered factor variable (defined in section 7.3.3), and the Other ethnic group was used as the reference category. Young adults in the dual harm group were less likely to be in the Black ethnic group than those in the sole violence group ($OR = 2.97$, 95% CI [1.51, 5.84], $p < .001$). Furthermore, individuals in the dual harm group were less likely to be in the Asian ethnic group compared to those in the sole violence ($OR = 2.19$, 95% CI [1.07, 4.47], $p = .032$) and the no harm group ($OR = 2.70$, 95% CI [1.27, 5.77], $p = .010$). Finally, those in the dual harm group were also less likely to be from the Mixed ethnic group than those in the sole violence group ($OR = 2.16$, 95% CI [1.07, 4.36], $p = .032$). No further statistically significant differences were observed between groups concerning the young adults' ethnicities. Descriptive statistics, and the odds ratio and confidence intervals for each variable, are presented in Table 10.

7.4.2.1.2 Offence category

The offence category relating to an individual's primary offence was also entered into the model as an unordered factor variable. The offence type 'Other' (i.e., not violent, drug, property or sexual-related) was used as the reference category. Young adults who had dual harmed in prison were more likely to have a sexual-related primary offence than those who were solely violent ($OR = .49$, 95% CI [.35, .69], $p < .001$). No other differences between groups were statistically significant, indicating that beyond sexual offences, primary offence categories did not distinguish the dual harm group.

7.4.2.1.3 Qualification status

Current qualification status successfully distinguished the dual harm group from all other three groups. That is, the fewer qualifications an individual had, the more likely they were to be classified within the dual harm group compared to the sole violence ($OR = .72$, 95% CI [.62, .84], $p < .001$), sole self-harm ($OR = .77$, 95% CI [.59, .1.00], $p = .046$) and no harm ($OR = .66$, 95% CI [.56, .78], $p < .001$) groups.

7.4.2.2 Developmental variables

This section will outline whether problems with childhood relationships, problems with core educational skills and learning difficulties successfully distinguished the dual harm group from other groups.

7.3.2.2.1 Problematic childhood relationships

Problematic childhood relationships distinguished the dual harm group from the no harm group. Specifically, young adults in the dual harm group were more likely to have severe problems with childhood relationships than those in the no harm group ($OR = .74$, 95% CI [.66, .82], $p < .001$), but not the sole violence ($p = .081$) or self-harm ($p = .815$) groups.

7.4.2.2.2 Problems with reading, writing and numeracy

A similar finding was observed for current problems with reading, writing or numeracy. Whilst the dual harm group had more severe problems with these core education skills than the no harm group ($OR = .84$, 95% CI [.73, .97], $p = .017$), they did not differ from the sole violence ($p = .056$) or sole self-harm ($p = .108$) groups.

7.4.2.2.3 Problems with learning difficulties

Having a history of problems with learning difficulties did not distinguish the dual harm group from the sole violence ($p = .528$), sole self-harm ($p = .099$), and no harm ($p = .117$) groups. Therefore, people in the dual harm group were no more or less likely to report problems with learning difficulties than all other three groups.

7.4.2.3 Criminological variables

This section will outline whether age first admitted to custody, age first in contact with the police, time in custody and court convictions received under and above the age of 18 successfully distinguished the dual harm group from other groups.

7.4.2.3.1 Age first admitted into custody

The age at which an individual was first admitted into custody successfully distinguished the dual harm group from all three other groups (sole violence: $OR = 1.19$, 95% CI [1.11, 1.27], $p < .001$; sole self-harm: $OR = 1.36$, 95% CI [1.21, 1.54], $p < .001$; no harm $OR = 1.58$, 95% CI [1.46, 1.71], $p < .001$). Specifically, the younger an individual was when first admitted to custody, the more likely they were to be classified within the dual harm group.

7.4.2.3.2 Age first in contact with the police

Similarly, the age at which an individual was first in contact with the police successfully distinguished the dual harm group from all three other groups (sole violence: $OR = .84$, 95% CI [.75, .94], $p = .002$;

sole self-harm: $OR = .76$, 95% CI [.64, .90], $p = .002$; no harm $OR = .71$, 95% CI [.63, .80], $p < .001$). That is, the younger a person was first in contact with the police, the more likely they were to be classified within the dual harm group.

7.4.2.3.3 Time in custody aged 18-21

Time in custody aged 18-21 also successfully distinguished the dual harm group (sole violence: $OR = .79$, 95% CI [.73, .85], $p < .001$; sole self-harm: $OR = .59$, 95% CI [.52, .66], $p < .001$; no harm $OR = .36$, 95% CI [.33, .39], $p < .001$). The longer an individual spent in custody between ages 18 and 21, the more likely they were to be classified in the dual harm group than all three other groups.

7.4.2.3.4 Court convictions over age 18

Lastly, people in the dual harm group had more court appearances at which they were convicted over the age of 18 than those in the no harm group ($OR = .77$, 95% CI [.69, .86], $p < .001$). The number of court appearances at which convicted over the age of 18 did not distinguish the dual harm from the sole violence ($p = .072$) or sole self-harm groups ($p = .298$).

7.4.2.4 Clinical variables

This section will outline whether difficulties with coping, psychological problems and psychiatric problems, in addition to a history of self-harm or suicidal thoughts or feelings and drug misuse, successfully distinguished the dual harm group from other groups.

7.4.2.4.1 Difficulties coping

Those who dual harmed in prison had more severe difficulties with coping than those in the sole violence ($OR = .76$, 95% CI [.67, .88], $p < .001$) and no harm ($OR = .79$, 95% CI [.68, .91], $p = .002$) groups. Difficulties with coping did not differ significantly between the dual harm and sole self-harm groups ($p = .934$).

7.4.2.4.2 Difficulties with psychological problems

A similar finding concerned problems with psychological problems. People in the dual harm group had more severe psychological problems than the sole violence ($OR = .81$, 95% CI [.69, .94], $p = .005$) and no harm ($OR = .72$, 95% CI [.61, .84], $p < .001$) groups, but not the sole self-harm group ($p = .328$).

7.4.2.4.3 Difficulties with psychiatric problems

Moreover, individuals in the dual harm group had significantly more severe psychiatric problems than the no harm group ($OR = .82$, 95% CI [.69, .98], $p = .029$) but significantly fewer problems than the sole self-harm group ($OR = 1.29$, 95% CI [1.03, 1.62], $p = .029$). Current psychiatric problems did not distinguish the dual harm group from the sole violence group ($p = .115$).

7.4.2.4.4 Previous drug misuse

Previous drug misuse (in prison or the community) successfully distinguished the dual harm group from the sole self-harm ($OR = .65$, 95% CI [.47, .91], $p = .012$) and no harm ($OR = .62$, 95% CI [.49, .77], $p < .001$) groups. Therefore, individuals with a previous history of drug misuse were more likely to be classified into the dual harm group compared to the sole self-harm and no harm group. Previous drug misuse did not distinguish the dual harm group from the sole violence group ($p = .070$).

7.4.2.4.5 History of self-harm, attempted suicide, suicidal thoughts or feelings

Finally, people in the dual harm group were significantly more likely to have a history of previous self-harm or suicidal thoughts or behaviours than the sole violence ($OR = .36$, 95% CI [.30, .42], $p < .001$) and no harm ($OR = .43$, 95% CI [.36, .52], $p < .001$) groups. However, they were less likely to report these than the sole self-harm group ($OR = 1.40$, 95% CI [1.06, 1.84], $p = .017$).

Table 10.

Multinomial logistic regression analyses examining associations between type of harm and OASys correlates

Correlates	Dual harm	Sole violence	Sole self-harm	No harm	Dual harm versus sole violence	Dual harm versus sole self-harm	Dual harm versus no harm
	(N = 1,243)	(N = 4,211)	(N = 416)	(N = 4,331)			
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)
Age first admitted to custody	-0.58 (1.10)	-0.28 (1.12)	0.08 (0.94)	0.43 (0.96)	1.19 (1.11 – 1.27)**	1.36 (1.21 – 1.54)**	1.58 (1.46 – 1.71)**
Court convictions over 18	1.57 (0.72)	1.52 (0.69)	1.59 (0.76)	1.53 (0.69)	0.91 (0.82 – 1.01)	0.92 (0.78 – 1.08)	0.77 (0.69 – 0.86)**
Age first contact with police	2.37 (0.67)	2.14 (0.69)	2.10 (0.73)	1.93 (0.75)	0.84 (0.75 – 0.94)**	0.76 (0.64 – 0.90)**	0.71 (0.63 – 0.80)**
Time in custody aged 18-21	3.92 (0.96)	3.66 (1.01)	3.17 (1.06)	2.65 (1.01)	0.79 (0.73 – 0.85)**	0.59 (0.52 – 0.66)**	0.36 (0.33 – 0.39)**
Difficulties coping	1.94 (0.74)	1.46 (0.62)	1.99 (0.73)	1.45 (0.61)	0.76 (0.67 – 0.88)**	1.01 (0.80 – 1.27)	0.79 (0.68 – 0.91)**
Psychological problems	1.70 (0.72)	1.30 (0.54)	1.79 (0.70)	1.30 (0.54)	0.81 (0.69 – 0.94)**	0.89 (0.70 – 1.13)	0.72 (0.61 – 0.84)**
Previous self-harm/suicidal thoughts/actions	1.50 (0.50)	1.15 (0.36)	1.60 (0.49)	1.19 (0.39)	0.36 (0.30 – 0.42)**	1.40 (1.06 – 1.84)*	0.43 (0.36 – 0.52)**
Psychiatric problems	1.34 (0.56)	1.12 (0.37)	1.45 (0.68)	1.12 (0.37)	0.88 (0.74 – 1.03)	1.29 (1.03 – 1.62)*	0.82 (0.69 – 0.98)*
Previous drug misuse	1.89 (0.31)	1.81 (0.39)	1.82 (0.39)	1.72 (0.45)	0.82 (0.66 – 1.02)	0.65 (0.47 – 0.91)*	0.62 (0.49 – 0.77)**
Problems with reading, writing or numeracy	1.54 (0.66)	1.31 (0.55)	1.42 (0.65)	1.28 (0.53)	0.89 (0.78 – 1.02)	0.87 (0.70 – 1.09)	0.84 (0.73 – 0.97)*
Learning difficulties	1.37 (0.63)	1.19 (0.47)	1.29 (0.56)	1.16 (0.43)	0.95 (0.82 – 1.10)	0.82 (0.64 – 1.04)	0.88 (0.75 – 1.03)
Childhood relationships	2.29 (0.76)	1.89 (0.79)	2.19 (0.81)	1.69 (0.76)	0.91 (0.82 – 1.01)	0.98 (0.83 – 1.16)	0.74 (0.66 – 0.82)**
Qualification status	1.51 (0.50)	1.35 (0.48)	1.39 (0.49)	1.30 (0.46)	0.72 (0.62 – 0.84)**	0.77 (0.59 – 1.00)*	0.66 (0.56 – 0.78)**

	N (%)	N (%)	N (%)	N (%)	Odds Ratio (95% CI)	Odds Ratio (95% CI)	Odds Ratio (95% CI)
Ethnicity – Other	12 (0.97)	71 (1.69)	2 (0.48)	59 (1.36)	-	-	-
Ethnicity - White	1,052 (84.63)	2,214 (52.58)	381 (91.59)	3,307 (76.36)	0.78 (0.41 – 1.48)	3.52 (0.77 – 16.13)	1.83 (0.93 – 3.62)
Ethnicity – Black	83 (6.68)	1,105 (26.24)	9 (2.16)	424 (9.79)	2.97 (1.51 – 5.84)**	1.26 (0.24 – 6.68)	2.03 (0.99 – 4.16)
Ethnicity – Asian	41 (3.30)	410 (9.74)	14 (3.37)	364 (8.40)	2.19 (1.07 – 4.47)*	3.24 (0.63 – 16.60)	2.70 (1.27 – 5.77)*
Ethnicity – Mixed	55 (4.42)	411 (9.76)	10 (2.40)	177 (4.09)	2.16 (1.07 – 4.36)*	2.33 (0.44 – 12.29)	1.84 (0.87 – 3.91)
Offence – Other	129 (10.38)	492 (11.68)	53 (12.74)	751 (17.34)	-	-	-
Offence - Violent	598 (48.11)	2,131 (50.61)	176 (42.31)	1,801 (41.58)	1.08 (0.86 – 1.36)	0.91 (0.63 – 1.32)	0.91 (0.72 – 1.16)
Offence – Drug	70 (5.63)	668 (15.86)	22 (5.29)	625 (14.43)	1.35 (0.96 – 1.89)	1.01 (0.56 – 1.84)	1.37 (0.97 – 1.95)
Offence – Property	320 (25.74)	764 (18.14)	108 (25.96)	857 (19.79)	0.90 (0.70 – 1.16)	1.06 (0.71 – 1.59)	0.81 (0.62 – 1.06)
Offence – Sexual	126 (10.14)	156 (3.70)	57 (13.70)	297 (6.86)	0.49 (0.35 – 0.69)**	1.13 (0.70 – 1.84)	0.88 (0.62 – 1.24)

Note. Statistically significant results are presented in bold. *p < .05. ** p < .01. - indicates the level used as a reference category in the analysis

7.5 Discussion

This study aimed to confirm the prevalence of dual harm, sole self-harm, sole violence and no harm among young adults in prison with a completed layer three OASys assessment, and investigate which demographic, developmental, criminological and clinical variables distinguished the dual harm group. Prevalence rates were similar to those reported in the previous chapter, whereby the no harm and sole violence groups were largest (43% and 41%, respectively), followed by the dual harm (12%) and the sole self-harm (4%) group. Furthermore, regarding distinguishing variables, only five variables successfully differentiated the dual harm group from all other groups, three of which were criminological variables (younger police contact, younger first admission to custody and longer in custody aged 18-21). This suggests that OASys information relating to an individual's pre-prison criminological behaviours can help to distinguish young adults who are most likely to dual harm in prison. In addition, whilst not all variables fully distinguished the dual harm group, some only differentiated between them from one of the sole harm groups. For instance, the dual harm group were similar to the sole self-harm group regarding their coping abilities and psychological problems, but more like the sole violence group in relation to a history of drug misuse. However, there was no indication that the dual harm group were typically more similar to one sole harm group (e.g., violence) than the other (e.g., self-harm). Instead, the dual harm group had a mixed profile of characteristics which made them different to each sole harm group.

First, 12% of the sample had engaged in dual harm, confirming prevalence rates in the young adult estate. The prevalence of sole violence was almost equal to that of no harm (42% and 41%, respectively), with only 4% of the sample having engaged in sole self-harm. These rates are almost identical to those identified in the previous chapter. Regarding dual harm, prevalence rates reflect those reported in research conducted with adult male UK prison populations (Slade, 2018; Slade et al., 2020) and US prison populations (Slade et al., 2022). Moreover, rates in this study were far higher than those found among community adolescent and young adult samples (C. Chen et al., 2020; Harford et al., 2012; Harford et al., 2016; Richmond-Rakerd et al., 2018; Swahn et al., 2013). This suggests that despite rates of dual harm having been found to double between ages 16 and 22 (Steege et al., 2023), the rates remain higher for young adults in prison compared to the community.

Moreover, as hypothesised, self-harm and violence had a strong relationship. Here, and in the previous chapter, engaging in one behaviour in prison was found to increase the likelihood of engaging in the second by three times. To put this into perspective, almost 75% of people who had an act of self-harm recorded also had an act of violence on their prison file. This overlap is substantially greater than that reported among adult forensic populations (Kottler et al., 2018; Slade, 2018; Slade et al., 2022; Slade et al., 2020), in which overlaps of 38%-60% have been found. Similarly, the overlap

far exceeds that observed in research with young adults and adolescents in the community (i.e., C. Chen et al., 2020; Harford et al., 2012; Richmond-Rakerd et al., 2018; Spaan et al., 2022), where overlaps of 35%-50% have been recorded. As speculated in the previous chapter, this is likely explained by the higher base rate of violence identified in the young adult estate. Therefore, due to the higher rates of violence, most people who had engaged in self-harm had also engaged in violence. However, possibly reflecting the relatively low rates of self-harm among young adults in prison, only 23% of individuals who engaged in violence also engaged in at least one act of self-harm. This is compared to overlaps of 32%-33% amongst adults in prison in the UK (Kottler et al., 2018; Slade, 2020). Therefore, differences in the base rates of self-harm and violence in the young adult estate likely explain why the relationship between self-harm and violence differs between young adults and older adults (aged 21+) in prison.

In keeping with hypothesis one, young men who went on to dual harm were younger (age 14-17) when first in contact with the police compared to all other groups, confirming that this population engage in criminality from a young age. This extends previous findings that people who dual harm are likely to have contact with the criminal justice system (Steeg et al., 2019) by suggesting that this contact is likely to be early. It also coincides with findings from Chapter 5 in which participants engaged in anti-social behaviour and criminality with peers during adolescence. However, the cause of this police contact remains unknown in the current study (i.e., it may not be the same as their primary offence for which they were imprisoned for). Moreover, the previous chapter found that the younger the dual harm group were in contact with the police, the more problems they reported with educational skills. Therefore, together, findings from the empirical studies in this thesis suggest that factors such as poor engagement with school or socialising with deviant peers may underpin the finding that younger police contact differentiates young adults who dual harm in prison.

Linked also to hypothesis one, those who dual harmed in prison were more likely to be admitted to custody younger and spend longer in custody between ages 18 and 21 than all other groups. These findings are consistent with previous UK-based prison research, which found that adult men who had dual harmed spent approximately 40% longer in prison than those who engaged in sole harm or did not harm (Slade et al., 2020). However, the findings in the current study suggest that this was not due to the dual harm group being convicted for more serious offences which necessitate longer sentences, or receiving more court convictions and therefore potentially receiving more prison sentences. That is, the dual harm group were not more likely to have a violent index offence and were only more likely to have a sexual index offence than the sole violence group, which are two offences typically associated with longer custodial sentences (Crown Prosecution Service, 2019). As such, they were just as likely as the sole self-harm and no harm group to have a sexual-related primary index

offence. In addition, the number of convictions received over 18 was no different between the dual harm and both sole harm groups. As such, beyond the qualitative (i.e., type of offence) and quantitative (i.e., number of offences) reasons, there must be other explanations as to why people who dual harm are admitted to prison younger and spend longer in prison as young adults.

Since the current study found that people who dual harm in prison had early contact with the justice system, it may be that such individuals are considered too risky or chaotic for other types of sentences, such as community sentences. Therefore, they may be more likely to receive custodial sentences. Young adults (aged 18-20) who report drug misuse are most likely to reoffend whilst serving community sentences (Wood et al., 2015). There is also strong evidence between drug use and dual harm among adolescents in the community (Harford et al., 2012; Harford et al., 2016; Spaan et al., 2022). As such, people who dual harm may have previously failed community orders, which increases the likelihood of them receiving a prison sentence at a young age. Alternatively, people who dual harm in prison may be considered unsuitable for parole and are therefore not able to serve the rest of their remaining sentence in the community. Information such as a person's behaviour in prison and any completed educational or vocational courses is considered in a parole hearing, as are a person's future living circumstances and employment (Prison Reform Trust, 2021). Therefore, without demonstrating good behaviour in prison, or having accommodation or family to stay with, people who dual harm in prison may be considered unsuitable for early parole and spend longer in prison.

Next, hypothesis two predicted that people who dual harmed in prison would have fewer qualifications than all other groups, which was met. This extends Slade et al.'s (2022) findings that adults who dual harmed in US prisons were less likely to have gained high school qualifications, by suggesting that this difference is evident before adulthood (i.e., age 21). However, rejecting hypothesis three, individuals who dual harmed were not more likely to have problems with reading, writing or numeracy or learning difficulties. These findings suggest that factors beyond inherent educational ability, such as a willingness to learn or access to education, may underpin the dual harm group having fewer qualifications. In England, boys are four times more likely to be removed from school, for reasons including persistent disruptive behaviour, and physical and verbal assaults on staff or peers (Department for Education, 2022). Suspended students struggle to reintegrate back into education and typically receive fewer qualifications (Colman et al., 2009; Nicholson & Putwain, 2018). Therefore, young adults who go onto dual harm in prison may be more likely to be suspended or excluded from school, which impacts their ability to progress through school and gain qualifications. The dual harm group may also be more likely to have been imprisoned during adolescence. This age group struggle to engage with prison education and typically make the least progress (Coates, 2016;

Taylor, 2016). As such, people who go on to dual harm may be less likely to progress in education in the community and prison, thus being less likely to gain qualifications by young adulthood.

Partially rejecting hypothesis four, people who engaged in self-harm or violence (dual harm, sole self-harm or sole violence) reported similar problematic childhood relationships, albeit those who dual harmed reported worse childhood relationships than those who did not harm in prison. This is interesting since Chapter 5 found that participants reported severely fractured relationships in childhood a lack of communion growing up. These fractured relationships meant that individuals sought acceptance elsewhere, such as in their (often delinquent) peer groups. Participants grounded their stories of childhood relationships in narratives of ACEs. ACEs are over-represented among the dual harm population and increase risk of dual harm greater than sole harm (Carr, Steeg et al., 2020; C. Chen et al., 2020; Richmond-Rakerd et al., 2019; Spaan et al., 2022; Steinhoff et al., 2022). However, these findings were reported from research conducted with community populations, whereas ACEs are generally more prevalent among people in prison (Ford et al., 2019). Therefore, ACEs, and the subsequent relationships from these experiences, may not be able to distinguish between some sub-groups of people in prison due to them being highly prevalent amongst the broader prison population.

Similarly, hypothesis five was also partially supported. People who were violent (dual harm or sole violence) were equally likely to report previous drug misuse, and those who dual harmed were more likely to report such history than those who were not violent (sole self-harm or no harm). This is somewhat in keeping with previous research in which adolescents with a history of dual harm were more likely to report previous drug use than those who sole harmed (C. Chen et al., 2020; Harford et al., 2012; Spaan et al., 2022). The current finding also strengthens the argument that drug misuse is relevant in the pathway to dual harm for adolescents and young adults, despite substance misuse not being associated with dual harm by adults in prison (Kottler et al., 2018; Slade et al., 2022). Therefore, it may be that by adulthood, young adults who have previously dual harmed in prison have overcome their substance misuse issues, as drug use is most prevalent amongst 16-24-year-olds (Office for National Statistics, 2020). Furthermore, adults who dual harm in prison may not have been imprisoned as a young adult and therefore may not have the same profile as those who have, including a history of drug misuse. This may explain why substance misuse has been related to young adults who go on to dual harm in the community, but not adults in prison. Lastly, findings from the previous chapter suggest that for people who dual harm, previous drug misuse is associated with self-harm.

Regarding hypothesis six, people who self-harmed (dual harm or sole self-harm) had similar (poor) coping abilities, and those who dual harmed had more severe difficulties with coping than those who did not self-harm (sole violence or no harm). Here, difficulties coping was defined as a person's emotional stability, stress, anxiety and worries. No research has specifically explored coping abilities amongst dual harm populations, although Shafti et al. (2021) theorise that maladaptive coping strategies may be a key component of dual harm. This coincides with research in which staff believed that dual harm by people in prison resulted from maladaptive coping strategies and difficulties identifying and understanding emotions (Hemming, Pratt et al., 2020). As such, the current finding suggests that people who self-harm do so as a means to cope with stressors. Therefore, it may be that people who dual harm engage in self-harm to cope with some stressors or emotions, and violence to cope with others. For instance, violence may be considered a means to cope with unwanted agitation or aggression, whereas self-harm may be considered a means to cope with loss or sadness, as was found in previous research (Pickering et al., 2022).

Partially accepting hypothesis seven, people who self-harmed (dual harm or sole self-harm) had a similar severity of psychological problems, and those who dual harmed had more severe psychological problems than those who did not self-harm (sole violence or no harm). In this measure, psychological problems typically referred to diagnosed depression and anxiety (OASys Manual, 2002). This finding aligns with those reported from community samples in which depression distinguished dual harm from solely violent populations, but not those who sole self-harmed (Harford et al., 2012; Richmond-Rakerd et al., 2019). This reflects how depression has been more commonly associated with self-harm and suicide among young adults in prison (Borschmann et al., 2014; Kenny et al., 2008; Trainor et al., 2017) than violence, potentially due to the associations between depression, defeat and entrapment and harm to the self (Russell et al., 2020; O'Connor, 2011). Therefore, psychological problems such as depression and anxiety may be more prominent in the pathway to self-harm than violence. However, depression has been associated with anger (Kelly et al., 2019), which is theorised to predict violence (Anderson & Bushman, 2002; Gardner & Moore, 2008) and motivate violence among dual harm populations (Pickering et al., 2022). Therefore, psychological difficulties, specifically depression, may manifest as self-harm and violence by people who dual harm.

Also in relation to hypothesis seven, those who were violent (dual harm or sole violence) had a similar severity of psychiatric problems. However, people who dual harmed had worse problems than those who did not harm, but fewer problems than those who solely self-harmed. In this OASys measure, psychiatric problems referred to a current psychiatric diagnosis. The current finding is surprising since major depressive disorder distinguished adolescents who dual harmed from those who were solely violent (Harford et al., 2018). A further study also found that people with a history of dual harm were

more likely to have a psychiatric diagnosis (particularly a mood disorder) than those who were solely violent (Huang et al., 2022). Differences in these findings may relate to the type of current psychiatric diagnosis a person has. That is, some disorders may distinguish those who dual harm from those who are solely violent and vice versa, although this information cannot be ascertained from the variable used in this study. Therefore, more research is required to help shed light on this finding.

Lastly, regarding hypothesis eight, those who dual harmed in prison were more likely to report a history of self-harm or suicidal thoughts or behaviours than those who did not self-harm (sole violent and no harm) but were less likely than those who solely self-harmed. The first half of this finding is perhaps unsurprising, since having no recorded acts of self-harm in prison may be a continuation of having never self-harmed in the community. However, the second half suggests that people who dual harm in prison are more likely to first self-harm in prison than those who solely self-harm. Only one participant in Chapter 5 self-harmed for the first time in prison, which he considered to be a communicative act to prison staff. Therefore, it may be that some people who dual harm in prison adapt to their environment and learn to communicate in ways which are not punished. If this is the case, evidence that people who dual harm use a greater variety of highly lethal self-harm methods is concerning (Kottler et al., 2018; Lanes, 2011; Richmond-Rakerd et al., 2019; Slade et al., 2022; Slade et al., 2020). This is because people who dual harm may engage in lethal self-harm behaviours quicker into their self-harming journey, rather than progressing from using non-lethal methods, as is typically suggested (Hawton et al., 2014; O'Connor & Kirtley, 2018).

7.5.1 Implications

This study has several implications for the academic understanding and conceptualisation of dual harm by young adult men in prison. First, there were instances in which the dual harm group were similar to one of the sole harm groups. For instance, those who dual harmed shared similar poor coping abilities to those who solely self-harmed and were just as likely to have a history of drug misuse as those who were solely violent in prison. Nonetheless, the fact that they were not repeatedly similar to just one or both sole harm groups suggests that this group have a mixed profile of characteristics which makes them unique.

Supporting this, five variables fully distinguished young adults who dual harmed in prison. Three of these concerned early and endured contact with the criminal justice system, which should be included in pathways to dual harm by young adult men in prison. Although it is recognised that current frameworks to explain dual harm are not unique to forensic populations (Shafti et al., 2021; Slade et al., 2020), no framework currently includes young criminological history as playing a role in the pathway to dual harm. However, early criminality may also reflect an individual's personality traits

(e.g., impulsiveness) or emotion regulation problems (Richmond-Rakerd et al., 2019; Shafti et al., 2021; Slade et al., 2020). Therefore, in terms of explaining dual harm by young adults in prison, variables which are yet to be recognised within other proposed frameworks appear of great importance. A proposed framework to explain dual harm by young adults in prison, informed by the findings from this thesis, is presented in the following chapter (section 8.2.1).

In addition to informing a framework of dual harm, this study also has practical implications. Since the OASys layer three assessment provides information on an individual within eight weeks of their prison sentence (HMPPS, 2015), this routinely collected information may be best placed to inform the development of a needs analysis for young adults on entry to prison. That is, based on a person's characteristics, if they are identified as having characteristics associated with dual harm (e.g., young and enduring contact with the criminal justice system or fewer qualifications), they should be prioritised for specific interventions which aim to interrupt the pathway to dual harm. The more needs which map onto the distinguishing variables from this study, the further down the pathway to dual harm an individual may be and the more intensive support they may require. Moreover, including variables in which the dual harm group were similar to one of the sole harm groups (e.g., poor coping abilities for the dual harm and sole self-harm group) in existing risk assessments tools may improve the accuracy and enhance existing tools which aim to identify risk of one behaviour. More information on these implications, and the implications of the whole thesis, can be found in the following chapter (section 8.2).

7.5.2 Limitations

This study has several limitations which should be acknowledged. First, the outcome variable (i.e., level of harm) was determined by recorded acts written on each individual's prison records and published on p-NOMIS. However, particularly in relation to people who self-harm, this predominantly includes people who tell a staff member that they have harmed themselves, seek help for their injuries, or self-harm on a part of the body that is identifiable to others. This differs to community research in which self-harm is generally self-reported or measured by self-harm-related hospital admissions (e.g., Steeg et al., 2019). Therefore, individuals in prison who engage in self-harm privately and succeed in hiding their injuries were less likely to be included in the analysis. Similarly, violent individuals who fight with or assault others privately, without staff members seeing or hearing, were also likely to be missed. As such, the findings from this study may only be representative of people who self-harm and/or are violent publicly and may be less generalisable for those who do so in private and thus do not have the related indicators on their prison record. Therefore, the confidence of the findings being representative of all young adults in prison is limited. Although it is noted that this limitation is difficult to navigate and improve upon for future research, it should be noted.

The second limitation refers to the lack of specific information from the secondary data retrieved. First, the scoring for some OASys variables (e.g., difficulties coping) are judged by the OASys assessor. That is, the assessor will ask a person in prison several questions relating to the item, and then based on their answer, the assessor will form a judgment of the degree of the problem and score the variable accordingly. Therefore, although items are informed by the person in prison being interviewed, the final scoring will be the assessor's best judgment and therefore scoring may slightly differ between assessors. Despite this, due to the representative data used in the current study, OASys data will have been provided by a vast amount of assessors and therefore the effect of this limitation is likely reduced.

Third, the variable relating to previous drug misuse provides no information regarding the context of these behaviours (e.g., whether it concerns drug use in the community or prison). Additionally, no further explanation is derived from the OASys variable 'current psychological problems' and 'current psychiatric problems'. Retrieving the qualitative data attached to these variables may help with specificity regarding which psychological or psychiatric problems distinguish people who dual harm in prison. Therefore, whilst this limitation does not affect the confidence of the findings, the nuances underpinning the differentiating factors could be strengthened. Understanding the context of the drug use, or the specific psychological or psychiatric problems, for instance, would further aid the identification and support needs of people at high risk of engaging in dual harm.

Lastly, a fourth limitation concerns the use of a cross-sectional design. That is, whilst the identified factors distinguished people who dual harmed from other groups, the cross-sectional design only allowed these factors to be indicative of risk instead of being considered causal factors that precede the development of dual harm. Therefore, the nature of the relationship between the differentiating factors and dual harm (e.g., younger police contact) cannot be assumed to be causal.

7.5.3 Future research

Future research should seek to clarify the variables in this chapter which distinguished young adult men who dual harmed in prison. For instance, the findings from this chapter suggest that this population group had prolonged contact with the criminal justice system, yet the reasons underpinning this remain unknown. To shed light on this, it would be useful to explore the offending trajectory (e.g., offence type, number of offences and time between offences) of young adults who go on to dual harm in prison. Greater exploration is also required into the specific type of psychological problems young adults who dual harm in prison are more likely to report (e.g., anxiety or depression) and the specific characteristics regarding their previous drug misuse (e.g., drug type and setting).

Together, this information would provide a firmer understanding of the dual harm profile and the trajectories to dual harm in prison amongst this population.

Moreover, although this study had a representative sample, all individuals were required to have a layer three OASys assessment. As such, the findings may be less applicable to young adults without a layer three assessment (i.e., those considered low risk of reoffending). Therefore, future research should investigate whether the differentiating variables in this study distinguish other young male samples, such as those considered at low risk of reoffending, and those in YOIs or secure training centres, to continue to aid early identification and intervention.

7.5.4 Conclusion

This study is the first to identify factors which distinguish young adults who dual harm in prison from those who engage in sole violence, sole self-harm or do not harm in prison using OASys layer three assessment data. Specifically, young adults who go on to dual harm in prison were younger when first in contact with the police, younger when first admitted to custody, spent longer in prison between ages 18 and 21 and reported fewer qualifications than all other groups. Other factors also distinguished the dual harm group from one of the sole harming groups (either sole self-harm or sole violence), such as difficulties with coping. Based on the findings that most of these differentiating characteristics concern a person's criminological history, criminal justice agencies may be the best placed to provide support and intervention to potentially disrupt the pathway to dual harm amongst young adult men.

Chapter 8: General discussion

Chapter overview

This thesis has explored the developmental trajectory of dual harm exhibited by young adult men (aged 18-21) in prison. This is the first piece of research to investigate dual harm amongst this population, bridging the gap between research with adolescents in the community and adults in prison. An exploratory sequential mixed methods research design was employed, consisting of three empirical studies. First, study 1 (Chapter 5) explored the life stories of five young adult men in prison with a history of dual harm and provided novel and nuanced insights into their lives and behaviours. Second, the findings from the life story interviews informed the variables taken forward to study 2 (Chapter 6), in which large-scale, secondary data from HMPPS was utilised. Using a randomly selected half of the data, this study ascertained the prevalence rates of dual harm by young adult men in prison and explored relationships between a range of variables within the data across dual harm, sole self-harm, sole violence and no harm young adult prison populations. Third, using the second half of the secondary data, study 3 (Chapter 7) investigated which variables in the data successfully distinguished young adult men who dual harmed in prison. This has provided new insights into how young men who dual harm in prison differ to those who engage in sole or no harm. This chapter will synthesise the findings from these empirical studies, discuss the thesis' theoretical, practical and methodological implications, consider its limitations and recommend areas for future research. The chapter will end with some personal reflections on the PhD journey.

8.1 Synthesis of the research findings

As outlined in Chapter 1, the main aim of this thesis was to address the following research question:

- What is the developmental trajectory of dual harm exhibited by young adult men who are in prison?

To address this aim, the thesis sought to:

- Explore the life stories of young adult men in prison with a history of dual harm to ascertain the key factors or events which individuals feel led them to engage in dual harm.
- Ascertain the prevalence of dual harm exhibited by young adult men in prison.
- Explore the relationships between a range of demographic, developmental, criminological, and clinical variables across young adult men in prison who engage in dual harm, sole self-harm, sole violence, and those who do not engage in either harmful behaviour.

- Identify factors which distinguish young adult men in prison who engage in dual harm from those who engage in sole self-harm, sole violence, and those who do not engage in either harmful behaviour.
- Propose an integrated risk model of dual harm among young adult men in prison.

8.1.1 Key findings from each empirical chapter

Chapter 5 explored how participants narrated their life histories to make sense of their experiences and ascertain the key factors or life events that individuals feel led them to engage in dual harm (in the community or prison). Findings from this chapter highlighted commonalities between participants' development of dual harm and offered insights into their lives before imprisonment. Each participant described ACEs, including being the victim of medical neglect, physical abuse and witnessing intimate partner violence in the household, in keeping with previous research (Carr, Steeg et al., 2020; C. Chen et al., 2020; Richmond-Rakerd et al., 2019). Additional key experiences within participants' lives which had implications for their dual harm behaviours included being in deviant social groups, having disrupted school lives and being involved in early criminality (including violent and non-violent crimes).

Another key finding concerned the functions of self-harm and violence. Specifically, although there were numerous functions of self-harm and violence across participants, two key themes were apparent. First, participants narrated engaging in self-harm and violence to regulate their emotions (e.g., to reduce the intensity of unwanted emotions or evoke emotions). Second, the function to protect the self or others was narrated. Violence protected others either in the moment or afterwards through revenge or protected the self through presenting an intensified masculine exterior to avoid future victimisation. Self-harm was also viewed as a way to mask vulnerabilities and privately cope whilst maintaining face to others. Therefore, in keeping with previous research, self-harm and violence appeared to serve conflicting yet complementary functions (e.g., to protect the self vs to protect others) (Pickering et al., 2022). However, as will be discussed more in-depth in section 8.2.1.5, the environment determined, at least to some extent, which behaviour was exhibited at any one time (Shafti et al., 2020; Slade et al., 2020).

Next, Chapter 6 ascertained the prevalence of dual harm exhibited by young adult men in prison using secondary data from HMPPS. As noted, Chapters 6 and 7 included data from individuals held in male prisons, and therefore although may include people who identify as female or non-binary, will be referred to as either males or men in prison herein. The findings demonstrated that approximately 12% of young adult men had dual harmed in prison, resonating with figures reported in research with adult men in UK prisons (Slade, 2018; Slade et al., 2020), which confirms that dual harm is a problem

throughout the male prison estate. Moreover, around 75% of individuals who had an act of self-harm on record also had at least one act of violence, which demonstrated a higher rate of overlap in these behaviours amongst young adult men compared to adult men (Slade, 2018; Slade et al., 2020) and women (Kottler et al., 2018) in prisons. This is likely due to the higher rates of violence exhibited by young men in prison, with 54% of individuals having engaged in either sole violence or dual harm. Therefore, since most young adults who self-harm in prison will also be violent, the need to better understand the development of dual harm is crucial.

Chapter 6 also explored the relationships between variables across dual harm, sole self-harm, sole violence and no harming populations. Here, differences in the relationships between criminological variables for those who dual harmed in prison were found. Specifically, the relationship between early police contact and early court convictions was weaker for those who dual harmed, suggesting that police interventions may deter them less. Early criminality (i.e., early contact with the police and early convictions) also appeared to be related to problems throughout life for the dual harm group, such as having problematic relationships in childhood and problems with reading, writing and numeracy as a young adult, when compared to the people who sole harmed. Lastly, drug misuse was more strongly associated with self-harm and suicide among those who went onto dual harm compared to sole harm, which is in keeping with community-based findings with adolescents (C. Chen et al., 2020; Harford et al., 2012; Harford et al., 2016; Spaan et al., 2022).

Lastly, Chapter 7 identified factors which distinguished young adults who dual harmed in prison from those who sole harmed or did not harm in prison. This shed light on whether certain factors were specific to the development of dual harm or not. In addition to confirming the prevalence statistics outlined above, young adults who dual harmed in prison were younger when first in contact with the police and admitted to prison and spent longer in prison aged 18-21. They also reported fewer qualifications on entry to prison. Although a recent systematic review has questioned the extent to which dual harm is a unique construct with distinct characteristics (Shafti et al., 2023), the findings here suggest that young adults who dual harm in prison can be distinguished from those who do not. However, unexpectedly, young adults who dual harmed in prison were no more likely to report problems with reading, writing or numeracy or more severe relationships in childhood, as has been indicated in previous research (Carr, Steeg et al., 2020; C. Chen et al., 2020; Slade et al., 2022; Swahn et al., 2013). Moreover, compared to those who did not self-harm, people who dual harmed had poorer coping abilities and psychological problems, suggesting some similarities between people who self-harm in prison (either sole self-harm or dual harm). Lastly, those who dual harmed in prison were only more likely to report previous drug misuse than those who were not violent in prison, despite previous research finding that self-reported drug use differentiated dual harm from both sole harming

populations (C. Chen et al., 2020; Harford et al., 2012). Therefore, young adults who were violent in prison (either dual harm or sole violent) were equally likely to self-report previous drug misuse.

8.1.2 Key findings across empirical chapters

8.1.2.1 Early life experiences

As noted above, participants re-told stories of severe ACEs in their life story interviews, which were predominantly clustered around witnessing or being the victim of violence. Whilst one participant also noted medical neglect, these findings suggest that there may be importance in the type of ACEs experienced for individuals who go on to dual harm as a young adult. Specifically, those centred around being the victim or witness of severe physical violence perpetrated by multiple people in the family home were narrated. This adds context to findings in which adolescents with a history of dual harm were more likely to be victims of violence from childhood compared to other ACEs (Richmond-Rakerd et al., 2019). This may explain why generic ‘problematic childhood relationships’ did not differentiate those who dual harmed in Chapter 7.

While previous research sought to identify the presence of ACEs (e.g., Carr, Mok et al., 2020; Carr, Steeg et al., 2020), Chapter 5 explored how participants made sense of their experiences in relation to their broader life stories. Participants noted the impact their experiences had on their perception of safety and communion during childhood. From a young age, their relationships with family members were turbulent and those who offered a sense of safety were idolised. Child relationships were also found to be related to other aspects of life. Specifically, the more problems with relationships in childhood they reported, the more court convictions they received under the age of 18, a relationship which was stronger for young adults who self-harmed in prison (i.e., dual harm or sole self-harm) compared to those who did not self-harm (sole violence or no harm). Importantly, ACEs have been found to increase the likelihood of self-harm (Ford et al., 2020) and criminality (Ford et al., 2019). However, the current findings suggest that severe ACEs, characterised by violence and neglect, and problematic childhood relationships likely play an important role in the developmental trajectory of dual harm.

8.1.2.2 Personal vulnerabilities

Another key theme in the findings concerns the personal vulnerabilities of people who dual harm, specifically their identity and inability to cope, manage and effectively regulate difficult emotions or states. First, it was found that potentially due to their ACEs, people who dual harmed espoused protector identities later in life, which they often used to explain acts of self-harm and violence. Second, self-harm and suicidal behaviours were understood to reduce the intensity of, or tolerate, unwanted painful emotions, which suggests an inability to effectively self-regulate (Sahlin et al., 2017)

and end dissociative states. It was also found that previous drug misuse had a stronger relationship with having a history of thoughts or actions of self-harm for those who dual harmed. Therefore, it may be that drug use, self-harm, and violence can serve similar functions for people who dual harm, with the motivation to engage in such behaviours perhaps underpinned by difficulties regulating difficult emotions and states. These findings coincide with arguments that emotion dysregulation underpins dual harm (Richmond-Rakerd et al., 2019; Sahlin et al., 2017) and functions of dual harm reported in previous research (Hemming, Bhatti et al., 2020; Pickering et al., 2022).

Moreover, young adults who dual harmed in prison had more severe problems with coping than those who did not self-harm in prison (sole violence or no harm). This coping typically refers to a person's emotional stability, stress, anxiety and worries. As such, this finding extends previous assertions that maladaptive coping may be a key component of dual harm (Shafti et al., 2021) by suggesting that people who dual harm in prison have similar coping abilities to those who sole self-harm. As such, people who sole self-harm may only use self-harm to cope, whereas people who dual harm may use both self-harm and violence to cope with life's challenges (Pickering et al., 2022).

8.1.2.3 Later life consequences

The third key theme relates to the continuation of negative life events and experiences throughout adolescence and young adulthood, specifically relating to school disruption, poor educational achievement and early criminality. Regarding school disruption, three of the five participants narrated being suspended or excluded from school. In keeping with findings that school suspension increases the likelihood of receiving fewer qualifications later in life (Colman et al., 2009), young adults who dual harmed in prison also reported fewer qualifications than all other population groups. This extends Slade et al.'s (2022) findings that adults who dual harmed in US prisons were less likely to have gained high school qualifications and suggests that this qualification level difference is present prior to adulthood (i.e., age 21). However, those who dual harmed were not more likely to report problems with reading, writing, numeracy, or learning difficulties. Therefore, whilst research suggests that dual harm populations score lower on childhood IQ tests and achieve lower grades during high school (C. Chen et al., 2020; Richmond-Rakerd et al., 2019; Steinhoff et al., 2022), this is likely not due to them having learning difficulties or inherent educational difficulties. Instead, informed by the findings from the life story interviews, school disruption through suspension or exclusion is proposed to explain the lack of qualifications among young adult men who dual harm in prison.

Furthermore, regarding early criminality, young adults who dual harmed in prison were younger when first in contact with the police than all other groups. In their life story interviews, participants narrated socialising with delinquent social groups who often introduced them to early criminality, including

both violent (e.g., assault) and non-violent crimes (e.g., theft, possession and supply [i.e., dealing] of illegal drugs and possession of a bladed article). Early police contact was also related to receiving fewer subsequent court convictions for young adults, although this relationship was weakest for young adults who dual harmed in prison. This suggests that early police contact, or the specific interventions delivered at this stage, such as diversion services (see Taylor, 2016), may be less likely to deter some people from reoffending, with those same individuals been more likely to dual harm in prison. Therefore, despite evidence suggesting that these services reduce reoffending (Wilson et al., 2018), they may not address the needs of people who go on to dual harm.

Young adults who dual harmed in prison were also younger when first admitted to prison and spent longer in prison aged 18-21 than all other population groups. However, those who dual harmed were equally likely to have a violent index offence and were only more likely to have a sexual index offence than people who were solely violent. This suggests that people who dual harm in prison were not more likely to perpetrate, or at least be sentenced for, serious offences which typically warrant a custodial sentence (as opposed to a community sentence, for instance). People who dual harmed were also not more likely to receive more court convictions over age 18 than those who solely harmed. Instead, it may be that young adults who go on to dual harm in prison have already demonstrated other aspects of the dual harm 'profile', such as drug misuse (Harford et al., 2012; Harford et al., 2016; Richmond-Rakerd et al., 2019; Spaan et al., 2022), which has been linked to reoffending during community sentences (Wood et al., 2015). As such, these individuals may have been considered too risky to serve community sentences, previously breached their licence conditions, or be considered unsuitable for parole. As a result, they spend longer in prison as a young adult. However, as these data were not captured, further research is needed to investigate this.

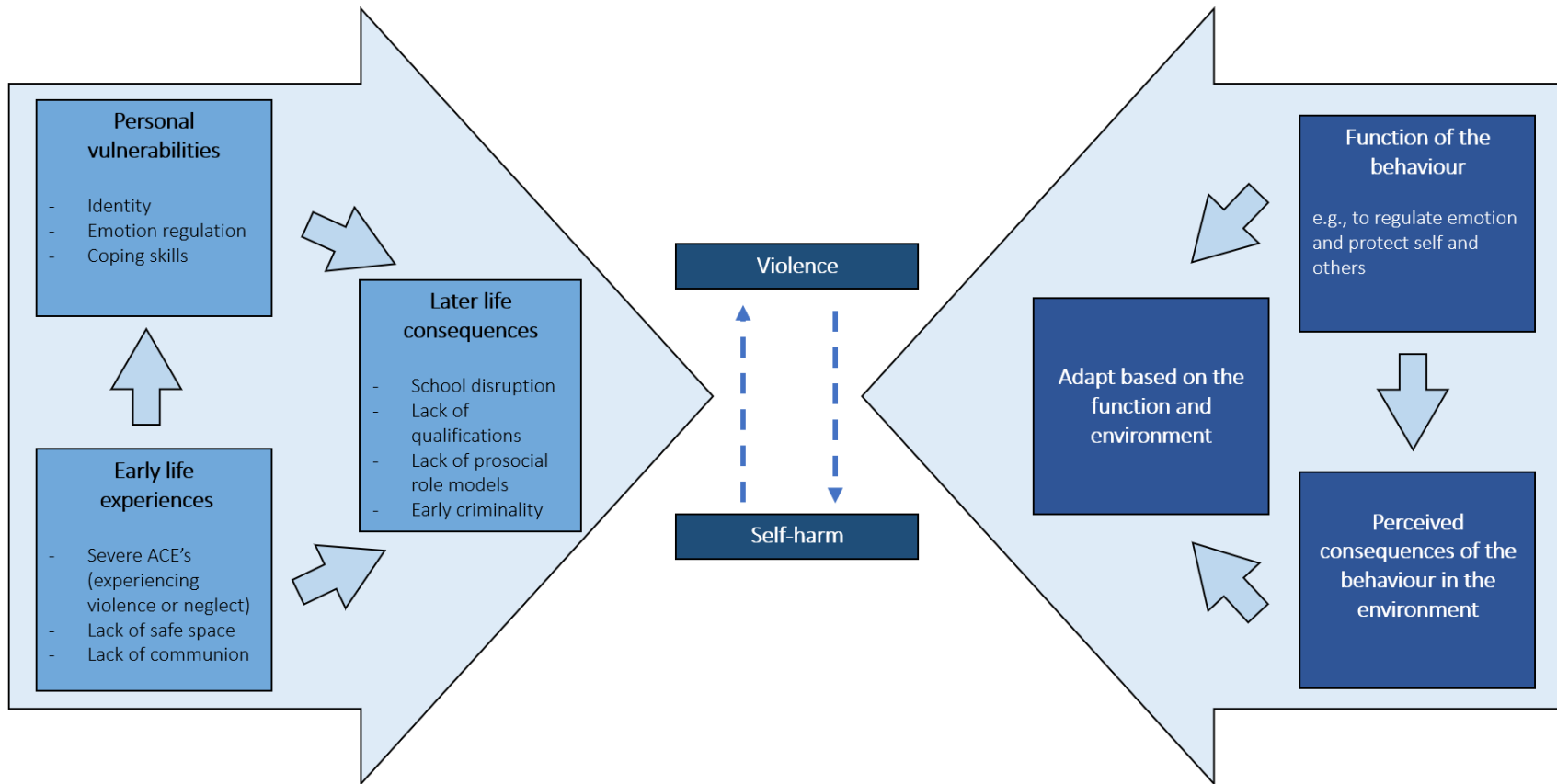
8.2 Implications and applications of the thesis

8.2.1 Theoretical implications

As previously stated, this thesis aims to propose a framework to explain dual harm among young adult men in prison. Figure 16 sets out a pictorial depiction of the proposed framework based on the findings from Chapters 5-7. This theoretical framework, and the complex relationships within it, will be discussed in the following section.

Figure 16.

A proposed theoretical framework to explain dual harm among young adult men in prison



8.2.1.1 Early life experiences

The proposed framework suggests that severe ACEs, and the subsequent effect of such experiences (i.e., a lack of perceived communion and safety in childhood), can predispose an individual to engage in dual harm later in life. Specifically, extending previous frameworks (Shafti et al., 2021; Slade et al., 2020), it is proposed that experiencing violence (i.e., witnessing intimate partner violence in the household or being the victim of physical abuse), or neglect, perpetrated by people in the family home specifically increases risk of dual harm. This is in keeping with research which found that being the victim of severe violence in childhood was associated with dual harm among a sample of adolescents (Steinhoff et al., 2022). There are several reasons why ACEs may increase risk of dual harm, including that they can cause deficits in communication and/or emotional regulation (Nock, 2009, 2010) and predispose a person to have an aggressive personality style (Anderson & Bushman, 2002). However, the relationship between violent-specific ACEs and dual harm may be explained through the Social Learning Hypothesis, built on the Social Learning Theory (Bandura, 1973). That is, a child observes or experiences violence and subsequently learns and imitates it. It could also be that ACEs related to violence elicit specific threats (e.g., attachment difficulties or emotional dysregulation), meanings (e.g., a loss of safety or fear), and subsequent threat responses (e.g., self-harm and violence), as per the Power Threat Meaning Framework (Johnstone & Boyle, 2018). Therefore, the effects of experiencing violence or neglect as a child may have stronger relationships (either direct or indirect) with dual harm compared to other ACEs. However, further research is needed to confirm this.

It is also suggested that the effects of these severe ACEs, specifically the resulting lack of perceived communion and safety, increase a person's vulnerability to exhibit dual harm. Specifically, participants storied a general lack of communion during childhood and poor attachments to key family members such as parents. ACEs, such as physical violence and neglect which disrupt healthy attachments in childhood, have been found to significantly increase the risk of a child developing emotional and behavioural problems in adolescence (Choi et al., 2020). However, problematic childhood relationships did not distinguish young adults who dual harmed in prison. This may be because a substantial number of men in prison report ACEs (Ford et al., 2019) and will likely also report problematic childhood relationships, or because the variable was too general and did not capture the specific ACEs narrated as being relevant to dual harm. In keeping with this, it is noted that young adult men who do not harm in prison may also experience physical abuse or neglect or witness intimate partner violence in the household. Therefore, it is proposed that these experiences, in addition to the other factors in the framework, differentiate young adults who dual harm.

8.2.1.2 Personal vulnerabilities

Next, the proposed framework reflects theories of self-harm (e.g., Nock, 2010) and violence (e.g., Anderson & Bushman, 2002) by suggesting that negative early life experiences can predispose an individual to personal vulnerabilities, which make them more susceptible to dual harm. Evidence suggests that ACEs can affect healthy brain development, which manifests through problems with emotion regulation (Cross et al., 2017; Nock, 2009, 2010). Therefore, people who experience ACEs may have longstanding inabilities to manage and respond to their emotions effectively. In addition, ACEs and a perceived lack of safety in childhood may prevent children from discussing difficult or overwhelming emotions or seeking support to manage them. As a result, they may be unable to tolerate intense, unwanted emotions or states. Such individuals may be more likely to adopt maladaptive behaviours such as self-harm and violence to regulate unwanted emotions following distress (Nock, 2009). As such, it is proposed that a person's early life experiences can increase the likelihood of them developing personal vulnerabilities, such as poor emotional regulation, increasing the likelihood of them engaging in dual harm.

Suppose a person is unable to manage and respond to their emotions effectively. In that case, they may also experience difficulties coping or engage in maladaptive coping, such as utilising avoidant strategies. Therefore, dual harm may result from people trying to regulate their emotions or being unable to cope with them (e.g., the intensity of the arousal they are experiencing). Evidence suggests that people who self-harm typically use more coping strategies than those who do not self-harm, perhaps due to them feeling their emotions stronger and thus having a greater desire to manage and cope with them (Rolston & Lloyd-Richardson, 2017). However, people who self-harm in prison (either self-harm or dual harm) have similar (poor) coping abilities. Therefore, since both self-harm and violence have been recognised as maladaptive coping strategies (Chapman et al., 2006; Gardner & Moore, 2008; Hasking et al., 2017), in the absence of effective emotion regulation strategies, people who dual harm may use both behaviours to cope with their feelings and distress. Indeed, evidence suggests that poor behavioural and emotional regulation increases the risk of transitioning from sole harm to dual harm (Steeg et al., 2023). This also coincides with Pickering et al.'s (2022) findings in which people in prison with a history of dual harm struggled to identify increases in their distress before feeling overwhelmed, which led to dual harm as a means to cope. Whilst the emphasis here has been on emotional coping, more research is needed to explore whether dual harm is more likely to be exhibited to cope with social stressors or other life problems, as this could not be ascertained in this thesis.

Experiencing intense emotions without effective emotion regulation or coping skills can increase the likelihood of experiential avoidant behaviours (Chapman et al., 2006). As discussed in section 3.1.3,

experiential avoidance behaviours are those (such as self-harm and violence) exhibited to avoid or escape from unwanted thoughts, feelings or memories (Hayes et al., 1996). In keeping, the Anger Avoidance Model suggests that if a person with ineffective emotion regulation skills experiences heightened arousal (i.e., anger), they may engage in violence to reduce the intensity of their feelings (Gardner & Moore, 2008). Drug use has also been termed an experiential avoidant behaviour (Hayes et al., 1996), and this thesis found that young adults who were violent in prison (either dual harm or sole violence) were more likely to have a history of drug misuse than those who were not violent (either self-harm or no harm). Moreover, for individuals who dual harmed in prison, previous drug misuse was more strongly associated with self-harm and suicidal thoughts and behaviours. This coincides with research which found that after experiencing ACEs, people are more likely to engage in avoidant emotional coping whereby they seek to reduce negative affect but do little to solve the root problem (Sheffler et al., 2019). Therefore, people who dual harm may engage in self-harm, violence and drug misuse as a form of experiential avoidance in the absence of effective emotion regulation and coping skills.

Lastly, negative early life experiences are proposed to have implications for a person's identity formation (Robinson & Smith, 2009), which can affect the behaviours they later exhibit. In keeping with Arnett's (2000) Theory of Emerging Adulthood, adolescents typically postpone traditional adult roles (e.g., marriage) and instead seek to explore their individual identity. Despite this, it is suggested that people with ACEs take on more responsibilities and espouse more traditional adult roles younger than their peers (Arnett, 2016). The proposed framework suggests that by being unable to protect themselves or others during childhood, people who experience ACEs are more likely to espouse a protector identity later in life. This identity is centred around masculine ideals (Maguire, 2021) and involves protecting themselves and others, particularly those considered weaker, through any means necessary. It should also be noted that although these identities were outwardly projected, the qualitative findings in this thesis revealed that, at times, they masked vulnerabilities that participants wished to hide. For instance, self-harm helped to mask vulnerabilities whilst maintaining face to others. Therefore, it is proposed that people to go on to dual harm engage in identity work in which they actively conceal their personal selves and vulnerabilities and present a public self which is characterised by strength, masculinity and aggression, similar to the backstage and frontage selves in Goffman's (1959) research. Through espousing such identities, a person is more likely to engage in self-harm and violence. Once a person has exhibited one harmful behaviour, they are more likely to engage in the second (McMahon et al., 2018; Nijman & à Campo, 2002; O'Donnell et al., 2015) and cross the 'threshold' for dual harm.

8.2.1.3 Later life consequences

It is also proposed that due to a person's early life experiences and personal vulnerabilities, people are more likely to experience school disruption, a lack of prosocial role models and early criminality, which also increase the risk of dual harm. First, it is proposed that people who go on to dual harm are more likely to be suspended or excluded from mainstream education. As a result, these individuals lack access to education throughout their adolescence, which may explain why people with a history of dual harm have lower educational achievement (e.g., C. Chen et al., 2020; Slade et al., 2022). This likely also explains why young adults who dual harmed in prison had fewer qualifications than those who did not dual harm in Chapter 7. Moreover, this stalled education during adolescence is also proposed to continue throughout a person's life, evidenced by findings that adults who had dual harmed in prison were less likely to develop educationally throughout their prison sentences (Slade et al., 2022). Such individuals may be suspended or excluded due to exhibited violent behaviours, which would further impact the pathway to dual harm through having already engaged in one sole behaviour. However, more research is needed to confirm this.

Another proposed later life consequence in the framework is that people who go on to dual harm lack prosocial role models throughout adolescence. Exposure to adults who are perceived negatively by a child can increase the risk of them being violent, misusing substances and behaving poorly in school (Hurd et al., 2009). A lack of role models could also be linked to school disruption, since following school exclusion, society's reaction is to stigmatise the individual. They therefore have fewer opportunities to affiliate with prosocial others but are welcomed by other stigmatised individuals, such as others who have also been excluded from school (Braithwaite, 1989). This is concerning since evidence suggests that associating with prosocial peers can protect against delinquency (Walters, 2020). By contrast, having a delinquent or violent role model can increase the likelihood of developing positive attitudes towards violence (Hurd et al., 2011). Moreover, perceiving low expectations from others can increase the chance that a person will start to live up to such expectations and behave poorly (Babad et al., 1982), which has been demonstrated among men who dual harm (Pickering et al., 2022).

Finally, it is proposed that people who go on to dual harm are more likely to engage in early criminality. A person's early life experiences may explain this, since ACEs can inhibit behavioural regulation, which increases the risk of impulsive, risk-taking, and criminal behaviours (Cross et al., 2017; Hart, 2014), as has been recognised in developmental pathways of criminality (Moffit, 2018). Moreover, the perpetration of criminality may also be associated with a lack of prosocial models or having role models who engage in criminality. Nonetheless, there is repeated evidence, both in the thesis and elsewhere (e.g., Richmond-Rakerd et al., 2019; Sahlin et al., 2017), that people who dual

harm have early contact with the criminal justice system. Although, the characteristics of this early contact (both its early and prolonged nature) are unique to people who dual harm, the quantitative (i.e., the number of offences perpetrated) and qualitative (i.e., the specific type of offences perpetrated) nature of this criminality remains unknown.

8.2.1.4 Function of self-harm and violence

The framework proposes that a person's specific negative early life experience(s), personal vulnerabilities, and later life consequences can increase their risk of engaging in dual harm, with risk of self-harm and violence developing in tandem. However, it is suggested that the decision to exhibit either self-harm or violence is determined by the perceived function of the behaviour and the environment the behaviour is to be exhibited (Shafti et al., 2021; Slade et al., 2020). Although there are various functions that self-harm and violence can serve, two key themes related to both self-harm and violence were noted across participants. These were: to regulate emotion(s) and to protect the self and others. These functions are in keeping with frameworks and measures of self-harm (Nock & Prinstein, 2004) and violence (Little et al., 2003), which state that the behaviours can serve both interpersonal and intrapersonal functions (Nock & Prinstein, 2004).

8.2.1.4.1 Function of dual harm - to regulate emotion

Extending theories of self-harm (e.g., Chapman et al., 2006), aggression and violence (e.g., Gardner & Moore, 2008), it is proposed that people who dual harm use both self-harm and violence in response to unwanted states or emotions. As suggested in the proposed framework, ACEs can affect healthy brain development, impacting emotional regulation (Cross et al., 2017; Hart, 2014), which has been suggested as a key characteristic motivating dual harm (Hemming, Bhatti et al., 2020; Richmond-Rakerd et al., 2019; Pickering et al., 2022; Sahlin et al., 2017), and increases risk of progressing from sole harm to dual harm (Stegg et al., 2023). Therefore, people who dual harm may use either self-harm or violence to regulate, such as to end a dissociative state and evoke emotions, reduce the intensity of an unwanted emotion, or seek relief from multiple conflicting emotions. It is also proposed that specific emotions may dictate which behaviour is exhibited. Specifically, self-harm may reduce emotions such as sadness or grief, whereas violence may reduce anger or aggression (Pickering et al., 2022). Mapping onto previous theories, the need to exhibit these behaviours to regulate emotions suggests that people who dual harm may experience their emotions or arousal stronger than others (Chapman et al., 2006) or have more difficulties with emotional processing or dysregulation (Gardner & Moore, 2008).

8.2.1.4.2 Function of dual harm - to protect self and others

People who dual harm are proposed to be more likely to develop and espouse identities which are central to protecting themselves and others. Indeed, violence is commonly justified as a way to protect others (Sykes & Matza, 1975), which has been noted as a function of violence among people who dual harm (Pickering et al., 2022). However, in this thesis, young adults with a history of dual harm also used violence to protect themselves against future victimisation and potential threats. This may be because when a man's masculinity is threatened, they are more likely to engage in behaviours which assert power over others (Pellegrini & Bartini, 2001). One way to do this is to project intensified masculine ideals, such as aggression and violence (Feder et al., 2010), to regain a sense of masculinity and protect the self from future or anticipated social threats, as is highlighted in the Masculine Gender Role Strain Paradigm (Pleck, 1995). Therefore, people who dual harm may use violence to protect themselves or others.

The link between the function to protect and self-harm is more nuanced. For instance, revealing vulnerabilities or emotions in prison, particularly those of sadness or distress, can be interpreted as being weak by peers (Hemming, Bhatti et al., 2020). As such, the prison environment is not conducive to revealing or seeking support for one's emotions, which can increase the likelihood of people engaging in maladaptive behaviours, such as self-harm, to help alleviate the intensity of their emotions. In keeping, people who have dual harmed in prison have understood self-harm as a means to hide distress from others (Pickering et al., 2022). Similarly, self-harm can allow people to reduce the intensity of strong, unwanted emotions whilst maintaining face to others and protecting the self from victimisation. As such, people who dual harm may be violent to protect themselves physically or socially, but self-harm to protect themselves through maintaining face. As such, people who dual harm are adaptive and reactive to their environments, which can determine which behaviour they exhibit (Slade et al., 2020).

8.2.1.5 The perceived consequences of the behaviour

As suggested above, the environment can determine which behaviour is exhibited in any situation. Whereas violence may be used to release anger and aggression in the community, in prison, self-harm can serve a similar function whilst gaining control in an otherwise restricted environment (Harvey, 2007; Power et al., 2015) and avoiding the consequences associated with violence (Power et al., 2016). Similarly, although violence in the community may protect one's vulnerabilities and project masculinity, self-harm in prison can also be a means to maintain a strong exterior to prison peers. In other instances, such as when one needs to avoid victimisation or threats, violence in prison can protect the self by projecting an intensified, masculine self (Maguire, 2021). Therefore, for people

who dual harm, self-harm and violence can serve complementary functions, although the behaviour can be determined by the environment in which it is exhibited.

In summary, this framework suggests that severe ACEs, specifically witnessing intimate partner violence or being the victim of violence or neglect, and the fractured relationships surrounding these, form the backdrop to dual harm by young adult men in prison. These factors predispose an individual to various personal vulnerabilities, including poor emotion regulation and coping abilities. Together, these increase the risk of an individual having later life consequences, such as school disruption, having a lack of prosocial role models and engaging in early and sustained criminality. It is proposed that all of these factors increase a person's likelihood of engaging in dual harm due to the functions that self-harm and violence can serve, with the environment determining which behaviour is exhibited in any given situation. These factors and functions may also map onto other characteristics of those who dual harm, such as their increased likelihood of engaging in fire setting and criminal damage (Slade et al., 2018; Slade et al., 2020) and drug misuse (Harford et al., 2012; Harford et al., 2016; Spaan et al., 2022) which is likely underpinned by deficits in self and emotion regulation (Richmond-Rakerd et al., 2019; Sahlin et al., 2017). As such, the framework provides a starting point to holistically understand young adults who dual harm. Limitations of the proposed framework can be found in section 8.3.

8.2.2 Practical implications

8.2.2.1 Implications for practice – pre-prison

There are several practical implications of this thesis. Specifically, the findings from the empirical chapters have outlined the importance of severe ACEs, problems with education (including school suspension or exclusion and reporting fewer qualifications) and criminality (including early police contact and imprisonment) within the pathway to dual harm. These findings have important implications regarding approaches to primary prevention which are proactive or 'upstream' in nature and provide support for individuals prior to them having engaged in dual harm.

First, it is proposed that people who dual harm experience severe ACEs, typically characterised by violence or neglect, perpetrated by people in the family home. If there were any warning signs of this, such as visible injuries or disclosures, the individual may have been referred (e.g., by the school) to local authority children's social care and/or the police due to safeguarding concerns. Social services and/or the police then investigate cases and decide whether statutory interventions and/or criminal investigations are required (HM Government, 2015). In such cases, interventions should provide tailored and extensive support to the family, such as support for domestic abuse victims (HM Government, 2018). However, the severity of the ACEs and fractured relationships experienced in

childhood by some people, such as those proposed to engage in dual harm later in life, may dictate the need for more intensive support which goes beyond that which is ordinarily provided in referral cases. In addition to longer or more regular support sessions, such cases may benefit from social workers to approach their work from a trauma-informed perspective. Trauma-informed social workers incorporate core principles of trust, safety, collaboration, choice and empowerment into their work to help children develop healthy relationships, coping skills and resilience to facilitate post-traumatic growth (Levenson, 2017). These skills may protect the individual from developing personal vulnerabilities linked to dual harm.

Next, it is proposed that people who dual harm are also more likely to have been suspended or excluded from school, which likely impacts their ability to gain qualifications later in life. Reflecting on this, education providers should offer enhanced support for children and adolescents demonstrating problematic or disruptive behaviours in school. This enhanced support should focus on factors related to dual harm. For instance, according to the Early Intervention Foundation (2018), early school-based support can also target domains such as behavioural (helping the child to monitor and regulate their behaviours and impulses), and emotional (aiding the child to understand their emotions and set and achieve positive goals) development, which further map onto the personal vulnerabilities associated with dual harm and may protect an individual from acquiring such deficits.

Despite the need to support children through education, instances in which headteachers are required to remove a child to maintain the safety of peers and staff members are acknowledged (Department for Education, 2019, 2022). Indeed, school exclusion was noted by several participants in Chapter 5. Before permanent exclusion, enforcing a short suspension period, followed by a meeting to discuss targets with the individual, their parents, and the school, has been outlined as good practice (Department for Education, 2019). However, although including the parents in the conversation may be helpful for some, people who go on to dual harm may have experienced severe ACEs and have fractured and unstable relationships with their parents. Therefore, some parents may be unable to support their child to keep in mainstream education, and instead they may be more likely to be referred to other education services, such as Alternative Provision Schools. As such, there may be slightly different pathways to education for some children, particularly for those who may go on to dual harm, but ensuring that the child remains in the type of education best suited to their needs is key (Department for Education, 2019). Maintaining some form of connection to education and increasing the likelihood of being able to gain qualifications may protect against some of the personal vulnerabilities associated with dual harm. Lastly, it is recommended that staff working in alternative education providers are trauma-informed to enable them to understand that the behaviours some students exhibit (and indeed led them there) may stem from trauma. This approach

is already being embedded in youth justice, whereby staff are trained to focus on an individual's needs underpinning their behaviours, working with the individual collaboratively and helping them being safe (Youth Justice Board, 2017). However, if this was embedded in alternative education, it may help prevent behavioural escalation and potentially disrupt the pathway to dual harm.

These education provisions are important given the association between school exclusion and later negative outcomes, including increased contact with the criminal justice system (Valdebenito et al., 2018) and offending during adolescence (McAra & McVie, 2013). Indeed, early contact with the criminal justice system has been noted in this thesis (under 18 years) and previous research (under 22 years) as being prominent in the pathway to dual harm (Richmond-Rakerd et al., 2019). Therefore, the criminal justice system may also play a role in preventing dual harm.

This thesis found that whereas early police contact typically reduced the number of court convictions a person received in adolescence or young adulthood, this relationship was weakest for young adults who went on to dual harm in prison. This may suggest that at present, police intervention and/or pre-court diversion services have less deterrent effect or do not meet the needs of young adults who go on to dual harm in prison. Therefore, as diversion interventions can be adapted (Wilson et al., 2018), it is recommended that they include modules to reduce the risk of dual harm. Based on findings from this thesis, individuals who are younger than 18 when first in contact with the criminal justice system may benefit from intervention programmes aiming to build a prosocial identity. Having a prosocial identity can strengthen a person's bonds to positive role models, detach them from negative or delinquent role models, and reduce their risk of violence (Na & Paternoster, 2019) and potentially dual harm. These identity changes, particularly discarding old lifestyles and associates, are likely to occur during emerging adulthood (Arnett, 2000) and are well suited to adolescents in diversion interventions. The module should also cover topics such as emotional regulation and coping skills to protect against the proposed personal vulnerabilities in the pathway to dual harm.

Finally, the last pre-prison implication concerns the need to work with people who exhibit sole harm (i.e., self-harm or violence) to protect against them engaging in the second behaviour. This is perhaps most likely to occur in health services if a person consults with a GP about their self-harm or if they are admitted into hospital for a self-harm-related incident. In such circumstances, health professionals should explore the use and function of the behaviour. Furthermore, depending on the professional and their role, it may be that they conduct a formulation on the individual, or refer them to another practitioner (e.g., a mental health professional) who could do so. Formulations are a collaborative process between a professional and an individual to understand their life, their risks and what they find difficult, and what might be helpful for them (Hartley, 2021; NICE, 2022). Following the

formulation, the individual should be referred to services which targets their areas of need and risk (e.g., coping skills or emotional regulation). As a result, by working with people who have sole harmed and targeting issues which map on to the 'personal vulnerabilities' identified in the framework above, they may be prevented from 'crossing the threshold' to dual harm.

8.2.2.2 Implications for practice - prison

This thesis also has implications for practice in prisons. Importantly, although a person who goes on to dual harm in prison will have progressed through some of the pathway to dual harm (e.g., criminality), at this stage, they may not have engaged in both dual harm behaviours. Therefore, proactive or 'upstream' interventions may still be beneficial to prevent individuals who may be at increased risk from exhibiting dual harm in prison.

First, incorporating factors relating to dual harm may help improve existing tools to identify people most risk of engaging in self-harm or violence. That is, given that this thesis found the overlap between self-harm and violence by young adults in prison to be vast, including factors relating to dual harm may improve assessments of the individual behaviours. For instance, it was found that people who were violent in prison (dual harm or sole violence) were equally likely to have a history of drug misuse and shared a similar severity of psychiatric vulnerabilities. Therefore, the inclusion of these variables may improve tools to identify people who may be most likely to engage in violence in prison. Moreover, people who self-harmed (dual harm or sole self-harm) shared similar coping abilities and psychological vulnerabilities (e.g., anxiety and depression). As such, ensuring that these variables are included in existing tools to identify people at increased risk of engaging in either self-harm or violence in prison may be beneficial.

In addition, the framework presented in section 8.2.1 should be used to inform the development of a needs-based assessment tool for young adults on entry to prison. This tool should include aspects of the framework relating to ACEs, a lack of communion and safe space, poor emotion regulation and coping skills, school disruption, a lack of prosocial role models and early criminality. This tool could be administered to young adults as they enter prison to identify the upstream factors relevant to them, which would subsequently inform which interventions they are prioritised for. This early intervention, addressing or working with any needs identified from the assessment, may prevent the individual from exhibiting dual harm in prison. For instance, one area that might be identified from the needs assessment is early ACEs, particularly experiencing violence in childhood. In such cases, interventions and treatment pathways need to be considered within a trauma-informed lens since dual harm behaviours can remain embedded in trauma despite them exhibited years later (Pickering et al., 2022). These practices include considering what has happened to a person and what support they

need instead of questioning what is wrong with them (Durr, 2020). For example, those identified as having this need may benefit from receiving psychologically informed, individualised formulations that consider how their previous life experiences may underpin their displayed behaviours. The 'Methodological implications' section below considers the benefits of storytelling to enhance the formulation process.

Moreover, another area that might be identified from the assessment concerns the need for prioritised education due to previous school disruption. This is in keeping with the pre-prison implications, which suggests the importance of ensuring that children maintain in education, whether that be through mainstream or alternative providers. Having said this, it is acknowledged that young adults in prison have been described as the most difficult population to engage with education (Coates, 2016; Taylor, 2016) and people who dual harm are proposed to be more often suspended or excluded from education. Therefore, if a person exhibits these behaviours and is at risk of being removed from traditional educational classes (e.g., maths and English), similar to the pre-prison implications, education staff and a person's offender manager should work with the individual to find alternate provisions. This may be through offering other routes to learning, such as through vocational skills. Importantly, this will offer the person the chance to gain a qualification, albeit in a skills-based course as opposed to formal education. Although vocational skills courses vary between prisons, typical programmes include barbering, bricklaying and plumbing (Prison Reform Trust, 2019). Engagement with prison education or vocational programmes has been found to increase the likelihood of finding employment post-prison (Ellison et al., 2017) and decrease risk of reoffending within 12 months of being released (HMPPS, 2018). It also may interrupt the pathway to dual harm through reducing the possibility of the individual experiencing another later life consequence.

In keeping with the above, findings from this thesis and previous research (e.g., Richmond-Rakerd et al., 2019; Sahlin et al., 2017) have suggested that a lack of prosocial role models and poor emotion regulation, problem-solving, self-control and coping skills play pivotal roles in the developmental trajectory of dual harm. Existing offending behaviour programmes also address such needs, although focus on reducing reoffending post-release from prison. For instance, existing programmes target interpersonal problem-solving, self-control, social perspective-taking, critical reasoning, emotional management, managing pro-criminal others and personal values and goals (Gobbett & Sellen, 2014). As such, existing programmes may represent a viable means of intervention which map onto some of the personal vulnerabilities identified within the proposed framework of dual harm. Alternatively, it may be that an adapted programme is developed to specifically reduce the risk of dual harm, again focusing on the elements proposed in the framework. This may include how a person's identity, specifically the need to protect themselves and others, may underpin or motivate their behaviours,

and other areas identified within the initial needs analysis. Therefore again, the needs analysis mentioned previously could inform which programme would be most appropriate for an individual.

Beyond upstream interventions to prevent dual harm, the final implication concerns the management of self-harm and violence once the behaviours have been exhibited either through sole or dual harm. First, this thesis found that those who receive support for self-harm in prison are also typically punished for being violent. Of concern, people who engage in dual harm are also more likely to be housed in segregation (Kaba et al., 2014; Lanes, 2011), where individuals are more likely to engage in fatal self-harm and suicidal behaviours (PPO, 2015). Therefore, prison staff should consider how specific punishments (such as segregation) affect and may potentially increase the risk posed by people. If someone is placed in segregation as a punishment for violence, their risk of self-harm and therefore dual harm is increased. Moreover, if a person in segregation already has a history of dual harm, their risk of exhibiting lethal self-harm or suicidal behaviours may also increase. One way to be aware of and consider these risks is to simultaneously address and work with self-harm and violence under a single case management approach (Pickering et al., 2022; Slade et al., 2020). The qualitative findings concerning the complementary functions that self-harm and violence serve amongst people who dual harm strengthen this argument. That is, rather than managing violence and self-harm through separate processes, the interrelated nature of self-harm and violence for this population promotes the need for a combined approach to manage both behaviours effectively. For recommendations regarding how to work with a person's dual harm behaviours in a single case management strategy, see section 8.2.3 below.

8.2.3 Methodological implications

This thesis also has methodological implications. By adapting pre-existing life story interview approaches (Canter & Youngs, 2015; McAdams, 2008), this thesis utilised a novel approach to explore how young adults with a history of dual harm made sense of their behaviours, and how these were incorporated into their life story. Chapter 5 fused the 'Life as a Book' and 'Life as a Film' techniques to create a balance between depth and richness of data collected, whilst providing an accessible and engaging means of communication for young people in prison (Canter & Youngs, 2015). Therefore, the framing of a film was used to be more familiar and accessible to young adults, whereas the depth of questions was ascertained from the Life as a Book technique. In addition to these larger changes, smaller-scale adjustments to McAdams' (2008) protocol were made to enhance the suitability for young men in prison. For instance, questions relating to older adulthood (i.e., key scenes during late adulthood) were deleted. Collectively, these methodological adjustments facilitated an in-depth discussion of participants' life stories and enabled the men to construct their own narratives, in ways which made sense to them, potentially due to them understanding and buying into the film analogy.

Importantly, participants naturally narrated their dual harm behaviours within their broader life moments (such as their low points in life) without the researcher explicitly having to ask about them. This demonstrated the significance of their self-harm and violent behaviours, and sheds light on how participants organically narrate them to others without being prompted.

Life story interviews analysed through a narrative analysis also enabled similarities between participants' life stories to be drawn upon by identifying themes. Of importance, however, since participants were encouraged to tell their stories in as much detail as possible, the interviews captured nuanced differences between how each individual made sense of their dual harm behaviours. For instance, whilst thematic commonalities such as emotion regulation were observed, the specifics of this ranged from some individuals wanting to evoke feelings, whilst others sought to reduce them. Moreover, in addition to highlighting differences between participants, the narrative approach used in this thesis facilitated the exploration of how understandings of self-harm and violence differed *within* participants. For example, participants' understanding of self-harm differed between incidents and were only specific to one act, as opposed to remaining consistent across multiple acts of self-harm. This demonstrates the value of those working with dual harm populations, such as prison staff, openly listening to individuals' narratives and meaning-making concerning each act of self-harm or violence separately.

The insights acquired through the narrative method also emphasised the value of listening to individual narratives as the best way to access an individual's internal self (McAdams, 1993). Rather than conducting an interview with structured questions (i.e., can you tell me why you self-harmed), listening to narratives more broadly may provide greater insights. For instance, asking a person to share their story on the history behind their behaviours will likely include more thorough details regarding their development and maintenance, aiding a more insightful understanding of that person and their behaviours. Indeed, previous research has acknowledged the value of learning from peoples' life stories to understand their self-harm and suicidal behaviours in prison (Eloir et al., 2021). The authors claim that by delving into a person's history, insight can be gained regarding the most effective support and thus reduce their risk of harm. As such, similar narrative-oriented approaches may offer a means for prison staff to understand how self-harm and violence fit within an individual's life, the importance and functions that the behaviours serve, and may inform effective support and intervention.

In addition to the above, another important contribution of the narrative approach was the participants' reaction to openly telling their stories without constraint. It was highlighted that sharing their stories with someone "*irrelevant*" was beneficial as Ethan stated "*I've been able to talk to you.*"

I've not been able to talk to my Mrs... I don't tell my Mrs because I feel like I'm too strong, I'm too strong-minded to tell her how I feel. Like, you're someone irrelevant, do you know what I mean, you're no one to do with the prison." This suggests that some people in prison, particularly those with complex backgrounds who dual harm, may benefit from being allowed to talk to people they consider to have fewer 'ties' to the prison, as the men noted that they found the interviews a sense of relief. This was specifically in relation to being able to share aspects of their pasts that they felt they had to hide from others, and it allowed them to process and make sense of experiences or feelings which they had previously 'bottled up'. This allowed the men to have greater insights regarding how their experiences affected later behaviours. As such, the men may benefit from opportunities to openly discuss their stories, experiences and dual harm behaviours with individuals perceived as neutral or otherwise independent from the prison service (e.g., members of prison chaplaincy, counsellors, or volunteers).

8.2.4 Contributions to academic knowledge

This thesis has offered several original contributions to academic knowledge. As noted throughout this thesis, until now, no research has explored dual harm by young adults in prison. Instead, previous research had been conducted with adolescents and young adults in the community (e.g., C. Chen et al., 2020; Harford et al., 2016; Richmond-Rakerd et al., 2019) and adults in prison (e.g., Pickering et al., 2022; Slade et al., 2020). Therefore, this thesis is the first to bridge the gap between research conducted with community populations and that conducted with adults in the prison system. By doing so, the thesis has offered an understanding of how a person's experiences in childhood and adolescence can impact their behaviours, specifically dual harm in young adulthood. This insight can add greater context and understanding regarding research conducted with adults in prison. For instance, a person's early life experiences, personal vulnerabilities, and later life consequences may explain, to some extent, why adults who dual harm in prison are also more likely to engage in additional harmful maladaptive behaviours, such as damage to prison property and fire setting (Slade et al., 2018; Slade et al., 2020). Therefore, the framework proposed in this chapter, which considers a person's developmental trajectory of dual harm, could be used as a starting point to bridge the gap between our current understanding of dual harm among adolescents in the community and adults in prison.

Linked to the above, this thesis is the first to present clear recommendations to social services, schools, health services, the criminal justice system and prisons to help prevent dual harm from being exhibited. That is, the thesis has offered several practical implications to interrupt a person's pathway to dual harm at various stages. It has suggested 'upstream' preventative measures before a person engages in dual harm (e.g., within schools), and preventative measures in environments that evidence

greater progression down the dual harm pathway (e.g., police diversion services and prisons). Implications have also been offered regarding how best to work with a person to understand their behaviours once they have engaged in either sole harm or dual harm. This was evidenced through findings from life story interviews which provided a platform for people who had dual harmed to have their stories heard. From this, it was found that listening to broader life narratives, beyond those asking a person simply why they engage in self-harm and/or violence, provides a greater understanding of that person, their life history, and their understanding of why they exhibit certain behaviours.

Lastly, this thesis also offers insight into some of the nuances of dual harm. First, this thesis has suggested that dual harm is an adaptive way of living and approach to survival. That is, although previous research had suggested that people who dual harm were adaptable to their environments (Shafti et al., 2021; Slade et al., 2020), this thesis demonstrated that it is typically a person's environment and their understanding of the perceived consequences of the behaviour being exhibited in that environment, which determines which behaviour is exhibited. Second, in keeping with previous research (e.g., Pickering et al., 2022), dual harm was grounded in trauma, specifically violence victimisation, witnessing violence, and suffering from neglect during childhood. This provides a foundation for how dual harm is understood and worked with. Third, this thesis defined self-harm and violence as actual, physically exhibited behaviours, as opposed to thoughts of self-harm or violence, threatened violence or psychological violence. These definitions mapped well onto the classifications of self-harm and violence within the prison systems, and how individuals described and self-reported their self-harm and violence. That is, although plans to attempt suicide were discussed, participants typically narrated exhibited acts of self-harm and violence, potentially demonstrating that these are the acts of greatest importance. For instance, there were fewer stories about verbal disagreements or threats of violence, and instead, participants spoke about the build-up to and perpetration of physical violence. Therefore, although there is no evidence to say whether the definition of dual harm used in this thesis was 'right' or 'wrong', it suggests that it mapped well onto the behaviours participants understood as being self-harm and violence.

8.3 Limitations

Several limitations have been discussed throughout the empirical chapters of this thesis. However, one broad limitation relevant across all studies concerns the research sample. The five young men interviewed were all from one prison and volunteered to participate in the research, having self-identified as having a history of dual harm. This sampling method potentially introduced a self-selection bias (Olsen, 2008). The individuals who volunteered may have strongly identified as having engaged in dual harm or wished to have had their voices heard regarding why they had previously

dual harmed. In keeping, several participants expressed having engaged in self-harm or violence to respond to prison stressors, including frustration at the prison system and its staff. Therefore, individuals who did not identify or see themselves as having dual harmed, or perhaps had more positive views of the prison system and thus engaged in dual harm for different reasons, may have been missing from the sample. As a result, the insights derived from the research may not reflect the experiences and understandings of other young adults in prison with a history of dual harm. One way to potentially reduce self-selection bias and these resulting limitations may be to ask the prison to identify people on their system with a history of dual harm and send out information about the study to such individuals. Although these individuals would still need to provide consent, the sample may be slightly more diverse than those who self-selected and volunteered in this thesis. This may reveal different stories, understandings and explanations of dual harm.

The secondary data for the quantitative studies included over 43,000 18-21-year-old men in UK prisons between 01/01/2014 and 31/12/2019. Despite this, only people with a layer three OASys assessment were included in the quantitative studies since this assessment captures details concerning a person's life prior to imprisonment. This meant that 47% (N= 20,403) of the data could be used in the two quantitative studies, which was later halved. However, a layer three OASys assessment is predominantly conducted for individuals serving longer or indeterminate sentences, and those convicted for sexual or violent crimes (HMPPS, 2015; MoJ, 2018d). Due to this, the findings from the two latter empirical chapters represent young adults in prison who are considered medium to high risk of reoffending (HMPPS, 2015; MoJ, 2018d) and not those considered at less risk of reoffending or causing serious harm. Therefore, whilst the initial sent dataset was representative of all young men in UK prisons between the dates specified, the subsequent findings from the two empirical studies and the framework presented may not generalise to all young men in prison who dual harm.

Linked to this, this thesis and the findings generated from it, including the framework, were informed by research conducted with men in prison. As such, there is no evidence as to whether the findings are relevant to females in prison or whether their developmental trajectory of dual harm differs to that of males. There is also a need to recognise that the data gathered in this thesis largely concerns an individual and their characteristics. Little information was gathered about the environment that these individuals find themselves in. So, for example, no data was collected regarding the prison environment and how this may increase a person's risk of dual harm or how people who have dual harmed in prison are perceived and treated by staff or experience prison. Therefore, the framework does not include environmental factors that may increase the risk of dual harm.

Linked to the above, most of the secondary data was sought from items which are scored using an OASys assessor's professional judgement, based on an interview conducted with a person in prison. However, the life story interviews and empirical research findings highlight that people who dual harm are adaptive to their environments (Pickering et al., 2022). Research has also indicated that despite being more likely to report psychotic symptoms and alcohol and cannabis dependence based on DSM-5 criteria, people who had dual harmed were not more likely to have contact with mental health services (Richmond-Rakerd et al., 2019). This suggests that people who dual harm may conceal their difficulties or not seek support for them. As such, it may be that young adults who go on to dual harm in prison wish to conceal vulnerabilities on admission to prison. This may coincide with the unexpected finding from young adults who dual harmed in prison were no more likely to report problems with reading, writing or numeracy (Chapter 7), which contradicted previous research (C. Chen et al., 2020; Slade et al., 2022; Swahn et al., 2013). As such, it may be that young adults who go on to dual harm in prison aim to adapt to their environment early within their sentence and potentially conceal some vulnerabilities, such as their educational skills, during their OASys assessment. Therefore, the self-reported nature of the data, and that aspects rely on the assessor's best judgment, limits the validity of the findings, despite the findings being based on representative, routinely collected data from HMPPS.

Lastly, a final limitation concerns the definition of self-harm and violence used within this thesis. As a reminder, self-harm was defined as 'any act in which an individual deliberately harms themselves, regardless of the method, severity or intention of the overall outcome', and violence was defined as 'extreme aggression, in which a physical act is intentionally perpetrated to cause severe physical harm to another human'. Both definitions only included physical behaviours as opposed to thoughts of self-harm or violence, threatened violence or psychological violence. This is in keeping with most dual harm research conducted in prisons (e.g., Kottler et al., 2018; Slade, 2018; Slade et al., 2020), except for one study which included psychological violence (Garbutt et al., 2022). Utilising these definitions assumes that all acts of self-harm and violence are similar enough to be encompassed into one group. That is, it assumes that lethal acts of self-harm are similar to more minor acts, and that someone who self-harms once is the same as someone who repeatedly self-harms. This differs to some research which defines self-harm using hospitalisation records, and thus does not capture acts which do not require hospitalisation (Carr, Steeg et al., 2020; Mok et al., 2018; Sahlin et al., 2017; Webb et al., 2017). Therefore, one of the limitations of this thesis is that it assumes that all acts of self-harm and violence, and the individuals who exhibit these behaviours, are similar, which may or may not be the case. By doing so, the findings from this thesis do not align with all other dual harm research, such as that which uses hospital data to capture acts of self-harm.

8.4 Recommendations for future research

Recommendations for future research have been outlined in each empirical chapter of the thesis. Some of these recommendations were crafted in light of study limitations, specifically relating to the population explored or the method utilised. Other recommendations represented a more natural progression of the research based on the empirical findings identified. Here, the most crucial recommendations for future research are discussed.

Considering the limitations discussed above, future research should be conducted to expand the qualitative research to a broader sample of young adults in prison. This includes different regions (i.e., outside of South Yorkshire where the study was conducted), different types of custodial establishments housing young adults (i.e., adult prisons and YOIs), different prison categories (i.e., category A, C or D prisons) and different genders (i.e., 18-21-year-old females in prison). This will likely shed light on whether the trajectories and understandings of dual harm are similar, or differ, between individuals and capture the nuances of dual harm across different populations. Moreover, exploring similarities and differences between the life stories of young adults who have only dual harmed in the community, those who have only dual harmed in prison, and those who progressed from sole harm to dual harm in prison, may be beneficial to further investigate the pathways to, and functions of, dual harm.

In addition, informed by the life story interviews, some functions of dual harm have been proposed in the theoretical framework. Therefore, in addition to conducting more life story interviews, it may be useful to use validated scales to specifically explore the functions of dual harm by people in prison to strengthen this section of the framework. As an example, it may be useful to use scales such as the Inventory of Scale About Self-Injury (Klonsky & Glenn, 2009) and the Forms and Functions of Aggression Scale (Little et al., 2003) to explore the most endorsed functions of self-harm and violence, according to young adult dual harm populations. This will reveal stronger commonalities regarding why people engage in self-harm and violence, which will likely strengthen the proposed framework and inform intervention strategies.

The second broad recommendation for future research maps onto the implications discussed in section 8.2.2.2. First, future research should establish whether the distinguishing factors of dual harm found in this thesis can be clustered together to inform the development of a needs analysis tool to identify and prioritise interventions for people who may be at risk of engaging in dual harm in prison. Although screening tools to predict people at risk of self-harm are advised against (NICE, 2022), tools to identify the needs of people in prison, such as whether someone may need support with their learning, are used in prisons (NHS, 2021). Therefore, future research should investigate whether

factors included in the framework proposed can be shaped into an assessment to identify young adults' needs on entry to prison. This assessment should be administered to young adults on admission to prison and inform their intervention pathway (e.g., enhanced education, enrolment on specific offending behaviour, health or trauma-related needs programmes). Then, such individuals should be followed up to identify those who subsequently engaged in dual harm during their prison sentence.

Future research should also seek to test the proposed theoretical framework of dual harm amongst a range of dual harm populations in prison (e.g., more young adult men, young adult females, young people and adults) to examine its ability to explain dual harm. To achieve this, it is first advised that future research tests the individual hypotheses within the framework. For instance, the framework hypothesises that severe ACEs predispose individuals to have deficits with emotion regulation and effective coping, which may increase their likelihood of engaging in dual harm. Therefore, future research should investigate whether ACEs are linked with these person-related factors. This could be achieved by distributing a survey containing psychometric measures to assess ACEs and emotion regulation abilities, like how Ford et al. (2020) investigated the link between ACEs and mental well-being among people in prison. Through testing the various relationships within the framework, and the framework as a whole, its ability to explain dual harm in prison can be confirmed.

Finally, the empirical research in this thesis, which has informed the development of the framework above, has largely considered dual harm from the individual perspective. That is, beyond the environment impacting which behaviour is exhibited in any given situation, the role of the environment is largely missing. Although this has not been explored in this thesis, evidence suggests that people in prison who are perceived as disruptive and self-harm are more likely to be treated negatively and punished (Ireland & Quinn, 2007). This coincides with research which found that people who dual harm are more likely to be placed in segregation (Kaba et al., 2014; Lanes, 2010). Therefore, it is likely that certain environments, particularly those within the prison environment which are not conducive to displays of emotion, increase the risk of dual harm. As such, future research should seek to ascertain the role specific environments, particularly prisons, have on the development of dual harm. This would provide insight into how, if at all, the prison plays an independent role in the development of dual harm by young adults.

8.5 Personal reflections

8.5.1 Researcher vs professional status

As briefly discussed in Chapter 4 (section 4.3.1), before the PhD I worked as a Resettlement Coordinator at the prison utilised for the life story interviews. Due to this, I had to establish the

difference between working in prison as a PhD researcher rather than as an employee, with some of these subtleties being noted within the ethics application. First, I had to consider what information I would pass on to the prison, thus breaking participant confidentiality and under what circumstances. When working as an employee of the prison, I used to promote information sharing between disciplines if I deemed it useful for other colleagues working with the same individual. However, as a PhD researcher, it was crucial to behave in accordance with the BPS and NRC guidelines. Therefore, it was decided that confidentiality should only be broken if a participant posed an immediate concern of risk or broke the limited confidentiality agreement (Cowburn, 2005). Within this agreement, it was made clear that boundaries to confidentiality included: disclosing crimes for which the individual had not been prosecuted, disclosing that they had been the victim of a crime not reported, stating an intention to harm others or themselves, and stating intentions to breach prison security.

To outline an example of this conflict, one participant became visibly distressed during the interview. I paused the interview, turned off the dictaphone, offered the participant a tissue and a drink, and asked him if he would like to continue, reschedule, or withdraw from the interview. Very enthusiastically he stated that he wished to continue with the interview. Due to the prison regime, approximately 45 minutes later the interview had to end as the man was required to return to his residential wing. I felt unsettled that the participant had been upset during the interview, despite him stating that he wished to continue because he found the interview cathartic. As he had not indicated a risk of harm to himself or others, I felt unable to pass on the information to security or visit the individual on his residential wing as this may have compromised his anonymity. Instead, after an hour, I decided to call the wing and asked to speak to the participant to see how he was feeling (to which he replied that it was like a weight had been lifted off his shoulders). Afterwards, I was confident that I had struck the appropriate balance of being a researcher who was unable to break confidentiality, and a member of prison staff who would have shared information with others, if I felt like an individual was returning to the wing feeling emotional.

8.5.2 The impact of COVID-19 on the PhD journey and thesis

As detailed previously, the methodological approach drastically changed due to the COVID-19 pandemic, and the decision to re-design the second and third studies came with some challenges. When working professionally with men in prison, I always enjoyed listening to their stories and considered it a great honour when individuals felt able to share elements of their lives with me. Conducting the life story interviews was no different. I thoroughly enjoyed building a rapport with participants and found it an honour that they trusted me with their stories and felt safe enough to re-tell some of their most difficult experiences. In addition, hearing that the interviews had helped some of the young men made the process even more worthwhile. I also felt like the study was cyclical in its

journey; sharing their own personal truths and stories helped the participants, which helped me learn, which will hopefully help others in the future. For these reasons, the decision to re-plan the second and third studies with no primary data collection methods was particularly difficult. I was concerned that not engaging with participants through primary means would make the research less credible and not contain the level of truth that I felt the first study had. From a personal perspective, I was also concerned about the impact this would have on my motivation to complete the PhD. Hearing the participants' stories and voices motivated me throughout the data collection stage during the interviews. Therefore, I was concerned that I would find analysing secondary data and thus working with 'cases' too impersonal.

It was unlikely that the COVID-19 restrictions preventing external researchers from entering prisons, particularly for face-to-face research, would be lifted before the third year of the PhD. As such, studies two and three had to be adapted, but still had to meet the thesis aims, create a coherent narrative throughout the thesis and account for the ongoing pandemic restrictions. Therefore, despite the personal worries I described above, it was concluded that a secondary data study using p-NOMIS and OASys was the most feasible option to complete the thesis. Subsequently, a scoping meeting was held with colleagues in HMPPS and the MoJ. Throughout this process, I found it extremely difficult to navigate and plan two studies using data from systems I did not have a strong knowledge base on. Having worked in a prison, I had used p-NOMIS and read OASys reports, although I could not reliably recall what information could be retrieved from which reports, or what questions were asked within different sections of an assessment. Due to being external to HMPPS and the MoJ, I had no access to a prison laptop to enable me to familiarise with the specifics of these systems. In addition, due to the level of restrictions associated with the systems, the information they hold is not freely published on the internet. As such, I found it difficult to specify individual variables of interest and where such information could be retained from. However, following several meetings with supervisors and colleagues in HMPPS and the MoJ, I was able to outline the variables to be used in studies two and three, guided by findings from the LSIs and previous research.

Once the NRC resumed processing applications for new research, an ethics application was submitted. The NRC requested more information and suggested that I contact the National Applications Reporting Team. Due to working remotely, despite my best efforts in contacting people from this team, it took around two months to receive a reply which in and of itself impacted progress. In addition, multiple teams in the MoJ were involved in finalising the logistics of the data share including the asset owners of the data, the Prison and Probation Analytical Services, the Data Privacy Team, the Cyber Security Team, and the Information Security Team. I also had to complete a Data Protection Impact Assessment, a Data Sharing Agreement, and a Technical Migration Form, all of

which were unfamiliar documents and included involvement from both NTU and the MoJ. Due to the delays that this paperwork added, some variables I would have liked to include in Chapters 6 and 7 had to be dropped because they prolonged the data share further. For instance, the rate of self-harm and violence, the timing of when these behaviours were exhibited (e.g., length of time from sole harm to dual harm) and the severity of the behaviours could not be included in the dataset due to how long it would take to collate the information. Since I was in the third year of my PhD at this stage, time was of the essence, and this somewhat dictated which variables could and could not be included in the data share. As such, the implications of the COVID-19 pandemic on this thesis were drastic.

Despite this, having now completed all three studies and written this thesis, the inclusion of the secondary data studies offers a greater breadth of insight that would not have been possible from the initial thesis plan. Together, the number of young adult men with a history of dual harm in prison and the array of information gained about such individuals from the OASys report has enabled this thesis to provide both idiographic and nomothetic representative perspectives. This was only possible with the inclusion of the two secondary data studies.

8.6 Concluding remarks

Using a mixed methods design, this thesis has explored the developmental trajectory of dual harm exhibited by young adult men (aged 18-21) in prison. It has sought to understand how young adult men in prison with a history of dual harm narrated their life experiences, and how through this, they made sense of their exhibited dual harm behaviours. It has also used secondary data from two routinely used prison systems (p-NOMIS and OASys) to investigate how variables related to each other across dual harm populations, and how these were similar or different to other prison populations (i.e., those who engage in sole violence, sole self-harm, or do not harm). Specific variables differentiating young adult men who dual harm in prison from other population groups were also investigated. Lastly, the thesis has discussed the implications of this research and, in doing so, has proposed a framework to explain dual harm among young adult men in prison.

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Appendices

Appendix 1. Participant Information Sheet



Information Sheet

Lindsay Thurston (a PhD student at Nottingham Trent University) is inviting you to participate in a research study. This study is to help understand the life stories of men who have previously engaged in violence and self-harm. This sheet tells you information about the research, though you will also be able to speak to the researcher personally if you are interested in taking part. The choice to take part is completely up to you. If you choose to, you will not receive any rewards and if you choose not to, there will be no consequences. **You do not have to take part in this research.**

This study is part of a wider research project; if you complete this questionnaire the researcher may be interested in talking to you in the future. **However, this is completely your choice.**

What is the research about?

This study looks at younger adults (aged 18-21) within prisons who have once been violent towards others and self-harmed. The researcher is also interested in your life history, to date. If you decide to take part, you will be asked to talk about key events during your life, important relationships within your life and how you wish to view the future. You may also be asked about times you have previously hurt yourself and others.

What does taking part involve?

If you would like to take part in this research, you will be asked to attend an informal interview with the researcher (Lindsay Thurston) in a private interview room. This will take approximately 2-3 hours.

What will happen to the information I give?

Your real name will never be used. At the beginning of the research you will be provided with a unique identification code, all information you provide will be linked to that code, rather than your real name. We will change any information that might give away who you are.

Interviews will be recorded using a voice recorder and what you say will be typed up on a computer. What we talk about in the interview will be kept private unless:

- You tell me information that suggests risk to yourself or harm to others
- You tell me about a past offence you have committed but have not been convicted for.
- You tell me about being the victim of an offence (including historical child abuse) which has not been reported to the police.
- You tell me you are planning to escape prison or break prison rules.

If you do tell me any of the above, I will have to pass the information on to prison security, safer custody, wing staff and/or the police.

All other information will be treated with confidence. All paperwork will be locked away in a filing cabinet at the prison and electronic data will be secured on a password protected computer. Once the research is complete, tape recordings will be destroyed. Only the research team can access the information you provide, and it will only be used for research purposes (i.e it won't be shared with psychology, or any other services in the prison).

At the end of this study I will have to write a report which will be given to the National Offender Management Service. I will also use the data to write papers, presentations and a chapter for my PhD thesis. However, in all of these your name will not be used, and nobody will be able to tell you took part in the research.

What happens if I agree to take part and then change my mind?

You can tell the researcher at any time that you do not wish to answer a question or that you wish to pause or stop the interview. You will not be asked to give a reason for this. If you change your mind after the interview, you have 1 month (4 weeks) after the interview to let me know. Again, there are no consequences of this and you do not need to provide a reason why.

Will there be any risks if I take part?

You will not be asked to talk about anything you do not wish to talk about. If part of the interview results in you becoming upset or distressed we will pause or stop the interview. If you feel upset or distressed after the interview you should speak to a member of staff on the wing, a buddy, a listener (wing staff can put you in touch if needed) or the chaplaincy team.

Are there any benefits if I take part?

Although there are no particular benefits, you may find sharing your life story interesting and you will be helping current research.

How can I get more information, or who can I complain to?

If you would like to take part in the research, there will be an opportunity to meet Lindsay and discuss any questions or concern you may have. To express an interest in participating, ask for more information or make a complaint please contact Lindsay through the psychology department. This can be done through submitting a general APP to psychology or by filling in the expression of interest form – you can ask a member of staff for one of these. Once completed, this form should be sealed in the envelope provided and put in the internal mail.

**** Please feel free to keep this information for your records ****

Appendix 2. Expression of Interest Form



Expression of Interest Form

If you would like to take part in the research, or you would like more information, please complete this form. You can also ask a wing officer to complete this form with you. The researcher will arrange a time to meet with you. Once you have completed the form please put in the envelope provided, seal it, and put it in the internal mail. The lead researcher will then send you a meeting slip.

Name

Prison number

Wing

Please tick the days that are best for you to meet the researcher;

Day	Afternoon (PM)
Monday	
Tuesday	
Wednesday	
Thursday	

Appendix 3. Consent Form



Consent Form

What am I consenting to?

You are consenting to take part in a research study which involves you completing an interview with the lead researcher (Lindsay Thurston). This interview will take between 2-3 hours (approx.) and can be completed within one or two sessions. Lindsay will ask you questions about your life and how key events and relationships in your life have impacted you. The interview will be voice recorded. You can tell the researcher that you do not wish to answer a question or that you wish to pause or stop the interview at any time. You will not be asked to give a reason for this.

The decision to take part in this research is completely your choice. If you choose to, you will not receive any rewards and if you choose not to, there will be no consequences.

Statement of consent

- | | Please tick |
|---|--------------------------|
| I have read and understand the information sheet. | <input type="checkbox"/> |
| I understand that only the research team will have access to the data I provide. | <input type="checkbox"/> |
| I understand that my name will not be used for any publications resulting from the study. | <input type="checkbox"/> |
| I agree for the interview to be audio recorded. | <input type="checkbox"/> |
| I have been able to ask questions about the research. | <input type="checkbox"/> |
| I am aware that I have until [date] to change my mind and ask for my answers to be deleted. | <input type="checkbox"/> |
| I agree to participate in this research. | <input type="checkbox"/> |

Signed

Date.....

Witnessed

Date.....

Future Research

The researcher may be interested in talking to you about future research she may be conducting at HMP&YOI Doncaster. If you wish to be contacted about this future research please leave your name and prison number. Only the lead researcher (Lindsay Thurston) will have access to this information. If you wish to withdraw this decision you can do so at any time without an explanation by sending a general app to psychology.

Please note: you will only be contacted if you are residing at HMP&YOI Doncaster when the future research is being conducted.

I consent (agree) to be contacted about future research conducted by Lindsay Thurston at HMP&YOI
Doncaster:

Signed

Name

Prison Number



Debrief Form

Thank you for participating in this research.

This study looked at your life story and how the key events and relationships throughout your life have had an impact on you. The aim of this research was also to explore key events and meaningful relationships and how you think these affected your behaviours. There are no rewards for taking part in this study, though it is very much appreciated.

Only the research team will be able to access your interview. I will write a report, PhD chapter and presentation from the interview. None of these will include your name (or any identifying information) therefore nobody will know that you participated. The data will be destroyed after ten years. If you chose to leave your contact details on the consent form you may be contacted about future research.

What happens if I have changed my mind and want my interview to be destroyed?

This is completely fine – you will not get into trouble for this and you will not be asked to give a reason why. You have 4 weeks from the last interview [enter date here] to tell me. This can be done by sending a general app to Lindsay Thurston in the psychology department. All of your information will then be deleted.

You may find some of the topics we covered today quite personal. If you feel upset you should speak to a member of staff on your wing or one of the following services;

- **Listeners** – You can ask your wing staff to put you in contact or you can approach a listener directly. They are easily identified by the green t-shirts they wear with the word 'listener' clearly visible.
- **Buddies** – You can ask your wing staff to put you in contact or you can approach a buddy directly.
- **Chaplaincy** – Put in an application to speak to one of the team.

If you have any complaints or further comments please contact Lindsay through the psychology department. **Thank you** 😊

Appendix 5. Life Story Interview Protocol (adapted from McAdams, 2008 and Canter & Youngs, 2015)

Life Story Interview

Introductory comments

I'm going to take you through a life story interview, which is a little bit different to a standard interview that you may have experienced before. It's just you being a story teller if you like, or a script writer, telling me about your life, if that's ok? I'm just interesting in hearing about your life and parts of the past as you remember them, and how they are important to you. The aim here isn't to remember absolutely everything about your life, you choose certain parts as we go through, that you think are important. There are no right or wrong answers, and it's entirely up to you how much detail you go into, I just want to hear your story if that's ok?

Film overview

First, the beginning questions asks you to start thinking about your life as an overall film, and try and split that up into key events. So if you were writing the script for a film, based on your own life story, how would you break your life down? Have a think about a few different scenes, think about them having a title and how you would summarise these. Normally, people have roughly 2-7, though as I say, there are no right or wrong answers and everyone is different. At this point it's just a brief description of what each overarching event in the book might be about, what they might look like, who would be in them and what your life was like during these events. Though you don't need to go into too much depth at the minute. → What were you like as a person during these sections? → Who would the main characters be?

→ We have a brief overview of your life there, and that's given me some context and understanding about your life and what's happened within your life, thank you. This next section is about key scenes in your life history. So you may have already touched upon these but during this stage I'm going to ask you to describe some of the events in a little more detail. So these scenes can be about a specific event or incident that took place, it can be something that really stand out to you, that it really important to you as to how things, or your behaviour may have escalated. So it's going to ask what happened, when and where, who was involved, what you were thinking and feeling at that point, and how that made you feel, and what does that say about who you are or were as a person, and how that impacted you. Does that make sense?

Key scenes

- 1) **High point** → This is something you as an especially positive experience, it can be at any point throughout your life, but something that stand out in your memory as one of the best scenes in your life story. → How were you feeling at this point?
- 2) **Low point** → Thinking back over your entire life, can you think of a scene that stands out as a low point. I know this can be quite unpleasant and it's quite difficult to talk about, so I ask people to be as honest as they can be but I know it's difficult and if there is information you feel you can't share, of course I understand. It's entirely up to you how much you say, this is your interview. Again, very similar to before, this asks you what happened in the event, where it was and when, and what impact it has had on you. → And did any other issues start coming out during this point in your life? → How do you think that made you feel at

that point in your life? → How were you feeling at this point?

- 3) **Turning point** → OK, so next, looking back at any point over your life, can you think of a turning point, This can be during any point in your life that you think is something that timed an important change in your life story.
- 4) **Positive childhood memory** → This is more thinking about a positive memory, so a specific place, time, event maybe that is positive in your childhood.
- 5) **Negative childhood memory** → This refers to a specific scene you remember that was especially negative during your child. → What do you think that moment says about you, or your life?
- 6) **Vivid adolescent memory** → An event or event or time that you remember during your adolescent life that is really important to you? → What were you like here? → What impact did this have on you?
- 7) **Vivid adult memory** → Now we are thinking more recently in your life, so roughly from your 18th birthday. This is just one scene or something that stands out vividly to you, something that is meaningful to you, it can be a positive or negative memory, something bad or something good, just as long it's really important to you. → What impact do you think that had on you? → Was there anything else around that period of offending that was going on?
- 8) **Wisdom event** → Something at any point in your life where you've reacted especially in a wise way, or you've offered counselling or advice, or you've made a wise decision or choice about something? This can be any time were you look back and think you have displayed wisdom.
- 9) **Religious or spiritual experience** → This may not be relevant to all people, but it's good to ask anyway, and this is about religious or spiritual experiences. So whether people are religious or not, some people report that they have had a religious experience in their lives at certain points where they've felt a certain presence or force or something similar. I just wondered if throughout your life you've had a moment that felt like that? → This could be a person who you feel has been sent from above? → How did you feel when that happened? → Do you think that is something you will carry on?

Challenges

- 1) **Greatest challenge** → Looking back over your life, can you describe something that you consider to be the greatest single challenge that you have ever faced?
- 2) **Health challenge** → This doesn't have to be about your own health, although it can be, this can also be about family members, friends and it can be in relation to illnesses, deaths etc. There may not be anything and that it fine. → How do you think you coped with seeing that?
- 3) **Greatest Loss** → So this is in reference to the loss of important people in your life, erm so this could be perhaps through a death or separation. Can you identify the biggest loss that you

have experienced?

- 4) **Greatest failure or regret** → Most people experience failures or regrets in their life, so this is about thinking the biggest failure or regret that you have experienced? So this can be an event, a person, anything really. → How have you coped with that regret?
- 5) **Greatest positive influence** → So looking back over your life so far, please identify one person, or a group of people, or organisation, institution etc. that has had the greatest positive influence on your life. Could you please describe this person or group and explain why they had a positive impact on you and your life.
- 6) **Greatest negative impact** → Again, this is a single person or group, organisation, institution etc. who have had the greatest negative influence on your life.

Future scenes

What would you expect the next scene in your life to look like?

Do you have any dreams or plans for the future?

Any aspirations, little or large? → Where do these come from?

Do you have a project in life? Is there something that you plan to work on that will play out in the following scenes?

Do you see yourself, or hope that you change during the film and moving forward into the future?

Film genre

Looking back over your entire life story with all of its overarching events, scenes, actors, challenges etc., can you see a central theme or a message or an idea that runs through the film and what do you think the major theme might be? → What time of genre film so you envision your story to be? → Any central themes or messages?

Thank you / reflection

So lastly, this is more of a thank you from me, and a reflection for yourself really. Thank you for doing the interview, obviously it's a little bit different and it will be really helpful for my research. I've previously mentioned that this style of interview isn't necessarily the normal way, for example we wouldn't normally ask you to break your life down into scenes, so I'm just wondering what're your thoughts and feelings about the interview? → Do you feel you have given a fair picture of yourself? → Has anything been left out of the life story that you would like to add?

Appendix 6. Demographic Characteristics for Whole Sample and Across Groupings (Irrespective of Layer 3 Assessment)

		Overall N=43,515	Dual harm N=3,785	Sole self-harm N=1,540	Sole violence N=14,798	No harm N=23,392
Ethnicity (top 10) % (n)	White:	53.84 (23,281)	75.38 (2,853)	78.70 (1,212)	44.66 (6,609)	53.89 (12,607)
	English/Welsh/Scot/N.Irish/British	7.98 (3,452)	3.80 (144)	4.48 (69)	4.40 (651)	11.06 (2,588)
	White: Any other background	7.26 (3,140)	2.80 (106)	1.36 (21)	11.25 (1,665)	5.76 (1,348)
	Black/Black British: African	6.58 (2,846)	2.88 (109)	0.97 (15)	11.45 (1,694)	4.39 (1,028)
	Black/Black British: Caribbean	3.67 (1,585)	1.56 (59)	1.82 (28)	4.16 (615)	3.77 (883)
	Asian/Asian British: Pakistani	3.59 (1,554)	2.64 (100)	1.04 (16)	5.82 (861)	2.47 (577)
	Mixed: White and Black Caribbean	3.25 (1,407)	1.66 (63)	2.47 (38)	2.59 (384)	3.94 (922)
	Asian/ Asian British: Any other background	3.16 (1,365)	1.24 (47)	0.45 (7)	5.29 (783)	2.26 (528)
	Black/Black British: Any other background	2.29 (989)	1.19 (45)	1.23 (19)	1.88 (278)	2.77 (647)
	Other: Any other background Mixed: Any other background	1.55 (672)	1.48 (56)	1.17 (18)	2.03 (301)	1.27 (297)
Time spent in custody between ages 18-21 % (n)	Less than 1 month	16.55 (7,203)	2.09 (79)	9.81 (151)	3.55 (526)	27.56 (6,447)
	1-6 months	35.14 (15,290)	17.52 (663)	40.13 (618)	25.11 (3,716)	44.00 (10,293)
	6-12 months	20.48 (8,911)	21.29 (806)	22.66 (349)	26.31 (3,894)	16.51 (3,862)
	1-2 years	19.25 (8,377)	34.90 (1,321)	21.23 (327)	30.73 (4,548)	9.32 (2,181)
	2-3 years	8.58 (3,734)	24.20 (916)	6.17 (95)	14.29 (2,114)	2.60 (609)
Age first in prison M (SD)		18.76 (1.14)	18.10 (1.25)	18.80 (1.07)	18.50 (1.19)	19.10 (1.00)
Number of people who have a layer 3 assessment completed % (n)		46.89 (20,403)	5.78 (2,515)	1.84 (801)	19.45 (8,463)	19.82 (8,624)
Number of people who do not have a layer 3 assessment completed		53.11 (23,112)	2.92 (1,270)	1.70 (739)	14.56 (6,335)	33.94 (14,768)

% (n)						
Offence category (top 10)	Violence against the person	32.41 (6,610)	30.46 (766)	32.21 (258)	32.94 (2,788)	32.44 (2,798)
% (n)	Drug offences	13.70 (2,794)	5.53 (139)	4.74 (38)	16.20 (1,371)	14.45 (1,246)
	Robbery	13.70 (2,793)	17.77 (447)	9.86 (79)	17.49 (1,480)	9.13 (787)
	Burglary	10.71 (2,185)	14.63 (368)	11.36 (91)	10.78 (912)	9.44 (814)
	Other indictable offences	7.25 (1,478)	4.97 (125)	6.37 (51)	7.21 (610)	8.02 (692)
	Theft and handling	6.73 (1,373)	7.51 (189)	7.62 (61)	5.60 (474)	7.53 (649)
	Sexual offences	6.21 (1,266)	10.34 (260)	16.35 (131)	3.67 (311)	6.54 (564)
	Other summary offences	2.71 (553)	3.18 (80)	3.37 (27)	1.67 (141)	3.54 (305)
	Criminal damage	2.36 (482)	3.18 (80)	4.87 (39)	1.60 (135)	2.64 (228)
	Indicatable motoring offences	2.14 (436)	1.15 (29)	1.37 (11)	1.58 (134)	3.04 (262)

Note. Some percentages may not calculate to 100% due to missing data.

Appendix 7. Percentage and N Number for Whole Sample and Across Groupings, for Each Layer Three Variable

OASys Layer 3 variable		Overall N=20,403 % (n)	Dual harm N=2,515 % (n)	Sole self-harm N=801 % (n)	Sole violence N=8,463 % (n)	No harm N=8,624 % (n)
Number of court appearances at which convicted aged under 18 years	0	35.18 (7,159)	20.12 (506)	39.58 (317)	27.08 (2,292)	46.89 (4,044)
	1-2	23.26 (4,733)	16.30 (410)	21.22 (170)	24.53 (2,076)	24.08 (2,077)
	3+	41.57 (8,459)	60.00 (1,509)	38.95 (312)	48.12 (4,072)	28.81 (2,485)
Number of court appearances at which convicted aged 18 and over	0	58.65 (11,935)	56.86 (1,430)	58.80 (471)	58.99 (4,992)	58.46 (5,042)
	1-2	29.42 (5,986)	28.43 (715)	27.09 (217)	29.08 (2,461)	30.07 (2,593)
	3+	11.94 (2,429)	14.31 (360)	13.86 (111)	11.66 (987)	11.26 (971)
Age at first conviction	18+	33.43 (6,804)	18.21 (458)	37.70 (302)	25.35 (2,145)	45.21 (3,899)
	14-17	51.11 (10,401)	54.12 (1,361)	47.07 (377)	56.98 (4,822)	44.54 (3,841)
	Under 14	15.46 (3,146)	27.28 (686)	14.98 (120)	17.39 (1,472)	10.06 (868)
Age first in contact with police: first recorded caution, reprimand or final warning	18+	23.36 (4,754)	12.09 (304)	25.22 (202)	17.51 (1,482)	32.07 (2,766)
	14-17	46.37 (9,437)	42.31 (1,064)	45.19 (362)	51.09 (4,324)	42.75 (3,687)
	Under 14	30.28 (6,162)	45.29 (1,139)	29.34 (235)	31.12 (2,634)	24.98 (2,154)
Difficulties coping	No problems	55.73 (11,370)	29.42 (740)	27.22 (218)	60.77 (5,143)	61.10 (5,269)
	Some problems	34.79 (7,098)	46.56 (1,171)	46.32 (371)	32.60 (2,759)	32.43 (2,797)
	Significant problems	9.48 (1,934)	23.98 (603)	26.47 (212)	6.63 (561)	6.47 (558)
Current psychological problems/depression	No problems	68.51 (13,978)	43.18 (1,086)	36.08 (289)	74.54 (6,308)	72.99 (6,295)
	Some problems	25.79 (5,263)	41.51 (1,044)	46.19 (370)	21.78 (1,843)	23.26 (2,006)
	Significant problems	5.69 (1,161)	15.27 (384)	17.73 (142)	3.69 (312)	3.75 (323)
Self-harm, attempted suicide, suicidal thoughts or feelings	No	77.13 (15,737)	49.18 (1,237)	38.70 (310)	84.83 (7,179)	81.30 (7,011)
	Yes	22.87 (4,665)	50.78 (1,277)	61.30 (491)	15.17 (1,284)	18.70 (1,613)
Current psychiatric problems	No problems	86.44 (17,636)	70.10 (1,763)	66.54 (533)	89.80 (7,600)	89.75 (7,740)
	Some problems	11.24 (2,293)	24.65 (620)	23.60 (189)	8.61 (729)	8.75 (755)
	Significant problems	2.32 (473)	5.21 (131)	9.86 (79)	1.58 (134)	1.50 (129)
Aggressive/controlling behaviour	No problems	36.02 (7,168)	19.32 (486)	32.08 (257)	30.01 (2,540)	45.05 (3,885)

	Some problems	39.06 (7,773)	40.64 (1,022)	36.83 (295)	39.81 (3,369)	35.80 (3,087)
	Significant problems	24.93 (4,961)	37.85 (952)	28.09 (225)	27.76 (2,349)	16.64 (1,435)
Problem solving skills	No problems	9.61 (1,960)	4.45 (112)	7.24 (58)	7.63 (646)	13.27 (1,144)
	Some problems	51.76 (10,560)	40.36 (1,015)	45.94 (368)	49.89 (4,222)	57.46 (4,955)
	Significant problems	38.63 (7,882)	55.15 (1,387)	46.82 (375)	42.48 (3,595)	29.28 (2,525)
Currently of no fixed abode or in transient accommodation	No	77.35 (15,780)	61.15(1,538)	73.91 (592)	76.16 (6,445)	83.55 (7,205)
	Yes	21.60 (4,407)	37.97 (955)	24.97 (200)	22.72 (1,923)	15.41 (1,329)
School attendance	No problems	35.80 (6,946)	15.39 (387)	28.21 (226)	30.36 (2,569)	43.65 (3,764)
	Some problems	32.25 (6,257)	32.68 (822)	31.71 (254)	32.00 (2,708)	28.68 (2,473)
	Significant problems	29.16 (5,657)	44.85 (1,128)	30.71 (246)	30.53 (2,584)	19.70 (1,699)
Has problems with reading, writing or numeracy	No problems	70.13 (14,308)	53.68 (1,350)	60.42 (484)	71.92 (6,087)	74.06 (6,387)
	Some problems	21.75 (4,438)	33.20 (835)	26.84 (215)	20.64 (1,747)	19.03 (1,641)
	Significant problems	4.98 (1,017)	9.22 (232)	8.61 (69)	4.43 (375)	3.95 (341)
Any educational or formal professional/vocational qualifications	Any qualifications	64.02 (12,315)	47.08 (1,184)	54.81 (439)	60.40 (5,112)	64.70 (5,580)
	No qualifications	33.25 (6,396)	44.93 (1,130)	34.96 (280)	31.76 (2,688)	26.65 (2,298)
Learning difficulties	No problems	80.66 (15,363)	62.39 (1,569)	66.17 (530)	77.01 (6,517)	78.24 (6,747)
	Some problems	13.49 (2,570)	20.48 (515)	18.48 (148)	11.51 (974)	10.82 (933)
	Significant problems	3.46 (659)	6.92 (174)	4.62 (37)	3.12 (264)	2.13 (184)
Experience of childhood	No problems	38.84 (7,925)	17.50 (440)	25.34 (203)	36.81 (3,115)	48.32 (4,167)
	Some problems	32.87 (6,706)	33.52 (843)	30.46 (244)	34.56 (2,925)	31.24 (2,694)
	Significant problems	25.44 (5,191)	46.64 (1,173)	41.32 (331)	25.84 (2,187)	17.39 (1,500)
Current relationship status	In a relationship	5.37 (1,081)	5.21 (131)	7.99 (64)	3.73 (316)	6.61 (570)
	Living together					
	In a relationship not living together	25.74 (5,186)	24.61 (619)	22.47 (180)	24.58 (2,080)	26.75 (2,307)
	Not in a relationship	68.90 (13,882)	69.22 (1,741)	68.66 (550)	70.51 (5,967)	65.21 (5,624)
Drugs ever misused (in custody or community)	No	21.13 (4,311)	11.17 (281)	19.73 (158)	18.06 (1,528)	27.18 (2,344)
	Yes	78.87 (16,091)	88.79 (2,233)	80.27 (643)	81.94 (6,935)	72.82 (6,280)

Appendix 8. All Correlation Coefficients for Study 2 (BGGM)

Relationship	Dual harm Partial r	Dual harm 95% CrI	Violence Partial r	Violence 95% CrI	Self- harm Partial r	Self-harm 95% CrI	No harm Partial r	No harm 95% CrI
First custody age - court convictions under 18	-.277	[-.399, .153]	-.125	[-.204, -.050]	-.209	[-.521, .128]	-.147	[-.245, -.065]
First custody age - court convictions over 18	.125	[.039, .191]	.251	[.207, .292]	.178	[-.081, .406]	.245	[.193, .295]
Court convictions under 18 - court convictions over 18	.069	[-.062, .204]	.091	[.026, .155]	.401	[.069, .713]	.133	[.064, .205]
First custody age - age first conviction	-.006	[-.148, .135]	-.082	[-.159, -.008]	.096	[-.242, .449]	-.008	[-.094, .080]
Court convictions under 18 - age first conviction	.668	[.588, .746]	.719	[.679, .757]	.877	[.786, .952]	.811	[.783, .840]
Court convictions over 18 - age first conviction	-.066	[-.221, .066]	-.035	[-.115, .040]	-.398	[-.728, -.048]	-.054	[-.140, .025]
First custody age - age first contact w/police	.126	[.008, .234]	.157	[.074, .222]	-.016	[-.352, .253]	.083	[.014, .145]
Court convictions under 18 - age first contact w/police	-.031	[-.223, .124]	-.212	[-.292, -.114]	-.440	[-.761, -.122]	-.233	[-.318, -.122]
Court convictions over 18 - age first contact w/police	.072	[-.048, .201]	.028	[-.037, .096]	.275	[-.028, .594]	.032	[-.031, .097]
Age first conviction - age first contact w/police	.648	[.553, .748]	.732	[.682, .770]	.752	[.538, .902]	.659	[.586, .716]
First custody age - time in custody	-.369	[-.460, -.265]	-.306	[-.382, -.221]	-.242	[-.396, -.060]	-.255	[-.334, -.151]
Court convictions under 18 - time in custody	-.098	[-.241, .044]	.033	[-.040, .107]	.011	[-.316, .373]	-.076	[-.155, .006]
Court convictions over 18 - time in custody	-.080	[-.157, .001]	-.036	[-.082, .006]	-.152	[-.384, .095]	-.072	[-.113, -.029]
Age first conviction - time in custody	-.070	[-.231, .083]	-.050	[-.126, .016]	-.014	[-.395, .322]	.079	[-.017, .160]
Age first contact w/police - time in custody	.214	[.089, .337]	.083	[.014, .145]	.077	[-.206, .411]	-.039	[-.105, .028]
First custody age - difficulties coping	-.104	[-.206, -.005]	-.011	[-.068, .044]	-.011	[-.234, .208]	-.055	[-.116, -.002]
Court convictions under 18 - difficulties coping	-.144	[-.287, .011]	-.047	[-.142, .038]	.129	[-.220, .495]	-.035	[-.145, .074]
Court convictions over 18 - difficulties coping	-.045	[-.145, .046]	-.077	[-.139, -.019]	.147	[-.407, .101]	.000	[-.062, .062]
Age first conviction - difficulties coping	.082	[-.080, .244]	.039	[-.058, .151]	-.136	[-.495, .242]	.044	[-.069, .161]
Age first contact w/police - difficulties coping	.015	[-.144, .149]	-.026	[-.121, .057]	.106	[-.206, .399]	-.028	[-.113, .052]
Time in custody - difficulties coping	-.119	[-.208, -.024]	-.011	[-.061, .044]	-.175	[-.374, .016]	-.050	[-.110, .004]
First custody age - current psychological problems	.067	[-.042, .169]	-.030	[-.097, .029]	.152	[-.060, .353]	.085	[.018, .151]
Court convictions under 18 - current psychological problems	-.069	[-.240, .086]	-.105	[-.209, .010]	.117	[-.300, .491]	-.008	[-.122, .123]
Court convictions over 18 - current psychological problems	.025	[-.075, .136]	.028	[-.036, .102]	.030	[-.237, .312]	-.025	[-.092, .049]
Age first conviction - current psychological problems	.057	[-.102, .232]	.098	[-.036, .213]	-.036	[-.435, .377]	-.030	[-.168, .092]
Age first contact w/police - current psychological problems	-.028	[-.171, .119]	-.067	[-.174, .046]	-.040	[-.362, .310]	.001	[-.094, .109]
Time in custody - current psychological problems	.005	[-.112, .096]	-.050	[-.110, .015]	-.058	[-.291, .172]	.036	[-.030, .095]
Difficulties coping - current psychological problems	.479	[.392, .557]	.461	[.396, .524]	.439	[.172, .617]	.517	[.460, .565]
First custody age - sh/suicidal thoughts or attempts	.107	[.005, .208]	.032	[-.035, .103]	-.077	[-.326, .116]	-.021	[-.083, .046]
Court convictions under 18 - sh/suicidal thoughts or attempts	.135	[-.021, .298]	.028	[-.083, .127]	-.301	[-.619, .053]	.008	[-.093, .103]
Court convictions over 18 - sh/suicidal thoughts or attempts	-.011	[-.112, .099]	.028	[-.049, .100]	.088	[-.195, .424]	-.066	[-.129, -.002]

Relationship	Dual harm Partial r	Dual harm 95% CrI	Violence Partial r	Violence 95% CrI	Self- harm Partial r	Self-harm 95% CrI	No harm Partial r	No harm 95% CrI
Age first conviction - sh/suicidal thoughts or attempts	-.075	[-.234, .112]	-.101	[-.200, .018]	.221	[-.176, .559]	-.032	[-.149, .086]
Age first contact w/police - sh/suicidal thoughts or attempts	-.055	[-.205, .092]	.133	[.027, .226]	-.089	[-.446, .257]	.007	[-.086, .109]
Time in custody - sh/suicidal thoughts or attempts	.061	[-.038, .171]	-.003	[-.065, .056]	.246	[.021, .458]	-.007	[.061, .053]
Difficulties coping - sh/suicidal thoughts or attempts	.298	[.198, .398]	.261	[.190, .334]	.237	[-.016, .496]	.240	[.171, .306]
Current psychological problems - sh/suicidal thoughts or attempts	.147	[.026, .268]	.156	[.078, .234]	.190	[-.102, .501]	.197	[.118, .280]
First custody age - current psychiatric problems	-.073	[-.178, .035]	.077	[.002, .158]	-.036	[-.278, .192]	-.036	[-.116, .030]
Court convictions under 18 - current psychiatric problems	-.079	[-.221, .090]	.121	[-.014, .258]	.082	[-.367, .533]	-.056	[-.183, .071]
Court convictions over 18 - current psychiatric problems	-.040	[-.147, .070]	-.014	[-.093, .064]	-.069	[-.382, .211]	.037	[-.037, .120]
Age first conviction - current psychiatric problems	.029	[-.162, .201]	-.108	[-.256, .029]	-.144	[-.559, .301]	.084	[-.048, .218]
Age first contact w/police - current psychiatric problems	.016	[-.151, .187]	.024	[-.103, .155]	.103	[-.241, .469]	-.057	[-.168, .046]
Time in custody - current psychiatric problems	-.055	[-.148, .047]	-.028	[-.106, .042]	-.046	[-.174, .278]	-.087	[-.153, -.016]
Difficulties coping - current psychiatric problems	-.016	[-.130, .094]	.026	[-.064, .113]	.199	[-.086, .446]	.016	[-.069, .110]
Current psychological problems - current psychiatric problems	.492	[.408, .577]	.502	[.431, .567]	.421	[.216, .626]	.483	[.417, .542]
Sh/suicidal thoughts or attempts - current psychiatric problems	.152	[.032, .266]	.141	[.054, .232]	.191	[-.097, .463]	.053	[-.043, .143]
First custody age - aggressive/controlling behaviour	-.021	[-.116, .062]	.014	[-.042, .066]	.047	[-.099, .222]	.006	[-.041, .047]
Court convictions under 18 - aggressive/controlling behaviour	.141	[.006, .265]	.061	[-.011, .129]	.020	[-.376, .408]	.000	[-.074, .080]
Court convictions over 18 - aggressive/controlling behaviour	-.071	[-.164, .014]	-.071	[-.111, -.023]	-.006	[-.249, .267]	-.022	[-.068, .023]
Age first conviction - aggressive/controlling behaviour	-.147	[-.279, -.007]	-.052	[-.134, .033]	.071	[-.363, .468]	.037	[-.056, .120]
Age first contact w/police - aggressive/controlling behaviour	.068	[-.053, .192]	.066	[-.008, .131]	-.137	[-.469, .209]	.002	[.068, .072]
Time in custody - aggressive/controlling behaviour	.109	[.016, .192]	.104	[.057, .145]	-.014	[-.191, .185]	.049	[.005, .089]
Difficulties coping - aggressive/controlling behaviour	.175	[.070, .262]	.124	[.061, .188]	.066	[-.149, .254]	.039	[.019, .103]
Current psychological problems - aggressive/controlling behaviour	.006	[-.101, .122]	-.041	[-.115, .032]	-.080	[-.320, .140]	.041	[-.029, .116]
Sh/suicidal thoughts or attempts - aggressive/controlling behaviour	-.036	[-.147, .069]	-.075	[-.136, -.003]	.086	[-.181, .346]	.038	[-.031, .111]
Current psychiatric problems - aggressive/controlling behaviour	.064	[-.063, .181]	.139	[.059, .228]	.097	[-.135, .323]	-.040	[-.125, .037]
First custody age - problem solving skills	.071	[-.030, .160]	.035	[-.053, .134]	-.055	[-.224, .141]	.064	[-.024, .200]
Court convictions under 18 - problem solving skills	.025	[-.111, .150]	.035	[-.041, .116]	-.178	[-.519, .168]	-.013	[-.095, .073]
Court convictions over 18 - problem solving skills	.036	[-.059, .123]	.050	[-.001, .098]	.032	[-.226, .316]	.068	[.016, .115]
Age first conviction - problem solving skills	.110	[-.039, .254]	-.030	[-.116, .058]	.169	[-.182, .538]	.013	[-.084, .101]
Age first contact w/police - problem solving skills	-.152	[-.275, -.023]	.000	[-.072, .065]	-.113	[-.429, .157]	-.014	[-.083, .048]
Time in custody - problem solving skills	.088	[.004, .168]	.091	[.022, .152]	.015	[-.175, .222]	.130	[.056, .232]

Relationship	Dual harm Partial r	Dual harm 95% CrI	Violence Partial r	Violence 95% CrI	Self- harm Partial r	Self-harm 95% CrI	No harm Partial r	No harm 95% CrI
Difficulties coping - problem solving skills	.065	[-.039, .174]	.062	[.000, .122]	.062	[-.168, .339]	.123	[.054, .182]
Current psychological problems - problem solving skills	-.066	[-.176, .043]	.017	[-.056, .095]	.016	[-.203, .264]	-.046	[.112, .025]
Sh/suicidal thoughts or attempts - problem solving skills	-.033	[-.152, .077]	.033	[-.035, .100]	.039	[-.241, .268]	-.016	[-.081, .061]
Current psychiatric problems - problem solving skills	.073	[-.041, .192]	-.088	[-.177, -.003]	-.118	[-.375, .156]	-.024	[-.107, .049]
Aggressive/controlling behaviour - problem solving skills	.280	[.186, .359]	.345	[.299, .386]	.232	[.052, .396]	.207	[.161, .248]
First custody age - drug misuse	-.044	[-.186, .136]	.035	[-.072, .227]	.073	[-.207, .326]	.049	[.036, .157]
Court convictions under 18 - drug misuse	.016	[-.184, .199]	.122	[.038, .211]	-.009	[-.519, .449]	.113	[.031, .206]
Court convictions over 18 - drug misuse	.110	[-.025, .248]	.130	[.077, .188]	.356	[.065, .626]	.058	[-.006, .116]
Age first conviction - drug misuse	.004	[-.251, .202]	-.073	[-.180, .020]	.073	[-.412, .521]	-.060	[-.164, .026]
Age first contact w/police - drug misuse	.156	[-.008, .342]	.095	[.005, .186]	.000	[-.366, .416]	.091	[.004, .177]
Time in custody - drug misuse	-.107	[-.246, .014]	.007	[-.069, .109]	-.039	[-.304, .210]	.046	[-.023, .126]
Difficulties coping - drug misuse	-.058	[-.210, .108]	-.001	[-.073, .076]	.083	[-.242, .378]	-.016	[-.106, .057]
Current psychological problems - drug misuse	-.039	[-.202, .142]	.002	[-.102, .103]	-.189	[-.478, .117]	.054	[-.036, .143]
Sh/suicidal thoughts or attempts - drug misuse	.245	[.100, .369]	.060	[-.032, .153]	.035	[-.300, .375]	.144	[.050, .228]
Current psychiatric problems - drug misuse	-.001	[-.199, .179]	.055	[-.067, .176]	.236	[-.061, .522]	.014	[-.089, .112]
Aggressive/controlling behaviour - drug misuse	.112	[-.021, .240]	.003	[-.062, .065]	-.003	[-.280, .274]	-.022	[-.084, .041]
Problem solving skills - drug misuse	.104	[-.033, .241]	.156	[.073, .249]	.207	[-.090, .455]	.117	[.048, .185]
First custody age - school attendance	-.018	[-.111, .069]	-.066	[-.112, -.015]	-.155	[-.364, .054]	-.091	[-.141, -.041]
Court convictions under 18 - school attendance	-.001	[-.162, .148]	.127	[.056, .207]	.107	[-.268, .543]	.166	[.078, .248]
Court convictions over 18 - school attendance	-.068	[-.172, .031]	-.018	[-.067, .036]	-.074	[-.400, .196]	-.001	[-.061, .061]
Age first conviction - school attendance	.016	[-.148, .203]	-.027	[-.128, .059]	-.125	[-.534, .270]	.119	[-.201, -.020]
Age first contact w/police - school attendance	.054	[-.093, .182]	.053	[-.026, .143]	.122	[-.214, .449]	.132	[.060, .202]
Time in custody - school attendance	.086	[-.014, .171]	.046	[.002, .095]	.175	[-.043, .400]	.033	[-.013, .081]
Difficulties coping - school attendance	.026	[-.087, .131]	-.037	[-.101, .025]	.083	[-.195, .337]	-.016	[-.083, .052]
Current psychological problems - school attendance	.021	[-.099, .135]	.019	[-.064, .100]	.091	[-.144, .325]	-.021	[-.112, .055]
Sh/suicidal thoughts or attempts - school attendance	-.154	[-.268, -.048]	-.003	[-.078, .073]	-.148	[-.416, .149]	.003	[-.067, .082]
Current psychiatric problems - school attendance	.034	[-.092, .153]	.010	[-.084, .106]	-.067	[-.361, .193]	.037	[-.049, .132]
Aggressive/controlling behaviour - school attendance	.055	[-.046, .149]	.102	[.054, .157]	.122	[-.070, .327]	.151	[.099, .201]
Problem solving skills - school attendance	.078	[-.025, .184]	.106	[.050, .152]	.140	[-.087, .372]	.017	[-.037, .073]
Drug misuse - school attendance	.222	[.078, .356]	.103	[.038, .167]	.220	[-.092, .505]	.194	[.121, .255]
First custody age - problems w/reading, writing, numeracy	.024	[-.085, .129]	.081	[.016, .146]	.029	[-.193, .242]	.009	[-.058, .075]
Court convictions under 18 - problems w/reading, writing, numeracy	.043	[-.112, .221]	.024	[-.087, .129]	-.057	[-.556, .349]	-.091	[-.201, .016]

Relationship	Dual harm Partial r	Dual harm 95% CrI	Violence Partial r	Violence 95% CrI	Self- harm Partial r	Self-harm 95% CrI	No harm Partial r	No harm 95% CrI
Court convictions over 18 - problems w/reading, writing, numeracy	.028	[-.085, .120]	-.021	[-.084, .043]	.091	[-.209, .409]	-.028	[-.099, .044]
Age first conviction - problems w/reading, writing, numeracy	-.162	[-.332, .012]	-.024	[-.135, .103]	.025	[-.386, .496]	.028	[-.090, .164]
Age first contact w/police - problems w/reading, writing, numeracy	.188	[.040, .326]	.018	[-.082, .122]	.053	[-.297, .423]	.076	[-.029, .175]
Time in custody - problems w/reading, writing, numeracy	-.022	[-.121, .079]	-.014	[-.072, .042]	.026	[-.189, .236]	-.004	[-.067, .065]
Difficulties coping - problems w/reading, writing, numeracy	.022	[-.104, .142]	.028	[-.053, .101]	-.125	[-.370, .130]	.025	[-.060, .109]
Current psychological problems - problems w/reading, writing, numeracy	-.010	[-.122, .108]	-.042	[-.136, .052]	-.010	[-.278, .253]	.039	[-.056, .137]
Sh/suicidal thoughts or attempts - problems w/reading, writing, numeracy	.085	[-.041, .205]	.091	[.005, .183]	-.053	[-.332, .254]	-.086	[-.176, .006]
Current psychiatric problems - problems w/reading, writing, numeracy	-.046	[-.184, .080]	-.016	[-.119, .092]	.037	[-.253, .340]	-.082	[-.186, .024]
Aggressive/controlling behaviour - problems w/reading, writing, numeracy	-.057	[-.172, .048]	-.063	[-.133, .008]	.041	[-.179, .257]	-.090	[-.163, -.019]
Problem solving skills - problems w/reading, writing, numeracy	.091	[-.021, .198]	.076	[.002, .141]	.100	[-.201, .349]	.068	[-.006, .136]
Drug misuse - problems w/reading, writing, numeracy	-.046	[-.211, .107]	-.086	[-.174, .003]	-.125	[-.512, .215]	-.026	[-.111, .060]
School attendance - problems w/reading, writing, numeracy	.241	[.132, .343]	.187	[.119, .250]	.181	[-.090, .437]	.191	[.126, .268]
First custody age - learning difficulties	.025	[-.072, .137]	-.070	[-.142, .011]	-.107	[-.330, .159]	.045	[-.031, .116]
Court convictions under 18 - learning difficulties	.106	[-.063, .271]	-.029	[-.149, .083]	.120	[-.347, .622]	.123	[-.001, .255]
Court convictions over 18 - learning difficulties	.006	[-.101, .115]	-.017	[-.081, .052]	-.125	[-.447, .174]	-.018	[-.098, .060]
Age first conviction - learning difficulties	.029	[-.146, .205]	.003	[-.138, .139]	-.147	[-.627, .328]	-.085	[-.228, .043]
Age first contact w/police - learning difficulties	-.103	[-.244, .061]	.042	[-.060, .164]	.083	[-.286, .442]	.004	[-.101, .115]
Time in custody - learning difficulties	.045	[-.058, .146]	-.015	[-.077, .051]	-.048	[-.285, .216]	-.002	[-.076, .065]
Difficulties coping - learning difficulties	.008	[-.109, .126]	.092	[.012, .170]	.041	[-.255, .332]	.082	[-.005, .163]
Current psychological problems - learning difficulties	.065	[-.051, .187]	.000	[-.094, .085]	.114	[-.178, .354]	-.090	[-.203, .008]
Sh/suicidal thoughts or attempts - learning difficulties	-.046	[-.175, .094]	-.053	[-.141, .036]	.016	[-.297, .337]	.140	[.050, .236]
Current psychiatric problems - learning difficulties	.158	[.038, .277]	.161	[.062, .268]	-.065	[-.379, .252]	.235	[.127, .335]
Aggressive/controlling behaviour - learning difficulties	-.006	[-.124, .118]	-.040	[-.116, .034]	.031	[-.202, .289]	.073	[.000, .151]
Problem solving skills - learning difficulties	.023	[-.097, .134]	.003	[-.064, .078]	.119	[-.132, .420]	.010	[-.064, .089]
Drug misuse - learning difficulties	-.081	[-.230, .095]	-.015	[-.117, .095]	.062	[-.298, .495]	-.143	[-.238, -.039]
School attendance - learning difficulties	.013	[-.094, .134]	.057	[-.015, .132]	-.110	[-.386, .154]	.008	[-.087, .092]
Problems w/reading, writing, numeracy - learning difficulties	.527	[.446, .598]	.570	[.518, .624]	.595	[.400, .777]	.636	[.588, .683]

Relationship	Dual harm Partial r	Dual harm 95% CrI	Violence Partial r	Violence 95% CrI	Self- harm Partial r	Self-harm 95% CrI	No harm Partial r	No harm 95% CrI
First custody age - childhood experiences	-.025	[-.117, .071]	-.071	[-.124, -.016]	.045	[-.135, .281]	-.096	[-.144, -.041]
Court convictions under 18 - childhood experiences	.201	[.078, .329]	.054	[-.025, .128]	.219	[-.110, .590]	-.002	[-.095, .086]
Court convictions over 18 - childhood experiences	-.014	[-.107, .073]	.031	[-.018, .081]	-.140	[-.439, .104]	.019	[-.033, .074]
Age first conviction - childhood experiences	-.143	[-.294, -.005]	.015	[-.075, .106]	-.142	[-.547, .216]	.034	[-.059, .132]
Age first contact w/police - childhood experiences	.060	[-.075, .193]	.010	[-.072, .087]	.092	[-.206, .445]	.004	[-.069, .074]
Time in custody - childhood experiences	-.010	[-.095, .082]	-.012	[-.064, .037]	-.206	[-.408, .022]	.001	[-.046, .048]
Difficulties coping - childhood experiences	.159	[.062, .258]	.197	[.138, .258]	.086	[-.176, .293]	.144	[.081, .206]
Current psychological problems - childhood experiences	.111	[.003, .227]	-.031	[-.104, .036]	-.044	[-.291, .198]	.015	[-.052, .090]
Sh/suicidal thoughts or attempts - childhood experiences	-.008	[-.105, .101]	.093	[.023, .156]	.244	[-.007, .520]	.139	[.067, .212]
Current psychiatric problems - childhood experiences	.007	[-.102, .121]	.036	[-.041, .120]	-.049	[-.321, .226]	.056	[-.042, .134]
Aggressive/controlling behaviour - childhood experiences	.017	[-.079, .110]	.093	[.042, .142]	.035	[-.212, .260]	.054	[.004, .107]
Problem solving skills - childhood experiences	.102	[.011, .194]	-.005	[-.053, .044]	.124	[-.075, .330]	.117	[.060, .166]
Drug misuse - childhood experiences	.037	[-.101, .178]	.074	[.007, .138]	-.071	[-.374, .222]	-.005	[-.080, .059]
School attendance - childhood experiences	.237	[.142, .325]	.222	[.170, .271]	.240	[-.019, .465]	.239	[.186, .297]
Problems w/reading, writing, numeracy - childhood experiences	-.048	[-.151, .048]	-.014	[-.082, .059]	-.021	[-.264, .224]	-.034	[-.115, .030]
Learning difficulties - childhood experiences	-.007	[-.106, .108]	.057	[-.014, .136]	.064	[-.227, .327]	.029	[-.044, .112]
First custody age - NFA/transient accommodation	.080	[-.013, .174]	-.077	[-.062, .060]	-.157	[-.405, .067]	.076	[.020, .138]
Court convictions under 18 - NFA/transient accommodation	-.094	[-.253, .066]	.045	[-.045, .129]	-.232	[-.626, .220]	.079	[-.014, .180]
Court convictions over 18 - NFA/transient accommodation	.073	[-.024, .168]	.070	[.016, .129]	.221	[-.043, .531]	.067	[.006, .124]
Age first conviction - NFA/transient accommodation	.137	[-.038, .304]	-.010	[-.101, .095]	.163	[-.293, .608]	-.091	[-.197, .011]
Age first contact w/police - NFA/transient accommodation	-.155	[-.314, -.011]	-.050	[-.148, .038]	-.118	[-.543, .249]	.050	[-.034, .141]
Time in custody - NFA/transient accommodation	.172	[.075, .263]	.070	[.017, .123]	.314	[.122, .524]	.045	[-.011, .100]
Difficulties coping - NFA/transient accommodation	.030	[-.073, .140]	.068	[.000, .127]	.073	[-.181, .372]	.021	[-.050, .098]
Current psychological problems - NFA/transient accommodation	.024	[-.098, .134]	-.054	[-.131, .021]	.152	[-.166, .435]	.007	[-.082, .089]
Sh/suicidal thoughts or attempts - NFA/transient accommodation	-.011	[-.137, .108]	.068	[-.014, .152]	-.194	[-.543, .084]	.032	[-.054, .115]
Current psychiatric problems - NFA/transient accommodation	-.029	[-.149, .079]	.035	[-.055, .127]	.006	[-.257, .310]	.010	[-.080, .111]
Aggressive/controlling behaviour - NFA/transient accommodation	.104	[.013, .200]	-.028	[-.088, .028]	-.026	[-.279, .246]	.092	[.025, .160]
Problem solving skills - NFA/transient accommodation	.082	[-.018, .180]	.088	[.029, .147]	.039	[-.227, .276]	.048	[-.015, .105]
Drug misuse - NFA/transient accommodation	.117	[-.021, .278]	.032	[-.041, .110]	.068	[-.283, .398]	.067	[-.017, .150]
School attendance - NFA/transient accommodation	-.066	[-.181, .038]	-.039	[-.101, .016]	-.044	[-.329, .286]	-.035	[-.107, .031]

Relationship	Dual harm Partial r	Dual harm 95% CrI	Violence Partial r	Violence 95% CrI	Self- harm Partial r	Self-harm 95% CrI	No harm Partial r	No harm 95% CrI
Problems w/reading, writing, numeracy - NFA/transient accommodation	-.055	[-.163, .052]	.079	[.007, .154]	-.008	[-.271, .291]	.108	[.022, .190]
Learning difficulties - NFA/transient accommodation	.015	[-.106, .135]	-.056	[-.133, .031]	-.003	[-.305, .307]	-.126	[-.225, -.036]
Childhood experiences - NFA/transient accommodation	.187	[.087, .288]	.249	[.202, .303]	.370	[.149, .609]	.278	[.217, .334]
First custody age - qualifications	-.004	[-.093, .091]	-.020	[-.069, .031]	.149	[-.076, .380]	-.003	[-.060, .047]
Court convictions under 18 - qualifications	-.018	[-.176, .132]	.014	[-.067, .088]	.104	[-.345, .537]	.008	[-.084, .107]
Court convictions over 18 - qualifications	.136	[.043, .235]	.055	[.003, .104]	-.018	[-.352, .310]	.056	[-.002, .112]
Age first conviction - qualifications	.117	[-.056, .298]	.031	[-.064, .128]	.011	[-.445, .473]	.051	[-.060, .151]
Age first contact w/police - qualifications	-.164	[-.315, -.020]	-.030	[-.119, .049]	-.082	[-.441, .290]	-.089	[-.175, -.002]
Time in custody - qualifications	-.001	[-.096, .102]	-.052	[-.103, -.002]	-.238	[-.452, -.019]	-.084	[-.134, -.026]
Difficulties coping - qualifications	.038	[-.086, .157]	-.014	[-.091, .054]	-.051	[-.313, .209]	-.042	[-.118, .036]
Current psychological problems - qualifications	-.008	[-.135, .106]	.029	[-.055, .111]	-.165	[-.429, .129]	.015	[-.068, .103]
Sh/suicidal thoughts or attempts - qualifications	-.070	[-.188, .064]	-.027	[-.113, .060]	.227	[-.061, .516]	-.044	[-.138, .034]
Current psychiatric problems - qualifications	.009	[-.111, .126]	-.056	[-.157, .036]	.079	[-.236, .376]	.057	[-.046, .153]
Aggressive/controlling behaviour - qualifications	-.014	[-.117, .099]	-.001	[-.061, .051]	-.081	[-.319, .136]	-.057	[-.110, .008]
Problem solving skills - qualifications	-.021	[-.129, .084]	-.001	[-.063, .059]	-.140	[-.408, .133]	.081	[.016, .143]
Drug misuse - qualifications	.099	[-.066, .255]	-.003	[-.075, .072]	.007	[-.343, .429]	.005	[-.067, .083]
School attendance - qualifications	.216	[.113, .305]	.255	[.201, .312]	.403	[.147, .604]	.329	[.276, .383]
Problems w/reading, writing, numeracy - qualifications	.293	[.192, .403]	.281	[.220, .348]	.340	[.072, .580]	.261	[.189, .331]
Learning difficulties - qualifications	-.083	[-.205, .040]	-.048	[-.120, .031]	-.030	[-.358, .247]	-.062	[-.147, .027]
Childhood experiences - qualifications	-.035	[-.150, .071]	-.014	[-.071, .048]	-.125	[-.394, .150]	-.055	[-.117, .013]
NFA/transient accommodation - qualifications	.134	[.022, .244]	-.014	[-.086, .054]	.217	[-.101, .495]	.086	[.016, .161]
First custody age - current relationship status	-.042	[-.156, .146]	.062	[-.081, .257]	-.171	[-.357, .030]	-.039	[-.161, .145]
Court convictions under 18 - current relationship status	.037	[-.099, .180]	-.031	[-.117, .050]	-.015	[-.373, .378]	-.053	[-.157, .058]
Court convictions over 18 - current relationship status	-.072	[-.164, .009]	.000	[-.051, .053]	.023	[-.248, .283]	.014	[-.033, .063]
Age first conviction - current relationship status	-.036	[-.184, .110]	.039	[-.061, .144]	-.030	[-.426, .346]	.038	[-.077, .148]
Age first contact w/police - current relationship status	.018	[-.113, .154]	-.025	[-.105, .056]	-.011	[-.332, .317]	-.014	[-.087, .052]
Time in custody - current relationship status	.070	[-.040, .219]	.138	[.032, .277]	.065	[-.140, .283]	.089	[-.019, .251]
Difficulties coping - current relationship status	.015	[-.090, .111]	.081	[.011, .135]	-.053	[-.309, .173]	.029	[-.045, .090]
Current psychological problems - current relationship status	.022	[-.087, .142]	.005	[-.069, .080]	.093	[-.166, .304]	-.021	[-.096, .056]
Sh/suicidal thoughts or attempts - current relationship status	-.052	[-.164, .063]	-.073	[-.146, .014]	-.133	[-.401, .162]	.002	[-.064, .073]
Current psychiatric problems - current relationship status	.060	[-.061, .176]	-.043	[-.124, .055]	.087	[-.181, .364]	.022	[-.063, .103]
Aggressive/controlling behaviour - current relationship status	-.032	[-.126, .058]	.048	[-.013, .099]	.054	[-.153, .249]	.034	[-.019, .085]

Relationship	Dual harm Partial r	Dual harm 95% CrI	Violence Partial r	Violence 95% CrI	Self- harm Partial r	Self-harm 95% CrI	No harm Partial r	No harm 95% CrI
Problem solving skills - current relationship status	.027	[-.078, .115]	.060	[-.023, .158]	.139	[-.070, .349]	.104	[.009, .233]
Drug misuse - current relationship status	-.016	[-.180, .146]	-.012	[-.127, .167]	-.140	[-.429, .175]	.017	[-.069, .126]
School attendance - current relationship status	-.093	[-.186, .011]	.003	[-.050, .061]	-.123	[-.332, .114]	-.027	[-.091, .028]
Problems w/reading, writing, numeracy - current relationship status	.010	[-.101, .111]	-.064	[-.135, .000]	.002	[-.285, .262]	-.032	[-.104, .038]
Learning difficulties - current relationship status	-.039	[-.147, .067]	.055	[-.015, .134]	-.020	[-.288, .265]	.006	[-.067, .090]
Childhood experiences - current relationship status	.036	[-.058, .131]	-.060	[-.116, -.005]	.059	[-.177, .271]	-.030	[-.083, .028]
NFA/transient accommodation - current relationship status	.117	[.011, .219]	.137	[.077, .208]	.012	[-.247, .266]	.110	[.053, .183]
Qualifications - current relationship status	.039	[-.064, .135]	-.005	[-.071, .051]	.142	[-.103, .397]	-.037	[-.095, .025]