INTIMATE PARTNER VIOLENCE: THE LINK TO EARLY MALADAPTIVE SCHEMAS AND CHILDHOOD EXPERIENCES

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Thesis Abstract

Violence towards an intimate partner (IPV) is a common and costly occurrence, therefore preventing it is paramount. Understanding the causes are vital in order to intervene and there are multiple theoretical arguments explaining perpetration, such as the Feminist and Psychological perspectives. One theory of behaviour that draws together risk factors identified as associated with IPV is Young's schema theory, which centres around the idea of beliefs that develop as a result of the interaction between internal (such as personality) and environmental factors during childhood and guide behaviour as an adult, called Early Maladaptive Schemas (EMS). These schemas have previously been researched in connection to IPV, but findings have been inconclusive. The thesis firstly investigates the relationship between EMS and IPV, using a quantitative methodology on data from an under-utilised sample of 50 prison inmates. Evidence highlights the Emotional Deprivation schema within the 'Disconnection and Rejection' domain. Six of this sample were interviewed using qualitative methods to explore the childhoods of IPV offenders and how these link to schemas. All six reported experiences of childhood maltreatment leading to feelings of emotional neglect and rejection. Secondly, the role of personality traits in IPV is explored using a systematic review methodology. This provides evidence for the association between neurotic personality traits and IPV perpetration. The accurate measurement of IPV is vital to research on this topic and a review of the Conflict Tactics Scale II tool is also included as it was identified as the most common assessment of IPV in the systematic review. The findings from the thesis highlights the parallels between victims and perpetrators of IPV in schemas and childhood experiences, as well as the necessity to

consider the context/motivations for violence. A need for further research into aspects of schema theory is discussed.

Publications from Thesis

Chapter II: The Early Maladaptive Schemas of Intimate Partner Violence Perpetrators in Prison

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CHAPTER I

General Introduction

Intimate Partner Violence (IPV), also referred to under the bracket of domestic violence, is physical, sexual and emotional violence inflicted by the perpetrator on their intimate partner. The World Health Organisation (WHO) define it as "*any behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours*" (WHO, 2021).

The WHO (2021) report that around the world, more than 25% of women have, since the age of 15, experienced physical and/or sexual IPV at least once in their life, with up to 38% of murders committed against women being perpetrated by their intimate partner. Statistics from the United Kingdom suggest one in four women and one in six men are reported to be victims of domestic abuse, with two female victims for every male victim (National Centre for Domestic Violence, n.d.).

The Crime Survey for England and Wales (CSEW) is argued to be leading data source on victimisation of crime in England and Wales (Walby & Towers, 2018). The Crime Survey for England and Wales estimated 3.2% of the population were victims of partner abuse in the year ending November 2024 (Office for National Statistics (ONS), 2024a). Statistics from the year ending March 2024 show that around half of all violent offences against women were domestic abuse-related, while for men the figure was between 20-27% (ONS, 2024b). The lockdowns as a result of COVID-19 were believed to have elevated the risk of IPV due to increased exposure to partners and the reduced availability of support services (WHO, 2021), however, ONS (2024a) reported a gradual downward trend in figures over the last ten years, despite the lockdowns.

The true rates of IPV perpetration are difficult to ascertain. Methodological issues and data accuracy mean the true prevalence rate is difficult to calculate (Ali et al., 2021). Official statistics, such as from the Office of National Statistics (ONS), report on the number of victims and convictions. The Crime Survey for England and Wales estimate how many people were victims but it is not specified how many perpetrators there are per victim, or how many convictions relate to one offender, or the perpetrator's gender, and in some cases the relationship of the perpetrator to the victim, mixing partner and family abuse. However, an analysis of CSEW data by Walby and Towers (2018) of domestic violence crimes identified that just 5% of the victims reported 55% of violent crime incidents, with 85% of incidents being repeat crimes.

Another problem is that there is a large variation between police-recorded incidents and victim surveys. Only 18.9% of the victims reported their abuse to the police, with charges being brought in under 7% of the cases reported to the police (ONS, 2023). 39,198 offenders were convicted of domestic abuse (ONS, 2023b), but the specific number of these that related to partner abuse is not clear, as the ONS do not provide a breakdown of the number of incidents which related solely to offences by partners.

Victims of IPV experience physical and mental health problems including PTSD, strokes, heart disease and physical injuries (Chesworth, 2018). Physical injuries are reported by 42% of IPV victims, with effects on health including headaches, pain, limited mobility, gastrointestinal disorder and generally poor health overall (WHO, 2021). There is also an increased risk of unwanted pregnancies, miscarriage, pre-term births, sexually transmitted infections and still births (WHO, 2021). The likelihood of depression, problematic drinking and suicide is higher for victims of IPV (WHO, 2021). Further, children who witness violence in their

household display emotional and behavioural problems, as well as trauma symptoms (Chesworth, 2018). There is also an increased risk of perpetrating violence later in life (WHO, 2021).

As well as consequences for the victim, IPV has wider consequences for society, with victims less likely to work and more likely to experience isolation (WHO, 2021). In the UK, it is estimated that domestic abuse costs around £66 billion a year, due to funds spent on preventative measures, the consequences such as health services and property damage, and the response from the criminal justice system (Home Office, 2019). Of this, £14 billion of this cost is attributed to reduced productivity and output from employment (Home Office, 2019).

Due to the substantial costs associated with IPV, there are clear personal and societal benefits in reducing perpetration, and understanding the causes is a key part of this.

Theories of IPV

Much of the research has been guided by two broad perspectives on the causes of IPV; the feminist perspective and the psychological perspective (Bartholomew et al., 2015).

The feminist perspective is based upon the belief that the patriarchal nature of society and oppression of women is responsible for intimate partner violence, where female are predominantly victims and perpetrators are primarily male (Bell & Naugle, 2008). This stance is supported by data from Walby and Towers (2018) which identified that females experience more domestic abuse, more frequently and at a higher level of seriousness. The feminist perspective argues that IPV is a gender-based sociological problem, in which traditional gender roles and beliefs are ingrained in a society in which men are socialised to believe they are the

dominant gender (Bartholomew et al., 2015). In societies with higher levels of inequalities between genders and violence towards women is normalised, the risk of IPV is suggested to be greater (Oram et al., 2022). This perspective is taken by the WHO (2021), who argue that societal norms regarding the tolerance of violence towards females and gender inequality constitute a fundamental source of violence directed towards women. Gender inequality, which is well-established across the world, and appears in all areas of life from individual relationships to politics and economics, are reinforced and perpetuated by social norms (Oram et al., 2022). Offender behaviour programmes for IPV offenders generally adhere to the feminist perspective and work to change the attitudes towards women of male perpetrators (Cheswick, 2018).

The feminist perspective has been criticised by both practitioners and academics (McPhail et al., 2007). Evidence has emerged more recently that suggests that it is the perception by men of unequal influence in a relationship that leads to violence, however most marriages are relatively power balanced and women are more likely to oversee decision making, suggesting the feminist perspective is problematic, especially when applied in Western cultures (Bartholomew et al., 2015).

Additionally, it has become increasingly evidenced that violence in relationships is perpetrated by both men and women (George & Stith, 2014). Although Walby and Towers (2017) study does demonstrate females experience more IPV, the data also demonstrates that it is not only females who are victims (Donovan & Barnes, 2021). Gender symmetry in IPV perpetration is shown in a large number of studies (Straus, 2012), and IPV is argued to be more common in same-sex relationships than heterosexual marriages (Bartholomew et al., 2015). Same-sex violence has

been acknowledged and included in the literature surrounding IPV, however it has not been entirely assimilated into the feminist perspective (McPhail et al., 2007).

"*If patriarchy (or male privilege) is the primary explanation for IPV, how is female violence or violence in same sex relationships understood?*" (George & Stith, 2014, p7).

However, the evidence for gender symmetry is argued to be a result of the way in which violence is measured. Firstly, there is some evidence to suggest that males consciously overreport victimisation of IPV, whereas females are much less likely to do so (Ackerman, 2016). Secondly, Walby and Towers (2017) claim that some survey methods of measuring IPV obscure the asymmetrical nature of IPV by insufficiently measuring, or ignoring the differences in, frequency and seriousness of incidents. The gender of the perpetrator plays a mediating role in the level of harm caused to the victim, with men more likely to cause injuries to women (Walby & Towers, 2017). However, a study investigating whether the level of harm caused masked inequalities in gender, carried out in response to Walby and Towers (2017), found that measuring injury did not change the symmetrical levels of exposure to partner violence between males and females, although females showed greater levels of fear of injury or death (Bjørnholt & Hjemdal, 2018).

Additionally, although Walby and Towers (2017) identified more injuries to female than male respondents, the data does not record the gender of the perpetrator, or the sexuality of each party (Donovan & Barnes, 2021). Similar victimisation rates for heterosexual and homosexual victims were reported for the year ending March 2024, which an increased prevalence rate for bisexual victims (6.0%; ONS, 2024b). Despite being proportionally as likely to experience IPV, if not more so, research often does not focus on non-heterosexual victims, as numerically they

are outnumbered by heterosexual cis-gender woman (Donovan & Barnes, 2021). While it is unquestionable that there is a patriarchal society context surrounding the perpetration of IPV, it has been argued that the feminist perspective has unintentionally constructed a narrative of heterosexual masculine men victimising heterosexual feminine women, resulting in exclusion for anyone who does not fit this narrative, including homo/bi-sexual and transgender individuals, as well as heterosexual men (Donovan & Barnes, 2021). In order to successfully incorporate same-sex violence, the feminist perspective may need to significantly amend its core principles and expand further than gender roles and patriarchal beliefs (Bell & Naugle, 2008).

Further, it is noted that not all men, even in societies with high levels of gender inequality, abuse their partners. General theories of IPV, such as the feminist perspective, fail to explain individual differences between men who do and do not abuse their partners (Dutton, 2000). Increasing equality between genders has not been conclusively proven to reduce IPV (Eger et al., 2020). Therefore, although patriarchal ideology likely plays a role in IPV, when examining all the data together, it is clear other factors also need to be taken into consideration (Morgan & Gilchrist, 2012).

The psychological perspective argues IPV arises from individual vulnerabilities that lead to maladaptive behaviour. These vulnerabilities can be classified as family background, personality or dispositional factors, and psychopathology (Bartholomew et al., 2015). Personality/dispositional factors linked to the perpetration of IPV include emotional dysregulation (Maloney et al., 2023), insecure attachment styles (Spencer et al., 2021), anger, hostility, and internalizing negative emotions (Birkley & Eckhardt, 2015), trait dependency (Bornstein, 2006), a hostile dominant interpersonal style characterized by control,

vengeance, and aggression (Lawson & Brossart, 2013) and poor coping and executive dysfunction (Corvo, 2014). Psychopathology factors demonstrating a link to IPV perpetration include mental health conditions such as Depression, Anxiety and Post-Traumatic Stress Disorder (Spencer et al., 2019), most personality disorders (Collison & Lynam, 2021), substance use disorders (Cafferky et al., 2018; Kraanen et al 2014) and psychopathy (Robertson et al., 2020). Family background factors related to IPV identified in a comprehensive systematic review by Costa et al. (2015) included poor parent-child relationships, witnessing violence between parents, child abuse, financial problems, parental substance abuse and criminality and being raise by only one parent.

Biological and situational/environmental contributors have also been identified in the research as being related to the perpetration of IPV. Stress (Eckhardt & Parrott, 2017), infidelity and feeling romantic jealousy (Pichon et al., 2020), low marital satisfaction and high marital discord (Stith et al., 2008), low levels of social support, and low income (Okuda at a. 2015), as well as head injuries and issues related to the brain, such as neurochemical dysfunction, morphological changes and functional impairments (Pinto et al., 2010), and an individual's genetic make-up (Hines & Saudino, 2004) have all been linked. Corvo (2014) knits these different factors together, arguing that IPV perpetration can be explained as maladaptive attempts to cope, arising from problems with controlling impulses, brain functioning, or emotions, which are often aggravated by substance abuse.

Many factors have been linked to IPV using the psychological perspectives, however there are still some questions that remain. While some evidence has been found for different factors, there has been no conclusive evidence linking any factors to IPV perpetration, with many critics questioning why not all individuals with that risk factor commit IPV (Ali & Naylor, 2013). Further, these risk factors

have often failed to explain why the perpetrator is committing violence against their partner, instead of, or even as well as, against other people. There is some overlap in the risk factors between general violence and intimate partner violence, such as exposure to violence and violent victimisation in childhood (Fazel et al., 2018), yet not all violent individuals will necessarily act aggressively towards their partner. Additionally, although suggested risk factors have informed interventions, the effectiveness of these treatment programmes has not been demonstrated. Indeed, some of the factors identified are not susceptible to change and therefore cannot be targeted in any treatment (Bell & Naugle, 2008).

IPV is a complex, diverse and multi-faceted phenomenon; to avoid limiting the understanding of the causes, more research and a wider theoretical perspective are required (Burelomova et al., 2018; Bell & Naugle, 2008). At present, contradictory viewpoints and evidence are not adequately explained by current theories (Bell & Naugle, 2008).

Perhaps it is, instead, a combination of both the feminist and psychological perspectives. The ecological model identifies different factors across different levels (societal, community, relationship and individual) that together result in IPV (see figure 1.1). Individual risk factors, such as those posed by the psychological perspective, are aggravated by societal level factors, including gender inequality (from the feminist perspective) and poverty (Oram et al., 2022). In order to effectively intervene in IPV perpetration, identifying the risk factors that play a role is imperative (Oram et al., 2022).
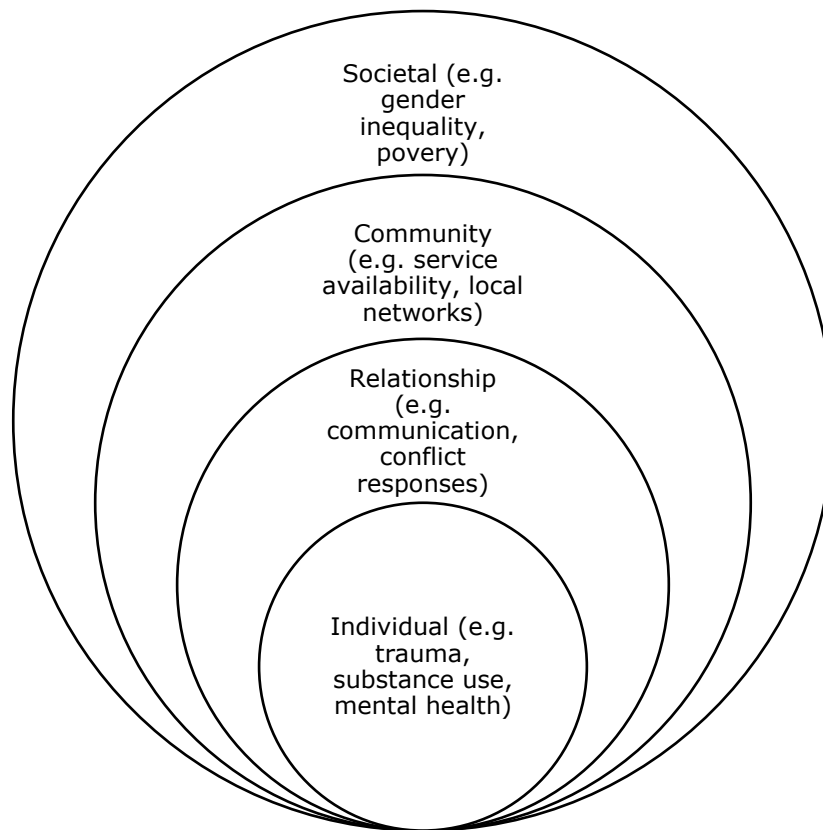
Figure 1.1 An example of the ecological framework of IPV

One risk factor, at the individual level, that has been investigated in relation to unhealthy behaviours are an individual's cognitions or beliefs. Offense supportive attitudes and beliefs are factors that has been explored for their role in IPV perpetration. Negative beliefs about the opposite gender and stereotypical views about gender roles have been found in IPV perpetrators (Pornari et al., 2013; Porani et al., 2021). Views such as "opposite sex is dangerous" and the normalisation of violence have been found in both male and female IPV perpetrators, with male perpetrators also held beliefs relating to male superiority and stereotypical gender behaviour (Pornari et al., 2013). Beliefs regarding the acceptability of violence between partners and gender role attitudes have been demonstrated as being influenced by parental behaviour (Pornari et al., 2021; Halpern & Perry-Jenkins, 2016). Studies comparing samples in different countries,

as well as different ethnicities in the same country, have demonstrated that culture appears to have an influence on IPV-supportive attitudes. This could be as a result of cultural values, such as honour (Zark & Satyen, 2021). This could highlight the need for culturally sensitive interventions for IPV, as well as the importance of considering multi-level factors when considering the perpetration of IPV.

One psychological approach which focuses on cognitive factors is the schema-approach, which argues that unhelpful cognitive beliefs are triggered by situational factors and these influence emotions responses, leading to violence (Maloney et al., 2023). Schema therapy is centred on the concept of changing unhelpful beliefs, called Early Maladaptive Schemas (EMS; Young et al., 2003). EMS are cognitive patterns consisting of past experiences, emotions, thoughts, and physical sensations. The formation of EMS is linked to childhood experiences and personality, and activation can result in maladaptive behaviours (Young et al., 2003). EMS have been linked to aggression related variables, including trait anger (Gilbert et al., 2013), however there are some gaps in the research exploring the links between EMS and IPV. It is proposed that EMS leads to violence, as suggested in the proposed model below (figure 1.2). The aim of this research thesis is to contribute towards the knowledge to fill these gaps in order to validate this model and explore concepts related to EMS and IPV.
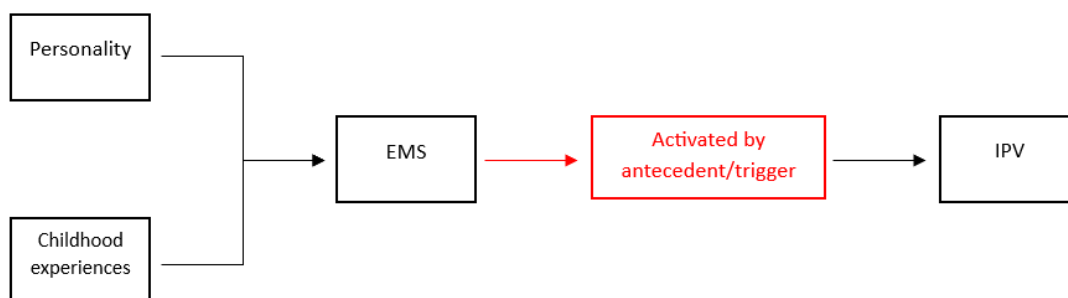
Figure 1.2 Proposed model demonstrating path from EMS to IPV.

Chapter II begins with further explanation about EMS and summarises the literature relating to EMS, offending, and IPV specifically, before describing a study carried out with a forensic population that aims to identify which EMS are related to the perpetration of IPV. This study uses a quantitative approach to analyse the relationship between schema endorsement and self-reported IPV perpetration. Using participants from this research, chapter III uses qualitative methods to explore the childhoods of six offenders convicted of domestic abuse. Themes of abuse and neglect are identified using Thematic Analysis, and these are linked to EMS using existing research. The study also discusses whether these childhood experiences are unique to perpetrators of IPV; an important topic as this could assist in identifying individuals for early intervention. Chapter IV briefly discusses the relationship between EMS and personality and comprises of a systematic review of the research examining personality traits and IPV perpetration, using a specific model of personality. Personality traits are malleable (Roberts et al., 2017) and therefore identifying any that link to IPV perpetration could assist with reducing its occurrence. Chapter V critiques one of the most widely used measurement tools of IPV, used in many studies in the systematic review in the preceding chapter. The findings are then discussed with directions for future research and practice considered. The accurate measurement of IPV is important for research and practice, for example in order to identify correlates, risk factors and behaviour change. Chapter VI concludes the thesis by consolidating the findings and discussing the implications of these, as well as future directions for research and practice.

CHAPTER II

The Early Maladaptive Schemas of Intimate Partner Violence

Perpetrators in Prison

Abstract

Background and Aims: Early maladaptive schemas (EMS) have been linked to a wide variety of behaviours, including aggression and violence. Studies show that different types of offences display different profiles of EMS. A recent meta-analysis investigating EMS and intimate partner violence (IPV) found there was insufficient evidence to draw conclusions. The aim of this study was to identify the EMS of convicted offenders reporting IPV perpetration.

Methods: Fifty offenders completed questionnaires measuring EMS and IPV perpetration and information was gathered from prison records to determine offence histories. The offenders were split into two groups based on self-reported IPV perpetration and the EMS of each group was compared using Mann-Whitney tests.

Results: The schema of Emotional Deprivation from the Disconnection/Rejection domain, were found to be endorsed more highly by offenders reporting higher levels of IPV perpetration than those who report lower levels.

Conclusions: Differences in EMS between perpetrators of higher and lower levels of IPV are evidenced in the current findings, however future research should aim to identify the schema modes activated in IPV perpetrators, which are targeted in schema therapy.

Introduction

Intimate partner violence (IPV) is any behaviour that is physically, emotionally, psychologically, sexually, or financial abusive, or controlling and coercive behaviour, by a perpetrator that is 'personally connected' to the victim (Domestic Abuse Act, 2021). In the 12 months prior to March 2022, the police records over 1.5 million IPV incidents in England and Wales, representing a 7.7% increase from the previous year (National Centre for Domestic Violence, n.d.). With the number of incidents increasing, it is imperative to identify factors that contribute to the perpetration of such acts.

Previous studies have explored many factors associated with the perpetration of intimate partner violence. Psychopathology, childhood trauma and attachment have all been linked to IPV perpetration (McClure & Parmenter, 2020). Research has identified risk factors such as a lack of high school education, attitudes of gender inequality, food insecurity and gang involvement (Fulu et al., 2013), high trait anxiety (McClure & Parmenter, 2020), access to firearms (Clare et al., 2021), neglect, youth violence perpetration, witnessing community violence and low self-esteem (Renner & Whitney, 2012), witnessing violence between parents during childhood (Clare et al., 2021; Renner & Whitney, 2012) and substance misuse (Fulu et al., 2013; Clare et al., 2021). Couples who are married and/or living together are also more likely to report IPV than those who 'dating', suggesting relationship status is a risk factor (Renner & Whitney, 2012), although this could be as a result of increased opportunity. However, studies are not always consistent on what constitutes a risk factor; for example, in opposition to the studies cited above, multiple studies (e.g. Menard et al. (2014)) have also found no association between witnessing parental violence and adult IPV.

Studies have found a history of childhood abuse related to IPV perpetration (e.g. Fulu et al., 2013). Different types of childhood abuse (sexual, physical, emotional) produce different findings however, with regards to being a risk factor for IPV generally, or for different types of partner abuse. Childhood sexual and emotional abuse were linked to the perpetration of sexual IPV in Fulu et al. (2013)'s study, but childhood physical abuse was not. Renner and Whitney (2012) found childhood sexual abuse was linked to later overall IPV perpetration, but, again, childhood physical abuse was not. On the other hand, Menard et al. (2014) reported a relationship for physical abuse prior to entering adulthood and IPV perpetration generally, as did McClure and Parmenter (2020) with physical IPV perpetration. McClure and Parmenter (2020) found links to physical IPV perpetration with physical neglect and emotional abuse during childhood, and relationships between threatening behaviour in dating relationships with childhood physical abuse, physical neglect, emotional abuse and emotional neglect. McClure and Parmenter (2020) also reported a relationship between childhood emotional abuse and both verbal and emotional IPV perpetration.

A recent meta-analysis by Pilkington et al. (2021b) explored early maladaptive schemas (EMS) as a factor related to IPV. Schemas are frameworks that are made up of our beliefs about ourselves and others. They affect our sense of self, our expectations and our relationships. Early Maladaptive Schemas, proposed by Young (2003), are schemas that form during childhood as a result on unmet emotional needs, for example as a result of abuse (Pilkington et al., 2021a), and are maladaptive for everyday life. Young (2003) identified eighteen EMS, split into five domains (see table 2.1). A more recent paper by Bach et al. (2018) proposed restructuring the 18 EMS into four domains, however the allocation of the schemas to these four domains appear to be less clearly defined, with the suggestion that

some schemas had secondary domain affiliations. Additionally, as pointed out by Pilkington et al. (2021b), previous research has almost exclusively used the five-domain model, rendering it necessary to use that organisational model for research purposes.

Table 2.1. Early Maladaptive Schemas and their domains

Domains (N=5)	Definitions	Schemas (N=18)
Disconnection/Rejection	The expectation that one's need for security, empathy, and acceptance will not be met in a predictable manner.	• Abandonment • Mistrust/abuse • Emotional deprivation • Defectiveness/shame • Social isolation/alienation
Impaired Autonomy and Performance	Expectations about self and the environment that interfere with one's perceived ability to function independently and succeed.	• Dependence/ incompetence • Vulnerability to harm and illness • Enmeshment/ undeveloped self • Failure
Impaired Limits	Deficiency in internal limits, responsibility to others, or long-term goal orientation.	• Entitlement/Grandiosity • Insufficient self-control
Other-directedness	Excessive focus on other's desires and feelings, at the expense of one's needs in order to gain love and approval. Often involves suppression of one's own anger and inclinations.	• Subjugation • Self-sacrifice • Approval-seeking

Over-vigilance and Inhibition	Excessive emphasis on suppressing one's feelings and impulses or on meeting rigid internalised rules and expectations of performance.	• Negativity/pessimism • Emotional inhibition • Unrelenting standards • Punitiveness

Early Maladaptive Schemas combine with coping responses to form schema modes, which are transient mood states. Modes can be adaptive or maladaptive, and provide a structured framework for the schema model (Fassbinder et al., 2014). Research has demonstrated links between EMS and a multitude of different issues, including self-harm (Saarijärvi et al., 2023), attachment (Mason et al., 2005), addictions including sex, food, gambling and social media (Vieira et al., 2023), obesity (Basile et al., 2019), male sexual dysfunction (Quinta Gomes & Nobre, 2012) and personality disorders and mental health difficulties including anxiety, depression, eating disorders, obsessive-compulsive disorder and post-traumatic stress disorder (Sójta & Strzelecki, 2023). EMS have also been hypothesised to be related to career choice and occupational stress (Bamber & McMahon, 2008). EMS are reported to predict risky behaviours including heavy and/or illicit substance use, risky sexual behaviour and illegal acts (Marengo et al., 2019). There has been research demonstrating a relationship between EMS and aggression, as well as EMS and offending behaviour.

EMS and Aggression

Aggression is the product of biological, environmental, social and psychological variables (Bushman & Huesmann, 2010). The emergence of aggression from distal risk factors, such as child abuse and other adverse childhood experiences, has

been consistently attributed to social information processing (Lansford, 2018). The processing of social information relies on cognitive structures such as schemas (Calvete & Orue, 2012). As a result of schemas developed during childhood, situations, as well as the actions and intentions of others, are interpreted in line with the schemas held by the individual (Dodge, 2006). For example, in the case of aggression, EMS in the Disconnection/Rejection domain could lead to ambiguous situations or actions to be interpreted as a threat, resulting in aggressive behaviour as a form of protection.

Previous research has investigated the links between EMS and aggression in community samples. Muris (2006) and Calvete and Orue (2010) carried out studies with adolescents. Muris (2006) examined all the EMS' and found disruptive behaviour was positively related to the Dependence/Incompetence, Social Isolation, Entitlement and Failure to Achieve schemas, and negatively related to the Self-Sacrifice and Enmeshment schemas. Calvete and Orue (2010) studied two specific EMS and reported that the Mistrust/Abuse schema was associated with reactive aggression, while the Entitlement schema was associated with proactive aggression.

There have also been studies with adults. A study with university students by Tremblay and Dozios (2009) found similar results to the above, with the Mistrust/Abuse, Entitlement, Insufficient Self-Control, Social Isolation, and Self-Sacrifice schemas all significantly associated with aggression. Huang et al. (2023) recruited participants online and found an association between the Impaired Limits and Impaired Autonomy domains and aggression. Shorey et al. (2015) also found the Impaired Limits domain was positively associated with aggression amongst men in a substance use treatment facility, as well as the Disconnection/Rejection domain, while controlling for substance use and anti-social features. The results

also demonstrated a negative relationship between aggression and the Other-Directedness domain. This is perhaps unsurprising, considering the definition presented in Table 2.1 for this domain.

Overall, the evidence points towards the Impaired Limits, Impaired Autonomy and Disconnection/Rejection domains being connected with aggression. More specifically, the Entitlement and Mistrust/Abuse schemas are commonly found to be endorsed by aggressive participants. The above-mentioned studies all used questionnaire-based measures of aggression, which open the door for socially desirable answering and may not provide a truly accurate measure of aggressive behaviour in practice. The applicability of the findings of community samples may also be limited to convicted offenders.

EMS and Offending

Criminals generally appear to endorse more, and different, EMS compared to the general population (Sousa et al., 2024). In the most recent research, Turhan et al. (2024) completed a systematic review exploring the EMS held by individuals convicted of violent and sexual offences. Only two studies in the review (Dunne et al., 2018; Gilbert et al., 2013) examined general violence. The results from these studies showed some overlap with the community samples. Dunne et al. (2018) examined three specific EMS in adult male offenders and reported that the Insufficient Self-Control, Mistrust/Abuse, and Entitlement schemas were positively related to aggression. Gilbert et al. (2013) included female participants in their study, however they made up a small minority (10%). There were positive correlations between five schemas and aggression history, however these correlations were only small to moderate. These schemas were Insufficient Self-Control, Dependence, Entitlement, Social Isolation, and Failure to Achieve. There

were also positive correlations between four schemas and attitudes to violence: Dependence, Entitlement, Insufficient Self-Control, and Approval Seeking. Despite Gilbert et al.'s (2013) hypothesis that the Mistrust/Abuse schema would be related, no relationship was identified.

The community and forensic samples above demonstrate overlapping findings for several schemas that are found in violent individuals, such as Insufficient Self-Control, Entitlement, Mistrust/Abuse, Social Isolation, Failure to Achieve and Dependence, however the results were by no-mean universal and conclusive.

Five other studies in Tuhran et al. (2024)'s analysis explored the EMS of sex offenders, while one study used domestic (both partner and family members) abuse perpetrators (McKee et al., 2012). Studies investigating sexual offenders found differences in EMS held by different types of sex offenders and non-offenders. Chakhssi et al. (2012) found high levels of Abandonment, Defectiveness/Shame and Social Isolation schemas in sex-offenders who offended against children. Additionally, in contrast to sex offenders against adults, child sex offenders reported the Social Isolation schema at a higher level. When comparing sex offenders to non-offenders, Carvalho and Nobre (2014) found 'rapists' demonstrated more schemas from the Impaired Autonomy domain than non-offenders, while sex offenders against children scored higher on the Disconnection/Rejection, Impaired Autonomy, Other Directedness, and Over Vigilance/Inhibition domains. Sigre-Leirós et al. (2015) broke this down further and found differences between 'paedophilic and non-paedophilic' child molesters alongside other sex offenders. Paedophilic offenders were more likely to endorse the defectiveness and subjugation schemas, while non-paedophilic offenders were at an increased likelihood of endorsing Social Isolation, Enmeshment, and Unrelenting Standards schemas. Further 'rapists', in comparison to the two

previous groups, were more likely to hold the schemas of Vulnerability to Harm, Approval-seeking, and Punitiveness.

In summary, violent offenders were often found to endorse schemas from the Impaired Limits domain, with some findings pointing to different schemas in the Disconnection/Rejection domain, while sex offenders showed differences according to the victim type. Child sex offenders appeared to primarily hold schemas from the Disconnection/Rejection domain. Different types of sex-offenders often have different underlying motivations (Ceto, 2019), which may result from different schemas. IPV offenders may also be motivated by different factors to general violence offenders, and therefore may have different EMS profiles.

EMS and IPV

Most of the EMS are centred on relational or interpersonal needs and as such, when activated, often result in problematic behaviours and patterns in relationships (Rafaeli et al., 2010). Indeed, EMS are positively associated with interpersonal problems (Janovsky et al., 2020). Further, the activation of EMS can lead to extreme responses including controlling behaviour (Messman-Moore & Coates, 2007). Attempts to control others often lead to violence (Felson & Messner, 2000), with widely-accepted frameworks of IPV citing power and control as the main motivating factor for this type of violence (Hamberger et al., 2017). It is perhaps therefore unsurprising that EMS have been explored in relation to violence within relationships, however there has only been a small amount of research exploring the EMS held by IPV perpetrators.

Five studies (Gay et al., 2013; Hassija et al., 2018; Kachadourian et al., 2013; LaMotte et al., 2016; Shorey et al., 2017) exploring IPV perpetration were included

in Pilkington et al. (2021b)'s review of EMS and IPV. All studies used American participants; two studies examined female perpetrators, one had male participants and the remaining two had mixed gender samples. Three of the studies had student participants, one was a community sample and only one used a forensic sample.

Gay et al. (2013) reported that in female university students, the two EMS domains of Disconnection/Rejection and Impaired Autonomy were correlated with IPV perpetration. Hassija et al. (2018) also recruited female university students and found that the schemas of Abandonment, Social Isolation, Subjugation, Mistrust/Abuse, Entitlement and Insufficient Self-Control all significantly correlated with the perpetration of IPV. Further, regression analysis showed that 11.3% of the variance in IPV perpetration was explained by the EMS of Entitlement, Insufficient Self-Control, Mistrust/Abuse, Abandonment, and Social Isolation, while the EMS of Insufficient Self-Control and Mistrust/Abuse significantly predicted perpetration.

LaMotte et al. (2016) recruited 83 mixed gender couple and examined the role of the Mistrust/Abuse schema in IPV perpetration, reporting that there was a significant medium-sized correlation for males and a significant small to medium correlation for females. However, it is noted that IPV was measured using self-report and there was only around 53% agreement between couples on reported physical IPV for both male's and female's perpetration. Pilkington et al. (2021b) reported that Shorey et al. (2017)'s study found correlations between IPV perpetration and the Disconnection/Rejection, Impaired Autonomy and Impaired Limits domains. However, there were some differences between genders. The Impaired Limits domain correlated with male physical and psychological violence, but only psychological violence by females. For males, there were medium-to-

large differences between physical violence perpetrators and non-perpetrators on the Impaired Limits domain, while the same size difference was observed in females for the Impaired Autonomy domain.

The one forensic sample in the Pilkington review was a study by Kachadourian et al. (2013), who sampled men, the majority of which were African-American, at a court-mandated domestic abuse intervention programme. The study only explored schemas from the Impaired Autonomy and Performance domain and reported, using regression analysis, that physical aggression was associated with endorsing schemas from that domain. There was also a positive correlation between the domain and severe psychological aggression. This domain, which includes the 'Dependency' schema, relates to beliefs regarding a person's ability to successfully function independently. Individuals endorsing the dependency schema may rely heavily on their intimate partners and any interpretation of behaviour indicating separation could threaten the individual's emotional wellbeing and sense of security. This could then lead to IPV in an attempt to preserve the relationship. Kachadourian et al. (2013) argue this theory is in line with other research demonstrating higher levels of dependency in IPV perpetrators than non-perpetrators.

Further studies providing evidence to the area that weren't included in Pilkington et al. (2021b)'s review included a study exploring dating violence by adolescents (Fernández-González et al., 2022), which determined the Mistrust/Abuse schema predicted perpetration, and the study by McKee et al. (2012) included in Tuhran et al. (2024)'s review. McKee et al. (2012) recruited IPV perpetrators in treatment at domestic violence agencies. The main aim of the study was investigating the relationship between EMS and anger, however 13% of the sample were not in treatment for violence towards an intimate partner, which allowed for a

comparison. Men who offended against an intimate partner reported the Unrelenting Standards schema at a higher level compared to those who were violent against another family member.

Considering how to modify maladaptive schemas could be an important step in decreasing aggressive behaviour (Calvete & Orue, 2012). Modifying schemas relevant to the perpetration of IPV could reduce such violence (Pilkington et al., 2021b). In order to do this, it is imperative to identify which schemas might need modifying. The above studies suggest that the Impaired Autonomy, Disconnection/Rejection and Impaired Limits domain could all have an impact on IPV perpetration. More specifically, the Mistrust/Abuse schema is noted by several studies to be present in IPV perpetrators. However, Pilkington et al. (2021b) concluded that there was insufficient evidence to draw any firm conclusions, which constituted a "*significant gap in the IPV literature*" (p. 7) and highlighted an area for further research. This is particularly evident for forensic populations, as many studies used community samples.

Aims and Objectives

In order to reduce the identified evidence gap, the aim of this study was to explore the EMS of IPV perpetrators using a forensic sample. From previous studies, it was hypothesised that, offenders who perpetrate high levels of intimate partner violence against their partners were likely to endorse schemas from the Disconnection/Rejection domain, in particular the Mistrust/Abuse schema, at a higher level than those who do not engage in this behaviour at all, or at minimal levels.

Hypothesis 1: Offenders who commit greater levels of intimate partner violence will endorse schemas from the Disconnection/Rejection domain at a higher rate than those who do not perpetrate IPV at all or at lower levels.

Hypothesis 2: Offenders who commit greater levels of intimate partner violence will endorse the Mistrust/Abuse schema at a higher rate than those who do not perpetrate IPV at all or at lower levels.

Methods

Participants

Participants were recruited from a male Category B local prison. All participants were informed there was no incentives for participating and their involvement would remain confidential. A power calculation was carried out prior to recruitment using G*Power software (Faul et al., 2009), which calculated that 56 participants would be required for one-tailed independent t-tests with a large effect size. In total, 53 participants completed all the measures, however only 50 were available for analysis. One participant was removed from the analysis due to suspicious answering patterns whereby he scored the maximum score on every single question. One participant was removed as the researcher became aware he was copying answers from a fellow participant, as he could not speak English. Another participant was removed as he appeared to provide a fake name, meaning his prison record could not be found so no demographic information or offence history could be ascertained.

Participants were grouped according to their total score on the Abusive Behaviour Index (ABI; described below). This was due to the mixed, and in some cases limited, level of information available to the researcher regarding full offence history, as well as in order to capture unconvicted offending. The median score

(mdn = 7.5) for the ABI for the current sample was used as a cut-off point to create two groups. Group 1 consisted of men (N=25) who scored lower on the ABI, including those who scored between zero and four (n=16), and may have minimised their ABI scores, together with men who had ABI scores between five and seven (n= 9). Group 2 (N=25) consisted of men who scored higher on the ABI, with scores of eight and above. Therefore, Group 1 represented those who perpetrate less frequent and moderate intimate partner violence, whereas Group 2 represented men who perpetrated more frequent and severe intimate partner violence. The demographic information for each group is presented in table 2.2 below, alongside the mean ABI scores.

Table 1.2. The mean age and SD, the ethnic make-up and ABI mean and SD of the groups and the overall sample

Group	Age		Ethnicity (%)			ABI Total	
	Mean	SD	White	Black	Mixed	Mean	SD
1	33.2	10.45	80	12	8	3.44	2.43
2	36.28	11.15	92	8	0	19.84	9.46
Overall	34.74	11.02	86	10	4	11.64	10.83

Procedures

The researcher attended the education and workshop departments in the prison to ask for volunteers to take part in the research. In addition to this, the Offender Management Unit provided names of potential participants who had a history of intimate partner violence. These individuals were then approached on an individual basis (if they had not already taken part) and asked to participate. Volunteers were taken to a separate room and provided with the questionnaires and a pen. Information about the study was given and informed consent was gained prior to participants completing the questionnaires. All participants completed the same two questionnaires in the order presented below. The

participants were given as much time as required to complete the questionnaires and the researcher remained on hand to answer any questions/clarify meaning. At the end, participants were debriefed and given a sheet with contact details for support services on. Prison records were examined to gather demographic information, determine if the participant had any reported history of IPV and to gather index offences were possible. The data was then analysed using SPSS.

Measures

Young Schema Questionnaire Short Form Version Three (YSQ-SF v3; Young & Brown, 2005)

The YSQ-SF v3 is a 90-question psychometric that measures the presence of the 18 different EMS. Participants rate how accurately each given statement describes them on a scale of one to six, with one being 'completely untrue of me' and six being 'describes me perfectly'.

It is argued that the short form has the advantage over the long version of the Young Schema Questionnaire as it encompasses the five highest loading items for each schema, and therefore demonstrated greater purity on a factorial basis (Schema Therapy Institute, n.d.). Both the long and short version are reported to exhibit comparable reliability and factor structures (Schema Therapy Institute, n.d.). It is suggested that the YSQ-SF v3 has good structure, consistency, stability, and concurrent validity (Lee et al., 2015; Phillips et al., 2017). The internal consistency figures for the current sample are reported in Table 2.3.

Abusive Behaviour Inventory (ABI; Shepard & Campbell, 1992)

The ABI is a 29-item measure of psychological and physical abusive behaviour towards an intimate partner. It measures how frequently different abusive acts

occurred over the last six months. The participants were asked to answer for their most recent relationship prior to entering prison. Each item is rated on a Likert scale of zero to four, with zero indicating the respondent has never acted in that way towards their partner and four suggesting it happens very frequently. The scores are divided into two scales, 'physical' and 'psychological' abuse, as well as providing a total score. The ABI is based on the feminist theory that sees intimate partner violence as perpetrated by men in order to keep control, with items drawn from the 'Power and Control' wheel. There is no reported reading age for the ABI, however it appears to have been validated using an adult sample. Mean scores are provided by Shepard and Campbell (1992) for females who are abuse victims and females in 'average relationships' on the two scales, however no figures for male perpetrators could be located. The calculated highest mean total score, taking into account the standard deviation, for an average relationship is 4.5.

It has satisfactory internal consistency and convergent validity and is comparable to the Conflict Tactics Scale 2 (CTS-2; Straus et al., 1996), which is a favoured tool for researchers of IPV (Zink et al., 2007). However, the CTS-2 has been criticised for focusing too narrowly on aggressive acts that arise out of conflict, suggesting the ABI is a more useful tool (Heron et al., 2023).

Ethics

The study was approved by the ethics committees from the University of Nottingham's School of Medicine and His Majesty's Prison and Probation Service.

Data Analysis

Prior to analysing the data, the skewness and kurtosis was calculated for all schemas and schema domains. This showed that some of the schemas were abnormally distributed. As such, a non-parametric test was used to analyse the

data. Mann-Whitney tests were conducted to compare the level of schema endorsement between the two groups.

As a secondary analysis, a chi-square test was also carried to determine whether higher scorers were more likely to have IPV indicated on their offence histories. A second chi-squared test examined whether higher ABI scoring participants were more likely to be convicted of violent index offences. Due to being unable to confirm the specific index offences of three participants, only 47 participants were used for this second chi-squared analysis.

Results

The mean and standard deviations (SD) for each schema domain and schema by group is given in table 2.4. The Mann-Whitney tests results demonstrated there was a significant difference in the Emotional Deprivation (group 1 mean rank = 20.96, group 2 mean rank = 30.04, z = -2.209, p = .027) schema between the two groups. There were no others significant results for schemas or schema domains.

Both chi-squared tests showed no significant differences between the groups in violent and non-violent index offences and IPV histories. Table 2.5 shows the percentage of these variables for each group.

Table 2.3 The internal consistency score for the schema domains and ABI scales

Tool	Scale	Cronbach's Alpha
YSQ-SF v3	Disconnection/Rejection	.888
	Impaired Autonomy & Perf.	.794
	Impaired Limits	.648
	Other-Directedness	.685
	Over-Vigilance and Inhibition	.894
ABI	Psychological Abuse	.858
	Physical Abuse	.824

Table 2.4. Mean and SD of schema domains and EMS by ABI group (1 = below median, 2 = above median).

Concept	Variable	ABI Group	Mean	SD	Test Statistic	p-value
EMS Domains (max score)	Disconnection/Rejection *(150)*	1	65.68	29.07	369.5	.269
		2	71.60	24.86		
	Impaired Autonomy & Perf. (120)	1	45.40	19.27	357.5	.382
		2	48.84	17.57		
	Impaired Limits (60)	1	30	12.25	305	.884
		2	29.40	11.53		
	Other-Directedness (90)	1	45.96	13.52	328	.763
		2	46.68	15.87		
	Over-vigilance & Inhibition *(120)*	1	66.04	25.14	270	.409
		2	60.60	22.39		
Schemas Total Score (max total score = 30)	Emotional deprivation	1	11.32	5.55	426	.027
		2	14.80	6.3		
	Abandonment	1	12.96	7.24	312	.992
		2	12.76	6.66		
	Mistrust/abuse	1	16.4	7.18	319.5	.892
		2	16.4	6.2		
	Social isolation	1	14.60	7.18	302	.838
		2	13.60	5.58		

Defectiveness/shame	1	10.56	6.1	408	.062
	2	13.48	6.19		
Failure	1	10.76	7.14	406	.068
	2	12.4	5.02		
Incompetence/ dependence	1	11.44	4.76	370	.263
	2	12.96	4.97		
Vulnerability to harm	1	14.24	8.1	333.5	.683
	2	14.76	7.07		
Enmeshment	1	9.12	3.75	310.5	.969
	2	9.56	5.17		
Subjugation	1	12.96	7.01	363	.362
	2	13.84	5.73		
Self-sacrifice	1	20.88	6.31	259	.298
	2	18.64	7.21		
Emotional inhibition	1	16.12	7.07	254.5	.259
	2	14.12	5.78		
Unrelenting standards	1	17.92	7.18	231	.113
	2	14.96	6.55		
Entitlement	1	15.28	7.31	287	.620
	2	13.76	6.06		
Insufficient self-control	1	14.68	6.91	342	.566
	2	15.36	6.87		

Approval seeking	1	12.04	4.63	374.5	.228
	2	14.28	6.2		
Pessimism	1	16.64	8.99	341	.580
	2	17.44	6.54		
Self-punitiveness	1	15.28	5.65	280.5	.534
	2	13.96	6.48		

Table 2.5. Index offence and recorded IPV history by group

ABI Group	Index Offence [a]				IPV History			
	Violent (%)	Non-Violent (%)	Test Statistic	Sig. value	IPV (%)	No-IPV (%)	Test Statistic	Sig. value
1	46.43	53.57	.596	.440	28	72	.368	.544
2	57.89	42.11			36	64		
Total (n)	24	23			16	34		

[a] index offences only available for 47 participants.

Discussion

The aim of this study was to demonstrate differences between the EMS held by IPV offenders in comparison to non-IPV offenders. By identifying salient schemas for this population, initial evidence is provided for shaping schema-based interventions for this offence type with the aim of reducing its prevalence.

The results showed that offenders who perpetrate higher levels of IPV score higher on the EMS of Emotional Deprivation than those who do not. In contrast to hypothesis one, there was no difference in the Disconnection/Rejection domain. One schema from this domain, the Mistrust/Abuse schema, was also incorrectly hypothesised to show a significant difference between the two groups (high group m = 16.40, low group m = 16.40). The reason for the absence of any significant findings for this schema may be a result of the self-selected nature of the sample. Those who hold a schema centred around being harmed or lied to by others are less likely to volunteer to take part in a study, particularly when asked by a person in a position of authority. Alternatively, it may be due to the higher scores on the Mistrust Schema than is generally seen in the literature, with the exception of a sample of Portuguese child sex offenders (m = 17.27), as found by Carvalho and Nobre (2014). Research reports means for the Mistrust schema of 11.2 (Horsley & Ireland, 2010) and 11.52 (Carvalho & Nobre, 2014) for community samples, with generally violent offenders scoring a mean of 12.4 (Horsley & Ireland, 2010), an overall category sex offenders reporting a mean of 14.10 (Woodcock, 2015), with more specific sex offences such as child sex offenders (reported above) and rapists (m = 14.07) showing other scores (Carvalho & Nobre, 2014). Mckee et al. (2012)'s study which included 35 participants who battered their adult female partner reported a mean score of 13.63. This could suggest the elevated levels discovered in the current study have saturated the sample to a degree that

reduces its variability and, in turn, its ability to distinguish frequency levels of violence. Those who score even higher levels may have been less likely to participate in the study due to the voluntary nature of the sample, as mentioned above.

The Emotional Deprivation schema arises from the belief that emotional support will not be adequately provided by others, with an absence of warmth, affection and understanding from others. This schema, which is linked to feeling uncared for, results from many forms of abuse and neglect during childhood and is a key target for the limited reparenting method that is central to schema therapy (Pilkington et al., 2021a). This schema falls into the Disconnection/Rejection domain. Individuals scoring highly on schemas in this domain are likely to face significant challenges in creating and sustained satisfying connections and relationships with others (Eken, 2017). The Disconnection/Rejection domain has been linked generally to aggression, hostility and violence (Askari, 2019), but it was also specifically linked to IPV perpetration by two of the studies in Pilkington et al. (2021b)'s review.

However, according to schema theory, behaviour does not arise directly from the schema, but from the coping style used in response to the schema being activated (Young et al., 2003). Therefore, examining EMS on their own may also not be particularly helpful for identifying treatment pathways for IPV offenders. There are different responses to dealing with an activated schema; one of which is overcompensation. This involves resisting the schema and is the most likely response to lead to controlling or dominating others and callous behaviour (Messman-Moore & Coates, 2007). Overcompensation responses are particularly likely to be utilised by individuals with aggressive temperaments (Young et al., 2003). Additionally, overcompensation, which can be demonstrated by controlling

behaviour, is more highly linked to interpersonal conflict that the other schema responses; surrender and avoidance (Messman-Moore & Coates, 2007).

Young et al. (2003) describes different overcompensation responses for different schemas. The overcompensation response for Emotional Deprivation is acting emotionally demanding with partners. Failure of the partner to meet this need could lead to an aggressive response from emotionally deprived individuals, who may have low tolerance for frustration and impulse control issues (Estévez et al., 2018). Emotional dependence, denoted by extreme emotional demands, is highly related to the perpetration of IPV (Petruccelli et al., 2014).

A coping style combines with an activated schema to form a schema mode. Schema modes are akin to mood states that arise when an EMS is triggered, leading to a specific pattern of thoughts, feelings and behaviour in an attempt to cope. There are 14 schema modes, grouped into five clusters (Innate Child, Surrender and Avoidant, Internalized Parent, Over-Compensating, and Healthy Adult) that are measured using the Schema Mode Inventory (SMI; Young et al., 2008). Research demonstrates exploring modes may be useful for understanding aggression (Dunne et al., 2018). However, other suggested modes, such as Abandoned and Abused Child, Lonely Child, and the Over-Controller modes are not captured in the SMI (Lobbestael et al., 2008). Four new modes were also suggested by Bernstein et al. (2007) as useful for working with forensic patients. These are Angry Protector, Predator, Conning and Manipulative, and Over-Controller (Obsessive and Paranoid subtypes). While EMS are fixed traits, schema modes are dynamic states and can be healthy or unhealthy. When using the schema model, predicting the use of aggression can be improved by exploring schema modes as opposed to only EMS (Dunne et al., 2018). Consequently, instead of examining EMS, more practical uses may also arise from exploring

schema modes. As research shows that the Disconnection/Rejection domain can be linked to both perpetration and victimisation (e.g. Pilkington et al., 2021b), it may be the modes/responses that arise may be the determinator for the role. For example, a surrender response to an activated Emotional Deprivation schema could result in a 'Vulnerable Child' mode, and remaining in an unhealthy relationship (Young et al., 2003), whereas an overcompensation response could provoke an 'Angry Child' mode as the individual demands to get their needs met, which could result in violence, as described above. Future research involving IPV perpetrators, using the Schema Mode Inventory, the Young Compensation Inventory, and/or the Young-Rygh Avoidance Inventory, could provide further data regarding the responses and modes used by this sample, in order to identify differences between IPV victims or non-offenders, as well as to inform treatment.

Schema modes are a main focus of modern schema therapy, with mood states experienced by individuals as a result of coping methods for triggered EMS becoming the focus point in both practice and research (Yakın & Arntz, 2023). Bernstein et al. (2007) presented a revised model of Schema Therapy that was suitable for forensic patients. In the forensic therapy model, the psychological risk factors for offending consist of maladaptive schema modes. There has been limited research into schema modes linked to aggression thus far, however initial research suggests 'Enraged Child', 'Impulsive Child', and 'Bully and Attack' modes are linked to aggressive behaviour (Dunne et al., 2018). As such, further research investigating the schema modes of IPV offenders may identify specific areas for schema therapy to tackle with this offender type.

Although much of the research into forensic schema therapy has been conducted in forensic mental health populations, it also appears valid and useful for other forensic settings such as prison (Bernstein et al., 2019). Schema therapy has been

shown as an effective therapy for offenders (Sousa et al., 2024), so it is a treatment worth considering as an approach to reduce IPV. The practicalities of this, however, need to be considered. Schema therapy is a long-term intervention; overcoming a single mode can take over a year (Young et al., 2003), with full treatment sometimes extending to three years (Roediger, 2008). Even in adapted forensic settings, such as Bernstein et al.'s (2012) two-year program, substantial time is required for meaningful change. The sentencing guidelines in the United Kingdom for the crime of 'Controlling or coercive behaviour in an intimate or family relationship' can be as short as 26 weeks. A shorter Schema CBT Protocol, that involves 18 sessions has been developed for a group intervention, with some positive results, however more validation is required before it can be rolled out as standard.

Strengths and Limitations

The main strength of this study was the use of a forensic sample that contributed data beyond that which can be measured in a community sample, which may not be wholly representative of all IPV perpetrators. Additionally, data collection did not rely solely on index offence, allowing for unconvicted offending to be measured using the ABI. The results from the chi-squared test regarding IPV history demonstrates that not all IPV perpetration is captured by criminal records.

A limitation of this study was the sample size. Only 16 individuals convicted of IPV were included in the study, with only 50 participants over all, which resulted in the study being underpowered. As a result, small effect sizes would have not been detected and smaller differences between the groups may have been missed. A larger number would have allowed for comparison between convicted IPV offenders and offenders convicted of other offence-types. A longer time period for

collection and sampling multiple prisons, as well as providing incentives for participation, may aid with increasing IPV perpetrator participant numbers, but there were restrictions on these strategies as a result of security and ethical issues. However, as previously discussed, a lack of conviction does not indicate non-perpetration and a measure such as the ABI should be utilised in all studies comparing non-perpetrators to perpetrators.

The poor internal consistency of two of the schema domains could be considered a limitation, however these domains were not found to have significant differences between the two groups in the current study. The Disconnection/Rejection domain showed a high level of internal consistency, as did the ABI scales. The lower levels of internal consistency in the Impaired Limits and Other-Directedness domains could possibly have contributed to the lack of significant differences in the current study for those domains. Improving the scales to ensure a higher level of consistency could improve the measurement of EMS in future studies and ensure accurate results.

Another limitation was that the sample was mostly self-selected and it may have been that offenders who were more compliant and pro-social volunteered, meaning the sample was not representative of all offenders. This could bias the results, for example leading to offenders with particular EMS such as those in the Other-Directedness domain to volunteer, while offenders with EMS in the Disconnection/Rejection may be less likely, due to a lack of trust. This could explain the lack of findings, demonstrated by other studies, relating to the Mistrust schema. Approaching prospective participants based on their offence type somewhat reduces the self-selection bias, but as with all studies, certain types of personalities may be less likely to consent to be involved.

A further limitation related to the sample that hampers the generalisability of the study is that the participants were British residents, who were predominantly White British. This may mean that the results are not applicable to other nationalities; Fulu et al. (2013) demonstrated that factors related to the perpetration of IPV vary across countries. For example, factors related to socioeconomic status are relevant in countries that are less developing, while Muslim-majority countries show no link between alcohol and perpetration (Fulu et al., 2013). Depression is a risk factor for some samples, but not others (Fulu et al., 2013; McClure & Parmenter, 2020). Additionally, cultural influences play a role in the development of schemas (Young et al., 2003). Young et al. (2003) highlights some of the schemas that may be more likely to be impacted by culture, such as Unrelenting Standards, Emotional Inhibition and Self-Sacrifice. Other research also suggests there are differences in cross-cultural responses to schemas (Nia & Sovani, 2014). Consequently, the EMS illustrated in this study to be endorsed at a higher level by offenders who perpetrate more IPV may not be found in other samples of IPV perpetrators from other countries. It is also worth highlighting that the sample was with male perpetrators and as such may not apply to females, due to gender differences in EMS, as discussed by Irkörücü (2016). These differences were particularly pronounced for the Emotional Deprivation schema.

Finally, another limitation was that the data was mainly collected using questionnaires, which may have led to socially desirable answering and the minimisation of actual levels of IPV, measured by the ABI. Self-reporting, however, is one of the only ways to measure un-convicted perpetration of IPV and as such the methods for collecting this information were restricted. Occasionally, community studies (e.g. Daspe et al., 2016) have used both perpetrator and partner ratings of the occurrence of IPV in relationships, however there are likely

to be ethical and logistical issues for using this method with forensic samples, particularly in cases in which the victim was subject to pro-longed and extreme violence. Future research should consider all possible options to accurately measure not only convicted, but also unconvicted and unreported IPV perpetration.

Conclusions

The current article extends previous research by sampling an under-research population in the literature exploring the EMS of IPV perpetrators. Utilising a forensic sample, the study identified one schema which higher scorers on the ABI endorsed at a higher level. This schema was Emotional Deprivation. This schema fall in the Disconnection/Rejection domain, which previous research highlights as related to IPV perpetration. Contrary to a secondary hypothesis, the Mistrust/Abuse schema was not found to be significant, although this may be partly down to the elevated levels of endorsement across the entire sample. Due to a small sample size, the study should be replicated with a larger forensic sample. However, when considering Schema Theory, exploring the specific schemas related to IPV perpetration may not provide the whole picture, as behaviour arises from the coping response to the schema as opposed to the schema itself. As such, looking at schema modes may be more useful for engaging in schema therapy. Further research is required to identify the schema modes relevant to intimate partner violence. The research findings from this study may be useful in guiding the modes and responses to explore further, in order to fully-inform interventions for intime partner violence.

CHAPTER III

Childhood experiences of Intimate Partner Violence Perpetrators and the link to Early Maladaptive Schemas

Background: Adverse Childhood Experiences (ACEs) are more common in forensic samples than non-offenders. Research into the ACEs of Intimate Partner Violence (IPV) offenders often demonstrates backgrounds involving abuse and violence. Early Maladaptive Schemas (EMS) arise from adverse childhood experiences and unmet needs during childhood.

Aim: The aim of this study was to identify the childhood experiences of IPV offenders and discuss, using existing literature, how they link to EMS.

Methods: Six domestic violence offenders were interviewed regarding their childhood experiences. These were analysed using a Thematic Analysis methodology and themes were identified. These were compared with pre-existing research and linked to the literature on schemas and experiences of other offenders.

Results: One major theme of negative childhood experiences was identified, with four clustered themes of abuse/violence, issues within parental relationships, insecure parental attachments and unmet emotional needs. The most common EMS held by the participants was Self-Sacrifice.

Conclusion: IPV offenders childhood experiences tend to be characterised by abuse and neglect, however these cannot be exclusively linked to the perpetration of violence against partners, as research shows similar experiences in the childhoods of many offence types. Additionally, it is not possible to link specific

schemas to specific childhood events, as different experiences can result in the same schemas.

Introduction

Adverse Childhood Experiences (ACEs) are negative experiences in childhood, such as all types of abuse and neglect, and household dysfunction, that can have significant negative and long-lasting effects on all aspects of an individual's life, including their physical and mental health (e.g. Felitti et al., 1998; Hughes et al., 2017), brain development (Boullier & Blair, 2018), education, employment and earning potential (Metzler et al., 2017), substance use (e.g. Hughes et al., 2017) and even premature mortality (Brown et al., 2009).

ACEs appear to be common place within the general population. A recent review of university students by Hamilton et al. (2024) reported that over half reported one or more ACE, with 27% of participants experiencing emotional abuse, 15% experiencing physical abuse, 12% experiencing sexual abuse, 8% reporting physical neglect, and 30% identifying emotional neglect. Further, 34.4% reported parental separation and 18% identified having experienced/witnessed domestic violence. Given that maltreatment in childhood affects educational outcomes (Romano et al., 2015), it could be expected that prevalence rates of ACEs for university students are lower than that of the general public, suggesting these figures could be an underestimation of true figures. Those in communities with lower socioeconomic statuses are more likely to experience ACEs, however a previous study in a 'relatively deprived' area of the UK found a lower prevalence rate, with 47.1% of the sample reporting at least one ACE, with 12.3% reporting four or more (Bellis et al., 2014).

Dysfunctional family environments could result in the development of dysfunctional social behaviours including offending (Levenson & Socia, 2016). Previous research into the backgrounds of violent offenders shows a high number of ACES and trauma; offenders generally reported up to four times more ACEs in childhood than the general population (Reavis et al., 2013). The risk of becoming a serious violent offender is increased by 35% for each additional adverse childhood event experienced (Fox et al., 2015).

Research into the association between IPV perpetration and ACES appear to focus on abuse in childhood, limiting understanding to the wider range of ACEs (Hilton et al., 2019). Further, much of the research has been done with community samples, with no conclusive findings on ACEs of IPV offenders in forensic settings (Hilton et al., 2019). The most consistent predictive factor for the perpetration of IPV is early exposure to violence (Godbout et al., 2009). Social learning theory is often posited as the explanation between exposure to IPV or physical abuse during childhood and subsequent perpetration (Hilton et al., 2019). As with the link between childhood sexual abuse and sex offending generally found in research (e.g. Levenson & Socia, 2016), it may be that experiencing physical abuse and/or witnessing parental IPV leads to the perpetration of similar acts. Additionally, witnessing violence between parents and experiencing any kind of abuse or neglect as a child could result in insecure attachment styles (Dutton, 2000; Godbout et al., 2009).

ACEs and EMS

Early Maladaptive Schemas (EMS) are "a broad, pervasive theme or pattern, comprised of memories, emotions, cognitions, and bodily sensations regarding oneself and one's relationships with others, developed during childhood or

adolescence, elaborated throughout one's lifetime and dysfunctional to a significant degree" (Young et al., 2003; p.7). They arise from adverse experiences during childhood, when basic psychological needs, such as safety, are not met. Once schemas are triggered, they can affect the processing of situations and the individual's responses (Pilkington et al., 2021a).

The formation of schemas is suggested to be linked to early relational experiences via attachment styles (Platts et al., 2002). Research has showed that different types of insecure attachments demonstrate different EMS (Mason et al., 2005). Schemas from the Disconnection/Rejection domain, which are reported to be the most problematic in adulthood, form as a result of unmet childhood needs that are required for a secure attachment style (Simard et al., 2011). In the previous chapter of this thesis, one schema from this domain were shown to be significantly more endorsed by offenders who reported perpetrating higher levels of abusive behaviour towards partners compared to those who reported lower levels of abuse. Further, other research has shown this domain, or schemas within the domain, to be associated with IPV perpetration (e.g. Gay et al., 2013; Hassija et al., 2018).

Changing schemas is an aim of schema therapy (Yakın & Arntz, 2023) and research suggests largely successful outcomes in this respect (Taylor et al., 2017). Understanding the childhood experiences of IPV offenders, and how these link to schemas, could assist with understanding the perpetration of IPV, supporting the identification of interventions. Further, understanding how/which childhood experiences are linked to the perpetration of IPV could assist with the identification of at-risk individuals for early intervention.

Aims

The aim of the research was to explore the childhood experiences of IPV offenders and identify how these may link to EMS. The main research question was what are the childhood experiences of men who perpetrate IPV?

Methods

Participants

The 16 participants from study one (chapter II) whose prison records or index offences indicated they were domestic violence offenders were approached. Six consented to be interviewed and were invited to take part in an interview on their childhood experiences and offending. These six participants completed an interview in full and their demographic information and the EMS they held are reported in Table 3.1. Schemas which scored a mean score of 4 or more were deemed as being present. The mean age for the sample was 38.5 years and all participants were white British.

Table 3.1. Participant demographic information and endorsed schemas.

Pseudonym	Age	Schemas
Mark	59	None
James	43	None
Scott	34	Failure, self-sacrifice. Unrelenting standards, Pessimism
Craig	31	Abandonment, Mistrust/Abuse, Emotional Deprivation, Defectiveness/Shame, Social Isolation, Dependence/Incompetence, Vulnerability to Harm or Illness, Failure, Entitlement, Insufficient Self-Control,

		Subjugation, Self-Sacrifice, Pessimism, Emotional Inhibition, Punitiveness
Andrew	34	Self-Sacrifice, Punitiveness
Daniel	31	Emotional Deprivation, Defectiveness/Shame, Social Isolation, Subjugation, Self-Sacrifice, Unrelenting Standards, Insufficient Self-Control, Admiration Seeking, Pessimism, Punitiveness

Procedure

The six participants had all completed the Young Schema Questionnaire – Short Form version 3 (Young & Brown, 2005) as part of a previous study (see chapter II). Interviews took place in a room at the prison convenient to the participant's location at the time. An overview of the topics to be discussed was given to the participant and all participants were informed the interview would be audio-recorded.

The interview was semi-structed, with an interview schedule covering the main research question on hand to guide the interviewer. All interviews were carried out by the researcher. Participants were informed prior to the recording beginning that they could refrain from answering any questions they did not wish to answer and were able pause or stop the interview at any time with no penalty. Once the interview was completed and the recording was stopped, all participants were debriefed and signposted to support where necessary.

The study was approved by the ethics committees from the University of Nottingham's School of Medicine and His Majesty's Prison and Probation Service.

Data Analysis

The interview recordings were transcribed verbatim to provide the data for analysis. The data was analysed using Thematic Analysis (TA), a qualitative research method that involves identifying themes or patterns from data, that is not tied to a particular theoretical perspective (Maguire & Delahunt, 2017). It is a widely-applicable technique, suitable for analysing almost any type of qualitative data, that can be used for data- or theory- driven work and can identify meanings that are either explicit or latent (Clarke & Braun, 2017). TA involves identifying recurring patterns from a collection of data sources, such as multiple interviews or a variety of texts (Braun & Clarke, 2006). The analysis process followed the steps set out by Braun and Clarke (2006). The first step was familiarisation with the data. This was achieved by the researcher conducting the interviews, transcribing them and reading though them several times. Next, initial codes were generated by reading the data and highlighting and annotating interesting features of the data. The third step involved searching for themes, which involved grouping codes into potential themes relevant to the research question. This was achieved by writing all the codes into a list and looking for similarities between them, resulting in a collection of candidate themes. The themes were then reviewed and refined in step four to ensure they were coherent with identifiable distinctions between each theme. Some larger themes were split into separate themes, while another broad theme was split and filtered into other more specific themes. Other similar themes were combined, and some themes irrelevant to the research question were discarded. Step five involved defining and naming the themes, with the final step involved writing up the result, which are presented and discussed below. An example of this process can be found in the appendices (Table 5.1, Appendix H).

Results and Initial Discussion

One major theme, with four sub-themes relevant to the research question, were identified in the interviews. The major theme evident for the majority of the participants was negative childhood experiences. This is line with previous research, discussed above, that indicates high levels of childhood adversity in offenders. Craig reported feeling like he did not have "*a stable upbringing*" and directly linked this to his current experiences, which included alcohol addiction and mental health difficulties including agoraphobia. Andrew initially was unwilling to talk about his childhood, becoming visibly upset at the mention of it, before describing his experience of it as a "*very difficult time".* Other participants were less firm on their views on their childhood experience. James refrained from directly describing his childhood as happy when asked, stating *"I can't say it was sad but…"*. Scott reported his childhood was sometimes happy before going on to describe how his step-father petrol bombed his house.

Negative childhood experiences were not completely universal however, with one participant (Mark) stating "*it was a great up bringing I couldn't fault it".* It is noted however that Mark's index offence was committed against his sister, as opposed to his partner and it was his first incident with the police, at the age of 58, suggesting he may have been qualitatively different from the other participants. Mark did admit to behaving violently towards partners during interview however.

In discussing their experiences of childhood, themes of abuse/violence, issues within parental relationships, insecure parental attachments and unmet emotional needs were demonstrated by participants.

Abuse and Violence

Two of the participants reported experiencing abuse as a child from their parents. Daniel reported experiencing both physical and mental abuse from his parents; describing his mum as *"a physical abuser with a bit of mental abuse as well and dad is the mental just the mental abuser he just gets in your head"*. He stated his mum would take all his money from his educational grant when he was at college and leave him with nothing. Andrew reported getting physical abuse from the age of six until he was nineteen years old.

Two participants also described witnessing abuse between their parents. Daniel described his mum mentally abusing his dad, while Scott stated *"I've seen all my life like domestics and all that"*, describing extreme levels of violence including rape and an incident in which his stepdad burnt down his mum's house as he thought she was in it, as well as turning up at a refuge "*ripping the door off its hinges"* and threatening his mum to return. Scott described taking a protector role for his siblings when violence occurred: "… *my stepdad used to start beating my mum and me and my older sister used to climb out the bedroom window and like you know when got a door you got that platform above the door we used to climb out the bedroom window … I'd climb out stand on the platform she'd pass one of the kids out I'd slide down the pole with them run across to neighbour and go back up and get them used to always do stuff like that"*.

Suggestions have been made that IPV can be reinforced or learned by witnessing interparental violence and there is strong evidence to support it as a risk factor for later IPV perpetration by males (Bevan & Higgins, 2002), although a more recent meta-analysis suggests childhood experiences of IPV only plays a small role on adult perpetration (Smith-Marek et al., 2015). This pattern of violence being

repeated by the children of parents who perpetrated IPV is referred to as intergenerational transmission of violence, however the mechanisms involved in the route from witnessing to perpetrating has not been definitely identified (Haselschwerdt et al., 2019). Scott reflected on how his childhood experiences of IPV affected him as an adult:

"…. *if I didn't have the child upbringing like normally like I've admitted that I've hit my missus like I've slapped her and I've kicked her and I threw a buggy at her but if I see another bloke hit a woman in the street I'm leathering that bloke I can't stand it and that's what I said to my mum I can't stand this why do I do it and she said it's because of what you've seen when you were a kid and to you it seems like it's ok I said but I know it's not she's like yeah you know it's not because you're an adult she's like but your mind makes you think that it's normal"*

Similarly, Daniel reflected on how he had ended up being like his dad as a result of repeating similar actions: *"I'm exactly like my father and that's one person I've never wanted to grow up to be …. but now definitely doing what I've done now yeah I'm I'd say I'm spitting of my dad as shit as that is".*

As well as inter-familial violence, two participants reported experiencing violence from others outside the family. Scott described an experience he remembered as a young child of unknown assailants attacking the house: *"so I was about four or five I remember the middle of the night my stepdad coming in grabbing me and my sister my mum and my baby brother saying we've got to go there was blokes putting ladders up with balaclavas on climbing up to the house with guns".* Craig's experiences of abuse however came as a young adult, sharing an experience of sexual abuse when he was around 20 years old.

Parental Relationship Issues

Four of the six participants spoke about separated parents. Scott reported being six weeks old when his mother left his father and formed a new relationship with his uncle who became his step-dad. Two other participants also reported having step-fathers (James and Craig). Craig and Daniel both reported holding onto memories of their dads' leaving. Daniel described comforting his mother after the argument that led to the initial separation:

"*I remember my dad having an argument with my mum and I remember [brother 1] being in the bouncer he was only a baby [brother 2] was just chilling playing with toys he was playing with me at one point" … … and yeah dad stormed out … mum threw the ring … went towards the bedroom and me and [brother 2] both went to mum to make sure she was ok [brother 2] brought the ring back mum didn't put it on she just left it on the bed and we hugged mum not mum hugged us we hugged mum [brother 2] was on the bed I was in front of mum and we both just hugged her"*.

He reported his experience of a reconciliation attempt that he appeared to feel was unwise: "*…. and then they thought they'd give it the stupidest of ideas to give it a go give it another go in the relationship and that's when I knew things would be a lot different"*. Daniel reported being asked to choose which parent he would like to live with at the age of nine, resulting in him moving to live with his dad, which he described as "*horrible".*

Craig spoke about his experience of parental separation at the age of four and linked this to his issues as an adult: "*I think obviously me growing up 'cause when I was from the ages of like four till 15 I've always had that memory of dad walking out and I've always thought it split the family up".* He reported "*I remember*

because I was sitting on the stairs and I saw him walk out" … "obviously that's something that I'll never forget". Despite his father leaving, he experienced a positive relationship with his dad, but that was made "*difficult because mum always used to be nasty about dad*".

Mark was the only participant who described a nuclear family, stating "*we were a very close family*". However, this conflicted with other reports he gave about his childhood, which identified issues within the relationship resulting in his mum leaving his dad "*maybe a couple of times not for very long*" … "*only for a few days went to stay with friends or something like that*" but always without warning Mark she was leaving.

The experiences of parental separation described by the participants, which at times resulted in the parent also being separated from the participant as a child, could present as risk factors for later offending. Family conflict and parental separation are associated with emotional and behaviour problems as a child (Stadelmann et al., 2010) and are also predictive of delinquency (Farrington et al., 2012). Step-parents did not seem to protect against the reduced closeness, involvement and levels of parental monitoring observed in single-parent families, and instead are suggested to possibly have a negative effect, as parental remarriage was linked to an elevated risk of offending (Farrington et al., 2012). Research suggests when children are separated from their parents, particularly the father, or if the separation occurs repeatedly, the risk of violence in adulthood is increased, even if the parents reconcile (Mok et al., 2018).

Insecure Parental Attachments

Child-parent separation likely affects the quality of the attachment relationship, potentially resulting in insecure attachments (Mok et al., 2018). All six participants

reported experiences within their parental relationships that likely affected their attachments; even James who described his parents as *"good"* and "*normal"*, reported being sent away for weekends and social service involvement. However, James did not specifically describe his experience of this and how he perceived it, therefore it is possible that these weekends did not impact upon James' relationship with his parents.

Daniel spoke about negative attachment experiences with both parents, reporting his dad was "*just constantly in and out my life"* and being *"…constantly being kicked out by my mum when I was growing up".* He described the relationship with his mum as "*a bit of a weird relationship it was it was always over money though always".* Other participants also spoke about difficult relationships with their mother. Mark reported "*mum left a couple of times and I felt abandoned I don't know 'cause I was quite young".* Craig appeared disappointed with his attachment with his mum, stating "*it wasn't what I wanted it to be um … but yeah it was just difficult I never really looked at her as my mum"* and "*well in my opinion she just wasn't really a really good mum or anything".* Craig's attachment to his mum was potentially affected by relocating to live with his dad, which he appeared to blame his mum for: "*mum must have spoke to social service or something and they weren't happy with me and my brother staying at home or me mainly because my brother was fine so me and my brother went to live with my dad".* Craig's attachment with his dad may have also been insecure however, as although he reported his dad "*supported [him] through everything [he] was going through as a child"*, he reported his dad leaving was something he would never forget, watching him walk out at the age of four.

Scott described his relationship with his mother as a child as "*horrible",* perceiving she did not want him, which likely significantly damaged the attachment

relationship. He reported ""*I used to go live with my nan's my nanny's house … because my mum didn't want me".* Any attachment relationship would have been further impacted by going into care at the age of 13. Scott appeared to have no parental attachment to his biological dad, who he knew as his uncle ("*I remember my dad but I always thought he was my uncle" … I didn't know him as my dad").* However, despite the violence he witnessed towards his mum, Scott appeared to perceive a positive relationship with his stepfather: "*he batted my mum absolutely batted my mum but he treated me like anything I wanted he'd buy",* however he also reported these items would then disappear, sometimes having reportedly been sold for alcohol. Scott's feelings as a child towards the repeated gaining and losing of items were questioned, however he simply reported he "*got used to it".* Scott recalled how his relationship with his stepfather led to him giving away the location of the refuge his mother had sought shelter at:

"*we went to refuge in [place name] and I got battered I was only a little kid I've always been small and like this there's this girl she was a lot bigger than me she used to drag me around by my feet on carpet and I had all the burns all down my back so I got on like there was like a little payphone that was in there I remember like anything and I got on there like because I always looked at him as I always thought he was my dad I told him we lived in [place name] and he had friends in the police force well that's why he never got done for nothing he never got charged and all I told him that we was in [place name] I was only a little kid so I didn't know the street I didn't know the address … seven eight hours later he turned up at the doors"*

Andrew spoke limitedly about his parental relationships; he described having multiple sets of parents as a result of growing up in care. He appeared to suggest one of the three different male parental figures he had died in an accident in the

army. Andrew described his experience with one set of parents, stating "*they did everything that they could there was always food on the table it was always warm and always looked after the washing machine was constantly on to make sure you had clean clothes and stuff*", which would suggest he would have had a positive attachment to them, however this would have been irreparably damaged when he was separated from them, seemingly without being informed as he stated "*you're not allowed to know if you get adopted and stuff like go to a different family*".

Insecure parental attachments were likely for these participants due to experiences of separation from parents and inconsistency in contact. Research also demonstrates witnessing violence by parents, which some participants did, damages attachment relationships between parent and child (Chapple, 2003). Attachment styles developed in childhood continue to be held into adulthood with the possible potential to impact on all social interactions through adolescent development and beyond (Shaw & Dallos, 2005). These childhood experiences likely resulted in insecure attachments styles as adults, which are commonly found in IPV perpetrators, in particular anxious and avoidant types (Velotti et al., 2018).

Unmet Emotional/Support Needs

Secure attachments do not just develop from the physical proximity of parents, but from the protection, support and emotional availability of parents and care-givers (Ogilvie et al., 2014). Five of the six participants spoke about feeling unsupported and uncared for at some point during their childhood. James reported his parents were supportive until around the age of 13, but the relationship between him and his care-givers deteriorated until he moved out at the age of fifteen into supported lodging. Andrew indicated during the interview that he did

not have any parental figures to turn to during childhood. This was likely a result of changing caregivers due to being in the care system.

Scott experienced his mum as not wanting him, which likely resulted in him feeling unsupported. He reported "*I've been a black sheep for my whole life … I weren't allowed to do nothing she said I was a naughty kid*" and recalled his only experience from his mum as caring towards him was after his stepdad burnt down his mother's house, as she felt Scott was responsible for her being out of the house at the time: "*it was only one time my mum was caring to me like they'd come home from school my auntie picked me up from school and when we got back to my nan's house and my mum grabbed me and squeezed me first ever time like the only time I could ever remember and she went thanks son you saved my life*". Daniel also experienced his parents as lacking in emotional support, although reported an extra-familiar source of support from an adult female. Daniel reflected on wanting to provide a better experience for his own children by being "*there more for my kids … than what my parents were … and always attend to their needs whenever they're crying … go and actually see them…*". He agreed his parents did not do that for him, stating "*they were just more shouting more shouting for control than they were controlling the situation*".

Craig's experience was somewhat different in relation to his dad, as it was physical illness that prevented him from getting the experience and relationship he wanted from his dad. He identified his dad did sometimes meet his emotional needs, but his mum did not, as a result of other priorities:

"*when I was 12 mum fell pregnant with my stepsister and I was then in the process of getting diagnosed with my ADHD and she stopped giving me any attention*" ….

"so I started misbehaving at school umm like walking out of classes umm bunking off school smoking cigarettes at school umm drinking".

Craig also reflected on how this experience impacted him: *"I think the reason I wanted to drink is because I wasn't getting love and attention from mum" … "and obviously dad weren't really well enough to give it to me all the time".* The lack of attention and support from his mum continued into adulthood for Craig, with a sense of abandonment continuing into his current relationship with his mum, as the below extracts demonstrates.

Interviewer: *… who is important in your life*

 Craig*: umm … well mum is I suppose but I just don't feel like what I give her what I can offer her when I stay sober I don't feel like I'm getting the same commitment from her*

Interviewer: *ok so it seems a bit like a one-way relationship*

Craig*: yeah… … which then obviously it … it makes me feel shitty … because even though she's got my two half-sisters I class them as my sisters I'm still her son*

….

Craig: *and she sees me living on the streets when she could offer me even a tent in the garden …*

…

Craig: *but she's not willing to offer me nothing like that she's happy for me to be living on the street*

Witnessing IPV, as discussed above, can have negative consequences for children. However, this can be protected against by strong parental relationships, in which

parents are responsive and supportive of the child's needs (Øverlien, 2010). The participants in this study appeared lacking in those experiences. Neglectful, unsupportive and cold family relationships, deficient nurturing and intrafamilial conflict have significant negative outcomes on both mental and physical health (Repetti et al., 2002).

General Discussion

The childhoods of the IPV offenders in this study tended to be characterised by family conflict as a result of abuse and/or parental separation, with all bar one participant experiencing unmet emotional needs. This could constitute a form of neglect, which is suggested to be a significant risk factor for physical spousal abuse (McClure & Parmenter, 2020). Witnessing IPV during childhood is suggested as more likely to predict psychological abuse (Bevan & Higgins, 2002), such as coercive control. This fits with the childhood experiences of Scott, who reported being on remand having been charged with that offence in relation to his index offence. However, research is actually inconsistent, despite Godbout et al. (2009)'s claims, on whether witnessing parental violence is a risk factor, either generally (e.g. Clare et al., 2021), for specific types of IPV as reported by Bevan and Higgins (2002) or even at all (e.g. Menard et al., 2014). Research does not generally lead to firm conclusions about the childhood experiences that can be considered risk factors for IPV. Studies report different findings regarding the types of childhood abuse linked to both IPV generally and different types. As discussed in the previous chapter, studies by Renner and Whitney (2012) and Fulu et al. (2013) reported no association between physical abuse in childhood and general IPV or sexual IPV respectively. However, Menard et al. (2014), on the other hand, concluded there was a relationship with general IPV.

Experiences of physical abuse were not very common in the current sample, with less than half of the participants reporting that experience. Henrichs et al. (2015) compared the childhood experiences of IPV offenders with non-IPV offenders and identified that while levels of sexual and psychological abuse were similar between the two groups, IPV offenders reported higher levels of physical abuse, to the extent that those who experienced physical abuse were four times more likely to be convicted of this offence. However, as a result of their findings, which showed elevated levels of psychological problems for both groups, Henrichs et al. (2015) theorised that IPV did not arise solely from social learning from abusive experiences, but may be better understood as a maladaptive coping strategy. Experiencing child maltreatment could result in a coping mechanism characterised by hostility and mistrust, resulting in viewing others as harmful and untrustworthy. These beliefs then increase the likelihood of both psychological and physical IPV perpetration (Elmquist et al., 2016). There are studies that do illustrate that family violence during childhood is not a necessity for IPV to occur, however the occurrence could act as an indicator for behavioural and attitude problems that increase the likelihood of perpetrating IPV, such as general displays of anger, frequent fighting, and substance abuse (Clare et al., 2021).

Are the experiences specific to IPV offenders?

Trauma and adversity are prevalent in the childhoods of many offenders. The risk of offending generally is increased by experiences in childhood of a dysfunctional family and a home environment that is chaotic (Lenvenson & Socia, 2016). Additionally, all types of offenders, both violent and non-violent, demonstrate a lack of secure attachments (Ogilvie et al., 2014). Although there is evidence linking IPV perpetration to the ACEs of abuse, witnessing domestic violence, and parental criminal offending, there is nothing to conclude that IPV offenders can be

differentiated from generally violent offenders on the basis of ACEs (Hilton et al., 2019). For instance, witnessing domestic violence and emotional neglect, both mentioned above as risk factors for IPV, were also identified as predictive for sexual offending arrests in a study by Levenson and Socia (2016). This may be because IPV perpetrators are not a homogenous group. Holtzworth-Munroe and Stuart (1994) identified different types of IPV offenders; some who are generally violent and others who offend only against partners, as well as a third group of borderline/dysphoric. Other typologies suggest different motivators, such as poor conflict resolution skills compared with power and control (Johnson, 1995). Therefore, while there may be some differences in the childhood experiences of specialist IPV offenders compared with those generally violent offenders, there may be a large overlap, as research shows that offenders who commit IPV very often engage in a variety of violent and non-violent offending (Hilton & Eke, 2016). For example, of the IPV perpetrators in Henrichs et al. (2015)'s study, which sampled forensic outpatients, 38% had perpetrated solely IPV, alongside only 2% of the participants who were recruited from prisons by Logan et al. (2001).

The Link to Schemas

Delinquency, anti-social peer relationships, social rejection and loneliness are associated with problems with social functioning, including mistrust and insecure attachments, that arise from home environments that do not provide nurturance (Hanson & Morton-Bourgon, 2005). The current study found widespread experiences of a lack of nurturing behaviour from parents, which could have impacted the participants attachment styles, although this was not a factor measured in the current study. Attachment insecurity is a risk factor for IPV perpetration (Spencer et al., 2021). Young's schema theory suggests that excessively compensating for unfulfilled needs related to trust and safety in

relationships results in violence, and the perception of lacking safety within the intimate relationship has demonstrated in studies as a risk factor for IPV perpetration, supporting this theory (Pilkington et al., 2021b). Young's model of EMS suggests schemas mediate the link between early experiences with care-givers and psychopathology and indeed negative parenting styles are associated with EMS (Sheffield et al., 2005).

Results from a meta-analysis by Pilkington et al. (2021a) demonstrated that emotional abuse by a care giver, as well as both maternal and paternal emotional abuse, leads to the schemas from the Disconnection/Rejection domain, as well as the schemas of Vulnerability to harm, Failure to Achieve and Subjugation. Several of these EMS were also demonstrated to arise from physical abuse by a caregiver. Maternal and general emotional neglect was associated with Mistrust/abuse, Emotional deprivation and Social Isolation/Alienation. Four schemas (Pessimism, Entitlement/Grandiosity, Approval-seeking, Punitiveness) were not linked to childhood experiences of emotional neglect or emotional abuse by any perpetrator, or to physical abuse. As IPV offenders are not conclusively demonstrated in research as distinct from other offender types on ACES as reported above, it may be that the schemas of IPV offenders, particularly generally violent ones, are not distinct from offenders who commit other types of offences. However, there is some evidence that the schemas of non-offenders are distinct from those of violent offenders (Horsley & Ireland, 2010).

Although in the current study there was some uniformity in experience of unmet emotional needs, the schemas held by the participants varied. The two participants (Mark and James) who described their childhood experiences were more positive, particularly before they reached their teenage years, reported no schemas. 66.67% of participants had the Self-Sacrifice schema, making it the

most commonly held schema in the current sample. Individuals with this schema commonly experience anger (Askari, 2019) and it is well documented that anger contributes to aggression (Dunne et al., 2018). However, it is suggested that this schema does not cause anger in isolation, although it might increase the expectations a person has of receiving the same treatment in return, which has the potential to result in tension and stress (Askari, 2019). The self-sacrifice schema was linked to experiencing maternal emotional abuse in Pilkington et al. (2021a)'s study, however it was experiences of emotional neglect and unmet needs that were most commonly reported within this sample.

The schemas of Punitiveness and Pessimism were held by 50% of participant. Neither of these schemas were directly linked to any adverse experiences in Pilkington et al. (2021a)'s study, although there was insufficient data available to the authors to complete a meta-analysis on them. Punitiveness and pessimism were two of three schemas added into the third version of the short version of the EMS questionnaire, so many studies relating to EMS' contributing to anger and/or aggression don't explore these schemas (Askari, 2019).

The Punitiveness schema is defined as the belief that mistake should be severely punished, and involves an increased likelihood of being angry, impatient, intolerant and punitive towards anyone, including themselves, who do not meet the expected standard. It is typically accompanied by difficulty in forgiving mistakes, stemming from an unwillingness to consider extenuating circumstances, empathise with others and accept the fallibility of humans (Young, 2012). Punitive parenting can lead to the punitive schema (Sheffield et al., 2005). This schema could lead an individual to believe their partner should pay for mistakes, therefore resulting in IPV as punishment. Many studies show it is linked to lower levels of relationship

satisfaction, although this effect appears reduced when controlling for personality traits (Günaydin, 2021).

The pessimism schema is a lifelong focus on the negative aspects of life—such as pain, loss, and potential mistakes—while neglecting the positive, resulting in an exaggerated belief that things will go wrong, especially in seemingly stable areas. Individuals may fear making mistakes, leading to worries about financial ruin, loss, or humiliation, resulting in chronic anxiety, vigilance, and indecision (Young, 2012). It can arise from belittling, pessimistic, or controlling parenting styles (Sheffield et al., 2005). Research by Antonini (2022) with violent offenders reported that the Over-vigilance and Inhibition domain, containing both the Punitiveness and Pessimism EMS, was associated with general violence in a sample of offenders. Coping with problems using avoidance strategies, such as substance use, withdrawal, shame, denial and anger, are more likely to be utilised by pessimistic individuals (Woldgabreal et al., 2014). Pessimistic adolescences are also more likely to engage in destructive behaviours (Boman et al., 2003). On the other hand, optimism can serve as protective factor and reduce the effect of established risk factors for offending (Woldgabreal et al., 2014). Optimism is a similar construct to, and is predictive of, hope (Martin, 2007). Studies show hope is protective from exposure to community and family violence (Martin, 2007), with individuals with low levels of hope showing an increased risk of offending (Martin & Stermac, 2010). Thankfully, it is well-established that optimism can be learned, such as through modelling (Woldgabreal et al., 2014). The Good Lives Model, developed by Ward (2002) and colleagues, is an approach to offender rehabilitation with a main aim of increasing optimism and hope (Martin & Stermac, 2010). The GLM is grounded in psychological theory and evidence suggests programmes utilising the GLM overcomes limitations of risk management focused

approaches (Willis & Ward, 2013). Willis and Ward (2013) argue that offenders rely on the vision of better, more fulfilling lives rather than merely a reduction in harmful behaviours.

The variation in schemas, despite some consistency in experiences, may be due to biopsychosocial factors that affect the development of EMS. A child's emotional temperament/personality influences how/whether painful childhood experiences lead to the development of schemas (Young et al., 2003). Research demonstrates that differences in certain personality traits can reduce the impact of criminogenic factors. Craig et al. (2017) illustrated that low levels of neuroticism in individuals who experienced ACEs were a protective factor for criminal behaviour. Equally, previous research by Sheffield et al. (2005) demonstrates that negative parenting styles, such as emotionally depriving parenting, do not specifically map onto specific schemas, such as emotional deprivation, with some schemas being associated with multiple different negative parenting styles. Therefore, it may not be possibly to definitely link childhood experiences with specific schemas that result in the perpetration of IPV.

Strengths and Limitations

The main strength of this study was the use of a forensic sample, recruiting offenders whose records reflected domestic abuse. However, this also raised a limitation as domestic abuse reflects familial, as well as partner, violence, resulting in one of the participants involved in the study being convicted of an offence against his sister. This was not discovered until interview, due to the lack of specific information available to the researcher about his offence. The participant did admit to having perpetrated physical violence against a former partner in interview.

However, it is possible that this could make him qualitatively different from the others in the sample.

The use of interviews was a strength, as this allowed a deeper exploration of the experiences of the participants, as opposed to surveys. However, one audio recording was of poor quality, with some parts being indecipherable, due to the quiet voice of the participant and background noise as a result of being in a room off a busy wing. This reduced the amount of information available for analysis. Due to access restrictions, it was not possible to conduct another interview to increase the available data. However, the use of a self-report method to collect information the EMS held by the participants is open to bias, resulting from factors such as socially desirable answering or a lack of insight into their own thoughts, feelings and behaviour. This may be the reason for the minimal levels of schema endorsement by some participants.

A limitation of this study is that due to the cross-sectional method used, there is no way to reliably determine that the childhood experiences of the participants directly lead to the development of the EMS identified using the questionnaire. Additionally, as Sheffield et al. (2005) point out, there are a number of factors that affect the reliability and validity of self-reported parenting experiences, such as recall bias due to the length of time, schemas making it hard for participants to objectively recall past experiences and recent experiences with parents distorting early memories. Additionally, some participants may unconsciously use coping mechanisms like avoidance or idealization to protect themselves from painful memories (Sheffield et al., 2005), although in this study participants did appear willing to discuss these memories.

Conclusions

Interviews with perpetrators of intimate partner violence suggest that experiences of emotional neglect and unmet childhood needs are common experiences for this offender type, with some perpetrators also reporting physical abuse. Other research suggests many types of abuse and witnessing violence during childhood are risk factors for intimate partner violence. Punitiveness and Pessimism schemas were found in the majority of the current sample, which has been linked with violence, anger and aggression in some studies, but it is the Disconnection/Rejection domain that has been most consistently linked to adverse childhood experiences. However, due to individual schemas arising from different experiences during childhood, identifying schemas that are linked solely to the perpetration of IPV, or indeed specific childhood experiences of IPV offenders, may not be possible due to the heterogeneity of IPV offenders.

CHAPTER IV

Intimate Partner Violence Perpetration and the Five Factor Model of Personality: A Systematic Review

Intimate partner violence (IPV) is a global concern that has a large impact on both victims and society. Understanding factors that contribute to the perpetration of IPV can help prevent harm. Personality disorders are largely related to IPV perpetration according to recent research, however there is a large amount of overlap between different personality disorders, and it has been suggested personality traits may provide a clearer picture on the aspects of personality that result in IPV. Personality traits develop during childhood, and, despite being largely stable, can be modified through intervention. A systematic review was carried out by searching three large databases, examining personality traits and IPV perpetration. The included studies involved adults convicted of, or self-reporting, the perpetration of IPV of any type (physical, sexual, psychological, combined) whose personality traits were measured in line with the Five Factor Model, the prevailing personality model. Eleven studies were included in the final analysis, largely from community samples. The results suggested that neuroticism demonstrates a significant relationship with the perpetration of IPV. There were some differences between community and forensic studies, however these could be explained by exploring the different types of IPV in line with Johnson's (1995) distinction between common couple violence and intimate terrorism. Intimate terrorism, which is more likely to be displayed by clinical samples, is less likely to be emotionally-motivated and therefore may not be linked to neuroticism. Limitations to the method used in the review and the impact of these on the findings are discussed.

Introduction

Intimate Partner Violence (IPV) is behaviour that causes psychological, sexual, or physical harm that is perpetrated by a current or former intimate partner. It is a global concern, affecting over a quarter of women worldwide (WHO, 2021). IPV does not only impact the victim but has a large cost to society. The British Government estimated that "the social and economic cost for victims of domestic abuse" in 2017 was around £66 billion, with around £14 billion relating to costs for "lost output", such as absences from work (Home Office, 2019).

Understanding the factors that contribute to the perpetration of IPV is essential in order to prevent abuse and the associated harm. Previous systematic reviews have investigated different factors associated with IPV perpetration, including attachment (Velotti et al., 2018), early maladaptive schemas (Pilkington et al., 2021) and personality disorders (Collison & Lynam, 2021).

Early Maladaptive Schemas (EMS)

Proposed by Young, Klosko and Weishaar (2003), EMS are a set of 18 core beliefs are maladaptive for everyday life. They form during childhood and as a result of the combination of an individual's temperament and unmet emotional needs. Different profiles of EMS have been linked to different types of offending, such as sex offences against adults and against children (Chakksi et al., 2012; Carvalho & Nobre, 2014). A recent systematic review concluded there is limited evidence exploring the link between EMS and intimate partner violence perpetration (Pilkington et al., 2021b).

Childhood temperament and personality traits display a lot of overlap and are suggested to be conceptually similar entities (Thimm, 2010; Caspi et al., 2005). Thimm (2010) argued that due to the role of childhood temperament as a

substantial factor in the development of EMS it was crucial to explore the relationships between personality traits and EMS. Following research, it has been concluded that a significant part of the variation in EMS could be explained by the personality traits, more specifically by the dimensions of the Five Factor Model of Personality (Thimm, 2010).

Personality

Personality traits are "dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings, and actions" (McCrae & Costa, 2002, p. 25). Emotional, interpersonal, experiential, attitudinal, and motivational styles are described by personality traits, and these are suggested to be largely a result of genetic influences (McCrae & Costa, 2002). Personality traits develop during childhood and are thought to be largely stable throughout adulthood, although small changes have been observed after the brain has stopped developing (McCrae & Costa, 2002). However, recent evidence suggests that personality traits are dynamic and can change as a result of interventions (Roberts et al., 2017). Personality traits can influence decisions and actions that individuals make in the experiences and situations they are faced with throughout life (McCrae & Costa, 2002).

 Evidence suggests personality disorders can be effectively understood as maladaptive or extreme variations of personality traits (Widiger, 2011). Personality disorders are characterised by problems with cognition, emotional experience and expression, and maladaptive behaviours, that persist for an extended period of time (World Health Organisation, 2022). The review by Collison and Lynam (2021) found that most categories of personality disorder were related to IPV perpetration, however they argued that the degree of overlap between the

symptoms of different personality disorders could suggest this is not a particularly useful observation. Many people diagnosed with a personality disorder do not fit into solely one category (Kim & Tyrer, 2010). Instead, investigating personality traits individually may provide a clearer picture on the aspects of personality that could lead to violence within relationships (Collison & Lynam, 2021).

Five Factor Model (FFM)

The Five-Factor Model (FFM) stands as the prevailing framework for understanding the structure of personality (Widiger & Crego, 2019). Costa and McCrea expanded on the work of Eysenck, who identified two initial factors of 'neuroticism' and 'extraversion', to identify five broad personality trait dimensions commonly measured in personality inventories (McCrae & John, 1992), which became known as the FFM. The five trait dimensions are openness, conscientiousness, extraversion, agreeableness and neuroticism.

The 'neuroticism' dimension related to the likelihood of individuals to experience distress. Individuals high on the neuroticism scale are more likely to experience low self-esteem, irrational thinking, poor impulse control and poor coping, leading to depression, frustration, guilt and self-consciousness (McCrae & John, 1992). Extraversion, as opposed to introversion, reflects the degree to which a person actively seeks out and engages in social activities and social interactions. Individuals scoring high on the extraversion scale are more outgoing and assertive than low scorers (Costa & McCrea, 1992). The 'Openness to Experience' scale is related to creativity, imagination and curiosity. High scorers are marked by their vivid imagination, their appreciation for art and beauty and their preference for novelty over routine (Soto & Jackson, 2013). Agreeableness, reflects the degree to which an individual is soft-hearted, generous, good-natured and lenient (Costa

& McCrea, 1992). The final dimension is conscientiousness. High scorers on this domain are hard-working and task focused, as opposed to the disorganised and distractible presentation of low scorers (Soto & Jackson, 2013). Scores from a measure of the five personality dimensions are reported to correlate highly with scores on the Millon Clinical Multiaxial Inventory (MCMI), which is a widely used tool for personality assessment (Costa & McCrae, 1990). Research with clinical (Thimm, 2010) and non-clinical samples (Muris, 2006; Sava, 2009) has shown significant associations between most of the EMS and the neuroticism dimension. Extraversion, agreeableness and conscientiousness also show relationships to some schemas (Sava, 2009; Thimm, 2010).

The FFM has effectively served as a framework for understanding several personality disorders (Gudonis et al., 2008). Further, there has been a shift towards dimensional models of personality disorders in official diagnostic tools, with a five-factor model in line with the FFM included in the American Psychiatric Association's (APA, 2013) Diagnostic and Statistical Manual (Bagby & Widiger, 2018). The FFM is argued to be universal, with research demonstrating consistency across 26 different cultures (McCrae & Costa, 2002). Gender differences across the 26 cultures were also replicated, with men scoring higher on assertiveness, while women scored higher on neuroticism and agreeableness (McCrae & Costa, 2002). However, a study by Gurven et al. (2007) with Tsimane forager-horticulturalist people in Bolivia suggests the FFM does not fit every population group or culture on Earth.

FFM and Offending

As with different EMS', different profiles of traits on the FFM show associations with a variety of behaviours and events in life, including well-being, employment,

social situations and criminality (Bagby & Widiger, 2018). Eysenck (1996) argues that personality is the mediating factor between environmental and genetic factors that lead to criminal behaviour. Personality traits can also offer some explanation as to why exposure to criminogenic risks factors can produce different results in different individuals (Jones et al., 2011). Personality traits have shown strong correlations to a variety of anti-social and criminal behaviours (Jones et al., 2011). Higher levels of proactive, reactive and relational aggression are demonstrated by individuals who score lower on the Agreeableness dimension (Miller et al., 2012). Research based upon the five-factor model has shown that anti-social behaviour has been linked to low levels of agreeableness and conscientiousness (Vize et al, 2019). Offending behaviour has also consistently been linked to these same two trait dimensions, while a low level of openness also demonstrates a connection (Wiebe, 2004). However, in terms of intimate partner violence, there is not a clear picture on related personality traits (Collison & Lynam, 2021).

Aims & objectives

Maladaptive personality traits, such as those present in Personality Disorders, are argued to be extreme presentations of the FFM and measures have been developed to capture this (Bagby & Widiger, 2018). Identifying specific personality traits that are linked to IPV could assist with developing effective offending behaviour programmes. The aim of this review is to identify the personality traits identified by the FFM that are related to intimate partner violence. The objective is to determine whether IPV perpetrators display different personality traits, measured according to the FFM dimensions, when compared with a comparison group of non-perpetrators and/or general violence offenders in cross-sectional studies.

Methods

Inclusion criteria

To be eligible for inclusion, studies were required to compare the scores of one or more of the personality trait dimensions from the FFM (openness, conscientiousness, extraversion, agreeableness and neuroticism) between people who perpetrated intimate partner violence and those who did not (see table 4.1).

Table 4.1. PECO criteria

Criteria		Inclusion Criteria	Exclusion Criteria
Population	Adults	Adults of any gender	Under 18s
Exposure	IPV perpetration	- Convicted of IPV perpetration - Self-report IPV perpetration	- Perpetrated solely other types of violence (not against partners) - IPV Victimisation only
Comparison	Non-Exposed Groups OR Different IPV Types	- Non-perpetrators of IPV - Measure Norms - Different types of IPV (psychological, physical, sexual)	No comparison group AND only one IPV type
Outcomes	Personality traits	Personality assessment measuring FFM traits i.e. agreeableness, openness, conscientiousness, extraversion and/or neuroticism	- Scores not presented quantitatively - Not FFM model traits of personality

IPV perpetration could be measured by self-report methods or offence histories. IPV perpetrators could be compared with non-IPV offenders or general population comparison groups or measure norms. Studies with males or females, or both, were eligible for inclusion. Studies were excluded if they did not measure traits

from the FFM, did not examine the perpetration of IPV (for example, studying victimization) or the participants were stated to be under 18.

Sources of literature

Three Bibliographic databases were searched on the 28th August 2023; PsychINFO with the search covering the time period from 1806 to the date of the search, MEDLINE covering the time period from 1946 to the search date, and Science Direct (search period unknown). These databases produced both published journal articles and grey literature, such as dissertations and PhD theses. These databases covered journals including 'Partner Abuse', 'Interpersonal Violence', 'Psychology of Violence' and 'Violence Against Women' (APA, 2023). Once searches were complete and relevant articles identified, the reference lists of included studies were examined to identify any other articles.

Search strategy

Search terms were developed on the two concepts; 'intimate partner violence' and 'personality traits'. The specific search terms used are displayed in table 4.2, with an asterisk symbolising a truncated term and a question mark to capture different spellings to ensure all variations were covered.

Table 4.2. Search Terms

Concept	Search Terms
IPV	- intimate partner violence - domestic abuse - dating violence - domestic violence - family violence - spousal violence - spousal abuse - domestic batter* - dating abuse - partner agress* - partner abuse

Personality Traits	- personality traits
	- extr?ver*
	- agreeable*
	- openness
	- conscientious*
	- neurotic*
	- big five personality
	- five factor model
	- five factor personality model

Study selection

Studies were screened initially by title, then by abstract. Remaining studies were read in full and included or excluded based on the previously stated criteria.

Bias/Quality assessment

To assess the quality of the studies, the Joanne Briggs Institute Checklist for Analytical Cross-Sectional Studies (Moola et al., 2015) was utilised. The quality assessment considered the objectivity and standardisation of the measurement tool used to capture both personality traits and IPV perpetration, as well as the clear specification of the sample used. The studies were rated using the tool by the primary author. A second reviewer independently carried out an assessment with the same tool and the results were compared. Upon comparison of the results, there was disagreement on the inclusion of one article (study 14, see table 3 below) and this was discussed by the reviewers. Upon discussion around the sample and the lack of specificity on the measurement of IPV perpetration, as well as the replication of the data set, it was decided to exclude the study.

Data extraction

A data extraction form was created for use prior to the searches being carried out (see appendix I), however this was adapted during data extraction due to some of the selected studies not providing the relevant data for the original form, such

as mean personality trait scores. The form was modified to allow for a wider range of data, both quantitative and qualitative, to be extracted.

Results

Description of studies

The searches produced 8891 hits and this was screened down to 40 articles for full-text assessment. The stages of the review process are displayed in figure 1. Following this, 28 articles were removed, leaving 12 for inclusion. Two additional articles were included following a search of the reference lists for included articles, leaving 14 for quality assessment.

Quality Assessment Results

Table 4.3. Total score for each study on the quality assessment

Study number and author	Score (/8)
1. Collison & Lynam (2023)	7
2. Hines & Saudino (2008)	8
3. Kaighobadi et al. (2009)	7
4. Varley Thornton, Graham-Kevan & Archer (2010)	7.5
5. Ulloa et al. (2016)	8
6. Daspe et al. (2016)	6
7. Hellmuth & McNulty (2008)	8
8. Busby, Holman & Walker (2008)	6.5
9. Rode, Rode & Januszek (2015)	7.5
10. Hornsveld et al. (2008)	7.5
11. Hrushka (2018)	6
12. Babaie et al (2017)	5
13. Kaur and Sokhey (2011)	4
14. Reese (2018)	4.5

The quality assessment results from the JBI tool are indicated in tables 4.3 and 4.4, with the excluded studies marked in red. Two studies were excluded following the quality assessment, leaving a total of 12 studies for inclusion. The study by Babaie et al. (2017) was excluded as the IPV perpetrators were not clearly identified in the sample, and Kaur and Sokhey's (2011) study was removed as it was unclear how IPV perpetration was measured. To protect against bias, as advised by Cochrane (Higgins et al., 2023), the study by Reese (2018) was not included as it used the same dataset as Ulloa et al. (2016) study but did not provide as much detail about the sample or the methods used to measure the exposure condition.
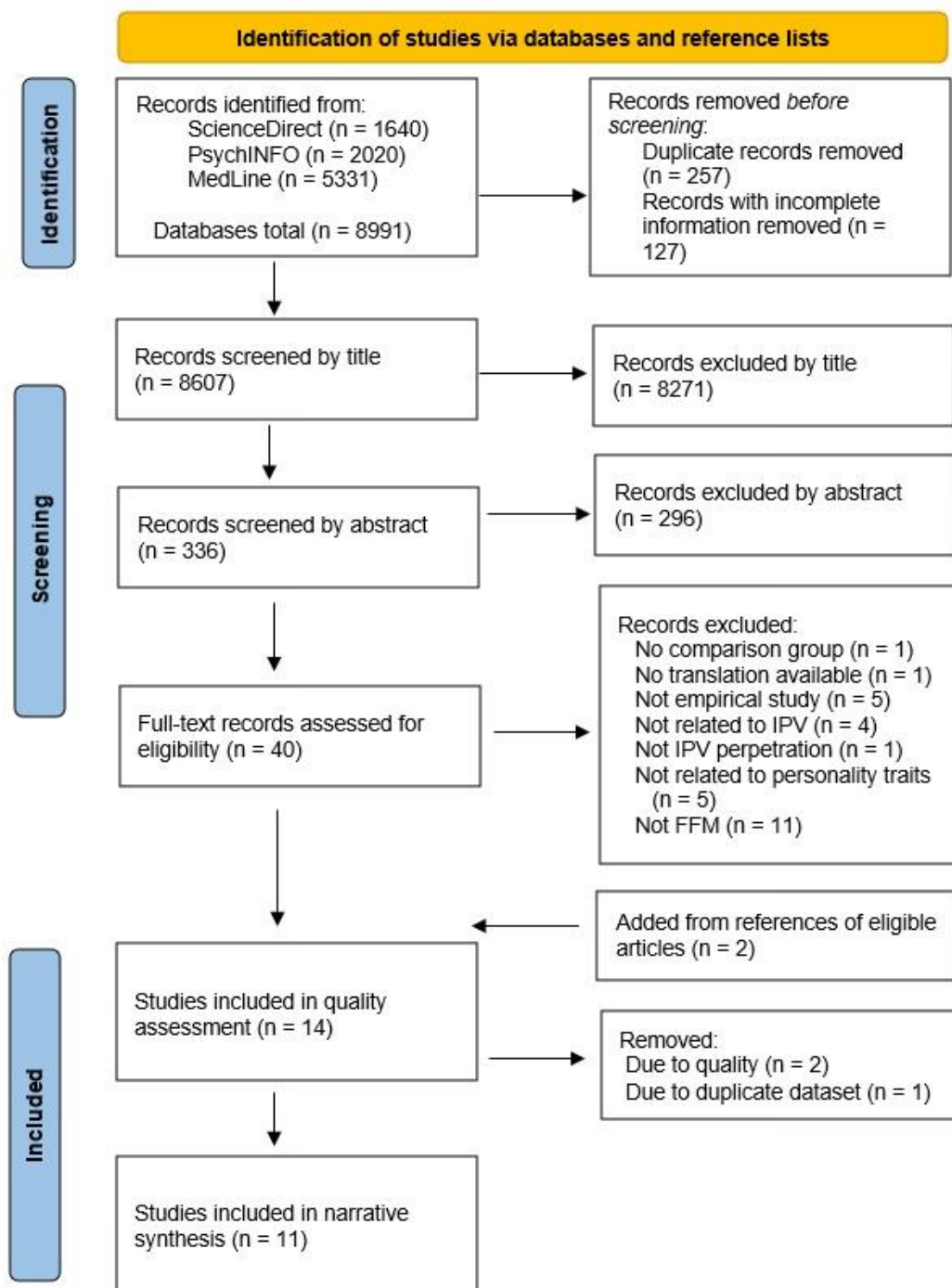
Figure 4.1. PRISMA Flowchart of Review Process

Table 4.4. Results of Quality Assessment (N = 14)

Study number and author	Sample clearly specified?	Subjects described in detail?	Exposure measure valid/ reliable?	Objective criteria for condition?	Confounding variables identified?	Strategies to deal with confounding?	Outcome measure valid/ reliable?	Appropriate statistical analysis?
1. Collison & Lynam (2023)	Y	Y	Y	Y	Y	U	Y	U
2. Hines & Saudino (2008)	Y	Y	Y	Y	Y	Y	Y	Y
3. Kaighobadi et al. (2009)	Y	Y	Y	Y	U	U	Y	Y
4. Varley Thornton, Graham-Kevan & Archer (2010)	Y	Y	U	Y	Y	Y	Y	Y
5. Ulloa et al. (2016)	Y	Y	Y	Y	Y	Y	Y	Y
6. Daspe et al. (2016)	Y	Y	Y	Y	N	N	Y	Y
7. Hellmuth & McNulty (2008)	Y	Y	Y	Y	Y	Y	Y	Y
8. Busby, Holman & Walker (2008)	U	Y	Y	U	Y	U	Y	Y
9. Rode, Rode & Januszek (2015)	U	Y	Y	Y	Y	Y	Y	Y
10. Hornsveld et al. (2008)	Y	Y	Y	Y	Y	U	Y	Y
11. Hrushka (2018)	Y	Y	Y	Y	N	N	Y	Y
12. Babaie et al (2017)	N	N	U	U	Y	Y	Y	Y
13. Kaur and Sokhey (2011)	N	N	U	U	Y	N	Y	Y
14. Reese (2018)	N	N	U	Y	Y	U	U	Y

Y (green) = Yes. N (red) = No. U (amber) = Unclear. n/a = not applicable.

Table 4.5. Descriptive Information for Included Studies (N = 11)

Study	Sample Source & Location	Sample Details - No. of Ps (no. of males) - Mean age, - Ethnicity	IPV Measure	Personality Measure	Statistical Analysis Used
1	Online platform, USA	- 307 (139), - M = 39.42 - 82.1% White	CTS2	IPIP-NEO (Maples et al., 2014) – short form	Correlation
2	Colleges, USA	- 480 (179) - M = 19.1, - 77% white	CTS2	IPIP; (Goldberg, 1999) **and** EPI (Eysenck and Eysenck, 1975)	Regression
3	University & Community, USA	- 467 (467), - M = 24.2 - NR	The Violence Assessment Index (VAI; Dobash et al., 1995)	Botwin, Buss, & Shackelford's (1997) personality tool	Correlation
4	University, UK	- 297 (116), - M = 23.83 - NR	Violent and Non-violent Offending Behaviour Scale	IPIP	Correlation and Regression
5	National Longitudinal Study of Adolescent Health (Wave 4), USA	- 7187 (2876), - M = 29.12 - 61% white	Original CTS (three items)	Mini-IPIP (Donnellan, Oswald, Baird, & Lucas, 2006)	Correlation and Regression
6	Community, USA	- 598 (279), - Male M = 30.08 Female M= 28.02, - NR	Revised CTS (sexual coercion)	NEO-FFI	Correlation and Path Analysis
7	Community, NR	- 338 (169) - Male M =25.6, Female M = 23.4 - Males = 94% white, Females = 86% white	CTS (physical scale)	IPIP	Regression
8	Community, NR	- 30600 (13770), - M = 28.5	A question asking them how often	RELATE (Holman et al., 1997)	Pathway Analysis

		- 86% white	their partner was violent towards them		
9	Court, Poland	- 227 (122), - M = 36.92, - NR	Criminal convictions/ charges	NEO-FFI	T-Tests
10	Outpatients, Netherlands	- 166 (166[a]), - IPV M = 37.32, GV M = 28.88 - NR	Court orders/ convictions	NEO-FFI	T-Tests and Ancova
11	Therapy groups, Canada	- 55 (55), - NR, - 61.8% white	IPV Therapy attendance	NEO-FFI-3	T-Test

NR = Not Reported. P = Participant. M = Mean. SD = Standard Deviation. GV = General Violence. a = Gender not specified but assumed male due to comparison to male norms. IPIP = International Personality Item Pool. EPI = Eysenck Personality Inventory. CTS = Conflict Tactics Scale.

Characteristics of included studies

The descriptive data of the included studies is presented in Table 4.5. Three of the studies (nine, ten and eleven) examined a forensic sample while the remaining studies sampled the general population. A total of 40,722 participants (44.62% male) were included in the review, with less than 1% coming from forensic/clinical samples. General population and forensic sample studies' results are discussed separately below.

Five of the eight general population studies measured IPV using a form of the Conflict Tactics Scale (CTS). Studies one and two used the Revised Conflict Tactics Scale (CTS2; Straus et al., 1996), while study five used a modified version of the original Conflict Tactics Scale (Straus, 1979), which contained three items assessing perpetration and three assessing victimisation. Study seven used eight items from the original CTS. Study six used a short form of the CTS2 (Straus & Douglas, 2004) which consisted of two items, and also added in a question from the original CTS, to measure sexual coercion and aggression. Study three used The Violence Assessment Index (VAI) and Injury Assessment Index (IAI), both developed by Dobash et al. (1995). Study four used the Violent and Nonviolent Offending Behavior Scale, developed by one of the authors of the study (Thornton) using items from established tools, but is unpublished, meaning the validity and reliability cannot be independently assessed. Similarly, study eight used a question that asked how often their partner was physically violent towards them, as opposed to a validated scale. However, they were included as the method of measurement was clearly defined and explained. Five studies (one, two, four, five, and seven) used the International Personality Item Pool (IPIP; Goldberg, 1999) in some form to measure personality traits. Four studies (six, nine, ten and eleven) used a version of the NEO Five Factor Inventory (Costa & McCrae, 1992), while

study eight used the Relationship Evaluation Questionnaire (Busby et al., 2001). Study three opted for a method used by Botwin et al. (1997) in which participants rate themselves on 40 pairs of bipolar adjectives. The reliability and validity of this method is unknown.

Descriptive data synthesis

Out of the eleven studies included in the analysis, five were carried out in the United States of America (one, two three, five, six), and one each in Canada, the United Kingdom, Poland and the Netherlands. Two studies (seven and eight) do not state which country the study was located in. Eight studies recruited both male and female participants, however three studies appear to have male-only samples (three, ten and eleven). It should be noted however that study ten does not explicitly state the sample is male, but the authors compare scores to male norms. Study one included both males and females together in their analysis, while studies two, four, five, seven, eight and nine examined the genders separately. Study six surveyed both males and females, although the study only examined male-perpetrated violence.

Five studies measured physical IPV perpetration only (see table 4.6). One study measured physical and psychological IPV perpetration, one study looked only at sexual aggression, two studies looked at all three types and two studies (both forensic samples based on convictions) did not identify the type of IPV. Seven studies included all five personality traits.

Study three examined three of the traits. Study three used the term 'emotional stability' for 'neuroticism', meaning high emotional stability scores represented low levels of neuroticism, and vice versa. Three studies (six, seven and eight) looked solely at neuroticism.

Table 4.6. The IPV types and personality traits explored in each study

Study	IPV Type				Personality Traits				
	Physical	Psych.	Sexual	Not Specified	O	C	E	A	N
1	✓	✓			✓	✓	✓	✓	✓
2	✓	✓	✓		✓	✓	✓	✓	✓
3	✓					✓		✓	✓
4	✓				✓	✓	✓	✓	✓
5	✓				✓	✓	✓	✓	✓
6			✓						✓
7	✓								✓
8	✓								✓
9				✓	✓	✓	✓	✓	✓
10				✓	✓	✓	✓	✓	✓
11	✓	✓	✓		✓	✓	✓	✓	✓

O = Openness to Experience. C = Conscientiousness. A = Agreeableness. E = Extraversion. N = Neuroticism.

Prevalence of IPV

Of the eight studies that utilised samples from the general population, six reported on the prevalence of violence in relationships. 15% of the sample of Collinson's study reported perpetrating physical IPV in the previous year. In study two, 25% of participants reported using physical aggression towards their partner. Study seven reported that in four years, 100% of couples reported using at least one type of aggressive act, 85% reported committing at least four types and 41.4% reported perpetrating all of the eight aggressive acts listed.

Studies four and five reported on the mean number of perpetrated IPV acts in the previous 12 months. Study four reported a mean of 2.91 acts per female and 0.91 per male participant, with study five reporting 0.32 for both genders combined. Study four also reported on general violence offending, with a mean number of general violence offences of 7.74 for men and 4.33 for women, suggesting women are more violent in relationships, while men are more violent outside of

relationships. Two studies (two and six) reported the prevalence of sexual aggression in relationships. In study two, 13.2% of females and 29.1% of males reported perpetration, while 19% of participants in study six reported perpetration.

Two studies reported on psychological aggression prevalence. Studies one and two found similar rates, with 79.4% and 80% of participants respectively reporting perpetration. Thus, it appears psychological aggression is widespread within relationships in the general population.

Overall Findings

Table 4.7. The numbers of the studies which found a relationship between each trait and IPV type, with the total number of studies, by direction, demonstrating a relationship between each personality trait and any type of IPV, with percentage of the studies that examined that trait that found a result in brackets.

Violence	Personality Trait				
Type	O	C	E	A	N
Physical	5, *11*	*1, 3, 11*	5	*1, 2, 3, 11*	1, 2, 3, *4,* 5, 7, 8, 11
Psychological		*1,* 2, *11*	2	*1, 2, 11*	1, 2, 11
Sexual	*11*	2, *11*	2, *11*		6, 11
Not Specified				10	10
Total Positive Relationship (%)	1 (14.3)	1 (12.5)	2 (28.7)	1 (12.5)	9 (81.8)
Total Negative Relationship (%)	1 (14.3)	3 (37.5)	1 (14.3)	4 (50)	1 (9.1)

O = Openness to Experience. C = Conscientiousness. A = Agreeableness. E = Extraversion. N = Neuroticism. Red = negative relationship, whereby lower trait levels = higher levels of violence. Study 10 relates to IPV groups scoring higher/lower than the comparison group.

Table 4.7 displays a breakdown of the significant results found for each personality trait as well as displaying the numbers of the studies who found a relationship by IPV type.

Two studies found results for the trait 'Openness to Experience', however the results were in opposition. This could be because the studies sampled different population types (forensic vs general population). This pattern was also present in relation to the trait of Extraversion, where two general population studies (two and five) found a positive relationship while a forensic study found a negative relationship.

Half of studies that examined the personality trait 'conscientiousness' found significant results, however these also illustrated opposing findings. This may be related to the gender of the participants. Three studies found negative relationships. Two of these studies results related to male samples, while the third (study 1) used a mixed gender sample. On the other hand, study 2 found a positive relationship between psychological IPV and conscientiousness, when perpetrated by females.

The trait of agreeableness ranked second in terms of the number of results indicating a relationship with IPV perpetration, with five of eight studies reporting a significant finding. Three of these were general population studies which all found negative relationships. The remaining two were forensic studies. Study 11's results were in line with the general population studies, however study 10 reported a positive relationship. This was likely due to the comparison group used by study ten, who compared IPV perpetrators to generally violent offenders, finding that IPV perpetrators were more agreeable. If compared to a general population group,

it may show that non-perpetrators are more agreeable than both groups, however the study does not examine this.

The trait with the highest number of significant results was neuroticism. However, it is worth noting that neuroticism was the only personality trait explored in all 11 studies. 90.9% of studies found a result relating to neuroticism, with 81.8% showing a positive relationship between neuroticism and IPV perpetration. This included two forensic samples and also covered all three types of IPV, as well as both genders. It is noted, however, that study two only found a link between severe physical IPV, consisting of the most extreme items on the CTS2 physical scale, and neuroticism in female perpetrators. Conversely, study four found a negative relationship for female perpetrators of physical IPV perpetration. This could be related to the use of an unpublished IPV measurement tool, leading to questionable validity. The results from general population studies for each IPV type are described further below.

General Population Studies

Personality Traits – Physical Violence

In total, seven general population studies examined physical aggression. Of these, most studies found a link between neuroticism and violence perpetration. Studies one and five reported positive correlations between physical IPV perpetration and neuroticism in mixed gender analyses. Study three identified a negative correlation between emotional stability and physical IPV for males. While all the previous studies suggested increased neuroticism (reduced emotional stability) leads to increased perpetration, study four, on the other hand, reported a negative correlation for females between neuroticism and perpetration. However, it is noted that the correlation coefficients for physical IPV and neuroticism reported by

studies one, three, four and five ranged between -.23 to .18, suggesting the relationship is negligible (Mukaka, 2021).

Using regression analyses, studies two and seven found physical IPV perpetration was linked to high neuroticism in males, and studies five and seven found the same for female perpetrators. Study two reported that only severe physical abuse by females was predicted by neuroticism. Study eight found a link between neuroticism and relationship aggression for both males and females, but it was described as on the 'threshold of relevance', as the relationships were extremely weak.

Three studies found significant results for physical IPV perpetration and the traits of agreeableness and conscientiousness. Studies one and three reported negative correlations for both traits, although the relationships were weak. Study two found low agreeableness predicted physical aggression by females, however study four found that although general violence was negatively linked with agreeableness in women, IPV was not related in any way. Study five found higher levels of openness were related to higher levels of IPV perpetration in both genders, while higher levels of extraversion also predicted physical IPV perpetration in women.

Personality Traits – Sexual Aggression

Two general population studies looked at sexual aggression within relationships. Study six found that sexual coercion reported by females was positively correlated with the male partner's level of neuroticism, although the relationship was weak. However, there was not a significant correlation between neuroticism and male self-reports of the perpetration of sexual coercion. A path analysis from study six reported a curvilinear relationship, where at minimal levels of neuroticism, sexual aggression and neuroticism are negatively related, however as the level of

neuroticism increases to a specific point, the relationship changes and the two demonstrate a positive association.

Study two did not find any personality traits correlated/associated with male sexual aggression. Instead, they found that female use of sexual aggression was predicted by higher levels of extraversion and conscientiousness.

Personality Traits – Psychological Violence

Two general population studies (one and two) examined psychological IPV perpetration and both found significant results relating to neuroticism and to agreeableness. In relation to neuroticism, study one found a positive correlation in a mixed gender sample and regressions for both male and female participants in study two found perpetration was predicted by higher scores. For agreeableness, study one reported a negative correlation and study two found perpetration was predicted by low scores, but only for females. Additionally for females, high levels of extraversion and conscientiousness were also associated with more psychological aggression in study two.

Forensic Samples

Three studies used forensic samples in their studies. Study nine recruited participants from three areas of Poland who had proceedings launched against them for, or had been convicted of, cruelty towards family members. Participants in study ten were outpatients convicted of domestic violence with a comparison group of outpatients who were convicted of non-domestic and non-sexual violence. Study eleven recruited participants from IPV therapy programmes. Studies nine and ten did not distinguish between IPV type (physical/psychological/sexual). Both studies compared the personality traits of their IPV participants to norm groups. Study ten used a norm group obtained by

Hoekstra et al. (1996), which was based on a general population sample, and also had a comparison group of generally violent offenders. In comparison with the norm group, the IPV perpetrators scored significantly higher on neuroticism, mirroring the results found in the general population samples in the studies above. The generally violent group in the study also scored significantly lower than the norm for conscientiousness and agreeableness as well as higher on neuroticism. Study ten found no significant differences between generally violent and IPV offenders on any personality traits other than agreeableness, while controlling for age. IPV offenders were more agreeable than generally violence offenders. Study nine compared IPV offenders to the norm groups for the Revised NEO Personality Inventory (Costa & McCrea, 2008) and found there were no significant differences on any of the personality traits.

The main aim of study eleven was not to identify the personality traits of IPV offenders; rather it was to investigate whether personality traits affect behaviour change. However, the study produced some findings that contribute to the overall picture of the personality traits of IPV offenders. Study eleven reported that at the end of treatment for IPV, offenders who scored higher on conscientiousness reported significantly lower psychological, physical and sexual IPV. Perpetrators who were high scorers on neuroticism demonstrated significant increases in psychological, physical and sexual aggression compared to low scorers who demonstrated a reduction in the use of violence. Those who scored low on openness to experience, agreeableness and conscientiousness showed an increase in physical IPV, while high scores demonstrated a noticeable reduction. Similarly, those who scored lower on those traits, in addition to extraversion, appeared to report an increase in sexual coercion.

Discussion

Within general population studies, the perpetration of both physical and psychological violence demonstrates a link with high levels of neuroticism; however, the strengths of the relationships using correlational analysis were not high. Yet, the results for the studies were consistent despite the use of different analysis methods, with regressions having the additional benefit of being able to control for confounding variables. Further, two studies (four and eight) used methods to measure IPV that have not been validated. The lack of validation and the inability to replicate the method could lead to unreliable results. While study eight found results consistent with the other general population studies, study four found a contradictory result for female IPV, reporting it was negatively related to neuroticism. This could be a result of utilising an untested measurement tool for IPV.

Some studies identified a role for agreeableness; however, this was not universal. The findings for sexual aggression were mixed, although only two studies specifically investigated this type of aggression, therefore more research is needed before any conclusions can be drawn. There were only three studies on forensic populations and the results from these were not conclusive. One study found no differences in personality traits between IPV perpetrators and the comparison group, while another reported that IPV perpetrators scored higher on neuroticism than the norm, as suggested by general population studies. However, it is noted that generally violent offenders also scored highly on neuroticism, as well as scoring lower on conscientiousness and agreeableness. Study eleven demonstrates that within IPV perpetrators, there are both low and high scorers on each domain, and that these personality traits can affect treatment outcomes. Being able to split IPV perpetrators into two groups to measure treatment

response could suggest there is not one personality profile for this offender type. However, the results from the general population studies suggest the role of neuroticism cannot be ignored.

Neurotic individuals experience greater distress in response to stress, cannot cope adequately (Vollrath & Torgeson, 2000) and use less adaptive coping strategies (Cimbolic Gunthert et al., 1999). Emotional instability is linked with the use of emotional coping, which is less effective than problem-focused coping, and is related to high levels of aggression (Carlo et al., 2012). Anger reactivity and hostility result from high levels of neuroticism (Decuyper et al., 2011). Research also suggests marital functioning can be predicted by neuroticism (Bartholomew et al, 2015). Relationship satisfaction has consistently been linked to neuroticism in research, and it is suggested that this association is mediated by negative interactions between couples (Donnellan et al., 2004). A meta-analysis by Tehrani and Yamini (2020) reported that an avoidant conflict resolution style is commonly found in people who score highly on the neuroticism dimension. This type of conflict resolution technique is characterised by silence, withdrawing, and ignoring the partner's concerns and the outcome is noted to be 'lose-lose' (Tehrani and Yamini, 2020).

As previously discussed in this thesis, personality is one of the main factors in the development of EMS, whereby personality, or temperament, combines with early childhood experiences to form EMS (Young et al., 2003). Muris (2006) provided research evidence demonstrating that both nature and nurture contribution to EMS formation. Many studies have demonstrated relationships between neuroticism and EMS (Bach & Bernstein, 2019). Conversely, low levels of neuroticism was a protective factor for offending in individuals who experienced ACEs (Craig et al., 2017). Studies have also shown links between other traits and EMS. Ehsan &

Bahramizadeh (2011) found negative associations between agreeableness and the Emotional Deprivation, Social Isolation and Mistrust/Abuse. Alongside the findings for neuroticism, Muris (2006) identified that extraversion, agreeableness, openness, and conscientiousness were all positively related to the Unrelenting Standards Schema, while agreeableness had a positive association with the Self-Sacrifice Schema and openness was associated with Vulnerability to Harm. Thimm (2010) reported that EMS were linked to low extraversion, low agreeableness, and/or low conscientiousness, and the personality traits from the FFM could explain between 9 and 42% of the variance in schemas for the participants in his study. Sava (2009) concluded that most schemas, particularly EMS related to impaired boundaries and those in the Disconnection and Rejection domain, were linked to high neuroticism and low agreeableness. It is suggested that that uncooperative and neurotic individuals are at an increased likelihood of negative cognitive patterns, resulting in mental disorders involving anti-social behaviour (Sava, 2009).

While many studies have demonstrated the links between EMS and personality traits, Young et al (2003) suggest personality can influence coping responses to schema activation. Research by Mairet et al. (2014) reported that avoidance responses were more likely to be utilised by introverted individuals (low extraversion). Neuroticism also displayed a moderate relationship with avoidance strategies, as well as a significant, albeit weak, relationship with overcompensation responses, however, due to other results in the study, it was argued that personality is not the main determinant in coping responses (Mairet et al., 2014).

Despite this conclusion, personality traits have also been linked to modes, which are a result of EMS combined with coping strategies. Bach and Bernstein (2019)

reported on a study that concluded schema modes could be ordered into three domains (Internalisation, Externalisation and Compulsivity), which each domain related to FFM personality traits. Neuroticism and low levels of extraversion were principally related to the Internalisation domain, which included modes such as Abandoned Child and Avoidant Protector. Extraversion alongside low levels of agreeableness and conscientiousness were primarily linked to the domain of externalization, containing modes such as Impulsive Child and Bully and Attack. The third domain, Compulsivity, containing modes such as Perfectionistic Overcontroller and Demanding Parent, were principally related to neuroticism and conscientiousness. A previous study by Bach et al. (2016) explored the relationship between schema modes and the DSM-5 personality traits, which are generally agreed/demonstrated to align with the FFM (Gore & Widiger, 2013). The results showed that personality trait domains were linked to schema domains, with neuroticism being strongly associated to both Vulnerable and Angry Child modes (Bach et al., 2016). While further evidence may be required to draw firm conclusions, with evidence showing EMS, schema modes and personality traits as related to violence/IPV, these areas should be considered as targets for intervention programmes.

Johnson (1995) identified two types of intimate partner violence; common couple violence (CCV) and intimate terrorism (IT). Whereas IT is used to control partners, CCV arises from poor conflict management that escalates to violence and is prevalent amongst both genders (Johnson, 1995; Bartholomew et al., 2005). Johnson and Ferraro (2000) identified that with the typologies identified by Holtzworth-Munroe and Stuart (1994), family-only offenders were likely to display CCV as the violence was primarily physical and the severity is low, whereas the 'generally violent' and 'dysphoric-borderline' group displayed similarities to IT. This

distinction between the two types of IPV was supported in a study of British samples by Graham-Kevan and Archer (2003), whose sample consisted of women residing at Women's Aid shelters, males attending IPV treatment and male prisoners, as well as their partners and male and female students.

The current review investigated personality traits in both forensic and general population samples, synthesising the data separately. Comparing findings from clinical and general population may not be helpful or useful as the aggression being investigated may be the result of two different types of IPV that are conceptually distinct (Graham-Kevan & Archer, 2003). CCV is primarily found amongst community samples, where IT is mostly found in clinical samples (Bartholomew et al., 2015) and utilised predominantly by males (Johnson, 1995; Graham-Kevan & Archer, 2003). IT, more recently termed 'coercive control' (Stark, 2009), is described as a tactic within a wider pattern of behaviour, motivated by the desire to exert control over one's partner (Johnson & Ferraro, 2000). The consistency of this behavioural trend could suggest coercive control is not an emotional response that is likely to be displayed by an individual who scores highly on the neuroticism scale. This could explain the mixed results from the forensic sample studies included in the current systematic review, in which study nine found convicted IPV offenders' personality traits were no different from the norm and study eleven was able to identify both high and low neuroticism scorers in his sample of IPV offenders receiving treatment. Only study ten found that IPV perpetrators scored higher than the norm on neuroticism; however, it is also noted that generally violent offenders also scored higher. There appears to be little research pinpointing what might drive a perpetrator to coercively control their partner, although Johnson (2008) notes both education level and childhood family dynamics are risk markers.

The most common method for measuring IPV in the current study was through the use of self-report surveys. All eight general population studies used this method, as well as study eleven. There are two main problems with this method: context and reliability. First, measuring IPV perpetration by asking about the frequency of which certain behaviours are committed does not allow for the context in which the act happened to be assessed. The motivation for violence varies and can include self-defence, an emotional response and control, but this cannot be established by the use of measures such as the CTS (Graham-Kevan & Archer, 2003). This makes it difficult to distinguish between the type of violence committed (CCV/IT) and could result in inappropriate responses and misleading statistics. A similar problem could occur by the focus on only physical violence (Graham-Kevan & Archer, 2003). Two of the three studies with forensic samples did not break down IPV into the different versions (physical/psychological/sexual) to examine links with personality traits and half of the general population studies solely looked at physical IPV. Only two studies (two and eleven) examined all three IPV versions.

Secondly, self-reporting allows for unreliable measurements of IPV and, subsequently, bias (Graham-Kevan & Archer, 2003). Both victims and perpetrators may underreport violence (Brousseau et al., 2011). This could be a result of shame or worries about police involvement. While there is some suggestion that underreporting of perpetration occurs by both men and women (Varley Thornton et al., 2010), it appears that this is more common in male perpetrators (Varley Thornton et al., 2010; Graham-Kevan & Archer, 2003). However, the results of study six suggests males are more forthcoming with reporting the perpetration of sexual coercion, than their female partners are at reporting victimisation. This underreporting could affect the validity of the results in the current studies.

A similar issue occurs with the measurement of personality traits. The FFM measures in the current studies were self-report questionnaires, which could allow for social desirability. Particularly in relation to forensic samples, and offenders, there is the belief, held by researchers and professionals alike, that criminals are likely to manipulate responses on self-report measures (Mills et al, 2003). This would then diminish the capability to link offending and personality traits (Wiebe, 2004). In future studies, this could be protected against by collecting personality trait ratings on the participants from their partners or other close relations. Partner ratings tend to correspond highly with self-ratings (Furler et al., 2014), suggesting accuracy, and may be a useful addition to self-reports on personality measures (Cundiff et al., 2012). Additionally, the studies in the current review explore the traits in isolation, however individual traits likely interact with each other to lead to behaviour. Examining different traits in combination, for example high neuroticism with low agreeableness, to identify specific personality profiles could provide more usable information on personality features that contribute to violence to highlight areas for intervention.

The results of the current review are limited in application to forensic populations, due to the small number of studies available. The adherence to one model of personality could go some way to explain this. Several studies that examined personality characteristics were excluded because they did not measure traits in line with the FFM. The inclusion of wider measures and/or models of personality could increase the number of studies available for analysis. However, the convergent validity of different personality assessment tools would need comprehensive investigation for comparisons between studies to be made.

The results may also be affected by the sampling in the studies selected, as well at the inclusion criteria. Only studies written in English were included, which may

have restricted the population to European and American participants and as such the results may only be applicable to perpetrators from these countries. Further, not all studies reported on the ethnic make-up of their samples, while the ones that did had a strong white majority so it is not clear that the results can be applied to all ethnicities. The exception is study five, in which only 60% of the sample was white. It is noted that all bar one of the community studies samples included both male and female perpetrators, as well as one of the three studies utilising a forensic sample, suggesting the findings may apply to both genders. Findings are, however, unlikely to apply to non-heterosexual participants. Although two studies do report including participants in homosexual relationships, four studies include only heterosexual participants, while several studies do not report on participant sexuality. These factors limit the applicability of the findings.

Conclusion

In conclusion, the evidence is supportive for neuroticism playing a role in the perpetration of violence within general population samples. This could be the result of increased reactivity to distress when interpersonal conflicts arise. This type of violence could be considered CCV. A second type of violence is coercive control, which is motivated by control and is less likely to be related to emotional instability, and is found more commonly in forensic samples. This may explain why the current review found mixed results on the prevalence of neuroticism in forensic samples. Further research with forensic and more diverse samples is required to draw firm conclusions. Future studies should consider collecting third party ratings of participants personality traits and investigate the impact of personality/neuroticism on different types of violence.

CHAPTER V

Psychometric Critique of the Conflict Tactics Scale 2

Background: The Conflict Tactics Scale (CTS) is one of the most widely used, and widely criticised measure of intimate partner violence (IPV). The original version was revised to create the CTS 2, which has been used in hundreds of studies examining intimate partner violence.

Aims: The aim of this article is to discuss the psychometric properties of the CTS2.

Method: Articles discussing the CTS2 and studies utilising it were synthesised in order to assess the reliability and validity of the CTS2. Literature discussing wider issues in the measurement of IPV are also introduced and discussed.

Findings: Generally, the measure and its scales have demonstrated good levels of reliability and validity, however the sexual coercion scale has come under scrutiny. One of the main criticisms relates to the lack of context measured by the CTS2 which allows for the measurement of violence that is not considered 'true' violence, as well as violence committed in self-defence, which can lead to inflated levels of violence being recorded, particularly that which is perpetrated by females. This is also contributed to by the lack of a clear definition and understanding of what IPV is, affecting the construct validity of IPV measures. Considering the different types of IPV identified by Johnson (1995) and clearing identifying the type attempting to be measured may alleviate some of the issue.

Conclusion: the CTS2 is a reliable and valid measure for the measurement of situational couple violence but it best used in combination with other tools.

Introduction

Introduction of psychometrics

"*Psychological tests are both very much enjoyed and very much feared or even scorned*" (Coolican, 2009, p173).

Psychological tests and scales are developed by psychologists as a way to collect measurements, but for many topics in psychology there are no universally accepted tools as psychology is not an exact science (Coolican, 2018). Understanding the psychometric properties of questionnaires is important to judge their credibility and allow for research to be conducted. For tools to be credible and utilised effectively, they need to be reliable and valid (Coolican, 2009). Reliability and validity assessments should be completed for both different populations and minorities, as well as different geographic areas (Waltermaurer, 2005). In Forensic Psychology especially, it is necessary for all tools to be extensively examined to ensure the research and the subsequent use in practice is valid as there are legal implications (Straus, 2012).

Introduction of the Conflict Tactics Scale II

Intimate Partner Violence (IPV), whether viewed through the lens of a public health concern, a social problem, a crime or a medical condition, presents as a difficult concept to measure (Waltermaurer, 2005). This can be a result of difficulties defining violence and abuse, and disputes over the best method of measuring a behaviour that mostly occurs in private (Follingstad, 2017). Research has demonstrated that intra-partner violence occurs more frequently than violence outside of relationships, is a type of violence resulting in repeat victimisation and has been demonstrated to be equally perpetrated by both genders, with an inequality in injury severity (Chapman & Gillespie, 2019). As directly observing

IPV is both unethical and impractical, self-report measures are traditionally employed (Taverna et al., 2023). Police statistics do not capture the true number of victims or incidents, due to underreporting to authorities (Elkin, 2018), emphasising the importance of self-report tools.

With IPV being the leading cause of violent deaths amongst women, any psychometric test measuring this phenomenon must demonstrate good psychometric properties (Chapman & Gillespie, 2019). More than thirty instruments were created between 1979 and 2003 to measure its occurrence, at the expense of refining just one (Waltermaurer, 2005). Waltermaurer (2005) states this is 'both a liability and an advancement' in the IPV research field. The most utilised tool for measuring IPV is the Conflict Tactics Scale (CTS), in either its original or revised form (Straus, 1990; Lehrner & Allen, 2014). Research, policy and practice are informed by understanding of IPV that has resulted from use of the CTS (Chapman & Gillespie, 2019). It was used by 62.5% of community studies in the systematic review presented in chapter IV (publication version: Dorling et al., 2024), providing reason to review the psychometric properties of the tool, in order to explore the validity of the previous chapter's finding.

The original CTS was developed 45 years ago by Straus (1979) to measure some of the techniques used by family members during conflict. It was frequently used to gather data on physical violence towards partners, with increasing usage in family therapy as a diagnostic aid (Straus et al., 1996). The original version contained 19 items which were split into three scales of 'Reasoning', 'Verbal Aggression' and 'Violence'. The respondent rated how frequently each action had occurred in the past year, with seven possible options to answer from. The answers were translated to a weighted score as displayed in table 5.1. The scores were then added together to provide a total score (Straus et al., 1996). The use of

numeric response categories provided ordinal data that avoided ambiguity that could result from labels such as "rarely" or "sometimes" (Straus, 2012).

Table 5.1. CTS Scoring System

Response	Score
Never	0
Once	1
Twice	2
3 – 5 times	4
6 – 10 times	8
11 – 20 times	15
More than 20 times	25

There was also an answer response to report that the act had not occurred in the past year, but it had happened before, which was scored differently depending on why the CTS was being used. Straus (1979) reported that the original CTS was moderately to highly reliable and demonstrated concurrent and construct validity.

As well as being the most used measure, the CTS is also the most criticised (Straus, 2012). There has been a substantial number of critiques of the CTS, particularly from the feminist perspective who claim that the CTS inaccurately captures the rates of both the victimisation and perpetration of IPV by females (Straus, 1990).

The original version of the CTS was highly criticised for many reasons, including measuring both violent and non-violent acts (Heron et al., 2023) and it was revised in 1996 to create the CTS2. The aim of the revision was to design a scale that was both reliable and practical for use in clinical settings and research. The revised

version has 39 items and the scales were amended (Straus et al., 1996; see table 5.2). The Verbal Aggression scale was amended to 'Psychological Aggression' to include non-verbal acts such as 'stomped out of the room'. 'Reasoning' was replaced with 'Negotiation'; measuring attempts to resolve conflict using discussion, and 'Violence' changed to 'Physical Assault' to avoid confusion as a result of the broad definition of violence (Straus et al., 1996). Two new scales were also added; 'Sexual Coercion' to measure unwanted sexual activity, and 'Injury' to capture partner-inflicted physical injuries. The CTS2 explores three different kinds of aggression, including psychological aggression, as well as non-violent conflict tactics. This overcomes one of the criticisms often levelled at other measures, that psychological abuse is often excluded and different types of abuse are not assessed (Heron et al., 2023).

Some items from the original CTS were also modified for clarity, e.g. "*threw something at my partner*" became "*threw something that could hurt at my partner*", and the order of items was amended to reduce response sets and demand characteristics (Straus et al., 1996). The revised CTS was subject to a pre-test in which a pool of items was trialled by the authors on undergraduates who were asked for revisions and suggestions.

Table 5.2. Original CTS and CTS2 Scales

Original CTS Scales	CTS2 Scales
Verbal Aggression	Psychological Aggression
Violence	Physical Assault
Reasoning	Negotiation
	Sexual Coercion
	Injury

A short form of the CTS2 has also been developed (CST2S; Straus & Douglas, 2004), however this article focuses solely on the CTS2 and the psychometric properties demonstrated through use and research, building upon the review by Chapman & Gillespie (2019) by discussing issues not touched upon and identifying more recent evidence of the tool's psychometric properties.

The CTS2 questions are intended to be answered twice: once about perpetration by the respondent and once about victimisation of the respondent by their partner, resulting in 78 answers, with the scoring system from the original version retained. This then provides data for both victimisation and use of the different types of aggression in the relationships; however, it is recommended that both partners should be tested individually where possible (Straus et al., 1996). It is expected to take a maximum of 15 minutes to complete. Although the standard for the CTS2 is to ask about the acts occurring in the previous year, the time period can be modified to suit the purpose (Straus et al., 1996). Straus (2007) also stated that there were different scoring methods available depending on the purpose of utilising the CTS2, such as whether examining frequency, prevalence, severity and/or mutuality of the abuse.

The norms for the CTS2 come from the undergraduate respondents whom it was tested on during development; however, there is a large variance in the rate of IPV for different samples and it is acknowledged by the authors that more norms, using different populations, are required and that the reference sample should only be used to compare with other undergraduate samples (Chapman & Gillespie, 2019).

All tools used by psychologists must be both reliable and valid (Coolican, 2018). The reliability and validity of the CTS2 is discussed below, alongside general

validity issues in the measurement of IPV, with a brief discussion on how to improve it. Full versions of the CTS and the CTS2 can be found in the appendix of Straus et al. (1996) by following the link in the references.

Reliability

Reliability is concerned with consistency (Coolican, 2009). If a test is not reliable, it is not valid (Kline, 2013) and it could be considered useless (Coolican, 2009). There are two distinct types of reliability; external, also known as test-retest reliability, and internal consistency (Kline, 2013). Internal reliability measures consistency within the test, while external is related to consistency between repeated uses (Coolican, 2009).

Internal Consistency

Internal consistency concerns whether all the test items measure the same thing and is measured using either Cronbach's alpha or split-half tests (Coolican, 2009). The split-half technique can, itself, be unreliable. It only provides a basic estimation of the test's true reliability (Kline, 2013). In the split-half technique, as there are different ways to split the test, each split could give a different figure for reliability (Carmines & Woods, 2005). Additionally, the length of the test can determine reliability with longer tests being more reliable. As a result, the split-half technique provides an underestimate of the actual reliability value (Kline, 2013). Due to this, other methods have been developed, with Cronbach's alpha being the most frequently used (Carmines & Woods, 2005), despite having deficiencies of its own including bias and manipulation through item deletion (see Dunn et al., 2014). The figure provided by Cronbach's alpha should be above .7 and ideally around .9 for a test to be considered internally consistent (Kline, 2013).

Upon development of the CTS2, Straus et al. (1996) reported that the internal consistency of the scales ranged from .79 to .95, using a sample of students. In 2005, 41 articles compiled by Straus (reported in Straus, 2007) that examined the internal consistency of the CTS2 reported a wide range of scores using Cronbach's alpha, from as low as .34, suggesting poor consistency, to .94, suggesting high consistency. The mean was .77 suggesting acceptable internal consistency. Chapman and Gillespie (2019) reviewed several different studies examining the CTS2's internal consistency and concluded that generally among different samples the CTS2 reached a good level of internal consistency, although for each gender, there was one scale that could benefit from supplementation with further evidence from the participant in order to understand the behaviour (sexual aggression for females and injury for males).

More recent evidence however has raised questions on the internal consistency of the CTS2. Capinha et al. (2024) reported on the internal consistency of the Portuguese version of the CTS2 and found both the Use of and Receipt of Sexual Aggression scales had figures much lower than the acceptable level, with the Use of Psychological Aggression scale scoring outside the acceptable range too (α = 0.64). On the other hand, Palm Reed et al. (2022) carried out research using the Psychological Aggression and Physical Assault subscales from the CTS2, comparing sexual minorities with non-minorities. The two scales were split into 'minor' and 'severe' levels of violence, with the scores falling between .81 and .89, suggesting good internal consistency.

Uzieblo et al. (2022) conducted a study with 259 heterosexual couples recruited from the community and a university. The female partner completed the CTS2 for both their own behaviour and the behaviours perpetrated by their partner. Using McDonald's (1999) coefficient omega, which is also considered acceptable above

.7 (Stensen & Lydersen 2022), Uzieblo et al. (2022) determined the Use of Sexual Aggression (.37) and Injury (.23) scales demonstrated very poor internal consistency, as did the scale for the receipt of Sexual Aggression (.36). The Receipt of Psychological Aggression (.65) scale was also below the level deemed as having acceptable internal consistency.

While the sexual aggression scale findings above somewhat support the conclusions drawn by Chapman and Gillespie (2019), the findings of low internal consistency for Injury and Psychological Aggression scales are in opposition. Uzieblo et al. (2022) report that due to the use of a community sample, only low levels of violence were reported on the CTS2 which may have made room for error. It is not stated in the study, which took place in Belgium, whether the original (English version) CTS2 was used or an adapted version, translated for the sampled population, was used. This could have affected the calculations; it cannot be presumed that translated versions of psychometric tools possess the same psychometric properties as the original version (Gudmundsson, 2009).

The internal consistency of the tool in different languages, in different countries across Europe, Asia, the Middle East, Australasia, and North and South America was explored as part of a research consortium exploring internation dating violence (Straus, 2004). Using a sample of students from universities in 17 different countries, the CTS2 showed good internal consistency on all five scales (assault = .88, injury = .89, sexual coercion = .82, negotiation = .88, psychological aggression = .74). The tool was translated and (also agreed by the researchers to be) back-translated individually by each member of the consortium, to ensure concept equivalence (Straus, 2004). A lack of concept equivalency would render comparisons across cultures as meaningless (Kline, 2013). However, despite being one of the most extensively utilised methods of translating

psychological measures, Gudmundsson (2009) argues that back-translation should not be used to assess the quality or accuracy of translations, although there is little research on different translation methods. Additionally, simply translating a tool is not enough to ensure it has meaning in another culture; revisions to wording, content and cultural references are also required (Geisinger, 1994). Meaning can vary across groups and tools could not be measuring the same concept either at all or in the same way (Harachi et al., 2006). Additionally, differences in IPV as a result of ethnicity and culture is implied by the variation in rates of IPV between different countries (Satyen et al., 2019). This further highlights the need for more norms for different populations and the need to compare existing norms only with the sample used. In some cultures, behaviours like physical violence, financial control, verbal abuse, and forced sex against women are normalized or not recognized as abuse. This highlights cultural differences in how IPV is understood and accepted (White & Satyen, 2015). However, it may be that the CTS2 somewhat circumvents this issue; it is a behavioural measure that does not require the cognitive appraisal of being 'abused' or a victim (Straus, 2007). The instructions refer to couples having arguments and methods for sorting disagreements, as opposed to ways in which they have abused their partner/their partner has abused them. This was evidenced in a recent study by Capinha et al. (2024) who reported that when questioned using the CTS2, more participants reported physical violence than when asked generally if they had been a victim or perpetrator of IPV.

Overall, the majority of studies across many counties have reported acceptable internal consistency for the CTS2, although more recent evidence suggests this is not the case. The consistency of the Sexual Aggression scale is of particularly concern. However, Uzieblo et al. (2022) may not provide accurate evidence as it

is not clear what language the CTS2 is in, and as such concept equivalence cannot be assured.

External Reliability

External reliability is the stability of a test when administered on two separate occasions (Coolican, 2009), hence the name 'test-retest' reliability. Test-retest reliability is seen as more important than internal consistency in some areas of research (Polit, 2014). Having poor external reliability can limit the validity, suggesting this type of reliability is the most important to consider, yet it is infrequently investigated (Straus, 2007).

It is presumed that, over time, constructs commonly explored in psychology maintain stability (Kurtz, 2020). However, there are many factors that can impact on test-taking that could affect the external reliability of measures, including the administration procedures, individual characteristics such as motivation, fatigue, anxiety and other mood states, ambiguity leading to different interpretations at different test points, and learning/forgetting knowledge (Ohiri et al., 2024). Distinguishing the effects of individual characteristics, known as transient errors, from real variation in respondents score is both the challenge and the goal in assessments of external reliability (Polit, 2014).

The correlation coefficient for the test-re-test method is most often less than one. This can be due to a number of issues including changes within the subjects and factors contributing to measurement error such as an unpleasant environment, internal issues affecting performance, subjective scoring, or guessing (Kline, 2013). The assessment of external reliability is inherently challenging, leading to many avoiding it altogether. This is particularly true for state-like constructs, (e.g. mood), that do not have temporal stability of trait-type attributes (Polit, 2014),

such as personality or intelligence. Reducing the risk of an attribute changing can be achieved by leaving a short interval between tests, however this increases the chances of participants remembering answers and could result in participants viewing the re-administration as a way to test their memory (Polit, 2014). Determining the external reliability of the CTS2 is complicated as it is the measurement of a behaviour and behaviour is susceptible to change over time (Vega & O'Leary, 2007). As a result, almost a decade after development, Straus (2007) was only able to locate two reported figures for the CTS2. These were not identified, but Straus (2007) reported a range of .49 to .90 for the test-retest correlation coefficients, and a mean score of .72.

Repeating a behavioural measure by asking about the behaviour during the same time period as the first administration is one way to test external reliability, without advertently measuring behaviour change. This is how Vega and O'Leary (2007) explored the consistency of the CTS2 in order to reduce the potential for change to impact the study results. This would have been important as their sample consisted of men in an intervention for IPV, which could have resulted in behaviour change and therefore impacting on the stability of the behaviour. Participants completed the CTS2 twice, with a nine-week interval, reporting on their behaviour in the year prior to treatment starting. The results demonstrated excellent test-retest reliability for four of the five subscales, and good test-retest reliability on the remaining sub-scale (Negotiation). Vega and O'Leary (2007) also highlighted that the results could suggest the men were underreporting IPV perpetration as, despite being in a court-ordered intervention programme, less than 100% of the participants reported physical (72.4%) or psychological (89%) aggression. However, other than this study, there is limited evidence exploring this type of reliability for the CTS2 (Chapman & Gillespie, 2019).

Interrater Reliability

Interrater reliability is the level of which two separate parties agree in their ratings (Coolican, 2018). Agreement from both partners on the level of IPV in their relationship reflects the level of interrater reliability in the measurement of IPV (Capinha et al., 2024) and is said to be the best method for ascertaining the levels of reliability for tools measuring the behaviour of couples (Marshall et al., 2020). For legal and clinical settings, agreement is particularly important (Chapman & Gillespie, 2019). Previous studies have shown levels of agreement from below medium to large, with higher levels of objective items (Chapman & Gillespie, 2019). A recent study by Capinha et al. (2024) provided some further support for this, finding moderate to good levels of agreement on the frequency of violence, however there were lower levels of agreement on the occurrence of behaviour, particularly psychological aggression. However, it was concluded that the CTS2 is as reliable as other tools for assessing IPV in community samples. In opposition to this study, Marshall et al. (2020) also examined interrater reliability between couples and reported moderate agreement on whether or not the violence type had occurred, but significant level of disagreement on the number of acts that had been perpetrated. These findings were repeated for both the CTS2 and another measurement method, with Marshall et al. (2020) concluding that the low levels of agreement were likely more attributable to perceptions of violence than the measurement tools themselves.

Taking the findings for all types of reliability together, it is suggested the CTS2 is generally reliable, both internally and externally, but consideration should be given to the population used. Further evidence of external reliability may be useful but this is hard to get due to the changeable nature of a person's behaviour.

Validity

A test being reliable is good; however, that may not mean the instrument captures the concept it intended to (Coolican, 2018). The accuracy of the test in measuring the construct it was designed to assess is referred to as the validity (Ohiri et al., 2024). Argued by Ohiri et al. (2024) to be the most crucial property of any instrument, validity establishes credibility between test results and the concept it is measuring. Psychological constructs are often less tangible than other sciences, making it more challenging to conclusively define what a concept truly represents, making validity a critical issue (Coolican, 2009).

Demonstrating validity is not as straightforward as demonstrating reliability (Kline, 2013). There are different types of validity and for IPV, there is little agreement over which is the most important (Follingstad & Rogers, 2013). Further, researchers have found the task of demonstrating validity of measures of IPV particularly complex (Follingstad & Rogers, 2013). The main types of validity are discussed in relation to the CTS2 below.

Face Validity

Face validity is not really a measure of a test's validity at all (Kline, 2013; Coolican, 2018). Rather, face validity refers to whether a test appears to measure what it is says it is (Kline, 2013). It has been argued that having high levels of face validity is an optimal feature of any psychometric assessment (Schamborg et al., 2016), however it can lead to increased social desirability (Kline, 2013). This may be a particular issue for some populations, such as forensic samples, who may provide socially desirable answers in order to avoid treatment, as a result of cognitive distortions, or to appear favourably to services and authorities (Schamborg et al., 2016). The face validity of the CTS was improved following the revisions to

wording made to the original version to create the CTS2 (Chapman & Gillespie, 2019).

Content Validity

Content validity is a more advanced form of face validity (Coolican, 2018). It refers to the idea that a measure accurately represents the construct it is measuring (Coolican, 2018). Usually, the content validity is assessed during development by reviewers with expertise in the area (Ohiri et al., 2024). By including scales on psychological, physical and sexual aggression, the CTS2 is intended to capture all the different forms of IPV (Chapman & Gillespie, 2019). Items from the CTS were devised using qualitative interviews and were reviewed by clinicians and researchers with experience (Straus, 2007). The fiercest critics of the CTS (according to Straus himself) used a qualitative method to compile a list of violent acts, resulting in a list Straus (2007) described as virtually identical to the CTS items, which he suggested demonstrated good coverage by the CTS, pointing to content validity.

Kline (2013) argues content validity is only relevant to tools in which the content is well-defined, such as tests measuring attainment or ability. Follingstad and Rogers (2013) argue that inconsistencies in how physical acts like "*threw you around*", *"threw you onto furniture"* or *"slammed against a wall"* are worded across different IPV measures, despite likely aiming to describe similar actions, raises concerns about content validity; specifically, whether the items on any given physical abuse scale adequately represent the scope of physical abuse. Other issues highlighting further concerns related to whether IPV measurement tools can reflect the full range of violent behaviours, and thus the content validity,

included differences between populations in what constitutes violence and subjectivity in the interpretation of questions (Follingstad & Rogers, 2013).

In summary, while the CTS2 strives to provide comprehensive coverage of IPV, ensuring content validity in IPV measurement is challenging due to cultural differences, subjective interpretations, and variability in definitions of violence. This complexity means that even well-designed tools may struggle to fully represent the construct of IPV.

Criterion Validity

Criterion validity is a way of checking to see if a test measures what it intends to by comparing it to other data (Coolican, 2018). Criterion validity can be established by comparing two groups whose status relating to the concept is known, through a process called 'known groups criterion' (Coolican, 2018). For example, comparing the scores on a measure of psychotic symptoms between those with a schizophrenia diagnosis and a control group. Research by Loinaz et al. (2012) reported the CTS2 can discriminate effectively between convicted IPV offenders and the general population on psychological and physical violence. This suggests that the CTS2 has criterion validity. However, Chapman and Gillespie (2019) also reported that in this study, the sexual coercion scale showed no significant differences between the two groups.

Two frequently discussed types of criterion validity are predictive validity and concurrent validity. Predictive validity is about making predictions for the future while concurrent validity compares a new test in the present to a reliable measure, or other known data, that is accepted as accurate and valid (Coolican, 2018).

Predictive Validity

Bothamley and Tully (2018) argue that predictive validity is an important characteristic for establishing how useful a tool is. However, many measures of IPV such as the CTS2 are not necessarily designed to make predictions (Chapman & Gillespie, 2019). There are assessments specifically designed to predict risk of IPV, such as the Spousal Assault Risk Assessment (SARA; Kropp et al., 1995) and the Domestic Violence Risk Appraisal Guide (DVRAG; Hilton et al., 2008) that would be better placed for this task (van Der Put et al., 2019). Nevertheless, there is some research that suggests the psychological aggression scale can be predictive of physical violence (Salis et al., 2014). Additionally, as studies show that victimisation increases the likelihood of future victimisation (Mele, 2009), as well as both previous partner violence and aggression by the female partner (Riggs et al., 2000; Stith et al., 2004) being risk factors for further perpetration, the CTS2 could be used to make predictions. However, it should not be used in isolation for this as it was not intended for use in this manner.

Concurrent Validity

The concurrent validity of the CTS2 is not a well-publicised concept due to the use of the CTS2 to validate others tools (Chapman & Gillespie, 2019). The CTS2 is stated to be the primary method for measuring IPV and considered the gold standard (Kraanen et al., 2013). As a result, studies often use the CTS or the CTS2 to test newly developed scales on the assumption the widespread use of the CTS2 equates to validity. These correlations cannot be used as evidence for concurrent validity without knowing about the psychometric properties of the comparison tools (Chapman & Gillespie, 2019).

The CTS2 has been compared to tools such as the Abusive Behaviour Inventory (ABI; Shepard & Campbell, 1992) with high correlations reported (Zink et al.,

2007). This could suggest that the CTS2 could have concurrent validity, as the ABI is deemed an efficient and effective tool for measuring IPV that has both good reliability and validity (Heron et al., 2023). However, it could be that the construct that both the ABI and CTS2 are measuring does not accurately represent IPV, meaning although they measure a similar concept, it might not be what they intend to measure. The ABI is, however, reported to have good construct validity (Shepard & Campbell, 1992).

Construct Validity

Follingstad and Rogers (2013) concluded that construct validity, alongside content validity, is one of the most important factors in determining the status of measures of IPV. Construct validity refers to the degree to which the instrument relates to and aligns with the concept (or construct) it is attempting to measure (Coolican, 2018). For example, how well an IQ test relates to intelligence (Coolican, 2009). Construct validity is a much broader concept than other types of validity, which focus on whether the test is an effective measure of a familiar concept. It involves a much larger, scientific effort to prove that the entire concept or construct (like extroversion or motivation) is real, meaningful, and fits within a broader theoretical framework (Coolican, 2018). Measurement scales for any phenomena are derived from theoretical and applied knowledge about the concept (Follingstad & Rogers, 2013). Constructs measured in psychology are used to describe specific aspects of human behaviour and often have no direct physical manifestations in the real world (Ohiri et al., 2024), such as intelligence, resilience and personality.

Chapman & Gillespie (2019) discuss the construct validity of the CTS2, which is said to be best assessed by examining each scale separately. Positive correlations between the physical aggression scale and the physical aggression scale with the

psychological aggression and injury scales are said to demonstrate construct validity. Despite these comparisons made by Chapman and Gillespie (2019), Follingstad and Rogers (2013) argue that using one form of violence to validate another may not always show the expected results as relationships do exist that only contain psychological abuse.

Construct validity can be illustrated through convergent validity and discriminant validity (Ohiri et al., 2024). Good convergent validity is demonstrated by correlations between the instrument and other concepts related to abusive relationships, while discriminant validity is demonstrated by poor correlations between concepts that are generally accepted to be unrelated to violence and abusive behaviour (Shepard & Campbell, 1992). Chapman and Gillespie (2019) present the study by Loinaz et al. (2012) as evidence of convergent and discriminant validity, whereby IPV offenders and the general population were differentiated on all scales by the CTS2 with the exception of the Sexual Coercion scale. Chapman and Gillespie (2019) also highlight studies showing correlations between the physical assault scale and known related factors such as dominance, physical child abuse, which is further evidence of convergent validity. A study by Slep and O'Leary (2005) explored this further using the CTS2. The results showed positive associations between partner violence and child-directed violence, which could be taken as further evidence for convergent validity (Taverna et al., 2023). Further, as previously stated, there are correlations between the CTS2 and the ABI. More specifically, there were strong correlations between the ABI and CTS2 psychological aggression scales and between the ABI physical scale and CTS2 physical aggression, injury, and sexual coercion scales, which demonstrates convergent validity according to Zink et al. (2007). Negative correlations between

the negotiation and the sexual coercion and injury scales were argued to show divergent validity (Chapman & Gillespie, 2019).

In order to achieve construct validity, it is imperative for definitions to be clear (Coolican, 2018). A lack of consensus on what IPV actually is creates challenges for measuring it effectively. Follingstad and Rogers (2013) point out that physical violence is the form of IPV most easily verified by external sources, such as the police and healthcare providers, but concerns with construct validity are evidenced by debates regarding what types of actions qualify as physical abuse. There is little agreement in whether threats of violence or violence towards objects, such as punching a wall, constitute psychologically or physically abusive acts (Follingstad & Rogers, 2013). This could perhaps contribute to the inconsistent models of factor structure reported by Chapman and Gillespie (2019). It is also questioned whether current measures adequately represent all the actions that could cause physical harm to another (Follingstad & Rogers, 2013).

Chapman and Gillespie (2019) also state that the lack of context or motivations behind behaviour inflates the rates of IPV with mock violence, self-defence and play fighting all classified as IPV, resulting in false positive, which could explain 30 times greater levels of IPV captured by the CTS than the National Crime Victimization Survey, as reported by Straus (2012). A checklist of abusive behaviours is the most often used template for IPV measures, with participants rating how frequently the act has occurred. However, these are criticised for decontextualising the violence (Follingstad & Rogers, 2013). On the other hand, Chapman and Gillespie (2019) also argue the CTS2 only examines violence that occurs during disagreements, which it could be argued is a context, therefore limiting behaviour committed as a means of control (Chapman & Gillespie, 2019).

Straus (2012) argues that by using qualitative data alongside the CTS, it has been illustrated that malicious violence is also reported, as well as that which occurs in the course of disagreements. The instructions of the CTS highlight that the actions included in the checklist could happen as a result of bad moods, tiredness, or any other reason. The inclusive nature of these instructions could also explain why violence not considered to be true violence is captured alongside malicious violence. Chapman and Gillespie (2019) argue that these issues signal the lack of a clearly defined construct of IPV, thus affecting the construct validity. It may be that the issue could be easily rectified by an addition to the instructions informing participants not to include acts that occur through play-fighting.

These modified instructions, however, would not prevent another issue for which the CTS has received criticism for; whether the violence used in the conflict was self-defence (Chapman & Gillespie, 2019). This information is vital as it can identify whether the individual was the perpetrator or a victim (Follingstad & Rogers, 2013). This is particularly important when considering gender in relation to IPV. Many studies researching family conflict produce findings that report women use as much, if not more, violence in relationships that men (Straus, 2012). This contradicts the generally held understanding of women as victims and men as perpetrators (Couto, 2023) and is used as evidence that the feminist perspective of IPV is incorrect (Johnson et al., 2014). Gender symmetry in the perpetration of IPV has been found in over 200 studies (Straus, 2012); however, these results are primarily produced in studies using the CTS, whereas research that uses other methods, including police and legal data and case studies, supports the generally held view that is backed up by the (American) National Crime Victim Survey (NCVS; Couto, 2023).

The lack of context is argued to contribute to this issue. It is argued that most of the violence perpetrated by females against their partners is in self-defence and this should not count as IPV (Follingstad & Rogers, 2013). Summing up instances of violence without considering the context can lead to an incomplete and misleading understanding of women's violence (Couto, 2023). Research has clearly demonstrated differences in the reasons for the use of force in relationships between men and women (Larance & Miller, 2017). The use of checklists in the absence of context ignores the extensive research illustrating the lack of equivalency in the use of force by women and the battering tactics of men (Larance & Miller, 2017). An absence of understanding in the complexities behind female perpetrated IPV, as a result of a lack of context, is argued to have resulted in the criminalisation of victimisation, resulting in criminal records that significantly impact upon their lives for many women who used physical violence to defend themselves (Larance & Miller, 2017).

As a result of the contrasting findings relating to gender, the definition of IPV again becomes a factor at the centre of arguments concerning the validity of IPV measures. As Dorling et al. (2024) identified, different results may be a result of the heterogenicity of IPV as a phenomenon. Johnson (1995) identified initially two distinct types of IPV; Situational Couple Violence (SCV) and Patriarchal Terrorism, which later was renamed Intimate Terrorism (IT). IT, which is also known as coercive control, is the type of IPV commonly referred to as domestic abuse (Couto, 2023). SCV arises from conflicts that escalate into verbal and physical aggression and is generally perpetrated equally by both genders and is equally likely to occur in both heterosexual and homosexual relationships (Johnson et al., 2014). IT, which tends to be the subject of feminist theories, occurs mostly in heterosexual relationships, is primarily male-perpetrated and is a result of tactics

used to exert control over their partner (Johnson et al., 2014). Johnson also later identified a third type called 'violent resistance', used primarily by women in response to IT from the partner (Johnson et al., 2014). Eckstein (2017) argues this typology of IPV accommodates for different findings relating to perpetration directionality, context and abuse types, while incorporating for feminist, family violence and psychodynamic perspectives. Therefore, IT is fundamentally different from unhealthy conflict resolution strategies (Couto, 2023) and when reporting prevalence, it is imperative to distinguish between the type of violence being measured (Eckstein, 2017). The instructions provided by the CTS2 could point towards it being a measure of SCV and this could explain the gender symmetrical findings reported by Straus (2012), as well as the differences that are found between studies using the CTS and the NCVS. Clearly distinguishing and defining the type of IPV being measured by the CTS2 may improve the construct validity.

Improving the Measurement of IPV

Straus (2012) argues that despite the criticisms levelled at the CTS2, a better tool has not been established. Some criticisms of the CTS, such as problems with recall and social desirability (Chapman & Gillespie, 2019), are inherent to all quantitative self-report measures (Couto, 2023). When also factoring in problems with language and cognitive appraisals of being a victim and what constitutes abuse (e.g. Hamby & Gray-Little, 2000), it may be that self-report surveys for measuring IPV are generally flawed.

Hayes (2018) argues that it is time to move beyond interval or dichotomous measures of IPV. Attention has turned to the use of interviews for researching IPV (Taverna et al., 2023). One method involving semi-structured interviews using life events to anchor and orient participants, has been used for IPV research, and is

reported to increase recall of events through increasing memory cues and allow researchers to probe discrepancies, gather context and verify timings (Hayes, 2016; 2018). This could aid in measuring types of violence that are more accurately identified by patterns and frequency, such as coercive and controlling behaviour, as opposed to purely frequency (Oram et al., 2022). Using qualitative data captures a fuller picture of how and why IPV occurs (Donovan & Barnes, 2021).

Taverna et al. (2023) carried out a study in which the semi-structured life event history method was compared to the CTS2. Interviewers were trained to identify play-fighting and violence used in self-defence (Taverna et al., 2023). The results showed correlations between the reports for both victimisation and perpetration for the two methods, although the correlations for women appeared to be somewhat weaker. Nevertheless, these correlations could suggest the findings from Lehrner and Allen (2014) that the CTS2 inadvertently measures play-fighting and mock violence are not particularly widespread.

It was concluded by Taverna et al. (2023) that the study demonstrates that interviews using this method is a suitable alternative to the CTS2. It is argued to be an effective but underutilised method that captures the lived experience of victims (Hayes, 2018). Higher quality data is obtained using the life event method and the traditionally used survey methods are no more effective (Roberts & Horney, 2009). However, there are some concerns about validity as a result of errors in recall when using the event history method (Roberts & Wells, 2010). Further, those frequently involved in violence show the lowest levels of accuracy when asked to report on violent events in the previous three years (Roberts & Horney, 2009). Therefore, to collect the most accurate data, multiple methods should be utilised (Roberts & Wells, 2010).

The use of the multi-method approach, including quantitative and qualitative data, as well as sources of verification, was recommended by Follingstad and Rogers (2013) in order to establish a true gold-standard assessment in the measurement of IPV. They argued quantitative data on the occurrence of violence was much better understood when accompanied by interviews. Combining quantitative and qualitative methods, as example of between-method triangulation (Flick, 2018), also aligns with the Health and Care Professions Council (HCPC, 2023) guidelines for practitioner Psychologists relating to gathering appropriate information, using a variety of psychological assessment measures and understanding effective approaches to assessment for clients presenting with damaging behaviour. It also adheres to the British Psychological Society's (n.d.) Code of Good Practice for Psychological Testing, that states tests should be used in conjunction with other methods. Therefore, using the CTS2 alongside interviews demonstrates both good practice and good research.

Conclusion

Follingstad and Rogers (2013) concluded that assessing IPV is a vital and challenging task that is more complex than anticipated, as a result of the hidden nature, interpersonal dynamics, subjectivity in how people perceive and interpret events and the potential for bias in the individuals' own behaviour reports, as well as reports by others. Although further research on the psychometric properties for the CTS2 with varied forensic and clinical samples is required (Chapman & Gillespie, 2019), the CTS2 is a widely used tool and has been demonstrated as reliable and valid for providing numerical data on the occurrence of violence in partner conflicts with a range of populations, including some initial forensic samples.

There is, however, still room for improvement. Minor revisions to the instructions could improve the tool to ensure respondents are clear on not including mock violence or play-fighting. Improvement is particularly required for the sexual coercion scale, as research suggests it is unable to discriminate between convicted IPV offenders and the general population (Loinaz et al., 2012; in Chapman & Gillespie, 2019) and there are some questions regarding internal consistency. The CTS2 items on the sexual coercion scale cover on a very small subsection of possible sexually violent acts, all of which focus on coercion into penetrative sex. Other kinds of sexual violence, including sexual assault with objects, non-penetrative sexually abusive acts and sexual degradation, are not considered by the CTS and therefore it ignores a large area of sexual IPV. Sexual violence with IPV is often under-researched, and is inconsistently defined and operationalised, and the use of physical and sexual violence in combinations within relationships is seen by some as a distinct IPV type (Bagwell-Grey et al., 2015). The presence of sexual violence within relationships increases the risk of suicide, homicide by partner and a wide-range of other mental health and substance use problems (Barker et al., 2019). Sexual abuse by a partner plays a role in coercive control (Logan et al., 2015), however it is unclear how sexual violence fits in with SCV as there appears to be little discussion on this.

Due to distinct types of IPV, the CTS may not be appropriate for use in all IPV research. This should be specifically considered prior to use. Due to the focus on conflict tactics, the CTS may be a useful tool in the measurement of SCV, but may risk drawing incorrect conclusions regarding coercive control. Regardless, as recommended by the authors of the CTS2, it should be used in conjunction with other tools when drawing conclusions about IPV. Recent studies suggest interviews may be helpful in providing the context missing by sole use of the CTS. The use

of the CTS2 in practice should also be carefully considered. It is not a risk assessment tool and should not be used to draw conclusions on the future behaviour of an individual, especially in isolation; other tools have been designed for this purpose.

The conclusion that the CTS2 appears to be largely reliable and valid suggests the findings of the systematic review in Chapter IV are likely to be accurate. While further research is needed to draw firm conclusions on the validity of the CTS2 with forensic samples, the forensic studies in the review did not utilise it as a method of measurement and the general population studies that did not use the CTS2 or another form of the CTS found comparable results to those that did.

CHAPTER VI

Thesis Discussion

Anti-social and offending behaviour is a complex phenomenon and distinguishing between biological and environmental factors can be unhelpful, as they likely affect each other (Scarpa & Raine, 2000). The primary research chapters discussed in this thesis explored the link between perpetration of Intimate Partner Violence (IPV) and Early Maladaptive Schemas (EMS), testing the model provided in the introductory chapter (figure 1.1). EMS develop from childhood experiences. Schemas go some way to link biological and environmental factors, providing a theory of how individual factors such as personality and childhood combine, resulting in cognitions, emotions and behaviour. The proposed model discussed in the introduction (figure 1.1) has been adapted as a result of the findings and discussions in this thesis, resulting in a new proposed model below (figure 6.1) that requires further exploration.
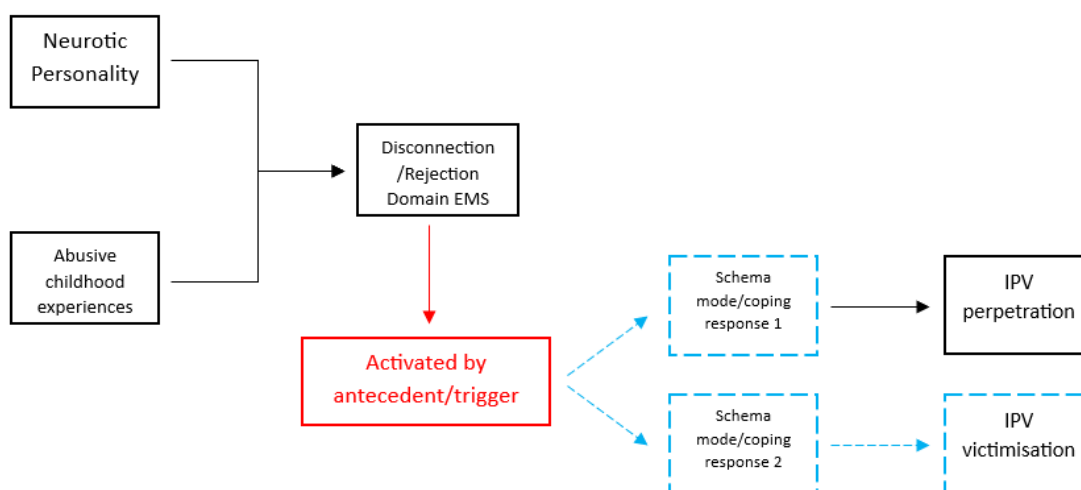
Figure 6.1. Updated proposed model demonstrating path from EMS to IPV. Areas in black are investigated in the thesis, with areas in blue highlighted for further research.

This model, which is mainly relevant for CCV type violence, suggests that when an individual with a neurotic personality type experiences maltreatment as a child it results in EMS, particularly from the Disconnection/Rejection domain. When these EMS are then triggered, the way in which the individual attempts to cope with the schema, or the resultant schema mode that follows, can lead to either the perpetration of IPV, or victimisation. Further research is required to validate the model, particularly for the sections highlighted in blue dashed-lines.

The study in Chapter II was built upon Pilkington et al. (2021b)'s conclusion of there being little research with forensic populations on the EMS linked to IPV perpetration. It found significant results relating to schemas in the Disconnection/Rejection domain, in particular the Emotional Deprivation schema. This domain has previously been demonstrated by much of the literature to be related to the perpetration of violence. However, Pilkington et al. (2021b)'s meta-analysis also found that the Disconnection/Rejection domain is endorsed by both perpetrators and the victims of IPV. Whilst no data was collected on victims in the studies in the current research, previous research highlighted the similarities in EMS between individuals in both roles, it is suggested that schema modes may be the key to understanding why some individuals are at risk, while others pose the risk. As such, this is an area highlighted for further research, to test the revised proposed model.

Chapter III explored the childhood experiences of IPV perpetrators, finding emotional neglect and unmet childhood needs were common occurrences for IPV perpetrators, with some participants also reporting physical abuse. The sample in Chapter III, which consisted of offenders convicted of domestic violence, were commonly found to endorse the Self-Sacrifice schema, alongside the Pessimism and Punitiveness schemas; two schemas which have not previously been linked to

IPV. They reported difficult childhood experiences, including unmet needs, poor maternal relationships and emotional neglect. Similarly, however, emotional and physical abuse and neglect during childhood have been linked to both perpetration and victimisation of IPV (McClure & Parmenter, 2020). Poor financial status and parental offending and substance use are also related to both perpetrating and victimisation of IPV (Costa et al., 2015).

Many other risk factors have also been found to be associated with both victimisation and perpetration of IPV, such as insecure attachment style (Spencer et al., 2021), depression, anxiety, PTSD, Antisocial and Emotionally Unstable Personality Disorders (Spencer et al., 2019), and substance use (Cafferky et al., 2018; Kraanen et al., 2014). However, it is also noted many of these risk factors are predictive for general violence as well, and are even included in the HCR-20 Risk Assessment (Andrade, O'Neill & Diener, 2009), meaning it is not clear IPV risk factors can be separated from general violence risk factors. However, this could be due to the heterogeneity of IPV offenders, which can include both specialists and generalists, as discussed below.

Due to the presence of these factors in both victims and perpetrators of IPV, a wider examination of theories of IPV is needed; multi-factorial approaches need to be explored (Stith et al., 2004). Given the overlapping risk factors, it is perhaps not surprising that, according to research by Renner and Whitney (2012; amongst others), the most common IPV pattern in relationships is bidirectional. In fact, research shows that different negative childhood experiences can be linked to different IPV patterns for different genders; for example, for males, childhood sexual abuse was linked to both unidirectional IPV perpetration and reciprocal IPV, and childhood neglect was linked only to reciprocal, while in both genders previous suicide attempts was predictive of reciprocal IPV (Renner & Whitney, 2012).

As discussed in Chapter V, many studies using the CTS2 tool report findings of equal perpetration rates between males and females. However, one of the main criticisms of the CTS2, and other checklist measures, is the lack of context captured (Follingstad & Rogers, 2013), meaning violence committed in self-defence, as violent resistance, or due to a loss of emotional control, is all labelled as IPV. Despite this, Chapter V concluded that the CTS2 was a reliable and valid measure, but only for a specific type of partner violence.

IPV offenders are heterogenous (Dixon & Browne, 2003). Offenders can differ on whether they are IPV specialists or generally violent, such as the typology proposed by Holtzworth-Munroe and Stuart (1994), as well as by motivation. Two different types of IPV, one calculated and proactive and the other impulsive and reactive, have been identified and supported by substantial levels of research (Chesworth, 2018). Identified and named initially by Johnson (1995), Common Couple Violence (CCV; also called Situational Couple Violence) is often found in general population samples and arises from escalations in conflict between couples. Conflict between two partners could be an example of a situation where triggering a specific EMS can result in strong negative emotions, which leads to a loss of behavioural control (Dunne et al., 2018), resulting in violence. It is not uncommon for individuals who hold EMS to be in relationships with a person who triggers them; a concept Young et al. (2003) call 'schema chemistry'. This could explain findings of similarities between the EMS held by IPV victims and perpetrators (Pilkington et al., 2021b). It could possibly also go some way to explain reciprocal violence. As discussed in Chapter IV, neuroticism is likely to play a role in CCV, but not in the second type, named Intimate Terrorism (IT) by Johnson (1995).

Pilkington et al. (2021b) also suggest the overlap in EMS, but different IPV roles, demonstrated by victims and perpetrators could be a result of different coping methods. As discussed in Chapter II, the behaviour does not rise from the schema itself but from attempts to cope with the schema (Young et al., 2003). Mood states, known as schema modes, can be more effective for predicting aggression (Dunne et al., 2018) and are a key concept of schema therapy. Schema therapy, which "blends cognitive-behavioural, attachment, Gestalt, object relations, constructivist, and psychoanalytic schools into a rich, unifying conceptual and treatment model", has demonstrated positive results in clinical settings with both individuals with personality disorders and those who have ingrained personality traits that impact on their mental health (Young et al., 2003, p.1). Schema therapy extends beyond traditional Cognitive Behaviour Therapy (CBT) to focus on how childhood impacted on the individual, unhealthy coping, emotions and the therapeutic relationship (Young et al., 2003). It could therefore be argued that schema therapy is a more personalised alternative than the current interventions, which appear ineffective in preventing recidivism, have high drop-out rates and apply a one-size-fits-all approach (Chesworth, 2018). These programmes are often based on the feminist theory, with the aim to change men's patriarchal beliefs (Chesworth, 2018).

A meta-analysis by Sousa et al. (2024) concluded that schema-therapy has positive results for offenders on both psychological and behaviour variables, including recidivism. It is noted, however, that only one study in the analysis involved IPV perpetrators specifically. The study by Capinha et al. (2023) examined the recidivism rates of 162 IPV perpetrators who completed an intervention programme in the community that included 18 group sessions focusing on understanding EMS and practicing new ways of thinking and

experiencing situations. The recidivism rate for IPV by programme completers was 15.4%. Almost 50% of the re-offenders committed other crimes alongside the repeat offence of IPV. However, the study contained no control group, so it is not possible to draw limitations on the efficacy on the intervention compared with other programmes or in cases where the offender did not engage in any treatment. While the re-offending rate reported by Capinha et al. (2023) fell in the middle of the range of reported rates in the literature, the attrition rate was particularly low, which the authors described as encouraging. As well as the focus on schemas, the intervention programme also explores emotions due to the association between the two concepts (Capinha et al., 2023).

Chapter IV explores personality traits related to IPV perpetration. Personality is believed to contribute to the development of EMS, when the child's innate temperament interacts with the environment during childhood leading to basic needs not being met, such as safety and security (Young et al., 2003). The results from the systematic review in Chapter IV demonstrated that in the general population, individuals who perpetrate IPV score higher on neuroticism. However, there was insufficient research to draw any conclusions on forensic populations. Additionally, the effect of personality traits on relationships can vary across countries (Günaydin, 2021), demonstrating that research with diverse populations is required when attempting to draw globally relevant conclusions about IPV.

In line with Chapter IV's finding on neuroticism, Dunne et al. (2018) argues that violent offenders often struggle with understanding and managing emotions, which can impact upon therapy engagement, and as such any work focusing on schema modes should be accompanied by treatment focusing on emotional regulation. It was suggested schema therapy could be combined, as a core building block, with other modalities to create a multi-approach therapy

programme for violence reduction (Dunne et al., 2018). However, some consideration needs to be made for the suitability of different techniques for different issues. For example, Askiri (2019) points out that catharsis, a treatment technique in schema therapy described by Young et al. (2003) as punching a pillow while speaking to an abusive mother, is a technique highly discouraged by many in the anger and aggression field as it is seen as practicing aggression.

Other points to consider in the use of schema therapy for IPV link back to the discussion on different typologies of IPV (CCV vs IT), as well as the different types of abuse (physical, sexual, psychological) and the practicalities of implementing this type of therapy. Firstly, due to the heterogeneity between IPV offenders, it cannot be said that one treatment will work in all cases (Dixon & Browne, 2003). The same intervention might not produce the same results for both reactive and pro-active IPV; the motivations and risk factors may vary significantly (Morgan & Gilchrist, 2012). Additionally, female and male perpetrators may need different prevention programmes due to different risk factors (Renner & Whitney, 2012). Further research on the effectiveness of schema therapy using randomised control trials with lengthy follow up periods should be prioritised (Sousa et al., 2024) and within these trials, the type of IPV should be analysed and controlled for. This is because not all types are used by all IPV perpetrators. Individuals who perpetrate sexual violence within relationships may need different interventions, as there is more overlap in risk factors between non-partner sexual violence and sexual IPV, than sexual and physical IPV (Fulu et al., 2013).

Secondly, schema therapy is a comprehensive therapy. It can sometimes take a year or more to overcome just one mode (Young et al., 2003). Treatment with some clients is projected to take at least three years (Roediger, 2008). Although adapted specifically for forensic mental health, Bernstein's adaption of schema

therapy involved a two-year programme (Bernstein et al., 2012). These therapies are often delivered individually and it is questionable whether the prison service has the resources to provide this type of extensive therapy to all IPV perpetrators, and whether sentencing guidelines provide enough time.

Moving Forward

It is clear that more research is required on schemas, IPV perpetration and how to prevent it. As with many risk factors described above, many of the same childhood experiences and EMS have been linked to both the perpetration and victimisation of IPV. This may be due to the commonly reported reciprocal nature of IPV in the community, which is mostly like the CCV type of IPV. Due to the heterogeneity of IPV offenders, identifying specific schemas linked solely to perpetration may be a difficult task; however, as suggested, the route from EMS to perpetration is not well-understood and further research should be carried out exploring the schema modes and coping mechanisms held and used by IPV perpetrators, particularly in comparison with IPV victims.

The work in this thesis raises a number of practical considerations when conducting future research on IPV in order to test the new proposed model (figure 6.1). Firstly, all research needs to consider the type of IPV being explored, to avoid drawing invalid conclusions. Secondly, research should consider the merits of separate comparisons between forensic and community samples, as illustrated by the different findings reported in Chapter IV on personality traits.

As mentioned as a limitation in Chapter II and discussed in Chapter V, measuring the occurrence of IPV is not a straight-forward task. Neither official records, such as criminal records, nor self-report measures can be said to be entirely accurate, due to under-reporting, low conviction rates and questionable construct validity.

Using self-report tools, such as the CTS2, needs to be carefully considered, with special attention paid to the context of the violence being measured and the instructions given to participants. A combination of both self-report and official records may be the most accurate method in determining the presence and extent of violence. In ideal circumstances, both partners in the relationship should report on the violence use, however this may raise ethical issues due to the sensitive nature of the topic.

Finally, for research involving schemas, it is important to be aware of the limitations in the measurement of EMS and recent findings regarding domain organisation. The YSQ3-SF utilised in the study in Chapter II is a commonly used method for measuring schemas and has demonstrated acceptable to good confirmatory factor analysis and good internal consistency in multiple languages (Bach et al., 2015). However, concerns have been raised regarding the tool for the measurement of schemas, such as being unsuitable for use with some populations (e.g. older adults; Phillips et al., 2017), and being imprecise resulting in the longer version being recommended for use instead (Askari, 2019). Additionally, research using an older version of the YSQ-SF suggests that some of the schema scores are susceptible to change as a result of mood. Stopa and Waters (2005) reported that participants scored significantly differently on three schemas (Emotional Deprivation, Defectiveness and Entitlement) when the questionnaire was completed in different moods. Entitlement scores were higher when the participants were in a happy mood, while the other two schemas were higher when they were in a depressed mood. The results also suggested that the Social Isolation, Mistrust and Abuse, and Self-Sacrifice schemas could also be impacted by mood. Stopa and Waters (2005) argued that this could suggest, for some schemas, that the YSQ-SF could actually be measuring mood-activated cognitions

instead. While it is not guaranteed to still be the case with the newest version of the YSQ-SF, which was used in the current research, this is an important point as four of the schemas mentioned above fall into the Disconnection/Rejection domain, which is associated with aggression and offending in many studies, as discussed in Chapter II.

Recent research mentioned in Chapter II, to which Jeffrey Young contributed, suggests the five-domain structure is no longer the optimal organisation. Bach et al. (2018) reported that statistical analysis suggests a two or four domain structure would be best, however opted for the four-domain model upon consideration of clinical/practical issues, as it was the most theoretically meaningful and empirically sound. The four domains are 'Disconnection and Rejection', 'Impaired Autonomy and Performance', with six schemas each, and 'Excessive Responsibility and Standards', and 'Impaired Limits' with three (see figure 2 in Bach et al., 2018). Although the original structure was used in the current research to align with previous research, the new structure needs to be further validated and considered for use in future research.

Strengths and Limitations

One of the main strengths of this research is the use of a forensic sample. The research in chapters II and III used participants who had been convicted of an offence and sentenced to prison. However, this also posed a challenge to recruit participants and subsequently resulted in an underpowered sample for chapter II, which is a limitation. However, the findings provide some areas of research to consider exploring in future.

Another strength is the use of both quantitative and qualitative research methods, allowing for statistical analysis and in-depth exploration of different aspects of the

proposed model, leading to the development of a model of IPV. Understanding the perpetration of IPV and relevant factors can allow for intervention and risk assessment.

One limitation of the primary research in this thesis, and subsequently impacting the conclusions drawn, is that the sample was recruited from one prison in one area of the UK, was largely White British and were all male. This means the generalisability of the findings is limited. Further research should be carried out with female and ethnic minority participants to ensure validity.

Another limitation, which can be linked to the problems with the sample, is the small timeframe and limited resources available to the researcher. Due to delays with ethical approval, only a small window of recruitment was open to the researcher to collect participants, and there was reduced access to criminal records to ensure participants criminal history. This meant only 16 convicted IPV participants were collected and a participant in the qualitative study was included due to a domestic abuse conviction that ultimately was discovered to not be IPV-related. However, this participant admitted having perpetrated IPV during interview, allowing his inclusion.

A final limitation is the use of quantitative measures to measure schemas in chapter II and III, and the measure IPV in chapters II and IV. As discussed in chapter IV, surveys are not a fool-proof method of measuring anything and the measurement of IPV is particularly controversial. The prevention, risk assessment and reduction of IPV relies on the accurate measurement (Oram et al., 2022). However, studies generally suggest the tools used in this thesis are generally reliable and valid, as discussed in the chapters they are used in.

Conclusion

This thesis has explored the links between Early Maladaptive Schemas, which develop from childhood experiences in conjunction with personality, and the perpetration of Intimate Partner Violence. The Disconnection/Rejection domain appears to hold a significant role in IPV, however this is not solely in its perpetration. Many schemas and other factors are linked to both IPV perpetration and victimisation. To fully understand how EMS contribute to perpetration, schema responses and schema modes need exploring. However, any future research should carefully consider how IPV and EMS are measured, as well as motivations behind perpetration. This could further highlight the role of schema therapy in preventing IPV. The current thesis also demonstrates the link between negative childhood experiences and IPV. While the specific experiences linked to perpetration, as opposed to both perpetration and victimisation, are not clear, as Renner and Whitney (2012) point out, efforts to reduce the occurrence of these experiences in childhood may also contribute to reducing IPV generally.

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Appendices

Appendix A: Ethical Approval Letters

University of Nottingham
UK | CHINA | MALAYSIA

Faculty of Medicine & Health Sciences
Research Ethics Committee
Faculty Hub
Room E41, E Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH
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09 February 2024

Elena Dorling
Trainee/ Doctorate in Forensic Psychology student
Forensic and Family Psychology
AU1 Mental Health and Clinical Neurosciences
School of Medicine
Yang Fujia Building
University of Nottingham Jubilee Campus
Wollaton Road, Nottingham
NG5 1BB

Dear Elena Dorling

Ethics Reference No: FMHS 286-0423 – please always quote
Study Title: Early Maladaptive Schemas of People in Prison
Chief Investigator/Supervisor: Dr Hauwa Onifade, Assistant Professor, Mental Health and Neurosciences, School of Medicine
Second Supervisor: Kevin Brown, Professor of Forensic Psychology and Child Health, Centre for Forensic and Family Psychology, Mental Health and Clinical Neurosciences, School of Medicine.
Lead Investigators/student: Elena Dorling, Trainee/Doctorate in Forensic Psychology, School of Medicine
Proposed Start Date: 01/03/2023   Proposed End Date: 30/09/2023

Thank you for notifying the Committee of amendment 1: 18.11.2023 in summary as follows:

- Change of the recruitment sample from probation offices to prison due to poor participant response
- Change of Study title as detailed
- Materials and overall method would be the same, however all interviews and data collection would be completed face-to-face due to restrictions in prison on technology and computer access issues for participants
- Change in researcher personal safety considerations as detailed for the prison service location

The following documents were received:

- FMHS REC Notice of Amendment form no 1: 18.11.2023
- Email from HMP Norwich Prison Governor dated 17.10.2023
- HMPPS Research Ethics (NRC) ref no 2023-345 approval letter subject to modifications dated 08/02/2024
- Amended participant information Sheet, consent form and debrief sheet v2.0: 18.11.2023

These have been reviewed and amendment no 1: 18.11.2023 is Noted to File on the understanding that:

1. The modifications requested by the NRC are completed. The NRC letter of approval and revised version of the application documents are submitted to this Committee so they can be Noted to File.

Yours sincerely

pp *Lannogoun*

Dr John Williams, Associate Professor in Anaesthesia and Pain Medicine
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

<table>
<tr><td>Ministry of Justice</td><td>HM Prison & Probation Service</td></tr>
</table>

APPROVED SUBJECT TO MODIFICATIONS

Ms Elena Dorling
Yang Fujia Building,
Jubilee Campus,
University of Nottingham
Woollaton Road,
Nottingham, NG8 1BB

National Research Committee
Email: National.Research@Justice.gov.uk

08/02/2024

Ref: 2023-345
Title: The Early Maladaptive Schemas of People with Different Offence Types

Dear Elena,

Further to your application to undertake research across HMPPS, the National Research Committee (NRC) is pleased to grant approval in principle for your research. The Committee has requested the following modifications:

- Please note that a positive case note added to NOMIS would still be considered an incentive.
- Research materials (i.e. participant information sheet, consent form) should be checked to ensure all references to probation are removed.
- A date should be included after which withdrawal is not possible (i.e., once responses have been anonymised / analysis has commenced).
- It should also be included on the PIS that you are undertaking this study as part of your doctorate which is unrelated to your prison work. Consideration should be given to how any power imbalance will be monitored and managed given your day-to-day role in the prison.
- Consideration should be given to simplifying the language in the participant information sheet and consent form to ensure it is accessible to all potential participants.
- Consideration should be given to the risk that participants may use the identification of schemas as a justification/excuse for their previous behaviours and a process in place to monitor and manage this risk.
- A distress protocol should be in place given the sensitive nature of the questions and escalation/notification processes agreed with the prison to manage upset/distress post interview.
- Limits to confidentiality should be more explicitly stated – these will be outlined in the final decision letter.
- In the final research reports, the limitations should be clearly set out.

Before the research can commence you must agree formally by email to the NRC (National.Research@Justice.gov.uk), confirming that you accept the modifications set out above and will comply with the terms and conditions outlined below.

Following NRC approval, the decision to grant access to prison establishments or Probation Service regions (and the offenders and practitioners within these establishments/regions) ultimately lies with the Governing Governor/Director of the establishment or the Probation Service Regional Probation Director of the region concerned.

NRC approval covers the following prisons / probation regions:
- HMP Norwich

If establishments/regions are to be approached as part of the research, a copy of this letter must be attached to the request to prove that the NRC has approved the study in principle. The decision to grant access to existing data lies with the Information Asset Owners (IAOs) for each data source and the researchers should abide by the data sharing conditions stipulated by each IAO.

Please note that a MoJ/HMPPS policy lead may wish to contact you to discuss the findings of your research. If requested, your contact details will be passed on and the policy lead will contact you directly.

Please quote your NRC reference number in all future correspondence.

Yours sincerely,
Karen Morgan
National Research Committee

Appendix B: Background Information Sheet

University of Nottingham
UK | CHINA | MALAYSIA

Faculty of Medicine & Health Sciences
School of Medicine
Yang Fujia Building
Jubilee Campus
Woollaton Road
Nottingham, NG8 1BB

Supervisors: Prof. K. Browne, Dr H. Onifade
Supervisor contact: 0115 823 2210
Lead researcher: Elena Dorling, DForenPsy student
Researcher contact: elena.dorling@nottingham.ac.uk

Study Title: Early Maladaptive Schemas of People In Prison

PARTICIPANT INFORMATION SHEET

Research Ethics Reference: FMHS 286-0423
Version 2.0   Date: 18.11.2023

We would like to invite you to take part in a study. Before you decide, it is important for you to understand why the study is being done and what it will involve. The researcher will go through this information sheet with you and answer any questions you have.   Please take time to read this carefully and discuss it with others if you wish. Ask us anything that is not clear.

What is the aim of the research?

Early Maladaptive Schemas (EMS) are unhelpful individual thinking processes that effect how you interpret the world around you. Previous studies have suggested that people who commit different crimes may have different patterns of EMS. At the moment, there is not much information about the EMS that are held by people who commit crimes and the impact of childhood and later intimate relationships on those EMS.

Why have I been invited to take part?

You have been invited to take part in this study because you have been identified as someone who is in prison as a result of committing a crime, or on suspicion of committing a crime. We are hoping to recruit as many participants as possible.

Do I have to take part?

It is up to you to decide if you want to take part in this study. The study is in two stages, but you do not have to take part in both stages. I (the researcher) will describe the study and go through this information sheet with you to answer any questions you may have. If you agree to participate, I will ask you to sign a consent form and will give you a copy to keep. However, you would still be free to withdraw from the study until the end of May 2024, at which time the results will be analysed. There is no penalty for

declining to take part. It will not affect your contact with the legal system or your sentence. The research is being undertaken as part of the researcher's doctorate qualification and is separate from their role at the prison.

1. What will happen to me if I decide to take part?

The researcher will go over the information sheet, explain the procedures, and check you are willing and able to participate. If you agree to participate, you will be asked to sign a consent form agreeing to take part and then assigned a participant number so that your data can be identified by the researcher if you wish to withdraw at a later date. This will be written on the consent form.

The **first stage** of the study involves answering three questionnaires with the researcher. You will also be asked about your involvement with the justice system – this does not need to be detailed, just your offence history. The researcher will read through the questions with you and assist you to provide an answer. The questions are multiple choice and there is no right or wrong answers. The answers you give will be entered into a computer, where only the researcher and the study supervisor will have access to them and the paper copies will be disposed of.

The **second stage** involves an interview about your experiences as a child and the circumstances of the offence. Not everybody will participate in this stage and you can choose not to be included in this stage. The interviews will take place at a time convenient to both parties – this could be immediately following the questionnaires or at another time.

2. What are the questionnaires?

The questionnaires are the Young Schema Questionnaire (short form), a relationship behaviour inventory (RBI) and the Structured Assessment of Personality Abbreviated Scale (SAPAS). The Young Schema Questionnaire is to understand what beliefs (schemas) you hold. The SAPAS is a short screening tool for specific personality traits. The RBI asks about ways you have behaved towards your current or most recent intimate partner.

3. Are there any risks in taking part?

There is no risk of physical harm. Some people may find the questionnaire items upsetting and the second stage interviews may discuss sensitive topics, such as relationships with parents. If you become upset during the interview, you are welcome to stop the interview, take a break and/or withdraw at any time. The details of support services will be provided on the consent form.

4. Are there any benefits in taking part?

There will be no direct benefit to you from taking part in this study, but your contribution may help inform offending behaviour programmes to ensure they are relevant to the people taking part.

5. Will my time/costs be reimbursed?

Participants will not receive any reimbursement to participate in the study. It is not anticipated there will be any costs to you as the participant.

6. What happens to the data provided?

The data will be stored confidentially by the study team at the University using password protected online storage, such as OneDrive. To help ensure your privacy, you will be assigned a participant number, and it will be used instead of your name. Your name will only be recorded on the consent form, which be stored in a secure location, only accessible to the researcher and associated colleagues.

All data and records will be anonymously and confidentially stored for a minimum of 7 years after publication or public release of the work of the research, as per university policy. Information provided in any publication or report will **not** be able to identify anyone involved in the study. We would also like your permission to use anonymised data in future studies. All personal information that could identify you will be removed or changed before information is used in any way.

7. What will happen if I don't want to carry on with the study?

Even after you have signed the consent form, you are free to withdraw from the study before the end of May 2024, when the data is analysed, without consequence and without giving any reason. Any personal data will be destroyed. After the data is analysed and the article is written, it may not be possible to extract your data so please contact the researcher as soon as possible if you change your mind about taking part.

8. Who will know that I am taking part in this research?

No one within the prison or criminal justice system will be informed you are taking part without your consent. All answers to the questionnaires will be kept confidential. However, if there is a risk of harm to yourself or others that arises during the study, the necessary people within the prison will be informed.

Data will be used for research purposes only and in accordance with the General Data Protection Regulations. Electronic storage devices will be encrypted while transferring and saving of all sensitive data generated in the course of the study. All such data are kept on password-protected databases sitting on a restricted access computer system and any paper information (such as your consent form, contact details and any research questionnaires) would be stored safely in lockable cabinets in a secured building and would only be accessed by the research team.

Under UK Data Protection laws the University is the Data Controller (legally responsible for the data security) and the Chief Investigator of this study (named below) is the Data Custodian (manages access to the data).

You can find out more about how we use your personal information and read our privacy notice by asking the researcher.

Designated individuals of the University of Nottingham may be given access to data for monitoring and/or audit of the study to ensure we are complying with data protection guidelines.

9. What will happen to the results of the research?

The research will be written up as a thesis and as academic journal articles. On successful submission of the thesis, it will be deposited both in print and online in the University archives, to facilitate its use in future studies. The thesis will be published open access.

10. Who has reviewed this study?

This study has been reviewed by a University of Nottingham ethics committee who have approved the study.

11. Who is organising and funding the research?

This study is being organised and developed by the lead researcher, under appropriate supervision from the University of Nottingham. It is not being funded.

12. What if there is a problem?

If you have a concern about any aspect of this project, please speak to the researcher (Elena Dorling) or contact the supervisors using the details above, who will do their best to answer your query. The researcher should acknowledge your concern and give you an indication of how he/she intends to deal with it. If you remain unhappy and wish to complain formally, you can do this by contacting the FMHS Research Ethics Committee Administrator, Faculty Hub, Medicine and Health Sciences, E41, E Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH.
Please quote ref no: FMHS 286-0423

13. Contact Details

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

Elena Dorling
School of Medicine

EMS & IPV Participant Information Sheet, version 2.0: 18.11.2023

Appendix C: Consent Form

University of Nottingham
UK | CHINA | MALAYSIA

Faculty of Medicine & Health Sciences
School of Medicine
Yang Fujia Building
Jubilee Campus
Wollaton Road
Nottingham, NG8 1BB

Participants Consent Form
Final version 2.0: 18.11.2023
Title of Study: Early Maladaptive Schemas of People In Prison

REC ref: FMHS 286-0423

Name of Researchers: Elena Dorling, Forensic Psychology Doctorate Candidate, Prof K. Browne (Supervisor), Dr H. Onifade (Supervisor)

Name of Participant:
Participant Number:
Memorable Word:

Please initial

1. I confirm that I have read and understand the information sheet version number 2 dated 18.11.2023 for the above study which is attached and have had the opportunity to ask questions. ☐

2. I understand that my participation is voluntary and that I am free to withdraw without giving any reason and without disadvantage until the end of May 2024. ☐

3. I understand that relevant sections of my data collected in the study may be looked at by the university and by other responsible individuals for monitoring and audit purposes. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential. ☐

4. I understand that information about me recorded during the study will be made anonymous before it is stored in a secure database. ☐

5. I understand that the answers I give in response to the questionnaires will be kept confidential unless I reveal something of concern that may put myself or someone else at any risk. It will then be necessary to report this to the appropriate persons. ☐

6. I understand that if I take part in the interview stage of the study, anonymised sections of my answer may be presented in the final write-up. ☐

7. I agree to take part in the study and give consent for my offence history to be accessed by the research team ☐

8. I agree that my anonymous research data will be stored and used to support other research during and after 7 years and shared with other researchers including those working outside the University. ☐

9. I would like to take part in the following stages:

    a. Stage One <u>only</u> [questionnaires] ☐

    b. Both stages [questionnaire and interview] ☐

Name of Participant: Signature: Date:

Researcher Name: Signature: Date:

Appendix D: Debrief Letter

Debrief: Early Maladaptive Schemas of People in Prison

Thank you!

Thank you for participating in my study on the Early Maladaptive Schemas of people in prison. With this study, my aim is to compare the schemas (beliefs) held by different types of offenders – namely those who have committed offences against their partners and those who haven't.

For some participants, the interviews may have caused some distress. If that is the case, below are some phone numbers you can call for support. I can also speak to your probation officer on your behalf – just let me know if you would like me to do that.

If you decide you want to withdraw your data, you can do this with no penalty, until the end of May 2024, when the results will be analysed.

Thank you again!

For support:
Call NHS 111 or the Samaritans on 116 123
Speak to the GP or wing officer

For questions relating to the research or to withdraw:
Speak to the researcher, via the Daycare Service

Appendix E: Young Schema Questionnaire – Short Form v3

Young Schema Questionnaire (YSQ) Short Form – V3

NAME: _____ DATE: _____

Instructions: Listed below are statements that people might use to describe themselves. Please read each statement, then rate it based on how accurately it fits you **over the past year**. When you are not sure, base your answer on what you **emotionally feel**, not on what you think to be true.

A few of the items ask about your relationships with your parents or romantic partners. If any of these people have died, please answer these items based on your relationships when they were alive. If you do not currently have a partner but have had partners in the past, please answer the item based on your most recent significant romantic partner.

Choose the highest score from 1 to 6 on the rating scale that best describes you, then write your answer on the line before each statement.

RATING SCALE

1 = Completely untrue of me	4 = Moderately true of me
2 = Mostly untrue of me	5 = Mostly true of me
3 = Slightly more true than untrue	6 = Describes me perfectly

1. _____ I haven't had someone to nurture me, share himself/herself with me, or care deeply about everything that happens to me.

2. _____ I find myself clinging to people I'm close to because I'm afraid they'll leave me.

3. _____ I feel people will take advantage of me.

4. _____ I don't fit in.

5. _____ No man/woman I desire could love me once he/she saw my defects or flaws.

6. _____ Almost nothing I do at work (or school) is as good as other people can do.

7. _____ I do not feel capable of getting by on my own in everyday life.

8. _____ I can't seem to escape the feeling that something bad is about to happen.

9. _____ I have not been able to separate myself from my parent(s) the way other people my age seem to.

10. _____ I think that if I do what I want, I'm only asking for trouble.

11. _____ I'm the one who usually ends up taking care of the people I'm close to.

12. _____ I am too self-conscious to show positive feelings to others (e.g., affection, showing I care).

1 = Completely untrue of me	4 = Moderately true of me
2 = Mostly untrue of me	5 = Mostly true of me
3 = Slightly more true than untrue	6 = Describes me perfectly

13. ____ I must be the best at most of what I do; I can't accept second best.

14. ____ I have a lot of trouble accepting "no" for an answer when I want something from other people.

15. ____ I can't seem to discipline myself to complete most routine or boring tasks.

16. ____ Having money and knowing important people make me feel worthwhile.

17. ____ Even when things seem to be going well, I feel that it is only temporary.

18. ____ If I make a mistake, I deserve to be punished.

19. ____ I don't have people to give me warmth, holding, and affection.

20. ____ I need other people so much that I worry about losing them.

21. ____ I feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me.

22. ____ I'm fundamentally different from other people.

23. ____ No one I desire would want to stay close to me if he or she knew the real me.

24. ____ I'm incompetent when it comes to achievement.

25. ____ I think of myself as a dependent person when it comes to everyday functioning.

26. ____ I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.

27. ____ My parent(s) and I tend to be over-involved in each other's lives and problems.

28. ____ I feel as if I have no choice but to give in to other people's wishes, or else they will retaliate, get angry, or reject me in some way.

29. ____ I am a good person because I think of others more than myself.

30. ____ I find it embarrassing to express my feelings to others.

31. ____ I try to do my best; I can't settle for "good enough."

32. ____ I'm special and shouldn't have to accept many of the restrictions or limitations placed on other people.

33. ____ If I can't reach a goal, I become easily frustrated and give up.

1 = Completely untrue of me	4 = Moderately true of me
2 = Mostly untrue of me	5 = Mostly true of me
3 = Slightly more true than untrue	6 = Describes me perfectly

34. ____ Accomplishments are most valuable to me if other people notice them.

35. ____ If something good happens, I worry that something bad is likely to follow.

36. ____ If I don't try my hardest, I should expect to lose out.

37. ____ I haven't felt that I am special to someone.

38. ____ I worry that people I feel close to will leave me or abandon me.

39. ____ It is only a matter of time before someone betrays me.

40. ____ I don't belong; I'm a loner.

41. ____ I'm unworthy of the love, attention, and respect of others.

42. ____ Most other people are more capable than I am in areas of work and achievement.

43. ____ I lack common sense.

44. ____ I worry about being physically attacked by people.

45. ____ It is very difficult for my parent(s) and me to keep intimate details from each other without feeling betrayed or guilty.

46. ____ In relationships, I usually let the other person have the upper hand.

47. ____ I'm so busy doing things for the people I care about that I have little time for myself.

48. ____ I find it hard to be free-spirited and spontaneous around other people.

49. ____ I must meet all my responsibilities.

50. ____ I hate to be constrained or kept from doing what I want.

51. ____ I have a very difficult time sacrificing immediate gratification or pleasure to achieve a long-range goal.

52. ____ Unless I get a lot of attention from others, I feel less important.

53. ____ You can't be too careful; something will almost always go wrong.

54. ____ If I don't do the job right, I should suffer the consequences.

55. ____ I have not had someone who really listens to me, understands me, or is tuned into my true needs and feelings.

1 = Completely untrue of me	4 = Moderately true of me
2 = Mostly untrue of me	5 = Mostly true of me
3 = Slightly more true than untrue	6 = Describes me perfectly

56. _____ When someone I care for seems to be pulling away or withdrawing from me I feel desperate.

57. _____ I am quite suspicious of other people.

58. _____ I feel alienated or cut off from other people's motives.

59. _____ I feel that I'm not lovable.

60. _____ I'm not as talented as most people are at their work.

61. _____ My judgement cannot be counted on in everyday situations.

62. _____ I worry that I'll lose all my money and become destitute or very poor.

63. _____ I often feel as if my parent(s) are living through me – that I don't have a life of my own.

64. _____ I've always let others make choices for me, so I don't really know what I want for myself.

65. _____ I've always been the one who listens to everyone else's problems.

66. _____ I control myself so much that many people think I am unemotional or unfeeling.

67. _____ I feel there is constant pressure for me to achieve and get things done.

68. _____ I feel that I shouldn't have to follow the normal rules or conventions that other people do.

69. _____ I can't force myself to do things I don't enjoy, even when I know it's for my own good.

70. _____ If I make remarks at a meeting, or am introduced in a social situation, it's important for me to get recognition and admiration.

71. _____ No matter how hard I work, I worry that I could be wiped out financially and lose almost everything.

72. _____ It doesn't matter why I make a mistake. When I do something wrong, I should pay the consequences.

73. _____ I haven't had a strong or wise person to give me sound advice or direction when I'm not sure what to do.

74. _____ Sometimes I am so worried about people leaving me that I drive them away.

75. _____ I'm usually on the lookout for people's ulterior or hidden motives.

76. _____ I always feel on the outside of groups.

1 = Completely untrue of me	4 = Moderately true of me
2 = Mostly untrue of me	5 = Mostly true of me
3 = Slightly more true than untrue	6 = Describes me perfectly

77. ____ I am too unacceptable in very basic ways to reveal myself to other people or to let them get to know me well.

78. ____ I'm not as intelligent as most people when it comes to work (or school).

79. ____ I don't feel confident about my ability to solve everyday problems that come up.

80. ____ I worry that I'm developing a serious illness, even though nothing serious has been diagnosed by a doctor.

81. ____ I often feel I do not have a separate identity from my parent(s) or partner.

82. ____ I have a lot of trouble demanding that my rights be respected and that my feelings be taken into account.

83. ____ Other people see me as doing too much for others and not enough for myself.

84. ____ People see me as uptight emotionally.

85. ____ I can't let myself of the hook easily or make excuses for my mistakes.

86. ____ I feel that what I have to offer is of greater value than the contribution of others.

87. ____ I have rarely been able to stick to my resolutions.

88. ____ Lots of praise and compliments make me feel like a worthwhile person.

89. ____ I worry that a wrong decision could lead to disaster.

90. ____ I'm a bad person who deserves to be punished.

Appendix F: Abusive Behaviour Inventory

BEHAVIOUR INVENTORY (29 items)

Here is a list of 29 behaviours that many women report have been used by their partners or former partners. We would like you to estimate how often these behaviours occurred during the six months prior to your conviction. Your answers are strictly confidential.

CIRCLE a number on each of the items listed below to show your closest estimate of how often it happened in your relationship with your partner or former partner during the six months before your conviction.

0 = NEVER   1= RARELY   2 = OCCASIONALLY   3 = FREQUENTLY   4 = VERY FREQUENTLY

1. Called them names and/or criticized them	0	1	2	3	4
2. Tried to keep them from doing something they wanted to do (example: going out with friends, going to meetings)	0	1	2	3	4
3. Gave them angry stares or looks	0	1	2	3	4
4. Prevented them from having money for their own use	0	1	2	3	4
5. Ended a discussion with them and made the decision yourself	0	1	2	3	4
6. Threatened to hit or throw something at them	0	1	2	3	4
7. Pushed, grabbed, or shoved them	0	1	2	3	4
8. Put down their family and friends	0	1	2	3	4
9. Accused them of paying too much attention to someone or something else	0	1	2	3	4
10. Put them on an allowance	0	1	2	3	4
11. Used your children to threaten them (example: told them that they would lose custody, said they would leave town with the children)	0	1	2	3	4
12. Became very upset with them because dinner, housework, or laundry was not ready when you wanted it or done the way you thought it should be.	0	1	2	3	4

13. Said things to scare them (examples: told them something "bad" would happen, threatened to commit suicide)	0	1	2	3	4
14. Slapped, hit, or punched them	0	1	2	3	4
15. Made them do something humiliating or degrading (example: begging for forgiveness, having to ask your permission to use the car or do something)	0	1	2	3	4
16. Checked up on them (examples: listened to their phone calls, checked the mileage on the car, called them repeatedly at work)	0	1	2	3	4
17. Drove recklessly when they were in the car	0	1	2	3	4
18. Pressured them to have sex in a way that they	0	1	2	3	4
didn't like or want	0	1	2	3	4
19. Refused to do housework or childcare	0	1	2	3	4
20. Threatened them with a knife, gun, or other weapon	0	1	2	3	4
21. Told them that they were a bad parent	0	1	2	3	4
22. Stopped them or tried to stop them from going to work or school	0	1	2	3	4
23. Threw, hit, kicked, or smashed something	0	1	2	3	4
24. Kicked them	0	1	2	3	4
25. Physically forced them to have sex	0	1	2	3	4
26. Threw them around	0	1	2	3	4
27. Physically attacked the sexual parts of their body	0	1	2	3	4
28. Choked or strangled them	0	1	2	3	4
29. Used a knife, gun, or other weapon against them	0	1	2	3	4

NOTES:

Appendix G: Interview Schedule

<u>Interview Schedule</u>

I would like to start by talking about your index offence. That is the offence that led to this sentence that you are currently serving. Are you happy to discuss this with me?

- Please explain to me, in as much detail as you can, what happened?
- What thoughts and feelings were you experiencing at the time of the offence?

I would like to ask you about your childhood, if that is ok. If at any point you begin to feel upset or uncomfortable in anyway, please let me know and we can stop or take a break.

- Who did you live with growing up?
- What was your relationship with your *[primary care giver]* like?
- What was your relationship with your *[secondary care giver]* like?
- Would you describe your childhood as happy? Why/why not?
- Do you think your childhood has impacted your offending in anyway? How/Why not?

Now I would like to find out about your relationships as an adult – if that is something you are open to discussing.

- Who are the important people in your life?
- What are the good things about your relationships?
- What are some problems you have experienced within relationships?
- What worries do you have about your relationships?
- How have your childhood experiences impacted on your relationships?

*The results of one of the questionnaires suggest you hold the ____ schema. Some of the beliefs that people might have as a result of this schema are _____.

- How accurately do you think that suggested schema matches with your beliefs?
- Do you think these beliefs may have contributed to your offending? Why/why not?

*This question may be asked based on the result of the schema questionnaire, where the scores are available to the interviewer. A table with the different schema domains in will be available to participants for reference.

Appendix H

Table 5.1 An example of the analysis process in study two (chapter III)

Interview Extract	Initial Codes	Candidate Themes	Final Themes
Participant 40 P: between mum and dad all the time umm dad weren't very well he couldn't come and kick the football about me on the weekend umm a lot of my schoolmates took the piss out of him because he was overweight and stuff I: right P: umm and mum … well in my opinion she just wasn't really a really good mum or anything I: ok P: umm any problems dad dealt with it even though he was ill umm and sort of like umm … obviously we me and my brother used to go and stay at my dad's every weekend I: ok P: umm which was good umm but when we were basically when I was 12 mum fell pregnant with my stepsister and I was then in the process of getting diagnosed with my ADHD and she stopped giving me any attention	no emotional provision from mum dad unwell so stopped caregiving	Parent (Not) Meeting Needs or Leaving	Unmet Emotional Needs

Participant 53

I: Did you feel like you were emotionally supported by your mum growing up

P: No

I: No … because you said she was mentally and physically abusive was that physical abuse towards you

P: Towards all of us in some way yeah especially when I was younger not when I was older when I was younger … like when I was in year three and four there were sometimes that yeah it was just horrible

I: What about with your dad … you said you had a weird relationship with your mum what about with your dad what was that relationship like

Not emotionally supported as a child	Parent (Not) Meeting Needs or Leaving	Unmet Emotional Need

P: It was weird

I: Weird as well

P: Yeah

I: did you feel like he was emotionally supportive

P: No

I: So you didn't feel like you could turn to them if you had a problem when you were younger

P: No

Participant 47

I: did you ever feel love from any of the parents that brought you up

P: the first ones

I: the first ones yeah you said they were really lovely didn't you

P: they did everything that they could there was always food on the table it was always warm and always looked after the washing machine was constantly on to make sure you had clean clothes and stuff

I: mhm

P: and then um we moved house and er I noticed because er ?? turn around and got a nice slap round the head ?????? (you're not my??) mum had gotten shorter and a bit plump and her hair colour changed ??

I: did you get slapped quite a lot as a child

P: slapped

I: slapped yeah did you get slapped quite a lot

P: err in the first house no

I: no

P: then I moved there's all sorts of time off nothing too major and then the other one turn up and I got all sorts ???

Physically provided for	Parents (Not) Meeting Needs or Leaving	N/A
Physical abuse as a child	Experiencing Abuse in Childhood	Violence and Abuse
Multiple Caregivers	Parental Relationship Issues	Insecure Parental Attachments

Appendix I: Original Data Extraction Form

Author	Year	Sample Country	Comparison Group	Mean Score - IPV Group					Mean Score - Comparison Group				
				Openess	Conscientiousness	Agreeableness	Extraversion	Neuroticism	Openess	Conscientiousness	Agreeableness	Extraversion	Neuroticism

Appendix J: Research Poster

The Personality Traits of Intimate Partner Violence Perpetrators: A Systematic Review

Elena Dorling, Dr Hauwa Onifade, Prof. Kevin Browne

Background

- Intimate partner violence (IPV) - psychological, physical or sexually harmful behaviour towards a current or former intimate partner - is a global concern that impacts both the victim and society. Understanding the factors that contribute to perpetration is key to prevention.
- Personality disorders have been demonstrated as a factor linked to perpetration, however the degree of overlap between different personality disorders suggests the exploration of personality traits may be more useful (Collison & Lynam, 2021).
- Costa and McCrea (1992)'s Five Factor Model (FFM) is a leading model of personality. It consists of five broad personality trait dimensions: openness, conscientiousness, extraversion, agreeableness and neuroticism.
- Offending behaviour has consistently been linked to low levels of agreeableness and conscientiousness. However, for IPV, there is no clear picture.
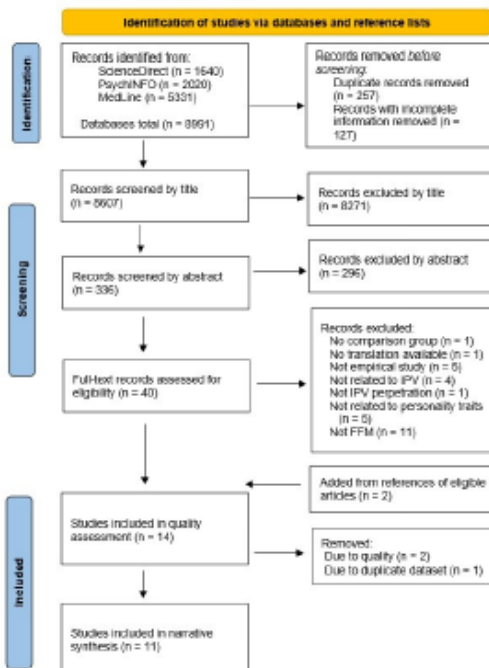
Aim

To determine whether IPV perpetrators display different personality traits, measured according to the FFM dimensions, to non-perpetrators and/or general violence offenders.

Table 1. PECO Criteria

Population	Adults
Exposure	IPV perpetration
Comparison	Non-Exposed Groups OR Different IPV Types
Outcomes	FFM Personality traits

Method

- Systematic review of cross-sectional studies.
- Three databases were searched with search terms built around the two concepts; 'IPV' and 'personality traits'.
- 8991 results were reviewed in total, with 14 studies included in the quality assessment.
- The Joanne Briggs Institute Checklist for Analytical Cross-Sectional Studies was used to assess study quality, with two raters independently rating the study.

Identification of studies via databases and reference lists

Identification:
- Records identified from:
  - ScienceDirect (n = 1640)
  - PsychINFO (n = 2020)
  - MedLine (n = 5331)
  - Databases total (n = 8991)
- Records removed before screening:
  - Duplicate records removed (n = 257)
  - Records with incomplete information removed (n = 127)

Screening:
- Records screened by title (n = 8607) → Records excluded by title (n = 8271)
- Records screened by abstract (n = 336) → Records excluded by abstract (n = 296)
- Full-text records assessed for eligibility (n = 40) → Records excluded:
  - No comparison group (n = 1)
  - No translation available (n = 1)
  - Not empirical study (n = 5)
  - Not related to IPV (n = 4)
  - Not IPV perpetration (n = 1)
  - Not related to personality traits (n = 5)
  - Not FFM (n = 11)
- Added from references of eligible articles (n = 2)

Included:
- Studies included in quality assessment (n = 14) → Removed:
  - Due to quality (n = 2)
  - Due to duplicate dataset (n = 1)
- Studies included in narrative synthesis (n = 11)

Results

- 11 studies included in the analysis; three were forensic samples.
- Neuroticism featured highly in the community samples.
- Results from forensic samples were less conclusive.

Table 2. The number of studies, by direction, demonstrating a relationship between each personality trait and any type of IPV

Relationship Direction with IPV	Personality Trait				
	O	C	E	A	N
Positive Relationship (%)	1 (9.1%)	1 (9.1%)	2 (18.2%)	1 (9.1%)	9 (81.8%)
Negative Relationship (%)	1 (9.1%)	3 (27.3%)	1 (9.1%)	4 (36.4%)	1 (9.1%)

O = Openness. C = Conscientiousness. A = Agreeableness. E = Extraversion. N = Neuroticism.

Discussion

Neuroticism is linked to poor conflict management. This can lead to 'common couple violence' - a type of IPV identified by Johnson (1995), commonly found in community samples. The type of IPV exhibited by forensic samples may be more motivated by a desire to control and as such it may not be useful to compare across different populations. Further research is needed with forensic samples to draw conclusive results for that sample type.