

EXPERIENCES OF SHAME, SOCIAL RANK AND VIOLENCE  
AMONGST MALE OFFENDERS

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## ABSTRACT

**Background:** Theory associates shame with violence but research is inconsistent. The Compassion Focused Therapy shame concept distinguishes internal shame, other shame and social rank, offering a novel research approach. Adverse and traumatic experiences have been associated with violence in adulthood.

**Aims:** This study aimed to distinguish between internal, other and social rank shame with the intention of introducing a relational and social understanding of shame and violence. Secondly, it aimed to explore developmental psychopathology theories of violence by profiling the central and traumatic features of male offenders' shame memories.

**Method:** Drawing on a pragmatist philosophy, this study adopted a cross sectional, quantitative approach. Male offenders (N = 121) in a young offenders' prison were recruited via the healthcare suite. Participants were invited to complete a series of established self-report questionnaires via one to one interview. Two questionnaires required responses with reference to a strong shame memory.

**Results:** Multiple regression analysis found proactive aggression was predicted by other shame, social rank and shame memory avoidance. Only other shame and participant age were independent predictors of proactive aggression. Reactive aggression was predicted by internal shame, other shame, shame memory avoidance and hyperarousal, however only age independently predicted reactive aggression. MANCOVA found no differences between groups with and without physical violence risk alerts in terms of shame when controlling for age. Structural Equation Modelling identified social rank and other shame as mediators of proactive aggression. Black and Asian/Other ethnic groups had significantly higher levels of social rank but not aggression.

**Conclusion:** Although physically violent and nonviolent groups did not differ in terms of shame, different shame variables predicted proactive and reactive aggression in the whole population. The structural equation model is a novel analysis of proactive aggression. Ethnic differences in social rank are discussed in terms of BME overrepresentation in the criminal justice system.

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# 1. INTRODUCTION

## 1.1. Position

This thesis applies a pragmatic philosophy to understanding shame and violence. Pragmatic research begins with practice and this research was influenced by conversations with men in community and prison forensic services. Pragmatism suggests that theories are instruments, not complex accounts of reality. It assumes that what is true of beliefs, right of actions and worthwhile in appraisal is what works out most effectively in practice (Rescher, 2005). The Compassion Focused Therapy (CFT) model of shame will be presented as having the most utility when highlighting the role of social context and ethnicity in shame violence research. Social context and ethnicity are important considerations because from a Pragmatist philosophy, there is no difference between ‘facts’ (descriptions about the world) and human values (Jones-Chesters, 2007).

## 1.2. Thinking about Violence

First it is important to understand the approaches by which psychologists have approached violence.

### 1.2.1. Definitions

The World Health Organisation (WHO, 2017, p. 1) defines violence as;

“The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, which either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation.”

Aggression has been similarly defined as damaging behaviour directed from one being to another (Peña, Andreu, Graña, Pahlavan, & Ramirez, 2008). These definitions include non-physical, psychological and relational acts (Kawabata, Tseng, & Crick, 2014). However some theorists distinguish violence as a subset of aggression, limiting it to physical acts involving the body (Yakeley & Meloy, 2012).

The present study uses the WHO definition of violence but makes a separate statistical analysis of physically violent acts.

## 1.2.2. Violence Theories

### 1.2.2.1. *Biological*

From an evolutionary perspective, violence is motivated by innate competition for resources (Buss, 2009; Duntley & Buss, 2004). Freud (1914, 1915) thought aggressive instincts were strongly related to self-preservation and could be directed at the self and others. Research suggests that primates have evolved to maintain a subgroup of monkeys who are temperamentally more violent and function as a dominant warrior group for the troop (Barr et al., 2003; Newman et al., 2005; Suomi, 2011). Brain imaging studies on people who score highly on ratings of 'psychopathy'<sup>1</sup> (calculated proactive violence) (Blackburn, 1975) have contributed to theories of innate temperamental violence or callous unemotional traits (Frick, Ray, Thornton, & Kahn, 2014a, 2014b; Sebastian et al., 2014; Viding et al., 2012). Innate theories of violence have drawn on research which documents the association of specific cognitive domains with a lack of fear and inhibition and increased stimulation seeking behaviours (De Brito et al., 2011; Glenn, Raine, Venables, & Mednick, 2009; Viding et al., 2012).

Psychobiological theories implicate brain dysfunction (Raine, Brennan, & Mednick, 1994), autonomic functioning, hormones and neuropsychology in aggressive and violent behaviour (King, 2012). Overall, psychobiological research is conflictual. Studies have explored the role of testosterone as a correlate of violence, yielding both significant (Aromäki, Lindman, & Eriksson, 1999; Olweus, Mattsson, Schalling, & Löw, 1988; Pajer et al., 2006; Udry, 1990) and non-significant results (Campbell, Muncer, & Odber, 1997; Constantino et al., 1993).

Violence is correlated with neurotransmitter dysregulation and changes in affective experience (Englander, 2007; Gontovsky, 2005). Associations have been

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<sup>1</sup> Some studies use 'psychopathy' as a diagnostic category of instrumental proactively aggressive behaviour (Blackburn & Lee-Evans, 1985). I take the position that 'psychopathy' is one manifestation of distress that might present differently depending on the environmental context (Hale & Dhar, 2008).

demonstrated between increased impulsivity and violence following brain injury (Brower & Price, 2001; Rao et al., 2009). This is relevant for prison populations where approximately 75% of prisoners report experiencing a serious head injury (Mednick, Pollock, Valavka, & Gabrielli, 1982).

Neuroimaging research demonstrates that neural pathway refinement continues throughout early adulthood, particularly in brain regions involved in impulsivity and decision making (Blakemore, 2015; Fuhrmann, Knoll, & Blakemore, 2015; Mills et al., 2016; Viding et al., 2012; Wolf, Wright, Kilford, Dolan, & Blakemore, 2013). This is mirrored in the trend for violence to decrease over time (Gold, 2011; Gold & Lewis, 2010; Kempes, Matthys, de Vries, & van Engeland, 2005).

The 'Dominance Behavioural System' (DBS) is an integrative theory that draws on a broad range of correlational research. It suggests that multiple psychobiological processes motivate humans to achieve power through dominant and submissive behaviour (Johnson, Leedom, & Muhtadie, 2012). In so doing, it makes an explicit theoretical link between psychobiology and perception of the wider social context. DBS theory suggests humans have a 'power motive' to achieve social dominance (Winter, 1992). The theory is supported by research demonstrating that uneven distribution of resources increases dominance behaviour (Tang-Smith, Johnson, & Chen, 2015). Higher levels of dominance behaviour have been associated with violence (Krueger, McGue, & Iacono, 2001).

Johnson et al. (2012, p. 28) note that DBS research has not been able to fully demonstrate the "complex interactions" between testosterone, neurotransmitters such as serotonin, dopamine and oxytocin and cortisol and violent behaviour. One reason for this may be that violence and its biological correlates are mediated by epigenetic or gene–environment interactions. Suomi (2011) has led a field of research which demonstrates that soothing environments, social nurturing or changes in social status can alter genetic expression of neurotransmitters in a subgroup of aggressive monkeys, mediating their violent behaviour (Barr et al., 2003; Bennett et al., 2002; Lindell et al., 2012; Newman et al., 2005; Suomi, 2011; Tung et al., 2012). Human research has found significant (Rutter, Moffitt, & Caspi, 2006) and non-significant (Kieling et al., 2013) changes in neurotransmitter genetic expression and externalizing behaviours due to environmental influences. Models of

violence should therefore include the likely interaction of psychobiological and genetic risk factors with the environment and wider social system.

#### *1.2.2.2. Cognitive*

Cognitive Behavioural Therapy is underpinned by the assumption that systematic attributional style biases are significant determinants of future behaviour (Beck, 1970, 1976). External attribution bias, (attributing causes to others) and hostile attribution bias (the tendency to perceive threat in another's intentions or actions) are closely related and both have been linked with aggressive and violent behaviour (Lochman & Dodge, 1994; McNiel, Eisner, & Binder, 2003; Nasby, Hayden, & DePaulo, 1980). Tendency to engage in violent behaviour has been associated with external attributional style (attributing blame to others) and a sensitivity to criticism or put down (Eckhardt, Norlander, & Deffenbacher, 2004). The cognitive model of violence underpins psychological intervention in the criminal justice system (Ministry of Justice, 2017).

Gold and Lewis's (2010) cognitive formulation of violence outlines the role of adverse childhood experience in the development of core beliefs that the individual is vulnerable. The model suggests that violent behaviour functions to hide painful inner experience and project a veneer of toughness (Walker & Knauer, 2011). Early interpersonal difficulties are hypothesised to lead to cognitive difficulties in self-regulation, perception, attributions and beliefs (Stinson, Becker, & Sales, 2008). Polaschek's (2009) 'Implicit Theory' describes four beliefs underpinning violence; that violence is normal, that it is an effective self-enhancement tool, that it is useful for implementing one's own moral code and that violence happens because of external events.

### 1.2.2.3. *Developmental Psychopathology*

Developmental psychopathology proposes that violence is best understood in comparison to normative development across the lifespan (Drabick & Kendall, 2010). Psychodynamic theory has contributed to these ideas. For example, Winnicott (1969, 2001) proposed that when early care experiences are not 'good enough' psychosocial difficulties including violence may emerge. Aggressive behaviour has been associated with difficulties understanding and mentalizing the mind of others (McGauley, Yakeley, Williams, & Bateman, 2011; Yakeley, 2014), and forming secure attachment relationships (Bowlby, 1977; Cassidy & Shaver, 2008; National Institute of Clinical Health Excellence, 2017; Laranjo, Bernier, Meins, & Carlson, 2014; Meins, Centifanti, Fernyhough, & Fishburn, 2013; Meins, Fernyhough, & Harris-Waller, 2014; Pasalich, Dadds, Hawes, & Brennan, 2012). Cognitive theories overlap with developmental psychopathology - research shows that external attribution biases occur more frequently in the context of harsh or abusive parenting (De Zulueta, 1993; Gold, 2011; Gold & Lewis, 2010).

Psychoanalytically informed models of violence principally emphasise the contribution of early interpersonal experience to a 'damaged psyche' and violent enactments. Gilligan (1999, 2003) interviewed murderers, proposing a 'Germ Theory' that violence has a communicative function. Gilligan (1999) identifies five preconditions of violence; high shame, perceiving no non-violent alternatives, lacking emotional resources and anxiety triggered by vulnerability and dependency. A review of the number and content of peer reviewed violence publications demonstrated that trauma informed care, complex trauma and adverse childhood experiences are increasing research trends (Duke, Pettingell, McMorris, & Borowsky, 2010; Hamby, McDonald, & Grych, 2014).

### 1.2.3. Violence Presentations

The 'frustration aggression hypothesis' suggests violence is a response to perceived threats or blocked goals (Berkowitz, 1978; 1939; Miller, Mowrer, Doob, Dollard, & Sears, 1958). It portrays violence as having a reactive, defensive quality. Social learning theory considers violence to be an instrumental behaviour motivated by reward seeking. Violence may become a fact acting response over time but social

learning theory contends that it is fundamentally motivated by a proactive drive to acquire external goals (Bandura, 1973; King, 2012; Nicholson & Higgins, 2017). These initially competing models accepted that the heterogeneous presentation of violence can helpfully be understood by both processes (Kempes et al., 2005). They have given birth to what are largely termed reactive and proactive categories of violence today.

These ideas are evident throughout psychological theories of violence (King, 2012). Baumeister and Vohs' (2004) 'Four Roots' theory suggests that violence occurs either instrumentally / proactively, motivated as a 'means to an end', or defensively / reactively as an immediate self-defence. It may also occur as a misguided attempt to enforce one's morals or due to sadism. Similarly, Megargee's (1982, 2011) behavioural 'Algebra' for violence details an unconscious cost benefit analysis of whether behaviour is useful or not (instrumental) and as a reactive threat response. In criminal justice research, characterising forms of violence has been pursued with the objective of understanding future risk and recidivism (Fite, Raine, Stouthamer-Loeber, Loeber, & Pardini, 2010; Prelog, Unnithan, Loeffler, & Pogrebin, 2009). Although reactive and instrumental / proactive violence co-occur (correlations range from .41 to .83) (Bushman & Anderson, 2001) it has been proposed that distinct behavioural and neuro-cognitive profiles differentiate these forms of violence (Card & Little, 2006, 2007; Polman, Orobio de Castro, Koops, Boxtel, & Merk, 2007).

#### *1.2.3.1. Reactive Violence*

Reactive / hostile / hot headed / affective violence is associated with lower self-esteem, attention difficulties, anxiety, peer rejection, hostile attribution bias, emotion dysregulation, problem solving deficit, low verbal IQ and tends to present earlier in childhood (Dodge & Coie, 1987; Kockler, Stanford, Nelson, Meloy, & Sanford, 2006; Ostrowsky, 2010; Stanford et al., 2003). Hypo-functioning of the orbitofrontal and anterior cingulate cortex and increased amygdala responsiveness to stress are associated with reactive violence (Dodge & Coie, 1987; Frick et al., 2014b; Raine et al., 2006). Reactive violence is more associated with dysregulation of dopamine and serotonin neurotransmitters (Englander, 2007; Gontovsky, 2005). This emotional emphasis links reactive violence with theories of developmental psychopathology.

### 1.2.3.2. *Proactive Violence*

Proactive / instrumental / cold-blooded / extrinsically motivated violence is associated with higher self-esteem, more delinquent behaviour, higher self-efficacy about aggressive acts and persistent antisocial behaviour (Dodge & Coie, 1987; Frick et al., 2014b; Ostrowsky, 2010; Raine et al., 2006). The ventromedial prefrontal cortex and striatum have been associated with proactive violence, as well as decreased amygdala responsivity to distress (Polman et al., 2007; Vitaro, Brendgen, & Barker, 2006). This type of violence has been linked with callous unemotional traits and overlaps with the checklist of behaviours described as psychopathy<sup>2</sup> (Blair, 2007; Blair & Lee, 2013; De Brito et al., 2011; Sebastian et al., 2014; Viding & McCrory, 2012; Viding et al., 2012). Although research has focused on innate biology and temperament, proactive violence tends to develop later in life, “slowly formed under the influence of shaping social forces” (Steiner et al., 2011, p. 4). Thus, research must be careful to conceptualise proactive violence not only as an innate biological predisposition but as a complex outcome of gene – environment interactions affecting the expression of violence.

### 1.2.4. Critique of Violence Theories

Broadly speaking, biological and psychological theories have taken an intrapsychic or proximal approach to violence. Nature and nurture are depicted as influencing behaviour through the individual or those that they come into direct contact with. Community psychology argues that social forces, which frequently lie beyond personal control, can be more significant than conscious and unconscious processes (Smail, 2004, 2005; 2010). Sociologists argue that violence can be more clearly understood through the dual lenses of human behaviour and the social context (Cavanaugh, 2012; Hamby & Grych, 2013).

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<sup>2</sup> Some studies use ‘psychopathy’ as a diagnostic category of instrumentally proactive aggressive behaviour (Blackburn & Lee-Evans, 1985). I take the position that ‘psychopathy’ is one manifestation of distress that might present differently depending on the environmental context (Hale & Dhar, 2008)



Wolfgang and Ferracuti's (1967) seminal work in criminology presents research that violent behaviour is unevenly distributed throughout society; social class, ethnicity and occupational status. They argue that indexes of inequality are predictors of the frequency of violent behaviour in society. In so doing, the authors highlight the need to formulate intersections of inequality affecting people who engage in violence.

This position is supported by economic analysis of violence trends cross culturally, which found that experiencing oneself as lower in social rank or shamed by society also contributes to violence. Wilkinson and Pickett (2009, p. 40) found that "one of the most common causes of violence, and one which plays a large part in explaining why violence is more common in unequal societies, is that it is often triggered by loss of face and humiliation when people feel looked down on and disrespected."

Theoretically, this suggests externally motivated proactive violence might be linked with the shame associated with low social rank.

High-risk environments in which community and interpersonal violence are endemic affect families and communities as well as their children, impacting the material and emotional capacity of families to support their children (Al'Uqdah, Grant, Malone, McGee, & Toldson, 2015; Conger, Rueter, & Conger, 2000; Masarik et al., 2016). Gold and Lewis (2010, p. 227) note how Black and Minority Ethnic (BME<sup>3</sup>) groups are more likely to live in high risk, low socioeconomic neighbourhoods, where the effects of interpersonal violence are endemic; "it appears that for these youths, ethnicity may be embedded in the context of poverty". This further underscores the necessity of considering violence in the context of intersectional inequalities, power and society (Crenshaw, 1999).

Statistics further illustrate the need to appreciate social systemic factors when theorising any kind of criminal behaviour. Theories of violence do not explicitly attend to the experiences of the BME population. This is a significant oversight because BME men are more likely to have contact with the criminal justice system, are seven times more likely to be stopped and searched and five times more likely to be sent to prison (Department of Health, 2005).

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<sup>3</sup> The term BME is generally used to describe people in the UK who self-identify as belonging to an ethnicity other than British, including people of Irish descent.

BME people account for just 12% of the United Kingdom population but 25% of its prison population (Allen & Watson, 2017). Official reports comparing White, Black, Asian and Other ethnicity convictions and custodial sentences from 2010 – 2014 (Ministry of Justice, 2015) found that despite White offenders having an eight percent higher conviction rate for violence against the person offences<sup>4</sup> than their BME counterparts, Black offenders had the highest custody rates and longest custodial sentences for these offences. In her first speech as Prime Minister (2016), Theresa May acknowledged that “If you’re black, you’re treated more harshly by the criminal justice system than if you’re white.”

Many theories of violence articulate group differences in terms of innate characteristics and developmental psychopathology. Krieger (2012) cautions that these arguments have historically been applied to exaggerate racial ethnic disparities. Therefore we must critically evaluate the structural racism that may be inherent in psychological theories, policies and institutions (Fernando, 2002; Lammy, 2016). The next sections highlight the overlap between Compassion Focused Therapy (CFT) and violence theories before presenting the CFT model of shame as more sensitive to the social context.

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<sup>4</sup> Grievous bodily harm (GBH) with intent • Grievous bodily harm (GBH) without intent • Actual bodily harm (ABH) • Breach of a restraining order

### 1.3. Compassion Focused Therapy and Theories of Violence

CFT foregrounds motivation to achieve social affiliation and connects behaviour with biopsychosocial affect systems. The following sections highlight their relevance to theories of violence.

#### 1.3.1. Social Mentalities and the DBS System

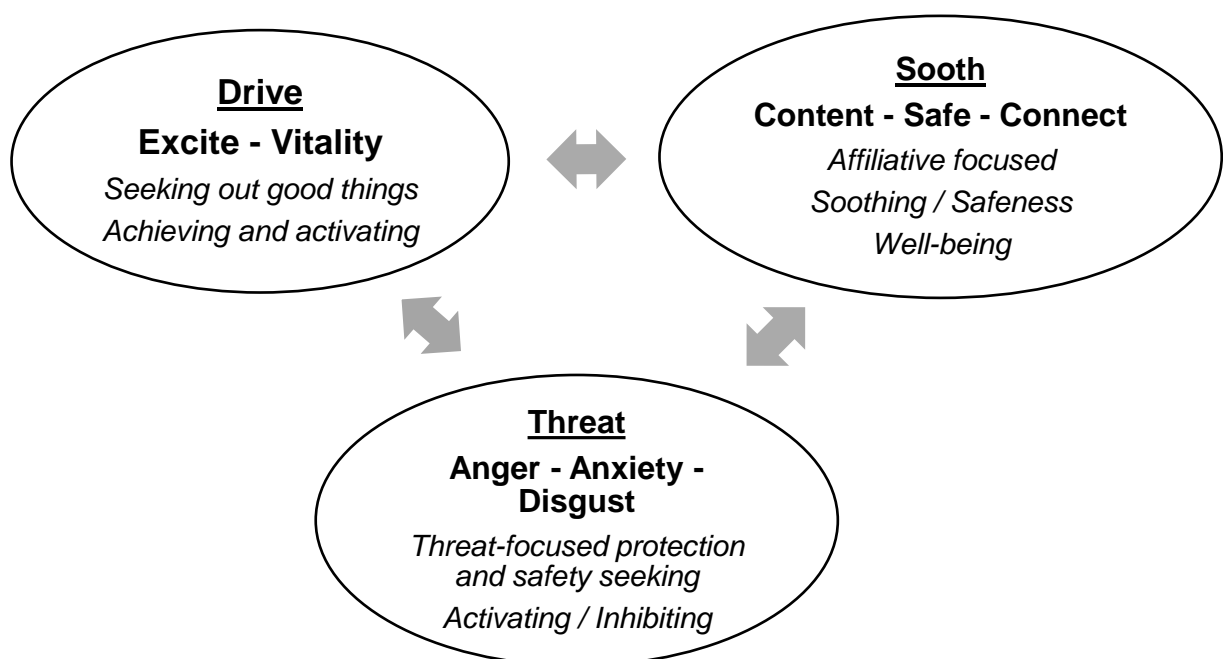
In CFT, the mind is organised to seek out specific resources (e.g. food, social interaction) and avoid threat (Gilbert, 2010). It is influenced by Jung's archetype theory, which sets out innate relationship guiding systems, for example, archetypes that motivate care seeking (Jung, 2014). Social motivations can be distinguished from non-social motivations (Gilbert, 2014) because the former require more complex metalization skills (Baron-Cohen, 2012; Fonagy, Gergely, Jurist, & Target, 2002; Liotti & Gilbert, 2011). Gilbert (1992, 2005; 2010, p. 22) outlines five social motivations, or "social mentalities":

- Competing / Social Rank
- Cooperation / Sharing
- Caring / Nurturing
- Seeking / Responding to Care
- Sexual

Once activated, social mentalities organise psychological and physiological processes, turning some off (e.g. care / sympathy) and others on (e.g. violence). The social mentalities overlap with the Dominance Behavioural System. For example, behaviour arising the *Competing / Social Rank* and *Seeking / Responding to Care* mentalities might yield aggressive or dominant behaviour (Gilbert, 2010; Liotti & Gilbert, 2011).

### 1.3.2. CFT Affect System and Reactive and Proactive Violence

The brain has a range of integrated neural circuits that regulate and process emotion (Panksepp, 1998; 2010). CFT draws from this evidence base (e.g. Depue & Morrone-Strupinsky, 2005; LeDoux, 1996; Panksepp, 2010) and simplifies emotional processing into three interacting systems (Gilbert, 2009). The Threat, Drive and Soothing system are presented in Figure 1.



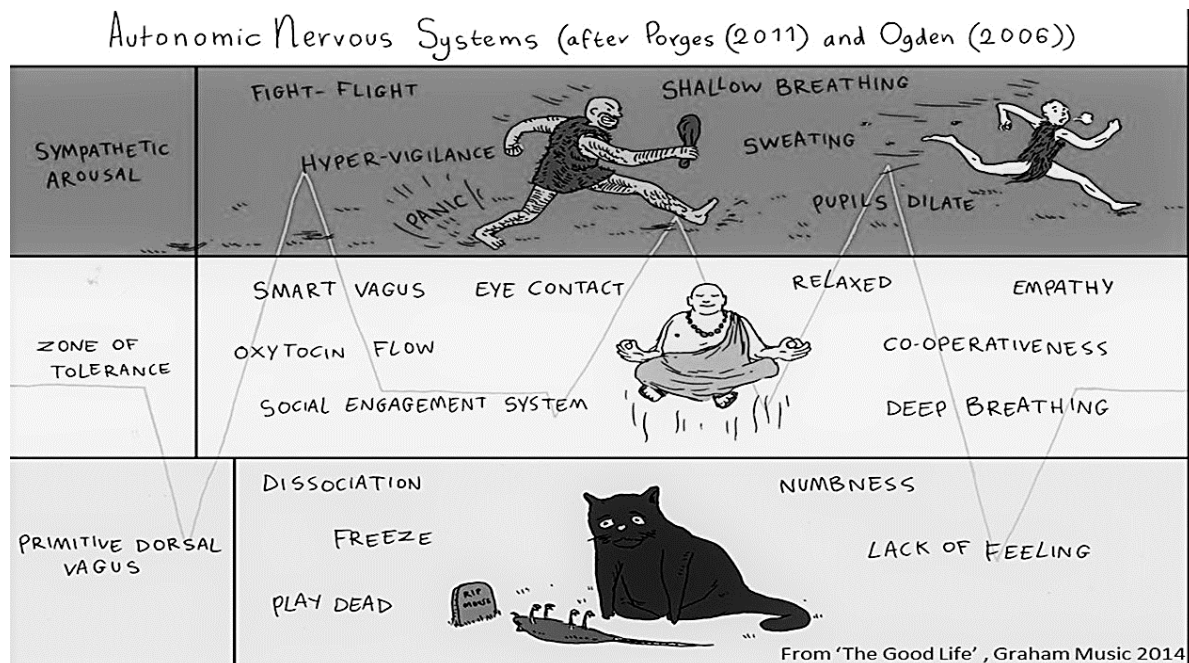
**Figure 1 - CFT Affect Systems (Adapted from: Gilbert, 2010, p. 44)**

#### 1.3.2.1. *Threat System*

The threat system has an evolved function to detect danger. It mobilises the sympathetic nervous system by increasing heart rate, breathing, sweating, blood flow to extremities and triggers fight or flight responses (Gilbert, 2010; Music, 2014). This state of hyper-arousal is associated with feeling emotionally overwhelmed, anxious and angry. Threat emotions are very reactive and are often experienced as intense bursts (Gilbert, 2010). Threat system behaviour functions to submit and express dominance (Keltner & Harker, 1998; Macdonald & Morley, 2001; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996). Sympathetic arousal switches

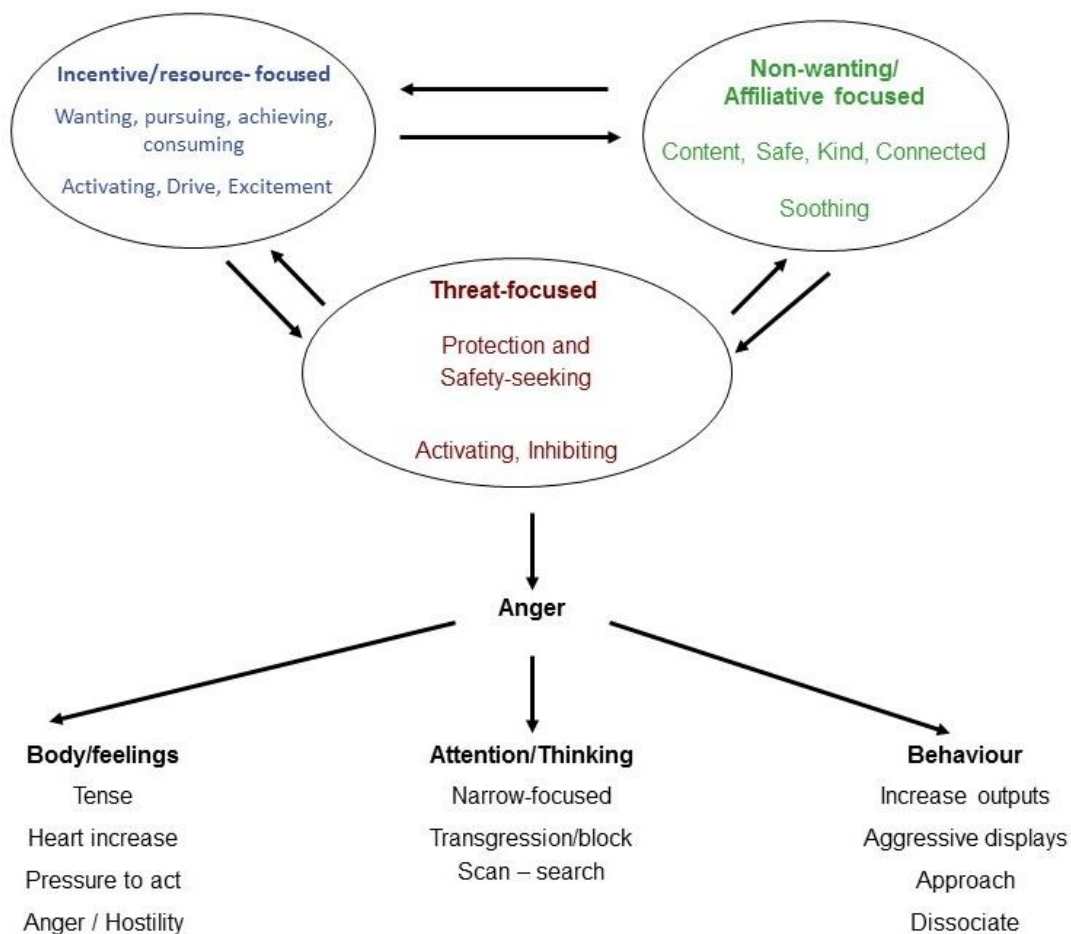
off higher order cognition (Baumeister & Bushman, 2007; Ledoux, 1998; Porges, 1991; Porges & Furman, 2011). Therefore information processing in the threat system tends to rely on heuristics and biases (Gilbert & Andrews, 1998; Kahneman, 2012). This has clear overlap with descriptions of reactive, 'hot' headed violence and cognitive theory linking violence with external and hostile attribution bias.

Threat system activation can also shut down thinking and responding entirely. The primitive dorsal vagus nerve, which humans share with vertebrates and amphibians is activated by extreme threat perception. It is associated with primitive responses including freeze, dissociation and metabolic suppression and is highly implicated in traumatic experience (Lee & James, 2012; Ogden, 2006). Figure 2 below outlines the affective neuroscience underpinning threat system trauma response. It would be inaccurate to characterise the sympathetic nervous system as universally negative, for example excitement, feeling delighted and exuberance also manifest in this system (Ledoux, 1998; Porges, 1991; Porges & Furman, 2011).



**Figure 2 – Threat System Response to Danger and Trauma (Music, 2014)**

Individuals who have been repeatedly exposed to social and interpersonal threat may develop more reactive nervous systems (Carlo, Crockett, Wolff, & Beal, 2012). Music (2014, p. 55) writes; “It is no coincidence that prisons and the criminal justice system are so packed with people whose lives have been mired by too many bad experiences and too few good.” Russel Kolts (2015) has worked with men in prison to explore their anger and found that shame experiences can trigger primary hostile reactions, depending on the person’s learning history and temperament and also secondary angry behaviours in which violence functions as a safety strategy.



**Figure 3 - Threat System Responses (Adapted from: Kolts & Tirch, 2014)**

#### 1.3.2.2. *Drive*

The Drive system functions to acquire biosocial goals, drawing on the sympathetic nervous system. This physiological overlap is mirrored in affective experience, for example the excitement of skydiving also draws a fight / flight threat response (Gilbert, 2014). The Drive system functions similarly to the 'broaden and build' theory of positive emotion (Fredrickson, 2004). Emotions such as joy, fun, excitement and pleasure are thought to increase an individual's momentary thought–action repertoire, thereby increasing physical, intellectual or social resources. Depue and Morrone-Strupinsky (2005) described the Drive System as being orientated toward agency, achievement seeking, social dominance and avoidance of rejection. This suggests theoretical and biological overlap between the drive system and the Dominance Behavioural System (Tang-Smith et al., 2015) and externally motivated proactive violence.

#### 1.3.2.3. *Soothing*

The soothing system induces experience of balance, contentment and 'not striving' by activating the parasympathetic nervous system (Depue & Morrone-Strupinsky, 2005). This system is hypothesised to relate to the ventral branch of the vagus nerve, which fires when we experience affiliative interpersonal emotions. This triggers a soothing response which can reduce pain and stress (Porges, 1991; Porges & Furman, 2011). Soothing system activation is different from relaxation in that it includes feelings of connection with oneself and others (Gilbert, 2014). Given the potential for the Threat system to trigger impulsive aggressive responses and for the drive system to motivate dominant or proactive violence, nurturing the soothing system can restore affective balance.

## 1.4. Shame

### 1.4.1. Definition

The word shame has Indo-European and Hindi roots, meaning to hide, cover and blanket (Akhtar, 2016). Shame is a cognitive emotion blend associated with feeling bad about the self, whereas guilt is associated with feeling bad about behaviour (H. B. Lewis, 1971; Nathanson, 1987, 1992; Wurmser, 1994). The distinction between shame and guilt as feeling bad about the self or behaviour maps closely onto concepts of disintegrative (feel bad about the self) and reintegrative (feel bad about the crime) shame used by criminologists (Braithwaite, 2000; Harris, 2006; Hay, 2001; Tangney, Stuewig, Mashek, & Hastings, 2011). Shame is strongly associated with affective distress (Andrews, Qian, & Valentine, 2002; Cheung, Gilbert, & Irons, 2004; Gilbert & Miles, 2000; H. B. Lewis, 1971; H. B. Lewis, 1987; M. Lewis, 1992, 1993; Malouf, Youman, Harty, Schaefer, & Tangney, 2013; Tangney, Miller, Flicker, & Barlow, 1996; Tangney, Stuewig, Malouf, & Youman, 2013).

### 1.4.2. Shame Theories

A broad range of theoretical models have articulated an internal shame experience. Darwin described a cross cultural range of facial expressions including shame marked by blushing and downcast eyes. Evolutionary theory posits that shame functions to communicate submission (Buss, 2009; Charles Darwin, 1872; Darwin & Pinker, 1998). Developmental psychologists have debated whether shame is experienced from birth (Music, 2011; Nathanson, 1987, 1992; Schore, 2012; Thompson & Newton, 2010) or whether it develops with the ability to take another's perspective (Lewis, 1992; 1993; Stipek, 1995). In Psychoanalysis, shame is considered to arise from abandonment anxiety (Tangney, 2002b). Lindsay-Hartz (1984) suggests internal shame experience is triggered when we appraise ourselves to be less than the person we want to be or when we feel we are who we do not want to be. Affect theory outlines seven innate sub-cortical affects, of which '*Shame – Humiliation*' is one (Tomkins, 1963, 1981). Research has documented recognition of Tomkin's affects and shame facial expressions cross culturally (Ekman, 1994; Ekman & Friesen, 1971; Izard, 1971). Historically anthropologists such as Ruth



Benedict and Margaret Mead distinguished Western guilt and Eastern shame cultures (Jacquet, 2015). However recent research lends more support the conceptualisation of shame as a universal affect. Comparison of shame experience in India, Israel and the United states found similar experiences of shame and devaluation cross culturally, though they way in which this was communicated varied (Sznycer et al., 2016).

Cognitive theories (e.g. Beck, Emery, & Greenberg, 2005; Klass, 1990) delineate component parts of shame as a primary, secondary and composite emotion. Shame affects information processing, emotions, attention, self-criticism, social comparison (Tangney, Miller, Flicker, & Barlow, 1996; Wagner, Hill-Barlow, Marschall, & Gramzow, 1996). Triggered by perception of the self as an unattractive social agent, shame can recruit emotions of social anxiety, humiliation, disgust and anger (Gilbert & Maguire, 1998; Tangney et al., 1996).

#### 1.4.3. Critique of Shame Theories

Shame theories have focused on inner self experience at the expense of distal factors and the social context (Smail, 2005). I argue that by describing shame as a set of appraisals in which the individual de-values them self or feels devalued by others, shame is positioned within the microsystem and mesosystem (immediate environment and relationships) of Bronfenbrenner's ecological systems theory (Bronfenbrenner, 2005).

There is evidence that shame, like violence is strongly associated with social systemic factors in the exosystem and macrosystem (social, political and cultural realms) (Bronfenbrenner, 2005). In the UK, Psychologists Against Austerity (PAA, 2015) released a briefing paper presenting evidence that economic austerity directly affects people in the lowest socioeconomic groups, contributing to the development of shame.

The emphasis on the individual and their perception of others de-politicises aspects of the shame experience which are inherently associated with power, inequality and social norms. This is pertinent to shame violence research, which must be additionally responsive to intersections of inequality due to the over representation of

BME and low socioeconomic groups in the Criminal Justice System. The concepts of shame we use must therefore be responsive to visible and invisible dimensions of difference and power, which position and rank people in society. For example, what Burnham (2012) calls the social GGRRAACCEEESSS (Gender, Geography, Race, Religion, Age, Ability, Appearance, Class, Culture, Ethnicity, Education, Employment, Sexuality, Sexual Orientation, Spirituality).

I have termed this expansion of the shame concept “Social Systemic Shame”. The next sections argue that Compassion Focused Therapy’s model of shame is most attuned to Social Systemic Shame because it delineates other shame (devaluation in the eyes of others) and social rank shame (feeling positioned according to socially valued norms).

## **1.5. Utility of the Compassion Focused Therapy (CFT) Model of Shame**

### **1.5.1. CFT Shame**

CFT contends that emotion, cognition and behaviour are motivated by the need to form and maintain social relationships (Baumeister & Leary, 1995). Humans are thought to be primarily motivated to achieve not just belonging but status and rank in a group. In order to achieve rank and status, CFT suggests that humans have evolved a range of complex neural networks for reading the minds and predicting the intentions of others (Cheney, Seyfarth, & Smuts, 1986; Dante Cicchetti, Cassidy, Jones, & Shaver, 2013; Siegel, 2012). Shame is positioned as an important evolved experience because it functions to signal social miss-steps and the potential loss of power or Social Attention Holding Power (SAHP) (Balsamo et al., 2015; Gilbert, 1989, 1997). Experiencing shame therefore motivates behaviour aimed at achieving group belonging (Baumeister & Leary, 1995), preserving or increasing social rank (Allan & Gilbert, 1995; Gilbert, 2000; Gilbert & Miles, 2000). The significance of group belonging and social rank is supported by findings that social exclusion elicits physical pain (Eisenberger, Lieberman, & Williams, 2003; Eisenberger, Way, Taylor, Welch, & Lieberman, 2007) which may even trigger violence (Berkowitz, 2012; Elison, Garofalo, & Velotti, 2014; Velotti, Elison, & Garofalo, 2014).

Whilst shame is frequently described as a motivator of functional withdrawal (Tangney, Miller, et al., 1996; Wicker, Payne, & Morgan, 1983), submission (Gilbert, 2000) and appeasement behaviour (Keltner & Harker, 1998; Keltner & Young, 1997), its association with social rank suggests that it may also trigger violence and dominant behaviour (Tangney et al., 1996, 2007; Fessler, 2001; 1992). Fear of shame can be so strong that individuals will risk injury or death to avoid it (Gilbert, 2003). The following sections demonstrate the CFT model of shame's capacity to highlight the relationship between Social Systemic Shame and violence.

### 1.5.2. Other Shame

Unlike relational models describing shame as the consequence of negative self-evaluation (e.g. Hanson & Tangney, 1995; Lewis, 1993; Nathanson, 1987; Tangney, 2002a; 2002b; Tangney et al., 1996), CFT distinguishes between internal and other shame. Balsamo et al. (2015) describe internal shame as negative self-appraisal and external shame as the response to perception of negative evaluation by others. Other shame is an involuntary perceived subordination (Balsamo et al., 2015). It requires thinking about how others perceive you and is more orientated toward changing the mind of another (Goss, Gilbert, & Allan, 1994). Research has found that other shame is related to stigma consciousness, the extent to which one expects to be stereotyped by others (Pinel, 1999). In this sense, other shame has a social systemic component.

It also has a cognitive component. Lee, Scragg and Turner (2001) suggest distinguishing internal and other shame is useful because of their different attributional styles. Whilst internal shame attributes blame to the self, other shame is associated with blaming others. Therefore, like external attributions, other shame redirects attention to external causes, bypassing or converting shame into anger or rage (Jones, 2014; M. Lewis, 1992, 1993). There is some evidence that the perception of stigma from others predicts violent recidivism (Moore, Stuewig, & Tangney, 2013). Hence distinguishing other shame from internal shame may be useful when exploring relational experiences of shame and violence.

### 1.5.3. Social Rank

As well as internal and external components, CFT identifies a 'social rank' form of shame. Conceptualising low social rank as a form of shame arose from CFT's proposition that dominant and submissive behaviours are motivated by the desire to gain or fear of losing attractiveness in the minds of others (Gilbert, 1992; 1997; Gilbert & Miles, 2000). Social rank shame is inherently related to one's social capital and power (Baumeister & Leary, 1995) and therefore it may be more sensitive to Social Systemic Shame.

Some authors have suggested that social rank and comparison function to maintain group homeostasis because individuals strive and compete for the same social status and resources (Fessler, 2001; Gilbert, 2005; Gilbert & Miles, 2000; Johnson et al., 2012; Sznycer et al., 2016). Social rank is linked to an innate drive to seek increased social power and dominance (Allan & Gilbert, 1995). This external motivation suggests social rank may also be related to proactive violence, used instrumentally in a bid to obtain social respect and resources (Anderson, 1999; Wilkinson & Pickett, 2009).

Social rank is triggered by experiencing oneself at either end of a dimension e.g. weaker-stronger, richer-poorer (Allan & Gilbert, 1995). Social rank can be framed in two ways; firstly, as a psychobiological 'power motive' in the Dominance Behavioural System (Winter, 1992; Johnson et al., 2012). Secondly, in terms of Social Systemic Shame by attending to levels of difference, power and inequality, for example socioeconomic deprivation and race. Attending to intersectional levels of experience is essential in prison research where BME groups are disproportionately over represented (Crenshaw, 2005; Lammy, 2016).

In line with Anderson (1999), Hall (2009, p. 538) argues that Black boys, who are in crisis or experiencing powerful emotions may be more responsive to "issues that appear to challenge their manhood and/or peer status" because they are already defending against the effects of structural and often direct, racial discrimination. Majors and Bilson (1993) coined the phrase 'cool pose' to describe the dominant stance undertaken by BME men who adaptively strive for higher social rank in the face of multiple socioeconomic and racial stressors. Therefore rather than presenting as lower in social rank, the social and historical experience of BME groups may

contribute to higher social rank or dominance statements from BME men. This may have an augmented effect in the prison environment where social comparisons might shame men for weakness (Gilmore, 1991).

#### 1.5.4. Shame Memory Traumatic and Centrality Features

So far, we have seen how the stratification of other shame and social rank compliments existing research on external / hostile attributions and social systemic risk factors for violence. The CFT model of shame is also useful for understanding developmental psychopathology theories of violence. Recent CFT research has documented the traumatic features of shame memories and their centrality to identity. A group of researchers in the University of Coimbra, Portugal have conducted a series of studies into these characteristics of shame memories (Matos & Pinto-Gouveia, 2006; Matos & Pinto-Gouveia, 2010; Matos, Pinto-Gouveia, & Duarte, 2012, 2013; Pinto-Gouveia & Matos, 2011; Pinto-Gouveia, Castilho, Matos, & Xavier, 2013).

##### 1.5.4.1. *Traumatic Shame Memories*

By emphasising the role of shame in social evolution, CFT suggests that shame based autobiographical memories are likely to be experienced as interpersonally traumatic (Matos & Pinto-Gouveia, 2010). Traumatic memories form reference points for the organisation of personal memories and narratives (Dorthe, Morten, & David, 2003). The effect of autobiographical memories on psychological distress is mediated by rumination (Liu et al., 2017). Given the tendency for shame to trigger cognitive rumination, shame based autobiographical memories are likely to have powerful effects (Gilbert, 2014; Pinto-Gouveia et al., 2013). Exploring the traumatic features of shame memories is sympathetic to a broader understanding of 'trauma' which includes intense distress in response to repetitive social inequalities, stigma and chaos (Greenwald, 2002; McMackin, Morrissey, Newman, Erwin, & Daly, 1998; Patel, 2003; Patel, De C Williams, & Kellezi, 2016; Paton, Crouch, & Camic, 2009; Van der Kolk, Mc Farlane, & Weisaaeth, 1996). People in prison have frequently experienced more traumatic incidents, more socioeconomic deprivation and negative social attitudes toward their behaviour (Paton et al., 2009; Ruchkin, Schwab-Stone,

Koposov, Vermeiren, & Steiner, 2002). It is possible that intrusion, avoidance and hyperarousal of traumatic shame memories will position the person as perpetually defending against perceived threats to the social self (Lee & James; Conway & Jobson, 2012; Dorth et al., 2003).

Male stereotypes socialise men to express trauma and frustration through 'anger out' or violence (Clare, 2000; Gilligan, 2009; Scheff, 2004, 2010, 2011, 2012; Welldon, 1988). Courtenay (2010) termed this toughness and reticence 'hegemonic masculinity'. Extreme performance of gender roles is important in prison, where presenting a strong and powerful persona may ward off victimisation (Toch, 1998). Exploring traumatic features of shame memories presents novel ways of exploring shame avoidance and developmental psychopathology theories of violence, particularly in relation to 'hot headed' reactive violence.

#### *1.5.4.2. Centrality of Shame Memories*

Autobiographical memories (AM) connect a narrative of personal life events. They are recognised by various theoretical models as influencing the narratives we construct about identity in the world, our beliefs and purposeful behaviour (Conway, Justice, & Morrison, 2014; Pascuzzi & Smorti, 2017; Rubin, 2005). Autobiographical remembering is not just intrapsychic; actions influenced by memories shape culture and culture shapes the environment in which we experience and encode memory (Conway & Jobson, 2012). Similarly, rather than a static sense of self, CFT contends that identity is co-constructed through social interaction (Dangan, Trower & Gilbert, 2002). Shame memories arising from social or cultural experience can become central to identity, standing out as turning points in understanding or reference points for future behaviour (Berntsen & Rubin, 2006; Rubin, Schrauf, & Greenberg, 2003).

The centrality of shame memories has theoretical overlap with cognitive theories of violence. By becoming central to identity and core beliefs, shame memories can shape every day inferences and expectations in adulthood (Brewin, 2006; Lee & James, 2012; Lee et al., 2001). These relational autobiographical memories form heuristics or internal working models (Bowlby, 1977; Gilbert, 2005, 2015; Liotti & Gilbert, 2011). Given the role of attributions and cognitive biases in violent

behaviour, centrality of shame memories may be another useful way of understanding the relationship between shame and violence.

Centrality of shame memories is also a useful way to conceptualise the role of social rank in violence. Central memories arise out of interactions with the social context and we can hypothesise that the centrality of shame memories may be higher amongst men in prison who are more likely to have experienced multiple adverse life events. It may also be sensitive to the differential Social Systemic Shame experienced by BME groups.

## **1.6. Shame and Violence Research**

It was essential to map out the extensive theoretical associations between shame and violence because empirical research in offender populations is relatively scarce and largely conflictual (Tangney, Stuewig, Mashek, & Hastings, 2011).

### **1.6.1. General Population**

Research in the general population gives some support to theories of shame and violence. Internal shame was positively associated with anger and indirect hostility in a large student sample (Tangney, Wagner, Fletcher, & Gramzow, 1992). Tangney, Wagner, Hill-Barlow, Marschall and Gramzow (1996) replicated this in a sample of children, adolescents and adults, finding an association between shame-proneness and maladaptive anger responses, malevolent intentions toward others, direct and indirect aggression. These studies have relied on anger or hostility as a measure of violence. This may bias results because anger is not always necessary or sufficient for the enactment of violence (Novaco & Welsh, 1989).

It may be that the association between shame and violence is indirect. Externalising blame was shown to mediate the relationship between shame and verbal and physical aggressiveness in a large study comparing university students (n = 250), young adolescents (n = 234), and imprisoned offenders (n = 507). This study assessed internal shame using the Test of Self Conscious Affect (TOSCA; Tangney, Wagner, & Gramzow, 1989). Structural equation modelling demonstrated that

externalising blame was a mediator of violence for general population and offender samples (Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010).

### 1.6.2. Offenders

Studies with offender populations have not generally included external attributions as a mediating variable of shame and violence. They have tended to use the Test of Self Conscious Affect (TOSCA; Tangney, Wagner, & Gramzow, 1989) and the TOSCA Socially Deviant (TOSCA-SD; Hanson & Tangney, 1995). These measures are limited by their focus on internal shame and tend to look at general offender populations rather than those engaging in violence (Griffin et al., 2016; Malouf et al., 2013; Moore et al., 2013; Stuewig et al., 2015; Tangney, Stuewig, & Martinez, 2014; Tangney et al., 2011a; Tangney, 2011).

A comparison of young offenders in prison and a community sample found a small but significant association between shame and anger and aggression (Robinson, Roberts, Strayer, & Koopman, 2007). However this small study should be interpreted cautiously. A large sample study of 550 prisoners, of which 379 were male found that shame prone-ness was associated with increased tendency to blame others. However shame-proneness was unrelated to clinician ratings of psychopathy / proactive violence and violent risk. This suggests that in general populations of offenders, shame is not likely to be related to proactive violence as assessed by clinicians (Tangney et al., 2011a).

Farmer and Andrews (2009) compared U.K male offenders with undergraduates of a similar age. Although small, the sample was sufficiently powered for correlational research. Male offenders experienced less shame and higher rates of anger than their age matched peers. There was no association between shame and anger in the offender group but there was amongst the students. In fact, the offenders had less internal shame than the general population.



### 1.6.3. Physical Violence

Studies with people who have committed acts of physical violence are rare. Older research found that a common eliciting event in murder was an attack (frequently verbal) which triggered violence as a defensive avoidance of shame (Daly & Wilson, 1988). Gilligan's (1997; 1999, 2003) Germ Theory is based on qualitative interviews with murderers who describe shame as an antecedent of violence. However recent research diverges from these results.

In a rare study using a forensic population who had committed physical violence, Owen and Fox (2011) compared a sample of U.K. physically violent and nonviolent young male offenders in terms of shame and empathy. The authors found no significant difference between the levels of shame experienced by the two groups. This research used a measure of internal shame but did not include measures of external shame or social rank. Although these authors did not directly comment on participants internal shame experience relative to the general population, the Experience of Shame Scale (ESS) average score for the violent and nonviolent groups was more than ten points below that reported for the normed sample (Andrews et al., 2002).

Shanahan, Jones and Thomas-Peter (2011) compared two small samples of U. K. physically violent men detained as psychiatric patients (n = 22) and prisoners (n = 22). Men who had been violent in mental health and prison services were similar in terms of internal shame, state and trait reactive anger. Although not statistically tested, the authors draw attention to the lower self-worth and higher levels of internal shame amongst the violent men when compared with the general population. Thus U.K. studies report different levels of internal shame amongst violent men. Shanahan et al., (2011) used a non-open source but more valid measure of internal shame (Cook, 1994, 2001) and found higher internal shame amongst violent offenders whereas Owen and Fox (2011) and Farmer and Andrews (2009) found less internal shame in general offender and violent offender populations. They used the ESS, which includes some other shame items. Despite evidence that externalising cognitions mediate the relationship between shame and violence, other shame has not been explored in violence research.

## 1.7. Social Rank

In a study exploring social rank and anger, Allan and Gilbert (2002) demonstrated that social comparisons made to determine one's social rank have a protective function. For example, people who responded angrily to criticism tended to show more down-rank anger than up rank anger so as to protect themselves from devaluation in the eyes of higher ranked peers. The next sections highlight two trends in the research which conceptualise social rank as either an innate disposition or as a representation of the social context.

### 1.7.1. Innate Social Rank

As previously discussed, research demonstrates the role of the DBS system in the expression of aggressive social rank behaviour amongst wild animals and humans (Frick et al., 2014a; Ray & Sapolsky, 1992; Sapolsky, 1990; Sapolsky, Alberts, & Altmann, 1997; Tang-Smith et al., 2015; Virgin & Sapolsky, 1997). Although not researching social rank directly, one stream of research suggests that narcissistic personality 'traits' mediate the relationship between shame and aggression. These studies use checklists of personality traits that define narcissism as holding grandiose self-views, preoccupation with power, excessive feelings of entitlement and holding exploitative attitudes toward others (American Psychiatric Society, 2013). Diagnostic categories have been critiqued for lacking scientific reliability and validity as well as neglecting the social context of the person (Boyle, 2011; Burton, Boyle, Harris, & Kagan, 2007). From a Pragmatist perspective, we can consider that many of these 'traits' overlap with high social rank behaviour (Jones-Chesters, 2007).

Experimental research has shown that having more 'narcissistic traits' was associated with more anger and punishing opponents more severely after exposure shame (losing a game) (Thomaes, Bushman, Stegge, & Olthof, 2008; Thomaes, Stegge, Olthof, Bushman, & Nezlek, 2011). Bushman and Baumeister (1998) found that higher ratings of narcissism were associated with aggressive responses to insults and negative judgements. They hypothesised that violence is perpetrated by people who are innately more concerned with self-promotion. This has some generalisability; longitudinal research showed that boys with higher narcissistic

ratings engaged in more proactive aggression (bullying) (Reijntjes et al., 2016). Morrison and Gilbert (2001) researched social rank, shame and anger amongst psychopaths<sup>5</sup>. Using Blackburn's (1975; 1986; Blackburn & Lee-Evans, 1985) definition of primary (proactive violence, high self-esteem) and secondary (reactive violence, low self-esteem) psychopaths, the authors found that those who use more proactive violence assume they are dominant and have higher social rank and less internal shame.

## 1.7.2. Social Context and Social Rank

### 1.7.2.1. *Social Inequality and Social Rank*

Access to material goods and social mobility is inherently linked with social rank. One author states that shame "represents the intervening variable between negative social phenomena and a small army of youth who have chosen to abandon traditional pathways to economic stability and respect in favour of the dangerous and frequently violent shortcuts offered by the gang" (Brenneman, 2012, p. 107).

A 30 year follow up of a cohort of children in Sweden found that self-directed violence and interpersonal violence were both predicted by living in a family that was means tested for social assistance on at least one occasion. Boys in these families were three times as likely to become involved in interpersonal violence. Young adolescents who engaged in the most social comparison (estimating that they had worse prospects than peers) were statistically significantly more likely to engage in interpersonal violence as older teenagers or young adults. The authors conclude that their research mirrors Wilkinson and Pickett's (2009) theory on inequality and health; "social comparison might in itself be a factor that should be taken into consideration when trying to understand violence in general" (Rojas, 2012, p. 27).

Although often associated with inner city life, the effects of poverty have been documented outside of the urban environment. Longitudinal research in Iowa in the

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<sup>5</sup> Some studies use 'psychopathy' as a diagnostic category of instrumental proactively aggressive behaviour (Blackburn & Lee-Evans, 1985). I take the position that 'psychopathy' is one manifestation of distress that might present differently depending on the environmental context (Hale & Dhar, 2008)

USA found that a farming crisis impacted the families at a macrosocial level. The authors supported a family stress model of family functioning in which additional stressors decreased material and emotional resources for parenting (Conger et al., 2000).

Compelling ethnographic research on the 'code of the street' in Philadelphia suggests poor access to social resources provokes shame and social threat responses. Elijah Anderson (1999) found that in these contexts, respect and shame avoidance are so essential that individuals may commit violence or put themselves at risk to achieve it. This mirrors Gilbert's (2003) account of social rank and is reiterated by a London youth in a documentary about violence;

“if you have to get [respect] by beating man up every day, or stabbing someone over there, its gonna have to be done innit.” (Govender, 2006; 15.41 - 15.46)

This is relevant to young offender populations because social comparisons are high during the adolescent process of identity negotiation (Carr, 2005).

#### *1.7.2.2. Social Rank in Prison*

Needless to say, one does not want to become a victim in prison. Research shows that masculine stereotypes are closely tied with maintenance of social rank and power (Evans & Wallace, 2008). Jewkes (2005) collected ethnographic research on social rank and masculinity in four male U.K. prisons. She identified an overarching theme that criminality is partly the product of hegemonic masculinity, which is more pervasive in working class cultures (Courtenay, 2010). Based on Gresham Sykes' (1958) book "The Society of Captives" which started a wave of critical criminology, Jewkes argues that the deprivations or 'pains' of imprisonment create an additional layer of deprivation for offenders. This is likened to Goffman's concept of the "total institution"; in which the individual dies a "civil death" (Goffman, 1961, p. 25) and is "systematically if often unintentionally mortified" (Goffman & Holt, 1961, p. 23). Jewkes (2005, p. 51) analysis concluded that the lowering of prisoners' social rank in this way created a context in which prisons became staging grounds for social rank competition, in which hegemonic masculinity was used as an "aura" to say "don't

pick on me". Jewkes (2005) comments on the tendency for prison walkways to be termed 'streets,' which become grounds for competitive displays of rank, mirroring Anderson's (1999) description of staging grounds in America. A review of violence and prison culture in the U.K elaborates on this by describing a cyclical relationship in which social rank motivation increases acts of instrumental violence which in turn, increases social rank. High rank may function to minimise shame vulnerability in the system (Tew, Vince, & Luther, 2015).

### 1.7.2.3. *Ethnicity and Social Rank*

A meta-analytic review of qualitative studies exploring Black men's relationship with state services described an association between acts of violence and experiences of racism (Watkins, Walker, & Griffith, 2010). Cultural and social context affects who experiences social put downs and threats to social rank (Cohen, Vandello, & Rantilla, 1998). A minority of the studies reviewed in this chapter compared the shame experience of ethnic groups or discussed racial inequality. I did not find any constructs selected for their sensitivity to racial inequality.

A research program that tracked the aggressive behaviour of children in middle childhood over two years concluded that small ethnic differences in aggressive behaviour between ethnic minority children and white children may reflect ethnic and cultural differences in the use of physical discipline, contributing to the development of hostile and external attributions (Aber, Brown, & Jones, 2003). However a well powered quantitative study by Gold and Lewis (2010) found no differences in the harsh parenting histories, externalising attributions and violence between ethnic groups. Tangney et al. (2011a) found that White prisoners scored slightly higher on internal shame-proneness than Black prisoners. Their finding that shame prone-ness was positively related to externalising blame applied to every ethnic group.

Some evidence suggests BME men may be more likely to present with higher ratings of social rank, rather than shame per-se. Myrie and Gannon (2013) argued that Courtenay's (2010) concept of hegemonic masculinity (internalised stereotypes of reticence and physical toughness) does not go far enough in recognising BME experiences of oppression. Their Foucauldian discourse analysis of BME men accessing mental health services identified 'hyper masculinity' as more aptly

capturing the intersection of race and gender. Hyper masculinity is defined as not showing fear, distress or emotionality (Mosher & Tomkins, 1988). This was an important conceptual step because in addition to hegemonic masculinity, BME men experienced themselves as “both battling and embattled” by structural and direct racism. Thus, in addition to upholding gender stereotypes they needed to “equip themselves to resist or fight against disadvantage and thus “handle it” (Myrie & Gannon, 2013, p. 17).

These ideas permeate popular culture in the stereotypical portrayal of ‘blackness’ in hip-hop, crime and violence (Iwamoto, 2003; Sommers, Apfelbaum, Dukes, Toosi, & Wang, 2006). Hyper masculinity and social rank are also relevant to Asian men. In a qualitative analysis of a wide variety resources, including the transcripts of previously published interviews with British Desi hip-hop artists and the lyrical content of rap songs recorded by U.K Muslims, Hindus, and Sikhs, it was found that Asian men share “Black concerns, argot, and values – including respect, and experienced positioning as the beleaguered underclass” (Drissel, 2011, p. 199).

It is essential to remember the diverse experiences, beliefs and values within and between BME groups cannot be conflated (Keating, Robertson, McCulloch, and Frances, 2002; Keating, 2007). However, taken in tandem with research that hegemonic masculinity is closely associated with maintenance of social rank in prison (Evans & Wallace, 2008; Jewkes, 2005), we can hypothesise that social rank may be higher for BME male prisoners.

## **1.8. Trauma, Offenders and Violence**

Young people in the criminal justice system present with more adverse and traumatic life experiences (Greenwald, 2002). They present with higher rates of trauma related distress diagnosable as post-traumatic stress disorder (PTSD), particularly those in prison (Burton, Foy, Bwanausi, Johnson, & Moore, 1994; Ruchkin, Schwab-Stone, Kuposov, Vermeiren, & Steiner, 2002; Wood, Foy, Layne, Pynoos, & James, 2002; Wood, Alleyne, Mozova, & James, 2013). Despite higher rates of trauma amongst young offenders there is a paucity of research exploring the phenomenology of their

experiences. Shame is a known marker of trauma experience and shame memories might more accurately capture not just additive forms of stress captured by PTSD but the effects of sustained inequality, oppression and structural racism (Afuape, 2011; Summerfield, 2001).

Paton, Crouch and Camic (2009) conducted an interpretative phenomenological analysis into the trauma experiences of eight young offenders. The young people had experienced violence at home, in their community and in custody. Experiences of instability and transition were common at school and home and deprivation was experienced in terms of material poverty and caregiver emotional absence. The authors conclude that assessments with this group should include consideration of trauma.

A large university sample study with adult men explored trauma shame and interpersonal aggression. It was found that trait shame accounted for the relationship between posttraumatic stress with both physically and psychologically aggressive behaviour as well as the frequency of physical violence. This study found that shame mediated the relationship between trauma and aggression. The authors conclude that shame contributes “to aggressive behaviour especially among individuals with histories of traumatic exposure” (Schoenleber, Sippel, Jakupcak, & Tull, 2015, p. 43). Given the higher prevalence of trauma in offender and prison populations it is likely that this link will be more pronounced in adult male offenders.

Exposure to violence has been shown to affect psychological adaptation in early adulthood (Heinze, Stoddard, Aiyer, Eisman, & Zimmerman, 2017). Physical abuse in particular has been identified with increased violent behaviour in adolescence and adulthood (Cicchetti & Manly, 2001; Lansford et al., 2002). A study of maladaptive processing of shame, guilt and externalised attribution styles found that harsher experiences of physical abuse predicted stronger shame (Tangney, Stuewig, & Mashek, 2007). The research supported previous work which found that anger was a significant mediator of shame and externalising behaviour problems (Bennett, Sullivan, & Lewis, 2005). In terms of a trauma – violence link, the research found that physical abuse predicts anger but not violence (Ellenbogen, Trocmé, Wekerle, & McLeod, 2015). This study was limited by its adolescent sample (13 – 17 years) and its measure of shame, which included just three items from a questionnaire

developed by Feiring, Taska, and Lewis (1998) for use with children who had experienced sexual abuse.

Research has shown that youth with adverse childhood experiences are more likely to become involved in criminality, aggressive and violent behaviour (De La Rue & Espelage, 2014; Candice Feiring, Simon, Cleland, & Barrett, 2013; McMackin et al., 1998). Studies link abusive parenting and later development of violent and aggressive behaviour (Gold & Lewis, Burton et al., 1994; 2010; Lansford et al., 2002). In a retrospective study of 112 young offenders aged 12 – 19 years who were in prison, those who converted shame to blame tended to have more histories of abusive parenting and showed more violent behaviour (Gold & Lewis, 2011). This research found that the link between trauma and shame is manifest in the conversion or bypassing of shame by blaming others. Overall, research suggests that shame may be a mediating variable in the trauma – violence relationship.

### **1.9. Shame Memory Traumatic Features and Violence**

Longitudinal research demonstrates shame is an independent predictor of post-traumatic stress disorder (Andrews, Brewin, Rose, & Kirk, 2000). Shame rather than anxiety has been theorised as the central affect in trauma experience (Harman & Lee, 2010; Lee & James, 2012; Lee, Scragg & Turner, 2001). Over the last ten years a number of research papers have documented the moderate association between the traumatic features of shame memories (Matos & Pinto-Gouveia, 2010; Pinto-Gouveia & Matos, 2011; Pinto-Gouveia et al., 2013) and the centrality of that memory in one's life narrative and identity (Berntsen & Rubin, 2006; Matos & Pinto-Gouveia, 2014; Robinaugh & McNally, 2010). Participants in such studies have been primed to recall shame based memories (e.g. Matos & Pinto-Gouveia, 2006; Matos & Pinto-Gouveia, 2014).

There is no research on the relationship between traumatic features of shame memories and externalising behaviours such as violence. Traumatic features of shame memories independently predict current levels of internal and external shame and depressive experience (Matos & Pinto-Gouveia, 2010; Matos et al., 2012; Pinto-



Gouveia & Matos, 2011). There is some evidence that reactive forms of violence are more related to traumatic shame experience. Steiner et al. (2011) reviewed reactive and proactive forms of violence in epidemiological, criminological, clinical and neuroscience studies. The review concludes that there is cross discipline evidence to support a distinction between reactive and proactive forms of violence. It was argued that amongst offender populations, increased trauma related distress was shown to negatively affect emotion regulation skills “in a manner that hotly emotionally charged acts of aggression become more likely” (p. 1).

#### 1.10. Shame Memory Centrality and Violence

Centrality of shame memory has been associated with psychological distress but not violence. Relevant results from this body of research include that central shame memories are associated with the perception of ongoing threats to the social self (Ehlers & Clark, 2000; Harman & Lee, 2010). Matos et al. (2012) found that centrality of shame memory was the only significant predictor of paranoid ideas about others and dissociation, defensively disconnecting from emotional experience. Pinto-Gouveia et al. (2013) found that where shame memories integrate interpersonal schemas (e.g. hostile attributions to others), they may contribute to the belief that others hold malevolent intentions. This is consistent with Gold and Lewis’s (2010) cognitive model of violence in early adverse and shaming experiences indirectly become a reference point for future external and hostile attributions. Very recent work from the University of Coimbra supports this; Matos and Pinto-Gouveia (2016) found that when entered simultaneously into a path analysis, other shame and not internal shame was associated with centrality of shame experience. They hypothesised that shame memories that have become central to identity are especially associated with a sense of existing negatively in the minds of others (i.e. other shame). Existing research tentatively suggests central shame memories might increase violence indirectly through other shame.

Leeming and Boyle (2013) used qualitative research to explore the role of social factors in the repair of shame. By analysing fifty written accounts of shame experience they concluded that people viewed shame as constructed in interactions with others over time. Therefore repair of shame depends not just on self-reappraisal but centrality of others’ evaluations of the self and having viable opportunities to

reposition oneself vis-à-vis others. Engaging in high dominance and social rank behaviours may therefore be an attempt at resisting shame memories becoming central to identity.

#### 1.10.1. Centrality as an opportunity for growth

Post traumatic growth includes any positive personal changes following trauma experience e.g. relatedness to others, seeing new possibilities or personal strengths, appreciating life or spirituality (Tedeschi, Cann, Taku, Senol-Durak, & Calhoun, 2017). Centrality of shame memory seems to be particularly important because whilst it independently predicts post-traumatic stress, it also predicts post-traumatic growth (Bernard, Whittles, Kertz, & Burke, 2015; Groleau, Calhoun, Cann, & Tedeschi, 2013; Robinaugh & McNally, 2010; Tedeschi et al., 2017). Recent research with veterans found that those who experienced the greatest post-traumatic growth also experienced the higher rates of traumatic distress. Experiencing more post-traumatic growth was associated with reporting trauma fundamentally challenged one's world view (Morgan & Desmarais, 2017). Current research converges on the conclusion reprocessing of shame memories that have become reference points, turning points or central to identity creates opportunities for growth and healing (Watkins, Cruz, Holben, & Kolts, 2008; Watkins, Uhder, & Pichinevskiy, 2015). Leeming and Boyle (2013) reminds us that the social system must also facilitate the person to develop new personal narratives and reposition themselves in society.

### **1.11. Rationale**

Forensic research has mainly focused on shame in relation to offences (Tangney et al., 2011) and the personality (Prelog et al., 2009). Research exploring the relationship between shame and violence is inconclusive. The majority of research has used concepts of internal, relational shame. This thesis draws on research that external attributions mediate the relationship between shame and violence to suggest that other shame might more accurately capture the shame – violence relationship. The 'pains of prison' (Jewkes, 2005) and racial inequality experienced by people in the Criminal Justice System have been linked to experiences of social

power, providing a rationale for exploring the relationship between Social Systemic Shame and violence through the lens of 'other shame' and 'social rank'. Cognitive theories of violence and research demonstrating the protective function of social rank against Social Systemic Shame, provide a rationale for hypotheses that extrinsically motivated proactive violence will be predicted by other shame and social rank. The role other shame and social rank as mediators of the centrality of shame memories proactive aggression will also be explored as a novel shame memory research.

Developmental psychopathology literature highlights the relationship between early adverse experience and violence. Applying shame memory research in the study of violence may be more sensitive to sustained social trauma as well as specific events. It is hypothesised that the emotionally charged reactive violence will be associated with current shame experience as well as shame memory, traumatic avoidance and hyperarousal. Literature documenting an association between social rank and hyper masculinity in both prisons and BME communities provides a strong rationale for exploring differences between ethnic groups. Centrality of shame memories influence both cognition and social rank, therefore central shame memories may have significance for offender populations.

### **1.12. Aims**

This study aimed to distinguish between internal, other and social rank shame with the intention of introducing a relational and social understanding of shame and violence. Secondly, it aimed to explore developmental psychopathology theories of violence by profiling the central and traumatic features of male offenders' shame memories.

### 1.13. Research Questions

Research Question 1: What are the Characteristics of shame memories?

Research Question 2: What are the relationships between Reactive and Proactive Violence, current shame and shame memories?

Research Question 3a: What percentage of the variance in Proactive Violence is predicted by other shame, social comparison, shame memory avoidance and age?

Research Question 3b: Which of these variables is the best predictor of Proactive Violence?

Research Question 4a: What percentage of the variance in Reactive Violence is predicted by internal shame, other shame, shame memory avoidance, hyperarousal and age?

Research Question 4b: Which of these variables is the best predictor of Reactive Violence?

Research Question 5: Is there a significant difference in shame experiences between prisoners who have been involved in violence and those who have not?

Research Question 6: Does centrality of shame memory mediate the effect of other shame and social rank on proactive violence?

Research Question 7: Is there a difference between ethnic groups in terms of

- a) Shame
- b) Proactive Violence
- c) Reactive Violence

## **2. METHODOLOGY**

### **2.1. Overview**

The study's epistemological position is presented and linked to the study design. Study materials, research procedure and analytic strategy are presented. Finally, ethical issues are considered.

### **2.2. Epistemology**

Pragmatism locates itself as a philosophical movement. Whilst debate and contention exist within Pragmatism (Chamberlain, 2015), it has been summarised as the position that what is “what is true of beliefs, right of actions and worthwhile in appraisal is what works out most effectively in practice” (Rescher, 2005, p. 83). Pragmatists are less concerned with debating epistemological truth – reality correspondence. Dewey, a classic pragmatist suggested that the meaning of an event cannot be given in advance of experience (Morgan, 2014). The pragmatist approach to knowledge is pluralist; both social constructionist and realist epistemologies can make truth claims but they can only be held as warranted assertions if they “carry out the specific purpose for the sake of which knowing occurs” i.e. if they enrich interpersonal understanding (Hickman & Alexander, 1998, p. 129).

Contemporary pragmatists such as Richard Rorty make an assumption that human experience is emotional, embodied and social (Jones-Chesters, 2007).

Consequently, pragmatist research is fundamentally social and subject to interpretations arising from our interacting beliefs and actions (Morgan, 2014).

Critical pragmatists go further, emphasising the emancipatory and transformative potential of pragmatism and even the activist role of the researcher (Vannini, 2008).

Thus, pragmatists see knowledge as being explicitly linked to our beliefs and intentions. By taking a pragmatist position, this research articulates its intention to broaden the conceptualisation of shame in violence research, highlighting it as an interpersonal, social experience.

This research employed Dewey's concept of 'inquiry' as a frame for self-conscious decision making. The researcher identified the 'problem' that the Criminal Justice System privileges shame as an experience linked to reoffending but neglects its relationship to mental health and interpersonal experience. The researcher had clinical experience of working with young men who commit violence and express shame and was aware that serious assaults in prison have more than doubled in the last three years (Prison Reform Trust, 2016).

Guided by the pragmatist emphasis on practical consequences, a CFT model of shame was selected on the basis that it has measures widely used in the UK and with the intention of introducing this 'vocabulary' to the Criminal Justice System literature (Rorty, 2000). Considering 'possible actions', a quantitative methodology was employed because this methodology was suitable for an exploratory study aiming to understand the relationship between shame and violence in a large sample of participants. An additional rationale was that quantitative research holds greater political power in the evidence hierarchy (Denzin, 2010).

### **2.3. Design**

In light of the epistemology and research questions, a cross sectional (single time point), quantitative approach using self-report questionnaires was chosen. This methodology aimed to explore relationships between the variables of interest. Reliable and valid self-report measures were selected with the objective of extending similar research exploring shame memories at the University of Coimbra Portugal (Matos & Pinto-Gouveia, 2010; Matos et al., 2012; Pinto-Gouveia & Matos, 2011).

The dependent (or criterion) variables included reactive and proactive violence and number of violent incidents in prison. The predictive variables included experiences of shame (internal shame), other as shamer (other shame), social comparison (social rank), traumatic and central features of shame memories and age.

## **2.4. Participants**

### **2.4.1. Recruitment**

Participants were recruited from a Young Offender Institute in the process of transitioning to an Adult Offender Institute. At the time of data collection, offenders ranged from 18 – 30 years of age. Data were collected in the healthcare suite on days in which new admissions were processed. This meant that the researchers had access to a broad and representative sample of prospective participants. This was particularly important in a prison context as low risk offenders tend to be more accessible and amenable to requests from lay staff in the prison. The Governor for Safer Custody informed the researcher that 70% of the prison population move through Healthcare over the course of the year. The researcher's safety was ensured by completing a prison safety and key talk, setting up interview rooms so that the researcher sat by the door and alarm and having access to a radio with a personal alarm.

### **2.4.2. Inclusion and Exclusion Criteria**

Male offenders aged 18-30 were eligible to participate in the study. Male offenders were selected because research shows that men and women have different pathways to violence and offending (Bonta & Pang, 1995). HMP YOI ISIS has been found to have high levels of violence (Her Majesty's Inspectorate of Prisons, 2014). This was a convenience sample to which the researcher had prior access. Exclusion criteria included those prisoners identified as being of high risk to the researcher, those unavailable for practical reasons e.g. being transferred location and those who presented with active states of psychosis or being under the influence of substances. Although not explicitly stated, participants were required to speak English.

## 2.5. Measures

### 2.5.1. Literacy

#### 2.5.1.1. *Wechsler Test of Adult Reading (WTAR – UK Version)*

The WTAR (Wechsler, 2001) comprises a list of 50 words that have atypical grapheme to phoneme translations. The participant reads the words aloud and the number of correct responses computes the total score. The test predicts pre-morbid IQ by converting reading performance to WAIS–III full scale IQ estimates. Wechsler (2001) reported average correlations between the WTAR and WAIS-III for the US standardisation sample ( $r = .75$ ) for verbal and Full Scale IQ ( $r = .73$ ). It has good reliability and validity in a range of clinical and non-clinical populations (Spren & Strauss, 2006). The test was used to screen for reading ability and the researcher will offered to read or complete questionnaires collaboratively with 18 – 24 year olds scoring below 17 and 25 – 30 year olds scoring below 19 (standard scores below 70).

### 2.5.2. Current Shame

#### 2.5.2.1. *Experience of Shame Scale (ESS)*

The ESS was derived from Andrews & Hunter's (1997) interview measure of shame by Andrews Qian and Valentine (2002). It measures three shame domains; character (personal habits, manner with others, what sort of person you are and personal ability); behaviour (shame about doing something wrong, saying something stupid and failure in competitive situations) and body (feeling ashamed of one's body or parts of it). The authors found the ESS to have a high internal consistency (Cronbach's alpha = 0.92) with good test–retest reliability over 11 weeks ( $r = 0.83$ ). It rates 27 items on a 4-point scale, indicating the frequency of experiencing, thinking and avoiding any of the three shame domains in the last year. High scores indicate higher shame.



This study used the ESS to assess internal shame, however it was developed as a general measure of shame and includes some items that might be related to external shame, e.g., concerns about what others think about the self. This raises concerns about the construct validity of the ESS (Matos & Pinto-Gouveia, 2010). The Internalised Shame Scale (Cook, 1994, 2001) was considered as an alternate measure of internal shame however it was not available as an open source measure. The ESS was retained and an additional measure of internal shame was included in the study, to provide convergent validity.

#### 2.5.2.2. *Social Comparison Scale (SCS)*

The SCS (Allan & Gilbert, 1995) measures personal perceptions of relative social rank. The scale has high internal consistency in clinical and non-clinical populations (Cronbach's  $\alpha = .91$ ) and it has good validity with other measures of social comparison. The SCS includes 11 items on which participants compare themselves to others. Items are presented as bipolar constructs, rated on a scale of 1 – 10 (e.g. "In comparison to others I feel left out- accepted). Low scores indicate low self-rank perceptions. The instructions do not include a referential time point. Participants were instructed to respond based on how they perceived themselves in general, not just in prison. This was pertinent to item 11 (e.g. "In comparison to others I feel an outsider – insider) which some participants queried as a reference to prison. The SCS was selected to capture participants' perception of social status (Anderson, 1999). The SCS taps into self-perceptions and therefore also included to provide convergent validity to the ESS.

#### 2.5.2.3. *Other As Shamer –Short (OAS-2)*

The OAS-2 measures external shame (Matos, Pinto-Gouveia, Gilbert, Duarte, & Figueiredo, 2015). It is a short version of the original 18-item Other as Shamer Scale (OAS; Goss et al., 1994). It has good internal consistency (Cronbach's  $\alpha = .82$ ) and validity and is highly correlated with the OAS ( $r = .91$ ). The 8 items are rated on a five point scale from 0 (never) to 4 (almost always) with higher scores indicating greater external shame. Item examples include "I feel others see me as not quite good enough" and "People see me as unimportant compared to others". The

instructions do not include a referential time point. The OAS-2 was selected as a brief measure that enables comparison with existing shame research.

### 2.5.3. Violence

#### 2.5.3.1. *Reactive and Proactive Aggression Questionnaire (RPQ)*

The RPQ is a self-report questionnaire of previous behaviour. The RPQ produces a Total Aggression score and two Reactive and Proactive subscales which have high internal consistency (0.90, 0.81, and 0.84, respectively). The RPQ has good criterion, convergent and discriminant validity with other personality and behaviour rating scales (Raine et al., 2006). The RPQ consists of 23 items; 11 items measure reactive aggression (e.g. “Reacted angrily when provoked by others”) and 12 items measure proactive aggression (e.g. “Hurt others to win a game”). The items are rated on a scale of 0 (never) to 2 (often). The instructions do not include a referential time point. Although it was originally validated in a child population, the RPQ was selected on the basis that it has subsequently been used in adult forensic research (Cima & Raine, 2009) and has been demonstrated to have clinical relevance for adult forensic populations (Brugman et al., 2016).

#### 2.5.3.2. *Violent Incidents and Alerts recorded by the Prison*

Prisoners gave written consent for the researcher to access the electronic prison system software to gather data about violent alerts and violent incidents.

### 2.5.4. Shame Memories

#### 2.5.4.1. *Priming Shame Memories*

This study aimed to extend research exploring shame memories conducted at the University of Coimbra, Portugal by utilising the priming for shame memory instructions developed by Matos, Pinto-Gouveia and Duarte (2012). Following pilot data collection from 10 participants, the language of the priming instructions was

simplified to support the reading ability of the offender population (Appendix A). The researcher retained the original priming instructions as a script to offer further clarification to participants.

#### *2.5.4.2. Impact of Event Scale –Revised (IES-R)*

The IES-R measures current subjective distress in relation to specific life events (Weiss, 2007; Weiss & Marmar, 1997). It was originally validated as three traumatic stress subscales of Intrusion (e.g. “I had dreams about it”), Avoidance (e.g. “I tried not to think about it”) and Hyperarousal (e.g. “I had trouble concentrating”) which measure characteristics considered central to traumatic memories. The sub scales have a high degree of inter-correlation ( $r_s = .52 - .87$ ; Creamer, Bell, & Failla, 2003). The IES-R has high internal consistency (Cronbach’s  $\alpha = .87 - .94$ ,  $.84 - .87$  and  $.79 - .91$  respectively) and high test retest reliability over six months (Creamer et al., 2003; Weiss & Marmar, 1997). The IES-R has 22 items which participants were instructed to rate on a five-point scale from 0 (not at all) to 4 (extremely) based on the previous seven days. Higher scores indicate more subjective distress. In this study, participants responded to the IES-R with reference to their shame memory. The IES-R computed as a total score has high internal consistency (Cronbach’s  $\alpha = .94$ ) when participants are primed to recall a shame memory (Pinto-Gouveia & Matos, 2011).

#### *2.5.4.3. Centrality of Event Scale (CES)*

The CES measures the extent to which a memory is central to a person (Berntsen & Rubin, 2006). The CES consists of 20-items rated on a 5 point scale from 1 (Totally Disagree) to 5 (Totally Agree) with higher scores indicating greater event centrality. It includes three interdependent sub scales that load onto a single factor; the event’s role in inferences (e.g. “This event has coloured the way I think and feel about other experiences”), as a life story turning point (e.g. “This event permanently changed my life”) and as a facet of identity (e.g. “I feel that this event has become part of my identity”). It has good internal consistency (Cronbach’s  $\alpha = .94 - .95$ ) and validity (Bernsten & Rubin, 2006). The CES retains high internal consistency (Cronbach’s  $\alpha$

= .96) when participants are primed to respond based on a recalled shame memory (Pinto-Gouveia & Matos, 2011).

## **2.6. Applications**

Statistical analysis packages that were used to analyse data in this study:

Statistical Package for the Social Sciences Version 22.0 (SPSS; IBM Corp., 2013)

Amos Version 23.0 (AMOS; Arbuckle, 2014).

## **2.7. Procedure**

### **2.7.1. Consent**

Health Care Assistants attached a flyer to healthcare appointments informing offenders that the researcher may approach them at random in the Healthcare suite (Appendix A). The researcher approached offenders in a waiting room one by one, inviting them to a private room to explain the PIS and invite their participation. All participants read and signed the consent form before participating. The consent form gave the researcher permission to access all electronic data stored about the participants on the electronic prison system.

### **2.7.2. Experimental Control**

Participants' responses were anonymised, with the aim of reducing socially desirable responses. Presentation of the questionnaires was not randomised, which limited the study's control of ordering effects. The rationale for this decision were threefold. Firstly, to control for the lower levels of education and literacy in prisons, a decision was taken to present questionnaires in order of the complexity of the shame concept i.e. moving from internal shame, other shame, to social comparison shame (Creese, 2015). Secondly, the shame based memory questionnaires were presented at the end, so that priming for past memories did not confound responding to current shame questionnaires. Thirdly, based on clinical experience (Hay-Smith, Brown,

Anderson, & Treharne, 2016), it was anticipated that asking about violence or shame memories early in an interview would position the interview similarly to prison risk assessments, thereby increasing socially desirable responding. The interviews were conducted in a one to one format and the researcher did not observe signs of participant fatigue.

### 2.7.3. Data Collection

The questionnaires were administered via one to one interviews by the researcher and a student assistant who was enrolled on the University of East London MSc Psychology. The student assistant had four years of experience working with offenders and was supervised by the researcher for his involvement in this research project only. The student assistant was sponsored by a third sector charity with whom he works to apply for an NHS Research Passport to work in the prison. The student assistant collected 61 / 120 interviews. Of the 124 participants who signed consent forms, two withdrew citing the psychological or personal nature of the test and one withdrew in order to attend a visit from his family.

For all participants, interviewers read the instructions for each questionnaire and verbally checked participants comprehended the construct measured. Interviewers read the shame memory priming script before participants completed the IES-R and CES. The interviewers administered the questionnaire or worked collaboratively with participants scoring lower than a standard score of 70 on the WTAR.

The first ten participants acted as a pilot group, and are included in the study. The researcher noted frequently asked questions made by participants and used these to add simple synonyms to existing words on the Social Comparison Scale. These amendments were discussed with the Director of Studies and determined not to interfere with the psychometric properties of the questionnaires (Appendix A). This was done in accordance with BPS (2009) research guidelines.

#### 2.7.4. Following Data Collection

Following the interview participants were offered the relaxation breathing exercise and a debrief sheet (Appendix A). Pre-existing anxiety disorders, breathing difficulties or post-traumatic stress diagnoses were excluding criteria for the breathing exercise. Forty-five participants completed the exercise.

Where participants expressed high emotion following the study or voluntarily disclosed distress, an offer was made to refer the offender to the NHS mental health team or their prison offender manager. One participant requested a mental health referral.

Despite being instructed not to disclose their chosen shame memory in the study, some participants made disclosures. Disclosures were not linked to participant identification numbers but the researcher made anonymised written notes which she discussed in face to face and phone supervision with the Director of Studies. Participants gave verbal permission for these disclosures to be discussed in the written thesis.

### **2.8. Analytic Strategy**

The sample size calculations are described in Appendix B, generated with software package G Power version 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009). Data were analysed using SPSS (IBM Corp., 2013). The largest sample required was 100, a minimum for structural equation modelling (Jöreskog & Sörbom, 1982; Kline, 2005; Tabachnick & Fidell, 2012). Due to the nature of the study, several quantitative data analysis procedures were required. Initially a correlation matrix examined relationships between predictive and criterion variables. One-tailed Pearson's correlations were performed based on reviewed literature which gave rise to directional hypotheses. Descriptive statistics were computed for: the phenomenological properties of Shame memories, their centrality and traumatic features.

Multiple regression analysis was used to establish significant predictors of proactive and reactive violence. Hierarchical multiple regression was selected on the basis of

relationships between the variables identified by the literature review (Wampold & Freund, 1987). Maximum likelihood method of analysis was used as it is the most recommended (Field, 2009).

From the regression analysis, which demonstrated other shame was a predictor of proactive violence, a model was developed and analysed using structural equation modelling. Maximum likelihood method of analysis was used as it is the most recommended (Field, 2009). The structural equation model (SEM) was constructed using SPSS add on software, Analysis of Moment Structure, version 18 (AMOS, 2010). Visual Basic code was used to program 'User Defined Estimands' (Appendix C) for indirect effect pathways in the model presented in Figure 4.

Multivariate Analysis of Covariance (Warne, 2014) was conducted to compare violent and nonviolent groups of offenders in terms of shame, whilst controlling for age. Multivariate Analysis of Variance were used to compare White, Asian/Other and Black ethnic groups in terms of shame, reactive and proactive violence. The researcher was aware of the importance of not conflating the experiences of diverse groups under the BME acronym or broad ethnic categories (Keating et al., 2002; 2007). However this decision was justified on the basis that it was an important initial step toward introducing greater research sensitivity to the over representation of minorities in the Criminal Justice System.

All data was considered significant at 0.05 level.

## **2.9. Ethical Issues**

### **2.9.1. Approval**

Ethical issues were addressed with reference to the British Psychological Society's (BPS) Code of Human Research Ethics (2010). This study was granted ethical approval by Her Majesty's Prison Young Offenders Institute ISIS (HMP YOI ISIS) on 16<sup>th</sup> June 2016. It was approved by the University of East London's (UEL) research ethics board on 29<sup>th</sup> June 2016. Oxleas NHS Foundation Trust approved the study as a Quality Improvement Project on the basis that it offered an insight into the mental health of the prison population. The researcher's employer, Camden and Islington NHS Foundation Trust was provided Oxleas NHS Foundation Trust with an NHS to NHS letter of access to facilitate data collection in the healthcare department of the prison (Appendix D).

### **2.9.2. Informed Consent**

Participant Information Sheets (PIS, Appendix A) were provided to prospective participants. Prison populations have lower levels of literacy than the general population (Creese, 2015), therefore the researcher verbally checked participants understood the letter before asking them to sign a consent form (Appendix A). It was anticipated that some participants would have low levels of literacy. The first ten participants recruited were considered a pilot group. This group included two participants with WTAR scores in the learning disability range. The researcher checked participants had verbally understood and could repeat back information provided as per British Psychological Society guidelines (BPS, 2010).

### **2.9.3. Compliance**

Offenders' liberty is curtailed and the powerful position of the researcher was acknowledged. It was anticipated that prison regime could elicit participant compliance. For example, an incentive scheme operates whereby positive and negative case notes recorded by staff influence early release. It was emphasised to



offenders that participating conferred neither positive nor negative consequence and their choice would not be recorded in their record.

#### 2.9.4. Confidentiality and Data Protection

Confidentiality was maintained as far as possible within the prison environment. The limits of confidentiality were communicated verbally and on the PIS. Participants understood that confidentiality would be broken if a concern for the participant, other offenders or staff were identified. A mental health referral was made for one participant, with their permission due to concerns about trauma. No concerns were raised in relation to harm to self or others.

Violence data were accessed through the prison's electronic system, independently of prison staff. Whilst some prison officers were aware of participants due to their management of the interview rooms, only the researcher had access to the participant list. This was stored in a restricted, security password protected electronic folder used by the Safer Custody Team in the prison.

Questionnaires were stored in a locked filing cabinet in the prison healthcare department, accessed only by the researcher. Participants were informed that their data would be analysed at a group level and no individual responses would be shared with the prison, with the caveat that if the researcher was concerned about the welfare of a participant or another individual, confidentiality would be broken. Participants had the opportunity of emailing the researcher if they were interested in receiving a summary of the results. Once the study is completed, the hardcopy questionnaires will be destroyed. After this time, the data will be destroyed in accordance with the Caldicott Principe (Department of Health, 2003) and the Data Protection Act (HM Government, 1998).

## **2.10. Duty of Care**

### **2.10.1. Potential Distress**

There were significant increases in offender deaths, self-harm and assaults in prisons in the twelve months preceding June 2016 (Ministry of Justice, 2016; Strickland & Garton Grimwood, 2016). Given this decline in prison safety, participants were asked to consider whether they consented to a study involving engagement with shame memories that might evoke feelings of vulnerability.

Distress during the interview process was managed by articulating the observation of emotion e.g. anxiety and offering either a pause or termination of testing. If a participant became distressed an offer to refer to the participant's Offender Manager, NHS Mental Health Team or Chaplaincy was made. Researchers recorded whether emotional distress was expressed or observed. This was not part of the formalised data collection and a reliable behavioural checklist was not used. For discussion purposes, the researcher and research assistant recorded incidents in which participants reported that the questionnaires affected them emotionally or where a participant completing the questionnaire showed facial expressions the researcher described as angry or sad, or if they began to breathe in an exaggerated fashion e.g. appeared to show anxiety (Results, Table 5). This data was not interpreted due to lack of reliability, inter-rater reliability and due to research documenting high stress levels amongst offender populations, even when they appear to be calm on the outside (Ansbro, 2008; Kidd, Hamer, & Steptoe, 2011; Ogilvie, Newman, Todd, & Peck, 2014).

### **2.10.2. Dual Role**

The researcher considered the hypothesis of a link between shame and violence. Answering questions about shame might confer increased risk to participants and those around them, particularly given recent increases in prison violence. The inclusion of the debrief breathing exercise was considered necessary to minimise harm (BPS, 2010). Including a relaxation exercise raised an ethical dilemma of the dual-role held by the clinician-researcher.

Guided by Hay-Smith, Brown, Anderson and Teharne (2016), the researcher adopted a position that dual-role ethical dilemmas are inevitable. Therefore regular supervision was arranged with the Director of Studies to discuss dual-role dilemmas during data collection.

### 2.10.3. Debrief

Participants were told that a relaxation breathing exercise, taken from an anger management intervention, would be offered at the end of the interview (Kolts, n.d; Appendix A). A verbal handover was provided to prison officers in instances where participants expressed or presented with distress during the interview.

Participants were told they had the right to withdraw their data up until December 30<sup>th</sup> 2016 and were given contact details for the researcher and her Director of Studies.

### 3. RESULTS

#### 3.1. Overview

This chapter details the data management, sample characteristics and results of the analyses for each research question. Appendix E contains corresponding SPSS and AMOS output. Data were entered by hand by the researcher and student assistant. Examination of minimum and maximum scores for scale items and total scores identified two data entry errors in the Experience of Shame scale, which were corrected. The key below alerts the reader to the scales and sub scales referenced in this section.

**Table 1 – Variable Reference Key**

| <b>Variable</b>    | <b>Scale Name</b>                  | <b>Construct</b>                |
|--------------------|------------------------------------|---------------------------------|
| ESS                | Experience of Shame Scale          | Internal Shame                  |
| OAS2               | Other as Shamer Scale              | Other Shame                     |
| SCS                | Social Comparison Scale            | Social Rank                     |
| RPQ                | Reactive and Proactive Aggression  | Total Aggression                |
| RPQ-Proactive      | Proactive Aggression Sub Scale     | Proactive Aggression            |
| RPQ-Reactive       | Reactive Aggression Sub Scale      | Reactive Aggression             |
| IESR               | Impact of Event Scale Shame Memory | Shame Memory Traumatic Features |
| IESR-Intrusion     | Intrusion Sub Scale                | Shame Memory Traumatic Features |
| IESR-Avoidance     | Avoidance Sub Scale                | Shame Memory Traumatic Features |
| IESR-Hyperarousal  | Hyperarousal Sub scale             | Shame Memory Traumatic Features |
| CES                | Centrality of Event Scale          | Shame Memory Centrality         |
| CES-ReferencePoint | Reference Point Sub Scale          | Shame Memory Centrality         |
| CES-Identity       | Identity Sub Scale                 | Shame Memory Centrality         |
| CES- Turning Point | Turning Point Sub Scale            | Shame Memory Centrality         |

### 3.2. Participants

Table 2 details participant characteristics for the 121 individuals that completed the study.

- Participants' age ranged from 17 – 30. 73.6% of participants were classified as Young Offenders (17 – 25 years of age). 26.4% were Adult Offenders.
- 40.5% of participants identified themselves as 'Black', 39.7% as 'White' and 11.6% described themselves as being from 'Asian' or other backgrounds.
- 22.3% of participants had literacy scores in the borderline / extremely low range of functioning.
- 39.7% of participants were on the high risk Multi Agency Public Protection Arrangements (MAPPA) register<sup>6</sup>.
- Participants' number violent index offences<sup>7</sup> ranged from 0 – 4 for offences including grievous bodily harm, actual bodily harm, affray and violent disorder. 26.4% of participants had violent index offences.
- 50.4% of participants had violent alerts on the prison electronic system. The number of violent alerts ranged from 0 – 4.
- 16.5% of participants were known to the prison mental health team. This may have been influenced by data collection taking place in the healthcare suite.
- 28.9% of participants had Assessment Care in Custody Teamwork (ACCT)<sup>8</sup> alerts on the prison electronic system. The number of alerts ranged from 0 – 36.
- The mean sentence length was 39.03 months. Sentence length ranged from 3 - 94 months.

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<sup>6</sup> The MAPPA register is used by the police, prison service and probation trusts to assess and manage the risks posed by sexual and violent offenders. There are three levels of increasing risk.

<sup>7</sup> Index Offences refer to the offences for which the participant is currently serving a sentence.

<sup>8</sup> ACCT is a safeguarding alert and register used within the prison service. Offenders are placed on an ACCT for a defined amount of time whilst their mental health is observed and documented by prison staff.

**Table 2 - Participant Characteristics**

|   | <i>N</i> | <i>%</i> |
|---|----------|----------|
| <i>Age Group</i>                          |          |          |
| Young Offender (17 – 25 years)            | 89       | 73.6     |
| Adult offender (25 – 30 years)            | 31       | 25.6     |
| <i>Ethnic Background</i>                  |          |          |
| White British                             | 38       | 31.4     |
| White Irish                               | 4        | 3.3      |
| White Other                               | 6        | 5.0      |
| Asian                                     | 4        | 3.3      |
| Asian British                             | 10       | 8.3      |
| Black British                             | 27       | 22.3     |
| Caribbean British                         | 14       | 11.6     |
| African British                           | 6        | 5.0      |
| African                                   | 2        | 1.7      |
| Other                                     | 10       | 8.3      |
| <i>Literacy</i>                           |          |          |
| Learning disability range                 | 27       | 22.3     |
| Mild range and above                      | 83       | 68.6     |
| <i>Violence Risk</i>                      |          |          |
| MAPPAs (Level 1 -3)                       | 73       | 60.3     |
| Violent Convictions                       | 32       | 26.4     |
| Violent Alerts                            | 61       | 50.4     |
| Staff Assault Alerts                      | 13       | 10.7     |
| Bully Alerts                              | 7        | 5.7      |
| Known gang involvement                    | 16       | 13.2     |
| <i>Mental Health</i>                      |          |          |
| Known to Prison Mental Health Services    | 20       | 16.5     |
| Assessment Care in Custody Teamwork Alert | 35       | 28.9     |

### 3.3. Missing Data

Data were assessed to determine whether data were missing at random (MAR; missing data are dependent on the characteristics of participants), missing completely at random (MCAR; dependent on neither participant characteristics nor other missing data) or missing due to systematic error in data collection (Rubin, 1987; Sinharay, Stern, & Russell, 2001). Little's (1988) Chi-Square analysis of missing values was performed to determine if data were MCAR (Rubin, 1987; Sinharay et al., 2001). Little's MCAR test supported the null hypothesis, that data were missing completely at random ( $X^2 = 22.48$ ,  $df = 69$ ,  $sig. = 1.00$ ). This suggested that any missing data were unlikely to be related to latent variables that would obscure the result of multivariate analyses (Schafer & Graham, 2002). Mean Substitution (MS) and Multiple Imputation (MI) missing data management techniques were performed on two duplicates of the dataset and their descriptive statistics were compared. MI has been proposed as a preferable procedure because it calculates pooled estimates for missing values and produce standard errors that reflect missing data variance (Manly & Wells, 2015; Rubin, 1976; Schafer & Graham, 2002; Sinharay et al., 2001). However this method limits the number of analyses available in SPSS. Tabachnick and Fidell (2012) state that the extent of the loss of variance associated with averaging total scores in MS is linked with the amount of missing data. There is some consensus that missing data rates of 5% (Schafer, 1999) and 10% (Bennett, 2001) are inconsequential. This dataset had a MCAR rate of 0.83%. Therefore the risk of bias was determined to be minimal. Research shows when the number of items with missing data are 20% or less, MS yields good representations of missing data (Downey & King, 1998). Consequently, mean substitution dataset was selected on the basis that it facilitated more analyses (See Appendix F for a full description of Missing Data Procedures).

### 3.4. Outliers

Univariate outliers (extreme scores on single variables) and data distribution are assessed first, because multivariate outliers (extreme scores on two or more variables) are affected by normality (Tabachnick & Fidell, 2012).

#### 3.4.1. Univariate Outliers

Univariate outliers were identified by calculating standardised Z scores in SPSS (outliers  $\geq 3.29$ ,  $p = .001$ , two tailed test) (Tabachnick & Fidell, 2012). Two participants with significantly extreme Z scores were identified (Table 8, Appendix E). Inspection of box plots revealed 6 cases with extreme values (0.33% of all values). Differences between the mean and the 5% trimmed mean ranged from (0-4), suggesting outliers were likely to affect the data.

Univariate outliers were treated by retaining the extreme value and winsorizing it (modifying its value closer to other sample values). Just 0.33% of data values were identified as outliers. Thus, trimming or winsorizing such a small percentage was unlikely to under or overvalue the total scale scores (Ghosh & Vogt, 2012). Outliers were asymmetrically winsorised (altered on one tail of the distribution) to the next minimum or maximum value  $+ / - 1$  (Tabachnick & Fidell, 2012). This procedure is advantageous when distributions are skewed (Keselman, Wilcox, Othman, & Fradette, 2002).

#### 3.4.2. Multivariate Outliers

Mahalanobis distances (the distance of a case from the centroid mean of cases on multiple dependent variables) was calculated for total score variables (ESS, OAS2, SCS, RPQ, IESR, CES) and compared against Chi-Square critical values (Hartley, 1958). One participant (#66) exceeded the critical value ( $26.13 > 22.46$ ). Treatment of outliers is a contentious issue. Field (2005) suggests not deleting outliers unless they are errors of measurement. In a comprehensive review, Agunis Gottfredson and Joo (2015) recommend against automatically eliminating outliers (Hawawini, Subramanian, & Verdin, 2003) because this can lead to artificial range restriction



(McNamara, Aime, & Vaaler, 2005) and limit discovery of new knowledge. Running correlations showed that deletion of this participant increased and decreased  $r$  values slightly but did not change the overall interpretation of analysis. Therefore, the multivariate outlier was retained.

### 3.5. Data Distribution

Statistical inferences become less robust as distributions depart from normality. Tabachnick and Fidell (2012) suggest the safest strategy is to transform variables unless there is a compelling reason not to. Normality was assessed by statistical and graphical methods (Appendix E).

**Table 3 - Descriptive Statistics**

|                       | Range | Min | Max | Mean  | Std. Error | SD    | Variance | S     | K     | K-S   |
|-----------------------|-------|-----|-----|-------|------------|-------|----------|-------|-------|-------|
|                       |       |     |     |       |            |       |          | SE =  | SE =  |       |
| Age                   | 13    | 17  | 30  | 23.15 | 0.30       | 3.14  | 11.01    | 0.26  | -.983 | .000  |
| ESS                   | 51    | 25  | 76  | 43.37 | 1.11       | 12.24 | 149.8    | 0.72  | 0.09  | .001  |
| OAS2                  | 29    | 0   | 29  | 8.82  | 0.69       | 7.62  | 58.05    | 0.94  | -0.02 | .000  |
| SCS                   | 77    | 29  | 106 | 68.25 | 1.43       | 15.74 | 247.82   | 0.01  | -0.15 | .200* |
| RPQ                   | 36    | 0   | 36  | 17.11 | 0.73       | 8.07  | 65.1     | 0.19  | -0.47 | .032  |
| RPQ-                  | 19    | 0   | 19  | 5.68  | 0.40       | 4.42  | 19.54    | 0.74  | -0.04 | .000  |
| RPQ-                  | 22    | 0   | 22  | 11.44 | 0.42       | 4.61  | 21.21    | -0.24 | -0.32 | .003  |
| IESR                  | 3.95  | 0   | 4   | 1.63  | .088       | .97   | .94      | .14   | -.62  | .200* |
| IESR-                 | 4.00  | 0   | 4   | 1.71  | .103       | 1.14  | 1.29     | .19   | -1.12 | .008  |
| IESR-                 | 4.00  | 0   | 4   | 1.75  | .096       | 1.05  | 1.11     | .07   | -.74  | .200* |
| IESR-                 | 4.00  | 0   | 4   | 1.42  | .097       | 1.07  | 1.14     | .60   | -.38  | .011  |
| CES                   | 79    | 20  | 99  | 59.54 | 2.08       | 22.89 | 523.9    | -0.13 | -1.17 | .016  |
| CES-                  | 32    | 8   | 40  | 24.09 | 0.85       | 9.38  | 87.95    | -0.12 | -1.13 | .009  |
| CES-Identity          | 24    | 6   | 30  | 18.02 | 0.66       | 7.22  | 52.06    | -0.09 | -1.1  | .049  |
| CES-                  | 20    | 5   | 25  | 14.17 | 0.58       | 6.33  | 40.01    | 0.1   | -1.26 | .001  |
| Shame                 | 8     | 1   | 29  | 18.49 | .049       | 5.25  | 27.53    | -.625 | 1.61  | .000  |
| Years Since Sentenced | 6     | 0   | 5   | .61   | .11        | 1.11  | 1.23     | 2.20  | 4.96  | .000  |

\*p >.05 = normality

Table 3 includes means, standard deviations (SD), Kolmogorov-Smirnov (K-S) with a Lilliefors (1967) significance levels, as well as skewness (S) and kurtosis (K) for the Experience of Shame Scale (ESS), Other as Shamer Scale (OAS2), Social Comparison Scale (SCS), Reactive and Proactive Aggression Questionnaire and subscales (RPQ; RPQ-Proactive; RPQ-Reactive), Impact of Event Scale Revised (IESR) and Centrality of Event Scale (CES) total scores and sub scales.

Compared to the general population, participants scored slightly higher other shame and social comparison but less internal shame. Participants' mean scores appeared significantly higher than those reported in the normal population in terms of traumatic experience of shame memory and centrality of shame memory (Allan & Gilbert, 1995; Matos et al., 2012; Matos, Pinto-Gouveia, et al., 2015; Pinto-Gouveia & Matos, 2011). Participants also scored higher on reactive violence than adults in a prison population but lower on proactive violence (Cima, Raine, Meesters, & Popma, 2013; Raine et al., 2006; Zhang, Jia, Chen, & Zhang, 2014).

In the first instance, skewness and kurtosis were inspected using Curran, West and Finch's (1996) thresholds for skewness (between - 2 and 2) and kurtosis (between -7 and 7). All variables fell within this range and were broadly suitable for parametric tests. Using Bulmer's (2003) more stringent criteria for normality the ESS, OAS, RPQ-Proactive, IESR-Hyperarousal were identified as having moderate skew (between +/- .05 – 1). Negative kurtosis was identified for the following distributions; RPQ, IESR, IESR-Avoidance. High levels of kurtosis (between +/- 1) was identified for IESR-Intrusion, CES.

Applying a rule of thumb that skewness or kurtosis values should not exceed the Standard Error doubled (Tabachnick & Fidell, 2012) had convergent validity with patterns of skewness and kurtosis identified using Bulmer's (2003) criteria. Tabachnick and Fidell (2012) state that in large samples it is best practice to review the visible distribution of Histograms, Normal Q-Q Plots (observed values plotted against expected value for normal distribution) and Detrend Normal Q-Q Plots (actual deviation of scores from normal distribution). These graphs were considered because statistics such as the Kolmogorov-Smirnov (K-S) is sensitive to even slight deviations from normality (Field, 2005). The K-S test suggests non-normality in

many variables. Broadly, the graphs indicated distributions close to normality for all variables except the OAS.

However, Curran et al.'s (1996) criteria suggest normal distribution for all variables. Micceri (1989) argues the existence of the normal curve is improbable and that parametric statistics are robust when used with conservative alpha levels, large (or equal groups) sample sizes for a range of non-normal data conditions (Ghasemi & Zahediasl, 2012; Micceri, 1989). Log and Square root transformations were applied to skewed and kurtosis variables. Whilst they made small differences to scores and inspection of graphs showed little data distribution change (Feng et al., 2014; Glass, Peckham, & Sanders, 1972). Hence parametric procedures were selected.

To enhance significance tests of models and the likelihood of robust confidence intervals (CI) around parameter estimates, bootstrapping procedures are recommended (DiCiccio & Efron, 1996; Keselman et al., 2002; Salibian-Barrera & Zamar, 2002). This procedure was used with parametric tests and CIs, standard errors (SEs), and significance values are based on bootstrap with a 95% bias-corrected and accelerated (BCa) CI and 1,000 bootstrap samples.

### **3.6. Research Question 1: What are the relationships between Reactive and Proactive Violence, current shame and shame memories?**

Table 4 displays Pearson's correlation coefficients ( $r$ ), which established the size and significance of shame relationships. Moderate to large correlations were observed between internal shame, other shame and social comparison (as measured by the ESS, OAS, SCS respectively). These measures of current shame correlated moderate – strongly with traumatic features (IESR) and centrality of shame memories (CES). Social rank was negatively related with other shame variables, indicating that the less social rank a participant had, the more shame they experienced.

Correlations explored specific hypotheses about reactive and proactive violence and current shame and the central and traumatic features of shame memories.

**Table 4 – Pearson’s correlation coefficients, bootstrapped significance values and confidence intervals**

|                          | ESS                              | OAS2                          | SCS                       | RPQ-<br>Total             | RPQ-<br>Proactive         | RPQ-<br>Reactive         | IESR-<br>Total            | IESR-<br>Intrusion        | IESR-<br>Avoidance        | IESR-<br>HyperA           | CES-Total                 | CES-<br>ReferecePT        | CES-Identity              | CES-<br>TurnPT |
|--------------------------|----------------------------------|-------------------------------|---------------------------|---------------------------|---------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------|
| ESS<br>CI                |                                  |                               |                           |                           |                           |                          |                           |                           |                           |                           |                           |                           |                           |                |
| OAS2<br>CI               | <b>.60**</b><br>.43 -<br>.71     | 1                             |                           |                           |                           |                          |                           |                           |                           |                           |                           |                           |                           |                |
| SCS<br>CI                | <b>-.42**</b><br>-.58 - -<br>.22 | <b>-.40**</b><br>-.13 -       | 1                         |                           |                           |                          |                           |                           |                           |                           |                           |                           |                           |                |
| RPQ-Total<br>CI          | <b>.20*</b><br>.01 -<br>.35      | <b>.30**</b><br>-.04 -<br>.33 | .05                       | 1                         |                           |                          |                           |                           |                           |                           |                           |                           |                           |                |
| RPQ-Proactive<br>CI      | .12<br>-.5 -<br>.29              | <b>.25**</b><br>.04 - .45     | <b>.15*</b><br>-.04 -     | <b>.90**</b><br>.85 -     | 1                         |                          |                           |                           |                           |                           |                           |                           |                           |                |
| RPQ-Reactive<br>CI       | <b>.20*</b><br>.03 -<br>.36      | <b>.28**</b><br>.12 - .46     | -.06                      | <b>.90**</b><br>.87 - .93 | <b>.60**</b><br>.50 - .69 | 1                        |                           |                           |                           |                           |                           |                           |                           |                |
| IESR-Total<br>CI         | <b>.48**</b><br>.32 -<br>.62     | <b>.38**</b><br>.21 - .54     | <b>-.24**</b><br>-.41 - - | .14<br>-.04 -             | .12<br>-.08 - .28         | .14<br>-.03 - .31        | 1                         |                           |                           |                           |                           |                           |                           |                |
| IESR-Intrusion<br>CI     | <b>.50**</b><br>.35 -<br>.63     | <b>.40**</b><br>.22 - .45     | <b>-.30**</b><br>-.45 - - | .120<br>-.52 -            | .107<br>-.08 - .28        | .112<br>-.06 - .29       | <b>.92**</b><br>.89 - .95 | 1                         |                           |                           |                           |                           |                           |                |
| IESR-Avoidance<br>CI     | <b>.38**</b><br>.23 -<br>.50     | <b>.29**</b><br>.11 - .43     | -.14<br>-.31 -            | <b>.19*</b><br>.00 - .38  | <b>.17*</b><br>-.05 - .36 | <b>.18*</b><br>.01 - .35 | <b>.90**</b><br>.78 - .90 | <b>.69**</b><br>.58 - .78 | 1                         |                           |                           |                           |                           |                |
| IESR-Hyperarousal<br>CI  | <b>.45**</b><br>.28 -<br>.59     | <b>.38**</b><br>.20 - .53     | <b>-.22**</b><br>-.41 -   | .14<br>-.01 -             | .09<br>-.08 - .27         | <b>.16*</b><br>.00 - .32 | <b>.91**</b><br>.88 - .94 | <b>.84**</b><br>.77 - .88 | <b>.65**</b><br>.52 - .74 | 1                         |                           |                           |                           |                |
| CES-Total<br>CI          | <b>.47**</b><br>.34 -<br>.59     | <b>.37**</b><br>.22 - .52     | <b>-.19*</b><br>-.36 -    | .09<br>-.08 -             | .11<br>-.08 - .27         | .06<br>.11 - .26         | <b>.66**</b><br>.55 - .76 | <b>.70**</b><br>.60 - .79 | <b>.57**</b><br>.45 - .68 | <b>.56**</b><br>.44 - .67 | 1                         |                           |                           |                |
| CES-ReferencePoint<br>CI | <b>.46**</b><br>.33 -<br>.59     | <b>.40**</b><br>.24 - .53     | <b>-.20*</b><br>-.37 - -  | .12<br>-.06 -             | .14<br>-.05 - .31         | .09<br>-.08 - .28        | <b>.65**</b><br>.55 - .74 | <b>.69**</b><br>.59 - .78 | <b>.57**</b><br>.45 - .68 | <b>.56**</b><br>.43 - .62 | <b>.97**</b><br>.95 - .97 | 1                         |                           |                |
| CES-Identity<br>CI       | <b>.48**</b><br>.33 -<br>.60     | <b>.37**</b><br>.23 - .52     | <b>-.20*</b><br>-.36 -    | .05<br>-.12 -             | .06<br>-.11 - .23         | .03<br>-1.35 -           | <b>.62**</b><br>.50 - .73 | <b>.65**</b><br>.53 - .76 | <b>.52**</b><br>.38 - .64 | <b>.53**</b><br>.40 - .65 | <b>.96**</b><br>.94 - .97 | <b>.89**</b><br>.84 - .92 | 1                         |                |
| CES-TurningPoint<br>CI   | <b>.41**</b><br>.28 -<br>.55     | <b>.29**</b><br>.11 - .45     | -.14<br>-.32 -            | .03<br>-.14 -             | .05<br>-.13 - .22         | .01<br>-.17 - .20        | <b>.62**</b><br>.49 - .74 | <b>.66**</b><br>.53 - .76 | <b>.55**</b><br>.41 - .66 | <b>.51**</b><br>.37 - .64 | <b>.93**</b><br>.90 - .95 | <b>.84**</b><br>.78 - .89 | <b>.85**</b><br>.79 - .89 | 1              |

Correlation is significant at the 0.05 level (1-tailed). \*\*. Correlation is significant at the 0.01 level (1-tailed). Bootstrap results are based on 1000 bootstrap samples

## **Hypothesis 1: Is there a significant positive relationship between Proactive Violence and**

### **a) Other Shame**

The relationship between proactive violence (as measured by the RPQ-Proactive) and other shame (as measured by the OAS2) was investigated using Pearson product-moment correlation coefficient. There was a small positive correlation between the two variables ( $r = .25$ ,  $p = .00$ ,  $CI = .04 - .45$ ).

### **b) Social Rank**

The relationship between proactive violence and social rank (as measured by the SCS) was investigated using Pearson product-moment correlation coefficient. There was a small positive correlation between the two variables ( $r = .15$ ,  $p = .05$ ,  $CI = -.04 - .33$ ). The correlation matrix indicated social rank was not correlated with reactive or total violence (as measured by the RPQ-Reactive and RPQ).

### **c) Shame Memory Avoidance**

The relationship between proactive violence and avoidance of shame memories with traumatic features (as measured by the IESR-Avoidance) was investigated using Pearson product-moment correlation coefficient. There was a small positive correlation between the two variables ( $r = .17$ ,  $p = .05$ ,  $CI = -.05 - .36$ ).

## **Hypothesis 2: Is there a significant positive relationship between Reactive Violence and**

### **a) Internal Shame**

The relationship between reactive violence (as measured by the RPQ-Reactive) and internal shame (as measured by the ESS) was investigated using Pearson product-moment correlation coefficient. There was a small positive correlation between the two variables ( $r = .2$ ,  $p = .05$ ,  $CI = .03 - .36$ ). This supports research that characterises reactive or 'hot' violence as being associated with greater mental health difficulties.

### **b) Other Shame**

The relationship between reactive violence and other shame (as measured by the OAS2) was investigated using Pearson product-moment correlation coefficient. There was a small positive correlation between the two variables ( $r = .28$ ,  $p = .00$ ,  $CI = -.12 - .46$ ).

### **c) Shame Memory Avoidance**

The relationship between reactive violence and avoidance of shame memories with traumatic features (as measured by the IESR-Avoidance) was investigated using Pearson product-moment correlation coefficient. There was a small positive correlation between the two variables ( $r = .18$ ,  $p = .05$ ,  $CI = .01 - .35$ ).

### **d) Shame Memory Hyperarousal**

The relationship between reactive violence and shame memory traumatic hyperarousal (as measured by the IESR-Hyperarousal) was investigated using Pearson product-moment correlation coefficient. There was a small positive correlation between the two variables ( $r = .16$ ,  $p = .05$ ,  $CI = .00 - .32$ ).



**3.7. Research Question 2a: What percentage of the variance in Proactive Violence is predicted by other shame, social rank, shame memory avoidance and age?**

**Research Question 2b: Which of these variables is the best predictor of Proactive Violence?**

Multiple regression analysis was performed using the RPQ-Proactive (proactive violence) as the criterion variable and the OAS, SCS, IES-R-Avoidance and Age as predictor variables.

**3.7.1. Assumptions**

**3.7.1.1. *Ratio of cases to predictor variables***

The four predictor variables met sample size recommendations for fifteen subjects per predictor  $N_{121} > 60$  (Green, 1991; Stevens, 1996) and Tabachnick and Fidell's (2012) more stringent criteria  $N_{121} > 82$  ( $N > 50 + 8.m$ ), where  $m$  = number of predictors.

**3.7.1.2. *Homoscedasticity, linearity, independent and normally distributed errors***

Graphs plotting standardised residuals and predicted values were inspected. The majority of residuals fell within -2 and 2, indicating the assumptions of linearity (a straight line relationship) and homoscedasticity (variance) had been met (Tabachnick & Fidell, 2012), with the exception of the multivariate outlier discussed and retained in section 3.5.2 (Cohen, Cohen, West, & Aiken, 2003; Pedhazur, 1997). The Durbin-Watson (1971) statistic score of 1.67 was close to 2 (the ideal score) indicating data met the assumption of independent errors.

**3.7.1.3. *Multicollinearity***

Tolerance and Variance Inflation Factor (VIF) scores (percentage and index of variance not attributable to independent variables) were inspected. Acceptable Tolerance has been suggested to be less than one (Bowerman, O'Connell, & Dickey, 1986). Tolerance values ranged from .7 - .9. A cut off of 10 has been suggested for VIF (Myers, 1990). VIF ranged from 1.0 – 1.3.

### 3.7.2. Hierarchical Multiple Regression

#### 3.7.2.1. *Regression Model*

Appendix E (Table 10) includes standardised regression coefficients ( $\beta$ ), bootstrapped significance values ( $p$ ), CIs and SEs and bias for the regression model. Other Shame and Social Comparison were entered at Step 1, explaining 13.9% of the variance. After the IESR avoidance and Age were entered at Step 2, the total variance explained by the model as a whole was 19%,  $F(3, 117) = 7.19$ ,  $p < .001$ . In the final model, only the OAS ( $\beta = .338$ ,  $t = 3.60$ ,  $p < .001$ ), SCS ( $\beta = .250$ ,  $t = 2.69$ ,  $p < .008$ ) and Age ( $\beta = -.23$ ,  $t = -2.64$ ,  $p < .009$ ) were statistically significant. Results indicate that that high perception of shame from others and social comparison predicts proactive violence whilst younger age predicts proactive violence. Model cross validation using adjusted R squared indicated that 17% of the variance would be accounted for if derived from the normal population.

#### 3.7.2.2. *Outliers and Influential Cases*

Mahalanobis distances were scanned and only one case exceeding the critical value of 16.27 was identified using the Pearson and Hartley (1958) guideline. Field (2009) recommends no more than 5% of cases should have standardized residuals greater than 2. The current model revealed once case which exceeded 2 (residual = 4) however Cook's distance ( $.01 < 1$ ) indicated it was not having undue influence on the model (Tabachnick & Fidell, 2012). Field (2009) suggests that if Cook's distance is within the suggested limit, it is not concerning. As recommended by Aguinis et al. (2015), the analysis was rerun without the outlier. Although the parameters reduced, the tests remained significant, therefore the participant was retained.

**3.8. Research Question 3a: What percentage of the variance in Reactive Violence is predicted by internal shame, other shame, shame memory avoidance, hyperarousal and age?**

**Research Question 3b: Which of these variables is the best predictor of Reactive Violence?**

Multiple regression analysis was performed using the RPQ-Reactive (reactive violence) as the criterion variable and the OAS, ESS, IES-R-Avoidance, IESR-Hyperarousal and Age as predictor variables.

**3.8.1. Assumptions**

*3.8.1.1. Ratio of cases to predictor variables*

The five predictor variables met sample size recommendations for fifteen subjects per predictor  $N/21 > 75$  (Green, 1991; Stevens, 1996) and Tabachnick and Fidell's (2012) more stringent criteria  $N/21 > 90$  ( $N > 50 + 8.m$ ), where  $m$  is the number of predictor variables.

*3.8.1.2. Homoscedasticity, linearity, independent and normally distributed errors*

Graphs plotting standardised residuals and predicted values were inspected. The majority of residuals fell within -2 and 2, indicating the assumptions of linearity (a straight line relationship) and homoscedasticity (variance) had been met. The Durbin-Watson statistic (1971) of 1.9 indicated data met the assumption of independent errors.

*3.8.1.3. Multicollinearity*

Tolerance and Variance Inflation Factor (VIF) scores (percentage and index of variance not attributable to independent variables) were inspected. Tolerance ranged from .53 - .90 and VIF ranged from 1.59 – 1.91 indicating multicollinearity was not a problem.

### 3.8.2. Hierarchical Multiple Regression

#### 3.8.2.1. *Regression Model*

Appendix E (Table 11) presents standardised regression coefficients ( $\beta$ ), bootstrapped significance values ( $p$ ), CIs and SEs and bias for the regression model. Internal Shame and Other Shame were entered at Step 1, explaining 8% of the variance. After the IESR-Avoidance, IESR-Hyperarousal and Age were entered at Step 2, the total variance explained by the model as a whole was 19.2%,  $F(5, 115) = 5.48, p = .000$ . In the final model, only Age ( $\beta = -.34, t = -3.81, p < .000$ ) was a statistically significant predictor, suggesting that that younger age predicts increased reactive violence. Model cross validation using adjusted R squared indicated that 11% of the variance would be accounted for if derived from the normal population.

#### 3.8.2.2. *Outliers and Influential Cases*

Mahalanobis distances were scanned and only one case exceeding the critical value of 18.47 was identified using the Pearson and Hartley (1958) guideline.

Field (2009) recommends no more than 5% of cases should have standardized residuals greater than 2. This analysis met Field's (2009) recommendation that no more than 5% of residuals (6; 4.9%) exceed two. Cook's distance ( $.09 < 1$ ) indicated outliers were not unduly influencing the model (Tabachnick & Fidell, 2012).

### **3.9. Research Question 4: Is there a significant difference in shame experiences between prisoners with and without violent alerts?**

Participants were assigned to two groups, depending on whether they had been registered with a violent alert (for offence or in prison violence) on the prison system PNomis. A one way MANCOVA was performed including five dependent variables; internal shame (ESS), other shame (OAS), social comparison (SCS), shame memory traumatic features (IESR) and shame memory centrality (CES). Age was included as a covariate on the basis of evidence that social cognitive and metacognitive ability continue to develop through adolescence into early adulthood (Fuhrmann et al., 2015; Mills et al., 2016; Viding et al., 2012).

#### **3.9.1. Assumptions**

Tabacknick & Fidell (2012) state that it is sufficient to explore F test assumptions for the whole dataset rather than exploring two groups separately.

##### **3.9.1.1. *Sample Size***

Descriptive Statistics were inspected to determine cell size. Violent (61) and Non Violent (60) groups had roughly equal N sizes.

##### **3.9.1.2. *Covariate Reliability***

Age was a single item so a reliability alpha was not calculated. Age data was collected from prison Pnomis computer database and met the reliability assumption.

##### **3.9.1.3. *Multivariate Normality and Linearity***

MANOVA are robust to non-normality in samples that include more than participants per cell (Seo, Kanda, & Fujikoshi, 1995). The variables included in the MANCOVA met normality assumption. Linearity was explored using scatter plots for each variable. Setting subgroup fit lines found no evidence of collinearity.

##### **3.9.1.4. *Homogeneity of Regression Slopes***

Custom Multivariate Analysis indicated that the analysis did not violate the assumption of homogeneity of regression slopes  $F(1, 113) = 0.86, p = .511$ .

#### 3.9.1.5. *Equality of Covariance*

Box's test of equality of covariance matrices assesses violation of homogeneity of variance and covariance (Box, 1949). These data passed Box's M (14.56,  $p = .53$ ).

#### 3.9.1.6. *Homogeneity of Variance*

All variables passed Levene's (1960) test of equality of error variances ( $p$  range = .26 - .77) indicating that data had similar levels of error across the two groups.

### 3.9.2. Multivariate Analysis of Covariance Variance (MANCOVA)

#### 3.9.2.1. *Multivariate Tests*

Tabachnick and Fidell (2012) recommend the Wilk's Lambda statistic to identify significant differences between groups on a linear combination of dependent variables when test assumptions have been met. There was no statistically significant difference between men with violent alerts and men without violent alerts  $F(5, 114) = .438, p = .82, \text{Wilk's Lambda} = .96; \text{partial eta squared} = .04$ . Dependent variables were not significantly different when considered separately.

### 3.10. Research Question 5: What are the Characteristics of Shame Memories?

Participants age in years at the time of the memory and the source of shame experienced are described in Table 5. The mean age at which the shaming experience occurred was 18.49 years (SD = 5.23, CI = 17.4 – 19.5). With regard to the shame memory, the majority of participants rated their shame memory as both internal shame (shaming the self) and being shamed by another (other shame). The researchers recorded whether the participant expressed an emotional reaction to the interview or whether the researcher observed any marked physical or emotional reactions e.g. changes in breathing, facial expression.

**Table 5 – Shame Memory Characteristics**

| Characteristic                                     | N   | % of sample |
|--|-----|-------------|
| <i>Age in years at time of memory</i>              | 111 | 91.7        |
| 0-5  | 3   | 2.5         |
| 6-10   | 4   | 3.3         |
| 11-15  | 15  | 12.4        |
| 16-20  | 58  | 47.9        |
| 21-25  | 21  | 17.4        |
| 26-30  | 10  | 8.3         |
| <i>Shame source</i>                                | 121 | 100         |
| Internal Shame                                     | 30  | 24.8        |
| Other Shame  | 14  | 11.6        |
| Both Internal and Other Shame                      | 77  | 63.6        |
| <i>Participants Observed and Expressed Emotion</i> | 83  | 69          |
| Expressed emotion                                  | 68  | 56.6        |
| Researcher observed emotion                        | 15  | 12.5        |

Some participants made voluntary disclosures of their shame memories and the type of shame experience they recalled was recorded with their permission. In order of frequency, the most commonly reported memories were; being a victim of sexual abuse, impaired relationships due to incarceration, perpetrating domestic violence or abuse, seeing another person murdered or offence related. Childhood memories

with attachment figures, mental health, substance misuse and literacy were also reported as shameful memories.

A two tailed Spearman rho correlation was performed to explore the direction size and significance between the age at which the shame memory occurred the start date of the participant's current sentence. The Years Since Sentenced variable did not meet the assumption of normality. Results indicated that the relationship between age of shame experience and sentence start date was non-significant,  $r = -.065$ ,  $n = 112$ ,  $p = .496$ ,  $CI = -.24 - .12$ .



### **3.11. Research Question 6: Do other shame and social rank mediate the relationship between centrality of shame memory and proactive violence?**

From previous analyses, it was shown that other and social rank shame are moderately related and other shame plays a small but significant role in proactive violence. There was no association between centrality of shame memory and proactive violence.

It was noted in the descriptive statistics that participants' centrality of shame experience was higher than that reported in the general population. The centrality of shame memories can create cognitive reference points, or turning points that influence future attributions and behaviour. Based on literature linking external attributions and violence, we might expect the relationship between these cognitions and proactive violence to be mediated by other shame (e.g. Gold & Lewis, 2010; Stuewig et al., 2010).

Other shame (devaluation in the eyes of others) and social rank (positioning according to social norms) tap into the stigma and power inherent in Social Systemic Shame. These external definitions of shame may predict externally motivated proactive violence.

The centrality of shame memories also influences one's identity and experience of oneself in relation to others. This fits with Anderson's (1999) description of violence being linked to personal narratives of respect and experiencing Social Systemic shame. Thus, we would expect social rank to mediate the relationship between centrality of shame memory and proactive violence. Structural Equation Modelling was conducted to constrain the variance in the model to include centrality of shame memory, other shame and social rank (as measured by CES, OAS, SCS respectively). A fully conceptual model was constructed to explore the relationships between the variables.

### 3.11.1. Assumptions

Structural Equation Modelling (SEM; Bollen, 1989) is a multivariate procedure with similar assumptions as other multivariate tests. It has already been demonstrated that this data were measured without error, met assumptions for normality, linearity, and multicollinearity (O'Rourke & Hatcher, 2013).

#### 3.11.1.1. *Sample Size and Power*

Although there is no consensus on sample size for Structural Equation Modelling, like other multivariate analyses it is based on large sample theory (Strawderman, Lehmann, & Holmes, 2012). A minimum of 100 participants is recommended (MacCallum, 1986). Cohen's (2016) rule of thumb ( $N$  independent variables – 1) was used to calculate parameters of effect size (Table 13, Appendix E). For this study, a sample of 100 was required to detect a medium effect size ( $\alpha = .05$ .)

#### 3.11.1.2. *Identification*

An additional assumption of Structural Equation Modelling is that the model must be over-identified i.e. it includes more linearly independent equations than unknown elements (Kline, 2005). 'Just identified' models have degrees of freedom of 0, which prevents analysis of the model fit. This model was over identified ( $df = 2$ ) (O'Rourke & Hatcher, 2013).

### 3.11.2. Model Fit

#### 3.11.2.1. *Model 1*

The Chi-Square statistic demonstrated the model fit was significantly different from the data, indicating a bad fitting model ( $\chi^2 = 16.77$ ,  $df = 2$ ,  $p = .00$ ). Whilst the Chi-Square is an absolute measure of fit, the Root Mean Square Error of Approximation (RMSEA) is a descriptive indicator of the data. Hu and Bentler's (1999) recommendation to achieve RMSEA values below .06 gave convergent validity to a conclusion of poor model fit (RMSEA = .248). Modification Index suggested that

modifications to address variance between the error of the OAS and SCS would improve model fit by 15.59 units.

#### 3.12.2.2. Model 2

Substantial debate exists around model modification, with some authors suggesting data driven models lack generalisability (MacCallum, Roznowski, & Necowitz, 1992). There is some consensus that where samples are greater than 100 (MacCallum, 1986) and modifications are theoretically justified, a small number of model fit adjustments are acceptable (Jöreskog & Sörbom, 1982; 2001). Both the SCS and OAS constructs measure current shame perceptions in relation to others. Guided by the modification index, the model was modified to account for their covariance.

Chi-Square indicated excellent fit for Model 2 ( $\chi^2 = .08$ ,  $df = 1$ ,  $p = .77$ ). Corroborating evidence is obtained from the RMSEA fit statistic (.000) which is well below the .06 suggested cut off (Hu & Bentler, 1999). The RMSEA is one of the most informative goodness-of-fit indices because it estimates error of approximation in the population (Byrne, 2009; Kline, 2005). The CMIN statistic ( $.08 < 1$ ) indicated dropping paths from the model would not improve fit. Fit indices for Model 1 and 2 are presented in Appendix E (Table 14).

The standardised path coefficients for Model 2 are reported in Table 6. All coefficients in the model were significantly differ from zero (i.e.  $t$  values  $> 1.96$ ,  $p < .05$ ). Including the covariance parameter between OAS and SCS resulted in a decrease of the squared multiple correlation for RPQ (from  $r^2 = .20$  to  $r^2 = .14$ ).

**Table 6 – Standardised Path Coefficients and Associated Significance (t values)**

| <u>Paths</u>              | <u>Standardised Path Coefficients</u> | <u>S.E.</u> | <u>t value</u> | <u>p</u> |
|---------------------------|---------------------------------------|-------------|----------------|----------|
| CES to OAS                | .125                                  | .028        | 4.42           | .000     |
| CES to SCS                | -.128                                 | .062        | -2.07          | .038     |
| OAS to Proactive Violence | .215                                  | .054        | 4.02           | .000     |
| SCS to Proactive Violence | .084                                  | .026        | 3.25           | .001     |

N = 121. Statistically significant t values >1.96

Model 2 appears to best reflect patterns of association within the dataset. Modification indices did not recommend further model readjustment. The Modifications are theoretically tenable (Anderson, 1999). Figure 4 presents the accepted model.

Analysis of the paths in the SEM by the means of standardised regression weights indicated that as when other variables are held constant and centrality of shame memory increases by one unit, other shame increases by .37 units ( $t(1) = 4.42, p = .00$ ). As other shame increases by one unit, proactive violence increases by .37 units ( $t(1) = 4.02, p = .00$ ). As centrality of shame memory increases by one unit, social rank decreases by .19 units ( $t(1) = -2.07, p = .038$ ), indicating the more central a shame memory is to identity, the less social rank is experienced. For every one unit increase in social comparison, there was a .3 unit increase in proactive violence ( $t(1) = 3.25, p = .001$ ).

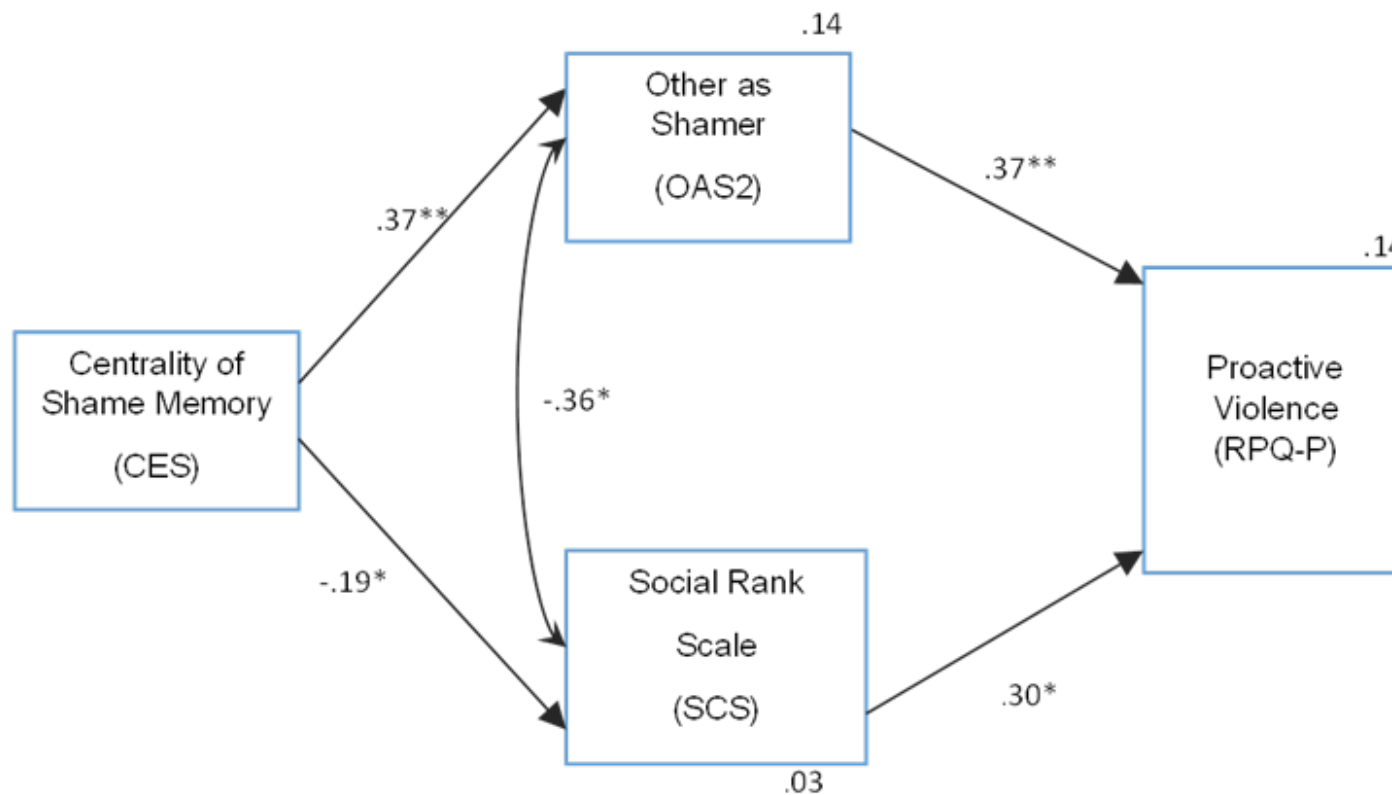
The researcher used visual basic programming to estimate the significance of entire pathways from centrality of shame memory to proactive violence. The model identified significant mediation paths from centrality of shame memory, through other shame to proactive violence and also from centrality of shame memory through social comparison and proactive violence (Table 7). Although other shame and social comparison correlate, the two paths are significantly different from each other at the .05 level. It is noteworthy that when centrality of shame memory is added to the model, the strength of the relationship between other shame and proactive violence and social comparison and proactive violence increase (See comparison

correlations in Table 4). The sum of the paths is not significant because the existence of positive and negative correlations in the model cancel each other out. The two paths are significant predictors of proactive violence and are significantly different from each other.

**Table 7 - Mediation Analysis Path Coefficients**

| <u>Parameter</u>             | <u>Estimate</u> | <u>90% CI</u> |       | <u>p</u> |
|------------------------------|-----------------|---------------|-------|----------|
|                              |                 | Lower         | Upper |          |
| CES to OAS to RPQProactive   | .027            | .012          | .051  | .003     |
| CES to SCS to RPQProactive   | -.011           | -.028         | -.002 | .036     |
| Sum of the paths             | .016            | .000          | .038  | .100     |
| Difference between the paths | .038            | .020          | .077  | .002     |

**Figure 4 - Structural Equation Model (SEM) of proactive violence with standardised estimates examining the relationship of predictor variables centrality of shame memory, other shame and social rank**



\*Significant at the 0.05 level. \*\*. Significant at the 0.01 level.

Rectangles indicate observed variables. Single headed arrows indicate direct path relationships. Double headed arrows indicate correlational relationships.

### **3.12. Research Question 7: Is there a difference between ethnic groups in terms of**

- a) Shame**
- b) Proactive Violence**
- c) Reactive Violence**

Participants were initially broken into specific ethnic groups e.g. White Polish / Black Nigerian. Each of these categories has a small number of participants in them. Therefore, ethnic groups were pooled into Black, Asian / Other and White ethnic groups. This ensured that sample size requirements for ANOVA could be met.

#### **3.12.1. Difference in Ethnic Group Shame Experience**

A one way MANOVA was performed to test ethnic group differences across five dependent variables; internal shame (ESS), other shame (OAS), social comparison (SCS), shame memory traumatic features (IESR) and shame memory centrality (CES).

##### *3.12.1.1. Sample Size*

Descriptive Statistics were inspected to determine cell size. Three ethnic groups were included; White (n = 48), Asian / Other = (n 24) and Black (n = 49). Reviewing approaches to the management of unequal sample sizes, Tabachnick and Fidell (2012) state that selecting a Sums of Squares model Type III (the default in SPSS) is the most conservative method for estimating means and testing significance effects, though this risks a loss of power in a nonexperimental design.

##### *3.12.1.2. Multivariate Normality*

MANOVA are robust to non-normality (Tabachnick & Fidell, 2012). One participant (#66) exceeded the critical value Mahalanobis distance for the five dependent variables ( $CV = > 20.52$ ) identified as a multivariate outlier (Hartley, 1958) but was retained as described in section 3.5.2. (Seo et al., 1995). Overall, inspection of

scatterplots indicated the analysis was not significantly violated by multivariate outliers.

#### 3.12.1.3. *Equality of Covariance*

Box's test of equality of covariance matrices assesses violation of homogeneity of variance and covariance (Box, 1949). These data passed Box's M (28.53,  $p = .65$ ).

#### 3.12.1.4. *Homogeneity of Variance*

All variables passed Levene's (Levene, 1960) test of equality of error variances ( $p$  range = .20 - .79) indicating that data had similar levels of error across the three groups.

#### 3.12.1.5. *Multivariate Analysis of Variance (MANOVA)*

Tabachnick and Fidell (2012) recommend the Pillai's trace statistic to identify significant differences between groups on a linear combination of dependent variables when there are unequal sample sizes.

Pillai's trace indicated that there is a significant difference between ethnic groups  $F(10, 230) = .416$ ,  $p = .02$ , Pillai's trace = .18; partial eta squared = .09. When the results of the dependent variables were considered separately, only social rank reached statistical significance using a Bonferroni adjusted alpha level of .01;  $F(2, 118) = 9.45$ ,  $p = .000$ ; partial eta squared = .14, observed power = .98. According to Cohen (1988) this is a large effect size. Inspection of mean scores indicated that Black ( $M = 73.70$ ,  $SD = 13.6$ ) and Asian / Other ( $M = 71.34$ ,  $SD = 14.79$ ) ethnic groups reported higher levels of social rank than their White peers ( $M = 61.15$ ,  $SD = 15.78$ ). Post-hoc comparison using Tukey HSD and LSD tests indicated that the Black ( $p = .00$ ) and Asian / Other ( $p = .02$ ) groups scored significantly higher in social rank than the White ethnic group. In Gilbert and Allen's (1995) original study, the student group had a mean of 64.67 ( $SD = 11.6$ ) and the clinical sample had a mean of 38.90 ( $SD = 13.47$ ). This suggests that none of the ethnic groups had social rank experiences in the clinical problem range.



### 3.12.2. Differences in Ethnic Group Violence

Based on the findings that increased social rank is associated with increased proactive violence, and significantly higher social rank amongst Black and Asian/Other ethnic groups, an exploratory ancillary one way MANCOVA was performed to assess ethnic group differences in violence.

The MANCOVA included two dependent variables; proactive violence (RPQ-Proactive) and reactive violence (RPQ-Reactive). The number of violent alerts and number of violent offences participants were involved in were not included in the model as these variables were non-normal. Age was included as a covariate on the basis of evidence that social cognitive and metacognitive ability continue to develop through adolescence into early adulthood (Fuhrmann et al., 2015; Mills et al., 2016; Viding et al., 2012).

#### 3.12.2.1. *Assumptions*

Tabacknick & Fidell (2012) state that it is sufficient to explore F test assumptions for the whole dataset rather than exploring two groups separately.

#### 3.12.2.2. *Sample Size*

As described in section 3.13.1.1., the sample sizes were judged to be sufficient for the MANCOVA. Sums of Squares model Type III (the default in SPSS) was retained as the most conservative method for estimating means and testing significance effects (Tabachnick & Fidell, 2012).

#### 3.12.2.3. *Covariate Reliability*

Age was a single item so a reliability alpha was not calculated. Age data was collected from prison Pnomis computer database and met the reliability assumption.

#### 3.12.2.4. *Multivariate Normality and Linearity*

MANOVA are robust to non-normality in samples that include more than participants per cell (Seo et al., 1995). The variables included in the MANCOVA met normality assumption. Linearity was explored using scatter plots for each variable. Setting subgroup fit lines found no evidence of collinearity.

### 3.12.2.5. *Homogeneity of Regression Slopes*

Custom Multivariate Analysis indicated that the analysis did not violate the assumption of homogeneity of regression slopes  $F(1, 113) = 0.86, p = .511$ .

### 3.12.2.6. *Equality of Covariance*

Box's test of equality of covariance matrices assesses violation of homogeneity of variance and covariance (Box, 1949). These data passed Box's M (8.52,  $p = .2.18$ ).

### 3.12.2.7. *Homogeneity of Variance*

All variables passed Levene's (1960) test of equality of error variances ( $p$  range = .07 - .37) indicating that data had similar levels of error across the two groups.

## 3.12.3. Multivariate Analysis of Covariance Variance (MANCOVA)

### 3.12.3.1. *Multivariate Tests*

Tabachnick and Fidell (2012) recommend the Pillai's trace statistic to identify significant differences between groups on a linear combination of dependent variables when there are unequal sample sizes. There was no statistically significant difference between ethnic groups  $F(4, 234) = 2.36, p = .06$ , Pillai's trace = .08; partial eta squared = .04. Dependent variables were not significantly different when considered separately.

## **4. DISCUSSION**

### **4.1. Overview**

The aims of the research and summary of findings are provided, followed by a discussion of the sample characteristics. Results of each research question are considered in relation to existing literature and their implications for practice. Strengths, limitations and directions for future research are also outlined. The researcher provides a reflective account before drawing a final summary.

### **4.2. Aims and Results Summary**

This thesis aimed to explore the relationship between reactive and proactive violence and shame. It expanded the internal shame concept to include other shame and social rank, hypothesised to be more sensitive to Social Systemic Shame. For the first time, the traumatic features of shame memory and shame memory centrality were explored in an offender population. When considered as a whole, this population of adult male offenders had lower internal shame than figures reported for the general population (Allan & Gilbert, 1995) but higher levels of other shame, social comparison, shame memory avoidance and hyperarousal. Correlations revealed that proactive violence was associated with other shame, social rank and shame memory avoidance. However, when entered into a hierarchical multiple regression, only other shame and age independently predicted proactive violence. Correlations found associations between reactive violence and internal shame, other shame, shame memory avoidance and hyperarousal but none of these variables were independent predictors of reactive violence in hierarchical multiple regression. Whilst theory emphasises the role of shame in reactive or emotive violence, this research found Social Systemic Shame was more predictive of proactive violence. Consistent with previous research, age predicted that violence would decrease over time (Gold, 2011; Gold & Lewis, 2010; Kempes et al., 2005). There were no differences in the shame experienced by violent and non-violent groups, converging with Gilligan's (1999) Germ Theory.

The majority of shame memories occurred in late adolescence. This may be due to primacy and recency effects or the developmental process of identity negotiation taking place in adolescence (Carr, 2005). The age of shame memory was not

associated with sentencing date. Including centrality of shame experience in the structural equation model strengthened relationships between the shame variables and proactive violence. The results regarding ethnicity are important. Black and Asian groups had significantly higher levels of social rank than the White group, but were not significantly more aggressive. Therefore the result that having fewer central shame memories but higher social rank predicts increased proactive violence will be discussed below, with reference to racial inequality in the prison system (Lammy, 2016; Prison Reform Trust, 2016).

### **4.3. Participant Characteristics**

The majority of the sample were young offenders. There was a range of violent and non-violent offences and sentence lengths. Half of those entering prison have literacy skills of an 11 year old (Prison Reform Trust, 2016) and 22% of this sample were in the learning disability literacy range. This indicated a broad sample representative of young adult male prison populations.

Sixteen percent of men receive mental health intervention in the year before custody in the U.K (Prison Reform Trust, 2016). Over 70% of prisoners have two or more mental health difficulties, though the majority do not access services (Bradley, 2009). Twenty percent of this sample were known to prison mental health services (primary and secondary care), though a higher percentage (28.9%) of difficulties were identified by ACCT<sup>9</sup> alerts monitoring mental health following self-harm. In recent years, self-harm and suicide have risen in prison. Self-harm has risen by nearly 40% in just two years (Prison Reform Trust, 2016).

Descriptive statistics demonstrated higher rates of other shame and social rank than figures reported for the general population, both of which are correlated with mental health difficulties (Allan & Gilbert, 1995; Balsamo et al., 2015; Goss et al., 1994; Matos, Pinto-Gouveia, et al., 2015). Participants had lower rates of internal shame

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<sup>9</sup> ACCT is a safeguarding alert and register used within the prison service. Offenders are placed on an ACCT for a defined amount of time whilst their mental health is observed and documented by prison staff.

than that reported in the general population, supporting previous findings in a general and physically violent populations of young offenders in the U.K (Farmer & Andrews, 2009; Owen & Fox, 2011).

The traumatic and central features of shame memories to identity were higher amongst male prisoners than levels reported in community populations (Matos, Gouveia, & Duarte, 2015; Matos & Pinto-Gouveia, 2010; Matos et al., 2012; Matos, Pinto-Gouveia, et al., 2013; Pinto-Gouveia & Matos, 2011; Pinto-Gouveia et al., 2013). Participants' centrality of shame memory score was much higher than reported in these studies. The literature review highlighted the possibility that shame memory centrality contributes to post traumatic growth as well as distress (Bernard et al., 2015; Robinaugh & McNally, 2010; Tedeschi et al., 2017). The high levels of central shame memories reported in this study highlights the need for policies, the Criminal Justice System and government services to foster practical opportunities for prisoners to access de-stigmatising resettlement plans and reposition themselves in society (Leeming & Boyle, 2013; Morgan & Desmarais, 2017; Watkins et al., 2008).

#### **4.4. Research Question 1: What are the relationships between Reactive and Proactive Violence, current shame and shame memories?**

**Hypothesis 1: Is there a significant positive relationship between Proactive Violence and**

- a) Other Shame**
- b) Social Rank**
- c) Shame Memory Avoidance**

There were small, significant positive correlations between these three variables and proactive violence. Detecting small but significant results in this study may have been facilitated by distinguishing proactive and reactive violence as well as different components of current, Social Systemic Shame (other shame and social rank) and shame memory avoidance. The correlation between traumatic SM avoidance and proactive violence lends support to the theory that bypassed shame leads to violence (Jones, 2014; H. B. Lewis, 1971, 1987; M. Lewis, 1992, 1993).

The measure of violence used here included non-physically aggressive items. This supports previous findings that shame predicts direct and indirect violence and malevolent intentions (Robinson et al., 2007; Tangney, Wagner, et al., 1996). Although research demonstrated clinician rated proactive violence (ratings of psychopathy<sup>10</sup>) was not related to shame (Tangney et al., 2011b), this study found an association between other shame and self-reported proactive violence.

Social Rank has a noteworthy trend. It was negatively correlated with the shame variables (higher social rank was associated with reporting less shame) and it was not correlated with reactive or total violence. Its positive relationship with proactive violence is unique. Correlation does not equal causation (Tabachnick & Fidell, 2012) and these results could indicate that other shame, social rank and

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<sup>10</sup> Some studies use 'psychopathy' as a diagnostic category of instrumental proactively aggressive behaviour (Blackburn & Lee-Evans, 1985). I take the position that 'psychopathy' is one manifestation of distress that might present differently depending on the environmental context (Hale & Dhar, 2008).

hyperarousal response to shame memories contribute to higher levels of cold calculated proactive violence – or, that this type of violence increases these experiences.

**Hypothesis 2: Is there a significant positive relationship between Reactive Violence and**

- a) Internal Shame**
- b) Other Shame**
- c) Shame Memory Avoidance**
- d) Shame Memory Hyperarousal**

There were small, significant positive correlations between reactive violence and these four variables. The association between both internal shame and other shame and reactive or hot-headed emotional violence supports previous conclusions that reactive violence functions to protect the self from shame (Clements, 1997; Daly & Wilson, 1988; Gilligan, 1999, 2003; T. Scheff, 2012; T. J. Scheff, 2011). Correlations between reactive violence and avoidance and hyperarousal responses to shame memories supports developmental psychopathology models of violence (De La Rue & Espelage, 2014; Candice Feiring et al., 2013; Paton et al., 2009; Schoenleber et al., 2015; Tangney et al., 2007). This result converges with Steiner et al.'s (2011) systematic review conclusion that trauma related distress leads to hotly emotionally charged acts of violence.

**4.5. Research Question 2a: What percentage of the variance in Proactive Violence is predicted by other shame, social rank, shame memory avoidance and age?**

**Research Question 2b: Which of these variables is the best predictor of Proactive Violence?**

Other shame, social rank, age and avoidance of traumatic SM accounted for 19% of the variance in proactive violence. This is quite high given the analysis did not control for gang membership, substance misuse and other violence correlates (Dent, Dorrell, & Howard, 2015). Only other shame and age were significant predictors of proactive violence. Other shame was correlated with social rank and together, these variables accounted for 14.9% of the variance in proactive violence.

The strong influence of other shame is consistent with cognitive theories that external attributions are associated with violence (Lochman & Dodge, 1994; McNiel et al., 2003; Nasby et al., 1980). Previous research demonstrated an indirect relationship between internal shame and violence mediated by externally focused cognitive attributions (Gold & Lewis, 2010; Stuewig et al., 2010; Tangney et al., 2011a, 2011b; Tangney et al., 2007). This study highlights the utility of separating internal and other shame constructs in order to detect a direct relationship between other shame and proactive violence. It indicates that Social Systemic Shame (shame concepts sensitive to the wider social context) is likely to play a role in proactive violence.



**4.6. Research Question 3a: What percentage of the variance in Reactive Violence is predicted by internal shame, other shame, shame memory avoidance, hyperarousal and age?**

**Research Question 3b: Which of these variables is the best predictor of Reactive Violence?**

Reactive violence was predicted by internal shame, other shame, SM avoidance, hyperarousal and age (19.2%). The shame variables accounted for just 8% of the variance in reactive violence, whereas age, the only independent predictor accounted for 11.2%.

When traumatic shame is explored as percentage of the variance in the whole sample and violence is defined as physical and non-physical, there is some support for 'Germ Theory' (Gilligan, 1999) and other developmental psychopathology theories of violence. It supports the theory that bypassed shame arising from adverse interpersonal experiences can be converted into violence (Clements, 1997; De Zulueta, 1993; Duke et al., 2010; Gilligan, 1999, 2003; Hamby et al., 2014; T. Scheff, 2012; T. J. Scheff, 2011).

Age was the only significant predictor of reactive violence and it was also a significant predictor of proactive violence. This reinforces findings that violence decreases with age (Gold, 2011; Gold & Lewis, 2010; Kempes et al., 2005). It indirectly supports neurological research that brain domains associated with impulse control and risk-taking continue developing into the mid-twenties (Blakemore, 2015; Fuhrmann et al., 2015; Mills et al., 2016; Viding et al., 2012; Wolf et al., 2013).

#### **4.7. Research Question 4: Is there a significant difference in shame experiences between prisoners with and without violent alerts?**

Whilst this research found that shame accounted for some of the variance in violence amongst the whole prisoner sample, there was no significant difference in the current shame or SM experience between physically violent and nonviolent groups (groups with and without violent alerts in the prison electronic system). This supports previous research that found no difference in internal shame between groups of violent and nonviolent young offenders in the U.K (Farmer & Andrews, 2009; Owen and Fox, 2011). It contradicts research that reported violent men in psychiatric and prison institutions had higher levels of internal shame than those reported by the general population (though this was not tested for statistical significance) (Shanahan et al., 2011).

#### **4.8. Research Question 5: What are the Characteristics of Shame Memories?**

Exploring the characteristics of shame memories indicated that most memories chosen occurred between 16 – 20 years old. The frequency of memories occurring at this age should not be interpreted as evidence against developmental psychopathology theories of violence. This research asked to recall their 'worst' shame experience but these single incidents can co-exist with histories of personal, interpersonal and social trauma. Indeed, it seems some participants responded to the questionnaires based on general, long term experiences of shame. For example, there were several voluntary disclosures that participants' had not recalled a specific memory but drew on an interconnected narrative of interpersonal memories e.g. missing family events due to imprisonment. This is consistent with Leeming and Boyle's (2013) finding that repair of shame depends not just on self-reappraisal but repositioning oneself in relation to others. This is perhaps reflected by the majority of participants rating their SM as 'both internal and other shame'. The shame memories recalled were not related to the participants' offence start date (which was taken as a measure of approximate offence date). This suggested that the 'worst' shame memories selected were not associated with the prisoners' index offences. This illustrates the need to shift the emphasis from exploring shame in relation to criminal outcomes to interpersonal and social realms of distress.

#### **4.9. Research Question 6: Do other shame and social rank mediate the relationship between centrality of shame memory and proactive violence?**

Although other shame and social rank correlate, they mediate the relationship between shame memory centrality and proactive violence in two significantly different pathways. It is noteworthy that when shame memory centrality is added to the model, the strength of the relationship between other shame and proactive violence increases. Social rank, which was not a direct predictor of proactive violence in the multiple regression, becomes a significant predictor after including shame memory centrality in the model.

##### 4.9.1. Other Shame Mediates the Relationship Between Centrality of Shame Memory and Proactive Violence

Having already identified other shame as a predictor of proactive violence, this analysis demonstrates its critical role linking shame memories central to identity with proactive violence. In turn, centrality of shame memory increased the predictive power of other shame in relation to proactive violence. This path demonstrates that participants who interpreted shame memories as being more central to their life narrative and identity experienced more perceived shame from others and perpetrated more acts of proactive violence.

This supports literature indicating cognitions associated with violence arise from adverse experiences (Clements, 1997; De Zulueta, 1993; Duke et al., 2010; Gilligan, 1999, 2003; Hamby et al., 2014; Scheff, 2011, 2012). Though based on shame memory descriptive statistics, it appears adolescent shame memories and not childhood memories are most central to male prisoners identity. It complements the theory that externally focused cognitions mediate the relationship between shame and violence (e.g. Gold & Lewis, 2010; Stuewig et al. 2010). This analysis powerfully supports the theory that 'other focused' emotions and cognitions mediate the relationship between shame memories and proactive violence. This is the first study to link centrality of shame memory with externalising behaviour, in this case proactive violence (Matos & Pinto-Gouveia, 2010; Matos & Pinto-Gouveia, 2016;

Matos, Pinto-Gouveia, et al., 2013; Matos, Pinto-Gouveia, & Costa, 2013; Pinto-Gouveia & Matos, 2011; Pinto-Gouveia et al., 2013).

#### 4.9.2. Social Rank Mediates the Relationship Between Centrality of Shame Memory and Proactive Violence

Adding shame memory centrality to the model made social rank a significant predictor of proactive violence. Moreover, it doubled the strength of the relationship between social rank and proactive violence. The model illustrates that prisoners who had fewer central shame memories reported higher levels of social rank and more proactive aggressions. This suggests that higher social rank and proactive aggressions may be protective against central shame memories or that having less central shame memories facilitates more innately dominant behaviour. Based on theory and existing research we could make two interpretations of this result.

##### 4.9.2.1. *Higher Social Rank: Adaptation to Social Systemic Shame*

Ethnographic research on the 'code of the street' and analyses of economic trends cross culturally have argued that violence and social systemic shame associated with social rank are inextricably linked (Anderson, 1999; Wilkinson & Pickett, 2009). It may be that reporting higher social rank represents as adaptive defence against Social Systemic Shame, experiences of disrespect and economic inequality. Farmer and Andrews (2009) draw on a similar argument when they suggest that youth sub culture may account for their finding that offenders report less shame than undergraduates and that the unlike undergraduates, the anger of offenders was not associated with shame. However social rank, with its connotations of valued social norms extends the notion of youth sub culture more explicitly to the social context and its associated inequalities.

In this sense, social rank is of relevance to BME groups, who in the context of structural racism, have been described as adopting a hyper masculine, 'cool pose' as an adaptive response to a shame inducing social context (Majors & Billson, 1993; Myrie & Gannon, 2013). Social rank can also be framed in terms of more proximal social factors; the 'pains of prison life' intensify the competition for respect and

scarce material goods (Jewkes, 2005; Tew et al., 2015). Framing social rank in terms of Social Systemic Shame supports a theory that painful shame memories are defensively bypassed in favour of more dominant behaviour (Jones, 2014; M. Lewis, 1992, 1993). This defence can be reframed as an adaptive response to an oppressive environment (Afuape, 2011). Formulating higher ratings of social rank as an adaptive response to Social Systemic Shame is consistent with descriptions of proactive violence as motivated by external factors (Dodge & Coie, 1987) and developing under social forces (Steiner et al., 2011).

#### *4.9.2.2. Higher Social Rank: Innate Dominance*

High social rank can also be framed as an innate disposition or trait.

Psychobiological theories of violence have described the dominance behavioural system's orientation towards social power (Johnson et al., 2012; McMackin et al., 1998; Tang-Smith et al., 2015). Studies of people who score highly on rating scales of behaviour described as psychopathy<sup>11</sup> (Frick et al., 2014b; Viding & McCrory, 2012; Viding et al., 2012) and narcissism (Reijntjes et al., 2016; Thomaes et al., 2008; Thomaes et al., 2011) present an argument that some people are disposed to higher self-regard, act impulsively, experience less fear and engage in more proactive violence. If we accept the claim that the tendency to act in proactively violent ways is predicted by innate predisposition to minimise emotion and obtain dominant social rank, we would expect to observe similar levels of shame memory centrality and social rank across ethnic groups.

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<sup>11</sup> Some studies use 'psychopathy' as a diagnostic category of instrumental proactively aggressive behaviour (Blackburn & Lee-Evans, 1985). I take the position that 'psychopathy' is one manifestation of distress that might present differently depending on the environmental context (Hale & Dhar, 2008).

**4.10. Research Question 7: Is there a difference between ethnic groups in terms of**

- a) Shame**
- b) Proactive Violence**
- c) Reactive Violence**

No differences in internal shame, other shame, traumatic or central features of SM were found between participants that described themselves as Black, Asian/Other or White. There was however, a large, significant difference in social rank between the two BME groups and the White participants. Whereas the White group had social rank levels similar to those of the general population, Asian and particularly Black participants reported higher social rank (Allan & Gilbert, 1995, 2002).

This study's Pragmatist philosophy indicates the social context frame of social rank is more useful to clinicians working in the unequal Criminal Justice System than formulating it in terms of innate psychobiology (Lammy, 2016). Pragmatism holds that concepts can be socially constructed and realist but that their capacity to make truth claims is determined by their ability to enrich interpersonal understanding (Hickman & Alexander, 1998). The social systemic frame of social rank enriches understanding of the intersectional experience of the masculine 'cool pose' in prison, where BME groups experience additional racial inequality. This is highly relevant to the U.K. Criminal Justice System, which now incarcerates greater numbers of BME people relative to their numbers in society than the United States of America (U.S.A) (Majors & Bilson, 1993; Myrie & Gannon, 2013; Prison Reform Trust, 2016).

Given the higher levels of social rank amongst the Black and Asian/Other group and the mediating role of social rank in the relationship between centrality of SM and proactive violence, it is noteworthy that there were no differences between the ethnic groups in terms of either proactive or reactive violence. Although BME groups had higher social rank and this variable *is* associated with increased proactive violence, they were no more likely to perpetrate proactive violence than

their White Peers. Considering the SEM model without reference to racial differences in social rank would risk pathologizing BME groups. I suggest this is the most important result of this study and that it has implications for future practice, research and policy, discussed further below.

#### **4.11. Theoretical Implications**

Psychologists must critically interrogate their models, which can also contribute to the maintenance of inequality (Davidson, Harper, Patel, & Byrne, 2007; Patel, 2003; Patel et al., 2016). Historically the subordination of Black people has been maintained by claims they hold aberrant biological characteristics and lack intelligence (Crenshaw, Back, & Solomos, 1999; Krieger, 2012; Krieger et al., 2010). Framing social rank in terms of innate psychobiological predisposition toward dominance is not sufficiently nuanced to appreciate that despite presenting with higher social rank, BME groups are not more proactively violent. From a pragmatist perspective, a Social Systemic Shame concept is more useful when conceptualising shame in the Criminal Justice System.

Criminal Justice research typically focuses on the, intrapsychic mechanisms, rendering the social constitution of shame less visible (Leeming & Boyle, 2013). This study has highlighted the need to critically examine psychological models and theory. The relationship between the results and existing theory have been discussed and referenced in detail above, and are summarised here.

##### **4.11.1. Support for existing theory**

- i. Some support for bypassed shame theory; participants had lower internal shame but higher rates of other shame and central and traumatic features of shame memories
- ii. The traumatic and centrality features of shame memories are highly present amongst male offenders, supporting developmental psychopathology theories



- iii. Interpersonally traumatic shame memories predict some of the variance in reactive aggression, supporting developmental psychopathology theories of violence
- iv. The association between shame memories and reactive violence (physical and non-physical) gives some support to Germ Theory. However Gilligan (1999) proposed that physical violence was differentiated by shame, which this research did not support
- v. Age, as a marker of neurological development, is a significant predictor of reactive and proactive violence
- vi. Social rank is associated with dominant and proactively aggressive behaviour, supporting innate theories of violence such as the Dominance Behavioural System (Johnson, Leedom, & Muhtadie, 2012) as well as accounts of a shame inducing social context e.g. Anderson's (1999) account of the 'Code of the Street'

#### 4.11.2. New theoretical contributions

- vii. Centrality of shame memory is very high amongst male offenders. This research adds weight to the argument that centrality of shame experience is more influenced by other shame than internal shame (Leeming & Boyle, 2013).
- viii. Whereas previous research showed external attributions (other focused cognition) mediated the shame violence relationship, this research was the first to identify a direct relationship between other shame (other focused cognitive emotion blend) and proactive violence.
- ix. Other Shame's prediction of proactive violence increases when it is predicted by having *more* central shame memories. This suggests that shame narratives as well as cognitive theories promote an understanding of violence.

- x. Social rank becomes a predictor of proactive aggression when it is predicted by having *less* central shame memories. This suggests that achieving high social rank may protect one from having an identity affected by shame memories.
- xi. The mediating role of social rank between shame memory and proactive violence extends Anderson's (1999) research which described the competition for respect as a scarce resource contributing to instrumental violence. This research makes explicit the relationship between Social Systemic Shame and proactive aggression.
- xii. Although social rank can be framed as an innate, psychobiological construct, significant differences between ethnic groups suggest that it is highly influenced by environmental factors. Social rank is sensitive to the different social experiences of BME groups.
- xiii. Despite social rank predicting proactive violence, BME groups with higher levels of social rank did not present with higher levels of proactive violence. Theories of violence must be sensitive to racial asymmetries in society. Adopting a racially neutral interpretation of proactive violence risks pathologizing the higher social rank experience of Black and Asian groups.

#### 4.11.3. Race and Psychological Theory

The historical social power and position of BME people must be considered in psychological models of criminal behaviour. In the U.S, emanating from slavery, there remains a historically produced social deficit in which racial discrimination remains structured and facilitated by the law (Crenshaw, 2013). The British Empire historically co-constructed 'race' and 'criminality' as a mechanism for preventing and punishing resistance and dissent (Moore, 2014). In American law, Crenshaw (2013, p. 2) problematizes 'colour-blindness', which makes the "basic claim that everyone has a race and everyone is treated equally so long as race is not taken into account".

Interpreting symmetrical psychological models in an asymmetrical system contributes to the overrepresentation of BME groups in the prison system. A colourblind reading of the model of proactive violence, without the understanding that BME people were higher in social rank but not higher in violence, would lead us to over-represent BME people in formulations of proactive violence. This could contribute to the disproportionate representation of BME groups in more secure settings because proactive violence is assessed to be higher risk (Dodge & Coie, 1987; Frick et al., 2014b; Ostrowsky, 2010; Raine et al., 2006). Whilst research also supports the framing of high social rank in terms of innate traits and psychobiology, I argue that understanding social rank in relation to social and historical factors is a pragmatic way of addressing structural racism in the Criminal Justice System (Allen & Watson, 2017; Institute of Race Relations, 2017; Jones-Chesters, 2007; Kentish, 2017; Lammy, 2016; Morgan, 2014; Rescher, 2005; Prison Reform Trust, 2016).

#### **4.12. Practical Implications**

Pragmatic philosophy judges research by its practical implications, capacity to increase discourse and facilitate understanding between stakeholders (Hickman & Alexander, 1998; Jones-Chesters, 2007; Morgan, 2014; Murray, 2014; Rescher, 2005; Vannini, 2008).

##### **4.12.1. Psychological Therapy Implications**

Having worked clinically with young men in prison, the research assistant and I were struck by the participants' readiness to engage with the shame memory priming questionnaires. The results highlighted the large proportion of participants who openly discussed the emotional impact of recalling these memories. Several participants approached prison staff to tell them they had found participation helpful or therapeutic on some level. We considered that these might be useful clinical tools for opening conversations about shame.

Leeming and Boyle (2013) found that repair of shame required repositioning of the self in relation to others – it is an inherently social act, dependent on the capacity of the other to facilitate and accept the person’s new position. In my experience of working with young men seeking to develop ‘crime free’ identities, the wider system must also facilitate this repositioning through post-release support including housing and employment (Edgar, Aresti, & Cornish, 2012; House of Commons, 2016).

Individual psychological interventions such as participating in tasks that promote grateful reprocessing of unpleasant shame memories have been recommended (Watkins et al., 2008; Watkins et al., 2015). Based on the results of this study, clinicians should be cognisant that if shame based memories have developed in the context of wider social inequality and structural racism, interventions that promote ‘grateful’ reprocessing of shame memories might inadvertently support inequality (Davidson et al., 2007; Patel, 2003).

Narrative and liberation approaches to working with individuals who have experienced trauma suggest that creating new stories that connect the past with the future are healing because they offer opportunities to reconstruct or reclaim one’s identity (Afuape, 2011). This mirrors the ‘repositioning’ Leeming and Boyle (2013) highlight as essential for moving beyond shame experiences.

Interventions using these models are not currently approved as evidence based programmes for use in the Criminal Justice System (Ministry of Justice, 2017). It is recommended that the next review of offender treatment programs considers the contribution these interventions could make. At a systemic level, CFT has been suggested as a framework for future therapeutic prison communities based on its attention to social and group process (Veale, Gilbert, Wheatley, & Naismith, 2015).

#### 4.12.2. Criminal Justice System Implications

This research problematizes a colourblind perspective on race and suggests that current assessments of proactive violence are at risk of erroneously including BME prisoners that present with a hyper masculine 'cool pose' but are not more aggressive (Crenshaw, 2005; Crenshaw, 2013; Crenshaw et al., 1999; Institute of Race Relations, 2017; Williams, Turpin, & Hardy, 2006). The fact that less than ten percent of psychologists, judiciary and prison service staff are people of colour suggests they may not intuitively perceive their own racial privilege and the necessity of applying critical race theory to their work (Crenshaw, 2013; Williams et al., 2006). This suggests that staff may benefit from training about the psychological impact of structural racism, to ensure that perceptions of the 'hyper masculine cool pose' are not disproportionately assessed as high risk.

This research has implications for offender treatment programs which are often differentially focused for reactive and proactive violence with the former receiving anger management and the latter receiving problem solving skills (Ministry of Justice, 2017). The findings suggest shame based emotions play an active role in proactive violence and this should also be addressed in group interventions. This research has highlighted the possible utility of supporting reactively violent men to address traumatic shame memories. However, it also emphasises the need for wider social systemic formulations of violence, especially regarding race. Professionals should consider that despite moral and legal judgements, violent behaviour might also represent resistance, or an "attempt to expose, withstand, repel, stop, prevent, or oppose any form of violence of oppression, or the conditions that make such acts possible" (Wade, 1997, p. 25).

Group based interventions that openly discuss the intersectionality of Social Systemic Shame could be developed with offenders. Articulating Burnham's (2012) social GRRRAACCEEESSS (Gender, Geography, Race, Religion, Age, Ability, Appearance, Class, Culture, Ethnicity, Education, Employment, Sexuality, Sexual Orientation, Spirituality) and directly relating them to experiences of other shame, social rank and central shame memories may be particularly relevant to prisoners perpetrating proactive violence.

The high presence of shame memories amongst this population suggests that many prisoners were experiencing psychological distress. Many prisoners participated in and requested copies of the relaxation exercise. Group and individual based Compassion Focused Therapy may be a useful intervention for prisoners because it offers many exercises that can be taken away and performed privately in one's cell, where prisoners may feel less vulnerable, preserving their protective social rank.

The results will be presented at a monthly meeting to the Prison Safer Custody and Use of Force teams within the prison. I have also been invited to discuss the results of this research with the Lammy Review of the Criminal Justice System at the Ministry of Justice (Lammy, 2016). It is hoped that this will influence future policy in the Criminal Justice System and draw attention to the lack of race formulation in theories of violence at present. For example, a special edition of the Prison Service Journal mentioned race only once, as a victimisation risk factor (Dent et al., 2015; Ireland & Power, 2013; Tew et al., 2015).

#### 4.12.3. NHS

These results speak to the high level of psychological distress in prisons. The research will be presented to the NHS healthcare team in the prison and a Quality Improvement Report will be sent to Oxleas NHS. At present brief cognitive therapy is delivered by primary care Improving Access to Psychological Therapies for men presenting with depression or anxiety. More complex interventions are required to address interpersonal trauma and shame based memories (Clark, 2011; Jolley et al., 2015). During data collection, the researcher was interviewed by Dr Chis Hart a Consultant Psychiatrist commissioned by NHS England to review incidents of violence in U.K. prisons. The results of this research will be shared with him with the objective of creating discussion at a systemic level (Bronfenbrenner, 2005).

## **4.13. Strengths and Limitations**

### **4.13.1. Data Collection and Sample**

More than forty days were spent collecting 121 interviews. This considerable time investment ensured that the interviewers could assess participants' emotional states. Indirect and online research has been criticised for not attending to emotional responses to participation (Kraut et al., 2004). The recruitment took place in a part of the prison where the researchers were likely to encounter a variety of prisoners. The researcher did not have any concerns about the effect of volunteer bias (Salkind, 2010). Participants had a range of 'Incentives and Earned Privileges' and risk ratings (Ministry of Justice, 2011). Based on my clinical experience, this was a significant strength of the current study. In my experience lay staff are often reliant on officers identifying compliant individuals for researchers which can raise issues around bias and ethical consideration regarding consent (Hay-Smith et al., 2016; British Psychological Society, 2009; 2010).

### **4.13.2. Self-Report Questionnaires**

Self-report questionnaires can be subject to extreme response formats, participant indecision or biased by participant agreeableness (Baldwin, 2000). An additional consideration is that participants can struggle to conceptualise the constructs being researched. Having apprehended the concepts, participants must quantify their responses in vague terms e.g. 'mostly' or 'somewhat' true. This is important in prison populations where literacy and learning difficulties are overrepresented (Creese, 2015). Shame constructs seemed to resonate with participants, they could articulate a clear understanding of internal shame, other shame and social rank. However many required support to understand the numeric format of the likert scale (Barker, Pistrang, & Elliott, 2016). This supports the methodological decision to interview participants one to one.

#### 4.13.3. Measuring Shame

The ESS was used as a measure of internal shame. It included items of personal character, behaviour and body. It has been criticised for including some items that refer to other shame (Pinto-Gouveia & Matos, 2011). This measure was used to assist comparison with previous research (e.g. Farmer & Andrews, 2009; Owen & Fox, 2011) but may not have been a pure measure of internal shame.

The OAS-2 was included as a measure of other shame. Although within the normal range according to Curran et al. (1996) this was the most skewed variable, with scores weighted toward lower responses. It may be that participants did not experience a lot of other shame but it may also be that they minimised their responding as a defensive strategy. Prelog et al. (2009) and Owen and Fox (2011) discussed the challenge of researching shame given the role of shame in eliciting self-defensive behaviour. This may be an inherent paradox in the attempt to research shame. Farmer and Andrews (2009) suggest that offenders might be particularly motivated to avoid shame. In this sense, the failure to include a measure of socially desirable responding is a weakness of this study (Dutton & Starzomski, 1994).

The SCS was designed to measure social rank using items that required the participant to engage in social comparison by rating themselves along a spectrum of contrasting positions. This semantic differential technique challenged participants' literacy. Following the pilot interviews the scale was amended by including synonyms for some words (e.g. 'inferior / superior' was supplemented with 'less than others / better than others'; See Appendix A). Although Pinto-Gouveia and Matos (2011) suggested the SCS could be a more valid measure of internal shame than the ESS, I argue against this because the items explicitly request the respondent to compare themselves to others in general. Having instructed participants to compare themselves to people in general, the research assistant and I noted that we received queries about which 'other's' they should compare themselves to – criminals or society. This suggests the scale validly elicited comparisons regarding wider social values. Participants were instructed to compare themselves to society because the responses referencing a criminal social group might have been markedly different.



#### 4.13.4. Measuring Shame Memories

Some have argued that storage and retrieval of autobiographical memory is likely to be affected by current emotional state (Dorthe et al., 2003; Levine & Pizarro, 2004). We tried to facilitate calm emotional states by conducting interviews in private one to one rooms. Autobiographical remembering influenced by the environment in which we experience and encode memory (Conway & Jobson, 2012). This research did not collect information on the context in which memories occurred or qualitative descriptions of the shame memories. Shame memory research from the University of Coimbra found that using structured interviewing alongside self-report measures supported the reliability of self-report data. Future research might benefit from using the semi-structured Shame Experiences Interview (Matos & Pinto-Gouveia, 2006). The previous SM research asked participants to answer the IES-R based on lifetime experience. However, the current research retained the original wording, which invited responding based on the past week. Thus, the higher ratings of traumatic response to SM described in this research should be interpreted in the context of the participants' experience at that point in prison and not their lifetime experience. This adds important information in terms of understanding experiences of men in prison but limits the cross comparison of lifetime SM comparison with general population samples.

Given the association between masculinity and social rank the research assistant and I compared our qualitative experiences of conducting the research (Hall, 2009; Majors & Billson, 1993; Myrie & Gannon, 2013). We did not identify any examples where we hypothesised our gender affected the interview. Ancillary analyses found no difference in the shame and violence scores of those interviewed by each of us.

#### 4.13.5. Measuring Violence

A limitation of the study was its failure to ask participants if they had ever had a brain injury (Brower & Price, 2001; Rao et al., 2009). It was intended to collect data on previous convictions from prison administrators but this was not possible within the time constraint of the research. Asking participants to self-report previous violent offences would have been an alternative approach (Owen & Fox, 2011). The selection of violent alerts on the prison electronic system as a distinction between violent and nonviolent groups was a compromise because these alerts include index and previous offences. This study and previous research used the *frequency* of violent incidents as a measure of violent tendency. However, it has been suggested that shame prone individuals are more vulnerable to infrequent explosive bursts of violence. Future analyses might determine violent groups based on severity of violent offence or incident (Stuewig et al., 2010). As discussed in the introduction chapter, theorists have debated definitions of violence as including or excluding non-physical aggressions. A methodological strength of this study was to include a broad measure of violence and categorical groups of physical violence.

Another methodological strength was the inclusion of age as a covariate in violence analyses, as existing research did not. Violence tends to decrease with age and this has been demonstrated to be the case for reactive violence in particular (Kempes et al., 2005). The current research supported this result. The RPQ uses a checklist of previous behaviour. Static historical factors such as number of violent incidents a person was involved in are commonly used in actuarial measures of risk (Hastings, Krishnan, Tangney, & Stuewig, 2011; Rice, Harris, & Lang, 2013; Rossegger et al., 2013). The RPQ was therefore a superior assessment of violence than state or trait measures of aggressive feelings that have been used in other studies (e.g. Allan & Gilbert, 2002; Farmer & Andrews, 2009; Wright, Gudjonsson, & Young, 2008). Although measures of violence can be subject to socially desirable responding (Vigil-Colet, Ruiz-Pamies, Anguiano-Carrasco, & Lorenzo-Seva, 2012), this effect tends to under-report violence. This does not appear to be the case in this study; the RPQ means were similar or higher to those reported in other adult prison samples (Cima et al., 2013).

#### 4.13.6. Analyses

The use of two measures of reactive and proactive violence was a novel approach in shame and violence research. Structural equation modelling (SEM) using a larger sample would have enabled more complex relationships amongst the variables to be identified. SEM has the capacity to compare model fit across groups and a useful further analysis would be to test the proactive violence model across violent and nonviolent groups and ethnic groups. The latter is important given ethnic group differences in social rank. After the analyses were conducted a research paper was published which identified three factors on the RPQ using latent class analysis: 1) proactive violence, 2) reactive violence due to internal frustration, and 3) reactive violence due to external provocation (Smeets et al., 2016). Future research might explore whether a three-factor structure of the RPQ changes these conclusions.

#### 4.13.7. Novelty / New Evidence

This research demonstrates the utility of differentiating reactive and proactive violence in shame research. Firstly, the finding that other shame and social rank are related with proactive violence but that only other shame predicts proactive violence supports research findings that 'other' focused cognitions mediate the relationship between shame and violence (e.g. Gold & Lewis, 2010; Stuewig et al. 2010).

Secondly, the finding that reactive violence is predicted to a small degree by internal shame, other shame, traumatic SM avoidance and hyperarousal gives some support to developmental psychopathology theories of violence (Duke et al., 2010; Hamby et al., 2014).

The model demonstrating a mediated relationship between centrality of shame memory and proactive violence further articulates Gold and Lewis's (2010) cognitive developmental psychopathology model of violence. By placing identity and core beliefs arising from a shame memory as a predictor variable, the relationship between other shame and proactive violence is increased. Gold and

Lewis's (2010) model may therefore be more relevant to instrumental, planned violence.

This model demonstrates a novel contribution of social rank as a mediator of the relationship between centrality of SM and proactive violence. The powerful role of Social Rank should be carefully considered and social systemic shame should be included in formulations of violence. Comparison of the ethnic groups found that BME groups were more likely to have high social rank. This research identified novel racial differences in shame experiences and makes an argument that 'colourblind' formulations of violence risk pathologising BME groups.

#### 4.13.8. Generalisability

The correlational design of the research means that causal conclusions cannot be drawn from the findings. Longitudinal research would be required to develop an understanding of causality. Data on the number of violent incidents participants had been involved in during the three months following their participation date was collected. Unfortunately, many participants had moved establishment (a common occurrence in the prison system) and the number of incidents was extremely small. This raises feasibility questions about conducting longitudinal research in prisons. The sample of 120 offenders was weighted towards young offenders with a range of offences, therefore results are more generalizable to the young offender population.

#### 4.13.9. Feedback

Feedback to the participants was offered by providing the researcher's contact details. This was done in anticipation of releases and moves between establishments. For those still in the prison, feedback will be shown as a power point slide summarising results, broadcast to TV sets on each of the prison wings, a standard procedure in the prison. Feedback will be presented at a Safer Custody Team Meeting and a short report will be forwarded to the Governing Governor. The researcher will also apply to prisoner lead 'Inside Times' newspaper and the National Prison Radio to open up discussion with the prison population about these results.

#### **4.14. Future Research**

The multi-faceted nature of this research suggests multiple lines of future enquiry:

- i. A matched study with men from the general population.
- ii. The high levels of other shame, traumatic and centrality features of shame memory could be explored in relation to the increased rates of self-harm in prison.
- iii. Qualitative research might aim to understand the construction of social rank, hyper masculinity and violence amongst BME prisoners. Foucauldian discourse analysis (FDA) might highlight BME experience through a wider social lens, attending to how speech constructs subjects and contextualises this socially, culturally and historically (Willig, 2003).
- iv. This research used a convenience sample of male prisoners and drew on a range of pre-existing literature on the experience of black men (Hall, 2009; Majors & Billson, 1993; Myrie & Gannon, 2013). Future research in the Criminal Justice System should ensure that it includes populations of BME women. Crenshaw (2005, 2013) cautions that race centred and gender centred frames subjugate the hyper-presence of women of colour in the system because they are interjectionally failed by both discourses.

#### **4.15. Reflective Account**

I was glad to have the opportunity to research this topic as it reflects my clinical interest i.e. social systemic aspects of shame experienced by male offenders and its role in violence. This research was partly inspired by my experience working in 'Switchback', a charity working with adult men leaving prison and seeking to live life differently. Rather than being constructed as 'offenders' or 'service users' the men were offered their preferred narrative; becoming 'Trainees' and gaining support to access future employment. One mentor consistently supported each prison leaver through the gate, for as long as it took to achieve a 'crime free' life.

'Trainees' required intensive support to engage with and manage the complex systems and relationships in their life. This consistent, relational model of working seems to me to be an extension of Functional Family Therapy and Multi Systemic Therapy in an adult framework. I was fortunate to meet many young men who achieved changes they might otherwise not have thought possible whilst working there.

Shame seemed to emerge in so many of the conversations I had with these men – particularly as a trigger for violence. Viewing the results through these experiences I think that shame must be explored longitudinally with this group, very often it was only expressed over time in a strong therapeutic relationship. I was struck by the willingness of the men who participated in this research to engage with the questions asked. Many of them volunteered information about their memories or expressed emotions. Listening to diverse stories of trauma, shame and criminal behaviour moved me in heartfelt and disturbing ways. Professionals engaging in these conversations and working with people who have committed crimes often keep a protective emotional distance from the powerful emotions they encounter (Afuape, 2011). Similarly, Criminal Justice System decisions are increasingly distant and driven by Big Data (Lammy, 2016). Purportedly objective or technical ways of working are often presented as politically and emotionally neutral (Summerfield, 1998) but as this research has demonstrated, applying colourblind statistical models in the Criminal Justice System risks perpetuating racial inequality. Whilst I recognise the limitations of quantitative research in capturing the experience of participants, I think this study was an important step toward introducing wider discussion of social systemic shame, race and power in violence research.

#### **4.16. Summary of Results and Conclusion**

Through the distinction of proactive and reactive violence this research has supported several previous findings. It has lent support to cognitive and developmental psychopathology theories of violence by linking them to proactive and reactive violence respectively. It has supported previous theory and research which suggests violence decreases with age. Whilst relationships between shame and violence were identified in the whole sample of male prisoners, there were no significant differences between physically violent and non-physically violent groups.

The structural equation model demonstrated novel mediation effects of other shame and social rank (termed Social Systemic Shame) in the relationship between centrality of shame memory and proactive violence. By applying critical race theory to the model and comparing the shame and violence amongst ethnic groups, this research illustrated the potential for colourblind models of violence to over represent BME groups. Inequality in the Criminal Justice System is a major human rights issue that needs to be addressed. Applying a wider social systemic understanding of shame to violence has illustrated one pathway through which BME groups might be disproportionately assessed as high risk.

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## **APPENDICES**

### **Appendix A: Participant Forms and Amended Questionnaires**

#### HEALTHCARE FLYER

#### Experiences of Shame and Violence Amongst Young Offenders

Hello,

We know that you are coming to healthcare today.

We wanted to let you know that there are some researchers working with us at the moment.

You might be asked if you want to volunteer to take part in a Quality Improvement Project.

A researcher will invite you to answer some questionnaires about shame and violence.

The researcher will explain the project to you in person and answer questions.

You do not have to participate.

## **Participant Information**

Hello,

We have approached you at **random** and would like to **invite** you to participate in this research study.

This letter is designed to give you all of the information that you need to decide if you would like to participate. The study is part of my Doctorate in Clinical Psychology at the University of East London.

### **The Principal Investigator(s)**

ANONYMOUS NAMES

Contact email [uANONYMOUS@uel.ac.uk](mailto:uANONYMOUS@uel.ac.uk)

## **Experiences of shame, social resources and violence amongst 'young offenders'**

### **Background**

Everybody experiences shame. Some people have felt bad about themselves or have experienced other people shaming them. Some have felt shamed or disrespected by society, for many different reasons.

Research says a couple of things about shame; that it is linked with violence and that memories of shame can shape how we feel about ourselves and the judgements that we make. It also says that shame can return to us as unwanted memories, leave us feeling physically fired up or lead us to avoid experiences that remind us of these memories.

### **Aims**

We are interested in shame and social resources amongst 'young offenders' and if these experiences relate to violence.

### **What's involved?**

A once off, 1 hour, 1:1 interview

#### ***We won't ask you to:***

tell us about anything that has happened to you in the past

#### ***We will ask you to:***

Complete questionnaires about feelings about your memories of shame

Complete questionnaires about your access to social resources

Answer a few questions as part of a violence questionnaire

Give your permission for researchers to view your OASys (Offender Assessment System) or speak with your Offender Manager to collect information that supports the answers you have given us

### **Risks**

Thinking about shame experiences may stir up strong emotion

Your Offender Manager will be able to link you with prison support systems

We will offer you a relaxation exercise to take away with you that might also help manage emotion

### **Confidentiality / Privacy**

A research number, not your name will be written on the questionnaires you complete

The prison and probation services will not have access to the questionnaires or your interview

We will keep your data in a secure locked location. Electronic data will be password protected

If you say something that makes us concerned for you or another person, then we will disclose that to the prison service immediately

### **What will happen afterwards?**

Data will be stored until we have published the results

The project might be published in academic journals and in a presentation to the prison

We will offer you contact details and you can get in touch if you would like to know the results

We will write reports and publish articles about patterns in the responses of all participants

### **Disclaimer**

You don't have to take part in this research.

There won't be any positive or negative consequences for the people who take part.



You have the right to change your mind and ask for your questionnaires to be removed and destroyed. You won't have to give a reason. We can offer this up until the end of November 2016 when we will start to analyse the data.

Please feel free to ask the researcher any questions. If you are happy to continue, you will be asked to sign a consent form before the interview. Please keep this invitation letter for reference.

If you have any questions or concerns about how the study has been conducted, please contact the study's supervisor [Name, School of Psychology, University of East London, Water Lane, London E15 4LZ. Telephone. Email address]

**or**

Chair of the School of Psychology Research Ethics Sub-committee: Dr. Mary Spiller,  
School of Psychology, University of East London, Water Lane, London E15 4LZ.

(Tel: 020 8223 4004. Email: m.j.spiller@uel.ac.uk)

Thank you in advance.

Yours sincerely,

[Your name and date]

# Participant Consent Form

## Consent to participate in a research study

### Experiences of shame, social resources and violence amongst 'young offenders'

I have read the information sheet about the above research study and have been given a copy to keep. The background and aims of the research have been explained to me, and I have had the chance to talk about the details and ask questions about this information. I understand what is being asked of me.

I understand that my involvement in this study, and particular information from this research, will remain completely private. Only the researcher(s) involved in the study will have access to identifying information. It has been explained to me what will happen once the research study has been completed.

I now freely and fully agree to participate in the study which has been fully explained to me. Having given this consent I understand that I have the right to withdraw from the study at any time without disadvantage to myself and without having to give any reason. I also understand that should I withdraw after the analysis is completed, the researcher reserves the right to use my anonymous data in the write-up of the study and in any further analysis that may be conducted by the researcher.

|  |                                  |
|--|----------------------------------|
| Participant's Name (BLOCK CAPITALS)<br>..... | Participant's Signature<br>..... |
| Researcher's Name (BLOCK CAPITALS)<br>.....  | Researcher's Signature<br>.....  |

Participant id: \_\_\_\_

## Participant Debrief

Thank you for participating in this research.

The researcher's contact details are included here. You may wish to contact us in the future to find out about the results of the study. You will need to let us know the 'research id' written on the top of this document, because we will anonymize the information you have shared with us.

We would like to remind you again that:

We will not share any of your answers to the questionnaires or interview with the prison service

The research is about patterns of shame in the whole group, we will not write about your individual responses

We will write an article about our findings and this might be published in academic journals

We might also do presentations about the project to prison staff

If you change your mind and decide you would like to withdraw please let us know as soon as possible. It is not possible to withdraw your information once we have run the analysis.

We know that it is not easy to talk about difficult feelings and memories. Please contact your offender manager if you would like to be signposted to support services in the prison.

We would also like to offer you an exercise that has been used in an anger management program. Research shows that people who are able to pay attention to the present moment often experience better mental health. It is also helpful for anger control and stress management. This exercise is a first step towards developing the skill of 'mindfulness'.

Thank you very much for your participation,

Researcher name

U@uel.ac.uk

# SCS

Please circle one number on each line according to how you see yourself in **comparison to others**.

*For example – how tall do you think you are compared to others?*

If you put a mark at 3 this means you see yourself as shorter than others; if you put a mark at 5 (middle) about average and a mark at 7 somewhat taller.

|         |   |   |   |   |   |   |   |   |   |    |        |
|---------|---|---|---|---|---|---|---|---|---|----|--------|
| Shorter | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Taller |
|---------|---|---|---|---|---|---|---|---|---|----|--------|

## In relationship to others I feel:

|  |   |   |   |   |   |   |   |   |   |    |   |
|--|---|---|---|---|---|---|---|---|---|----|---|
| Inferior<br><i>(Less than others)</i>          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Superior<br><i>(Better than others)</i>           |
| Incompetent<br><i>(Less able to do things)</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | More competent<br><i>(More able to do things)</i> |
| Less likable                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | More likable                                      |
| Left Out                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Accepted  |
| Different                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Same  |
| Less talented                                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | More talented                                     |
| Weaker   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Stronger  |
| Less confident                                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | More confident                                    |
| Less desirable<br><i>(Less Wanted)</i>         | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | More desirable<br><i>(More Wanted)</i>            |
| Less attractive                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | More attractive                                   |
| An outsider                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | An insider  |

## Priming Instructions for a Shame Memory

The Interviewer will read this script before the participant completes the IES-R and CES

Everyone feels shame. Usually people have a few shame experiences in their life that really stand out.

We are asking you to remember one of these times in your life and answer some questions about how it affected you. You don't have to tell us about what happened.

The example could be about when you felt shame, when someone else shamed you or a mixture of the two.

We know this isn't easy – we usually avoid thinking about times we felt less than others, bad about ourselves or judged.

Other feelings often go together with shame, like, anger, anxiety, and disgust, wanting to run away, or even finding it unbearable to think about.

Now, please try to recall a major/stressful situation or experience where you think you felt shame, up to the age of 25. Please respond to the next questionnaires with this memory as your focus.

(developed from Matos, Pinto-Gouveia & Duarte, 2012)

## Breathing Exercise

This exercise involves pausing, watching our breath, and noticing when our attention leaves our breath (for example, because we get lost in thoughts, distracted by a sensation inside or outside ourselves, or caught up in an emotion).

### How to do it:

First, sit comfortably. Place your feet shoulder-width apart, flat on the ground. If you don't have anywhere to sit comfortably, then lying down is alright. The point is to be physically comfortable, but not to fall asleep.

Now **gently focus your attention on your breath**. Breathe so that the air enters your diaphragm – just at the bottom of your ribcage. Notice your abdomen rising and falling as you breathe in and out. Just watch your breath for about 30 seconds.

What did you notice? If you're like most of us, your mind probably wandered away fairly quickly. You may have had thoughts, like "How is this supposed to help me?" or "I'm hungry. I can't wait to eat." Or maybe "am I doing this right?"

**The idea is to just watch your breath, and begin to notice when your attention drifts off. When you notice that your attention has left your breath, just gently bring it back to your breath, again and again, over and over.**

**The fact that your attention wanders off is not a problem.** In fact, a major point of this exercise is to learn to notice when we have thoughts, feelings, and are distracted by sensations. Actually, ***we need for our attention to wander, so that we can learn to notice when thoughts and feelings pop up.***

This can be difficult when we aren't used to sitting quietly, watching our breath.

For some of us, even sitting quietly can feel uncomfortable...we're so used to "doing."

In fact, that feeling of discomfort is a good example of a mental event that we can notice (and then gently come back to our breath!).

**The key is that when our thoughts and emotions come up, we don't judge them...we just *notice them as mental events* ("Oh...there's another thought") and then come back to the breath.**

Even though it may seem like we're not doing much, this exercise can be very challenging – but you've done lots of difficult things in your life, and you can do this.

**There's no such thing as "doing it wrong."** Just keep coming back to your breath, over and over – no matter how many times your thoughts take you away.

Let's do this for 2 minutes.

Would you like to continue?

Just like anything else, learning to work with difficult emotions like anger requires practice.

**Do the "Mindful Breathing" exercise, for at least 2 minutes at a time, 5 days over the next week (once every day, if you can).**

This is designed to help you learn to watch how your mind works.

If difficult emotions (or distracting thoughts, or bodily sensations, or external distractions....you get the picture!) come up while doing this, notice them, and come back to the breath. Make a note of this on the form below, and we can talk about how to work with this in group.

Remember, this can be difficult! Don't expect too much from yourself. This is literally *working out* our brains (parts of our brain actually grow from this – the parts that help us work with difficult emotions!).

Just like when we begin to work out our bodies, we need to start small, be patient with ourselves, and find a routine and rhythm that works for us.

PRISON ELECTRONIC SYSTEM DATA - pNOMIS

AGE ETHNICITY

INDEX OFFENCE(s)

**LEGAL INFORMATION / OFFENDER SENTENCE DETAILS ENQUIRY**

START CRD (HDC) SED

LENGTH

**OFFENDER PERSONAL DETAILS / PERSONAL SUMMARY**

ALERTS

STANDARD/BASIC/ENHANCED

OFFENDER DETAIL MAPPA

**CASE MANAGEMENT / CASE NOTES**

SET DATES FROM LAST 3 MONTHS FROM INTERVIEW

# POSITIVE IEPS

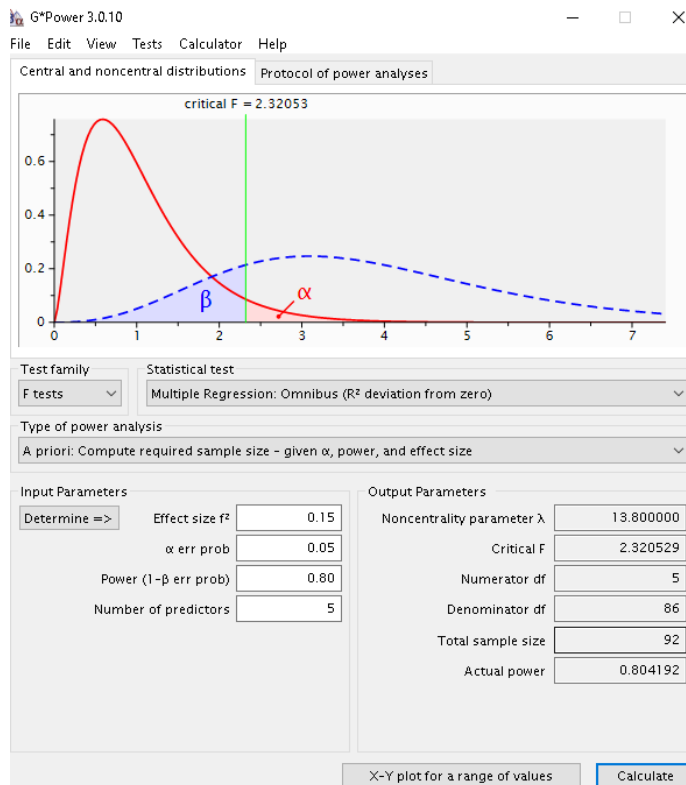
# NEGATIVE IEPS & CONDUCT  
/ BEHAVIOUR ENTRIES



## Appendix B: Power and Sample Calculations

Power calculations are presented for the statistical analyses requiring the most power; hierarchal multiple regression and ANOVA.

### Multiple Regression



### G\*power A priori sample size Hierarchal Multiple Regression

Multiple Regression will be used for two analyses. The greatest number of predictors included will be 5 (internal shame, other shame, traumatic and hyperarousal features of shame memory and age) to predict proactive aggression.

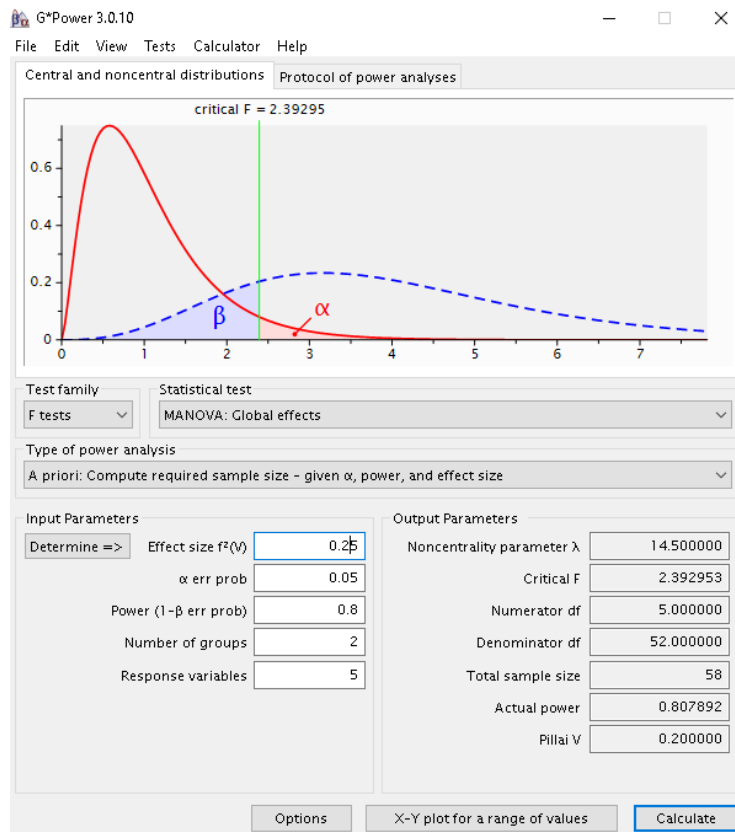
Therefore, a priori power calculation was performed for an F Test multiple regression: Fixed model R<sup>2</sup> deviation from zero. The effect size was set at medium (.15), power (.80), probability (.05) and the number of predictors as 5. The required sample size was 92. Cohen (2016; 1988; 1995) was used to support power size criteria.

However Tabachnick and Fidell (2007, p. 159) suggest that a larger sample may be required to test individual predictors:

$$N \geq 104 + m \text{ (where } m = \text{number of predictors)}$$

This calculation estimates the required sample at 109.

# MANOVA



## G\*power A priori sample size ANOVA

ANOVA will be used for a number of analyses. The greatest number of predictors included will be 5 (internal shame, other shame, traumatic and hyperarousal features of shame memory and age) to predict proactive aggression.

Therefore, a priori power calculation was performed for an F Test MANOVA General Effects test. The effect size was set at medium (.15), power (.80), probability (.05), the number of groups as 2 and the number of dependent variables as 5. The required sample size was 58.

## Appendix C: Indirect Effects Estimands

<http://amosdevelopment.com/video/user-defined-estimands/multiple-estimands/amos20/multiple-estimands-amos20.html>

```
#Region "Header"
Imports System
Imports Microsoft.VisualBasic
Imports AmosEngineLib
Imports AmosEngineLib.AmosEngine
Imports AmosEngineLib.AmosEngine.TMatrixID
Imports MiscAmosTypes
Imports MiscAmosTypes.cDatabaseFormat
#End Region
Public Class CUserValue : Implements IUserValue

    Function Value( groupName As Integer, bootstrapSampleNumber As Integer, v
As CValue) As Object Implements IUserValue.Value
        ' Your code goes here.
        Dim x(3) As Double
        x(0) = v.ParameterValue("a")*v.ParameterValue("b")
        x(1) = v.ParameterValue("c")*v.ParameterValue("d")
        x(2) = x(0) + x(1)
        x(3) = x(0) - x(1)
        Return x
    End Function
End Class
```

## Appendix D: Ethical Approval and Permissions

School of Psychology Research Ethics Committee

### NOTICE OF ETHICS REVIEW DECISION

For research involving human participants

**BSc/MSc/MA/Professional Doctorates in Clinical, Counselling and Educational Psychology**

**REVIEWER:** Sharon Cahill

**SUPERVISOR:** Poul Rohleder

**COURSE:** Professional Doctorate in Clinical Psychology

**STUDENT:** Alison Flynn

**TITLE OF PROPOSED STUDY:** Experiences of shame, social resources and violence amongst male offenders

#### **DECISION OPTIONS:**

**APPROVED:** Ethics approval for the above named research study has been granted from the date of approval (see end of this notice) to the date it is submitted for assessment/examination.

**APPROVED, BUT MINOR AMENDMENTS ARE REQUIRED BEFORE THE RESEARCH COMMENCES** (see Minor Amendments box below): In this circumstance, re-submission of an ethics application is not required but the student must confirm with their supervisor that all minor amendments have been made before the research commences. Students are to do this by filling in the confirmation box below when all amendments have been attended to and emailing a copy of this decision notice to her/his supervisor for their records. The supervisor will then forward the student's confirmation to the School for its records.

**NOT APPROVED, MAJOR AMENDMENTS AND RE-SUBMISSION REQUIRED** (see Major Amendments box below): In this circumstance, a revised ethics application must be submitted and approved before any research takes place. The revised application will be reviewed by the same reviewer. If in doubt, students should ask their supervisor for support in revising their ethics application.

#### **DECISION ON THE ABOVE-NAMED PROPOSED RESEARCH STUDY**

*(Please indicate the decision according to one of the 3 options above)*

|          |
|----------|
| Approved |
|----------|

**Minor amendments required** *(for reviewer):*

**Major amendments required** (for reviewer):

**ASSESSMENT OF RISK TO RESEACHER** (for reviewer)

If the proposed research could expose the researcher to any of kind of emotional, physical or health and safety hazard? Please rate the degree of risk:

|                                     |       |
|-------------------------------------|-------|
| <input type="checkbox"/>            | 1     |
| <input checked="" type="checkbox"/> | 2 IUM |
| <input type="checkbox"/>            | 3     |

Reviewer comments in relation to researcher risk (if any):

**Reviewer** (Typed name to act as signature): Sharon cahill

**Date:** 29<sup>th</sup> June 2016

*This reviewer has assessed the ethics application for the named research study on behalf of the School of Psychology Research Ethics Committee*

**Confirmation of making the above minor amendments** (for students):

I have noted and made all the required minor amendments, as stated above, before starting my research and collecting data.

Student's name (Typed name to act as signature): Alison Flynn

Student number:

Date: 29/06/2016

*(Please submit a copy of this decision letter to your supervisor with this box completed, if minor amendments to your ethics application are required)*

\*For the researcher and participants involved in the above named study to be covered by UEL's insurance and indemnity policy, prior ethics approval from the School of Psychology (acting on behalf of the UEL Research Ethics Committee), and confirmation from students where minor amendments were required, must be obtained before any research takes place.


\*For the researcher and participants involved in the above named study to be covered by UEL's insurance and indemnity policy, travel approval from UEL (not the School of Psychology) must be gained if a researcher intends to travel overseas to collect data, even if this involves the researcher travelling to his/her home country to conduct the research. Application details can be found here:

<http://www.uel.ac.uk/gradschool/ethics/fieldwork/>

# NHS OXLEAS RESEARCH AND DEVELOPMENT APPROVAL

## Quality Improvement Project Approval Notification

This notification confirms that the Service Evaluation Project named below has been **approved** by the Research and Development Office of Oxleas NHS Foundation Trust:

|                            |   |
|----------------------------|---|
| <b>Title:</b>              | <i>Experiences of shame, social rank and violence amongst young offenders</i>     |
| <b>Investigator:</b>       | <i>Alison Flynn</i>   |
| <b>Supervisor/contact:</b> | <i>John Enser</i>   |
| <b>Dated:</b>              | <i>16/06/2016</i>   |
| <b>Approved by:</b>        | <i>Anthony Davis, Research and knowledge manager</i>                              |
| <b>Signed:</b>             |  |

- The investigator will **immediately notify** the Research and Development Office of the Trust should any changes be made to the original protocol as any deviations will render this approval notification void.
- The investigator will send an **executive summary** of the findings of this study to the Trust's R&D Office for uploading to the Trust's intranet.

**For further information please contact:**

Anthony Davis, Research and knowledge manager

Oxleas NHS Foundation Trust, R&D Office, Memorial Hospital, Shooters Hill, London SE18 3RG

Tel 0203 260 5117

Email [anthony.davis@oxleas.nhs.uk](mailto:anthony.davis@oxleas.nhs.uk)

## HMPYOI ISIS APPROVAL



Judith Feline  
Acting Governor  
HMP/YOI Isis  
Western Way  
London,  
SE28ONZ

Research Support – Alison Flynn

Dear Sir/Madam,

I am writing to confirm our support for Alison to complete her research as an NHS Oxleas Quality Improvement Project within HMP/YOI Isis. This work will explore experiences of shame, social rank and violence amongst young offenders.

We have been made aware that the thesis and arising publications will be supported by UEL School of Psychology Ethics Committee and we look forward to facilitating the access required; to ensuring this project is completed within the timescales provided.

Kind Regards

A handwritten signature in black ink that reads "Judith Feline". The signature is written in a cursive style and is positioned above a horizontal line.

Judith Feline

16/06/2016

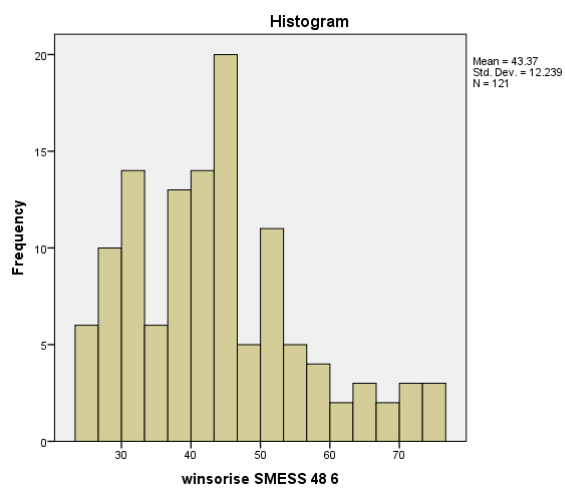
## Appendix E: SPSS and AMOS Output

### Outliers and Normality Checks

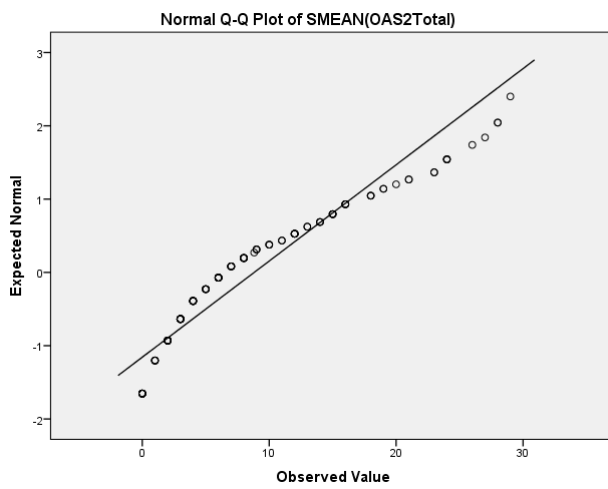
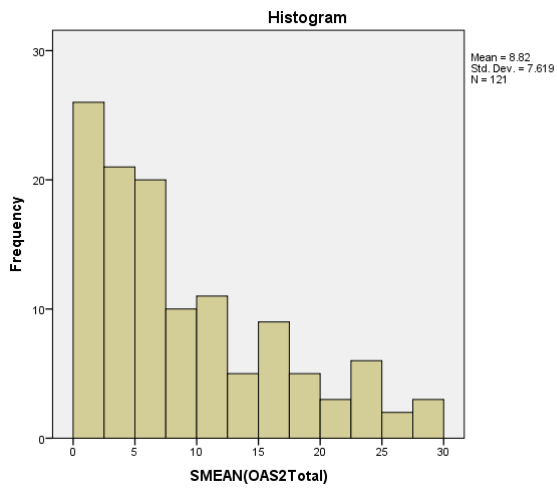
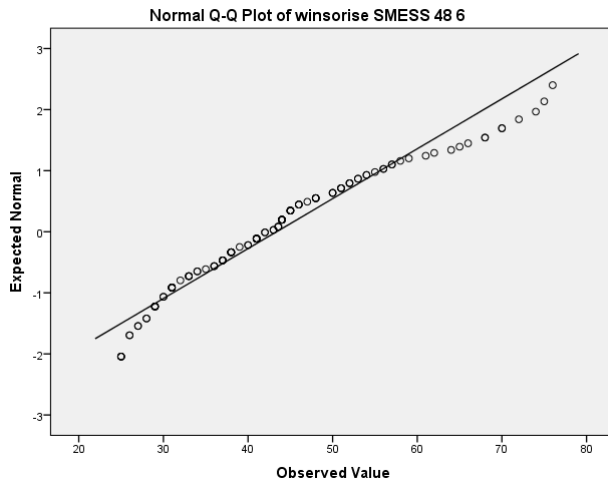
**Table 8 - Univariate Outliers**

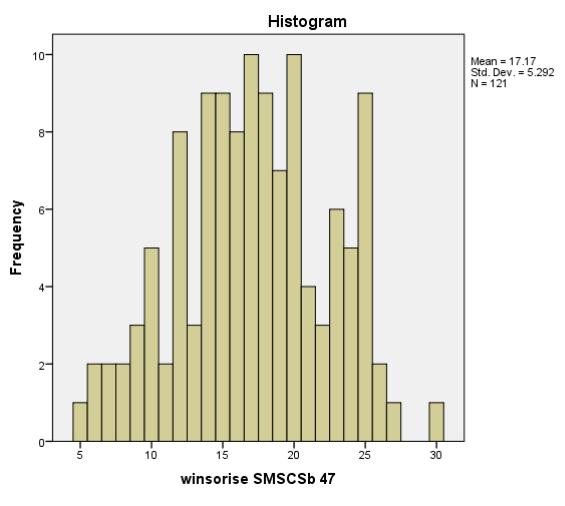
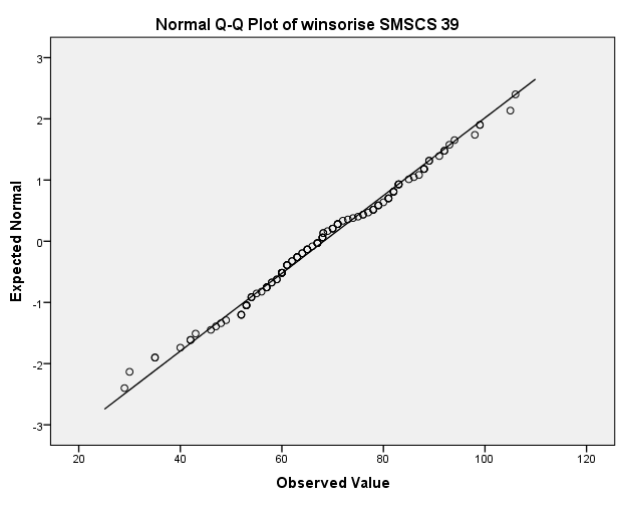
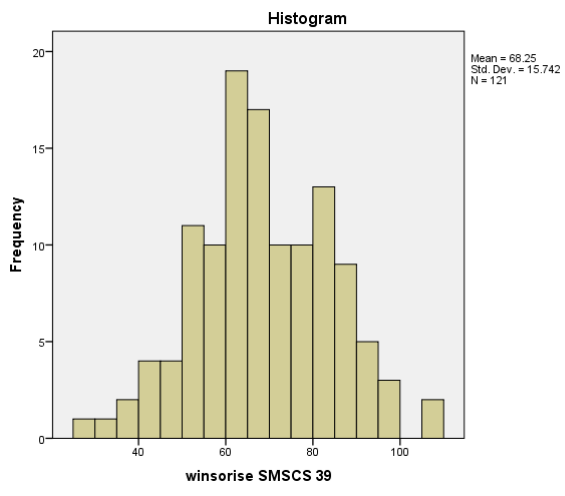
| Scale             | Participant | Z score<br>( $>3.29, p = .01$ ) | Extreme Score | Winsorized Score |
|-------------------|-------------|---------------------------------|---------------|------------------|
| ESS               | 48          | 3.98                            | 95            | 76               |
|                   | 6           | -                               | 81            | 75               |
| SCS               | 39          | -                               | 18            | 29               |
| RPQ               | 66          | -                               | 39            | 36               |
| RPQ-<br>Proactive | 66          | 3.42                            | 21            | 19               |

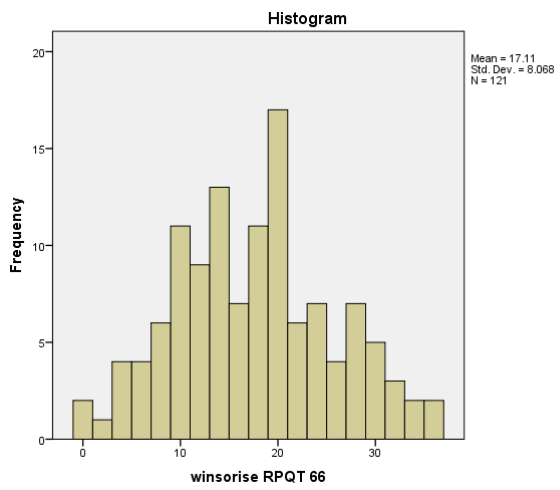
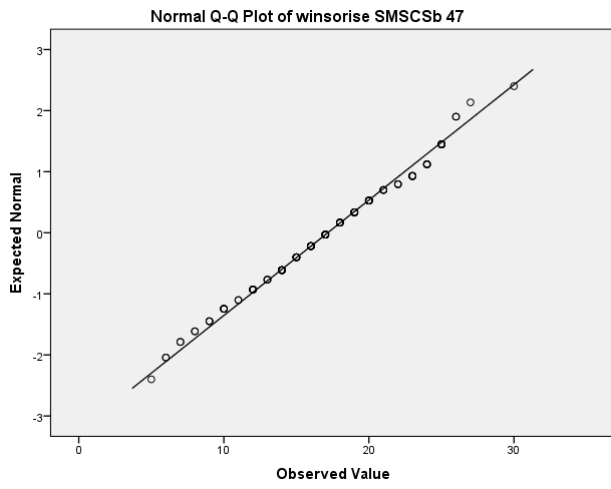
### Normality Plots

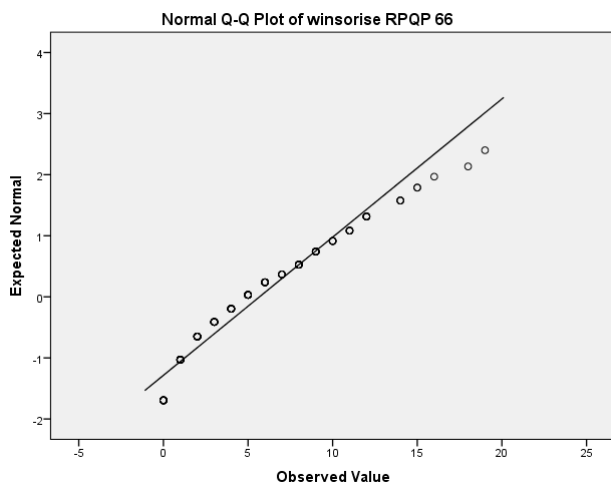
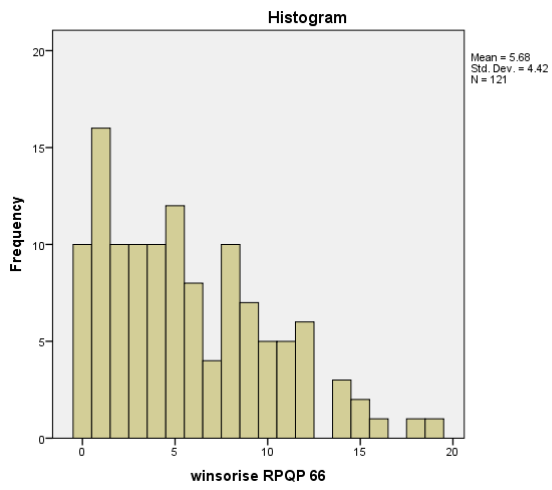
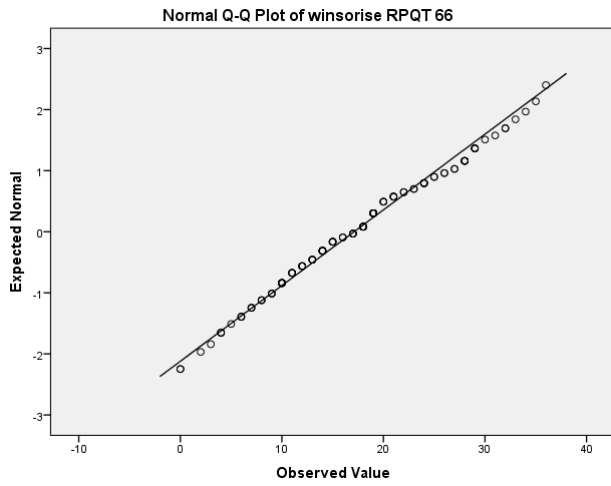


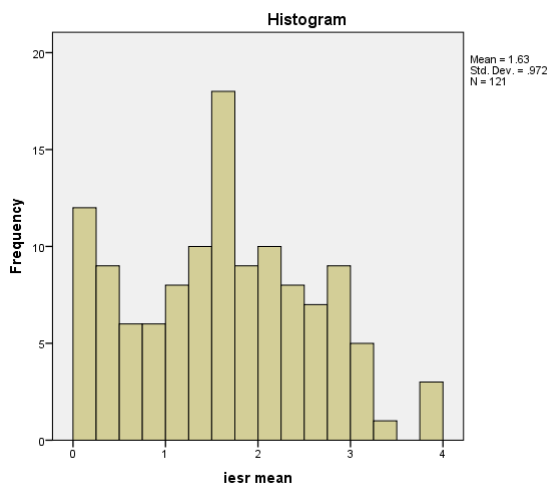
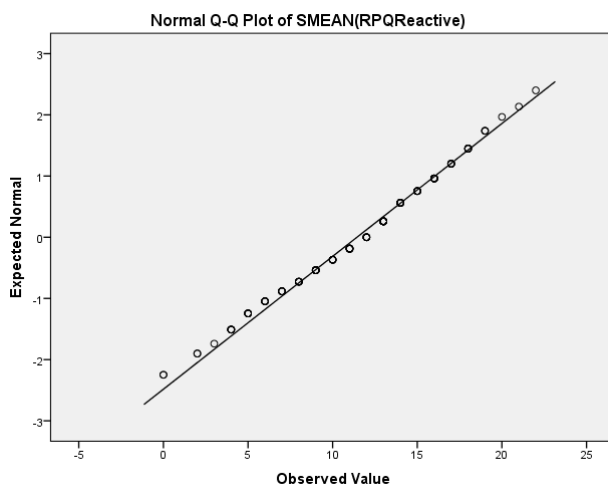
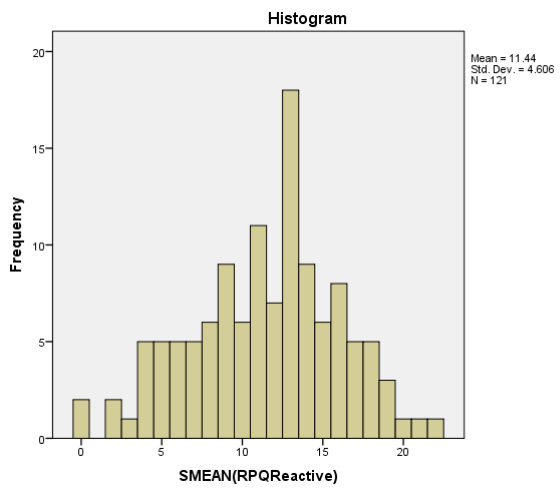


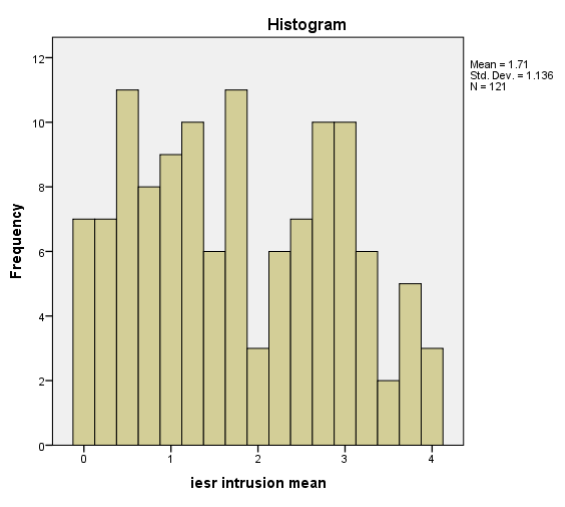
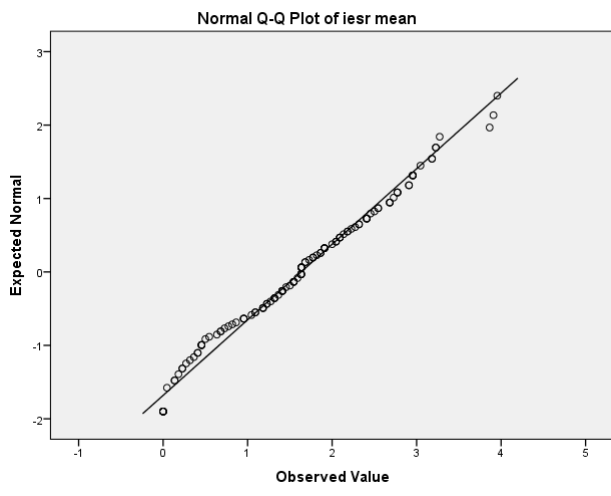


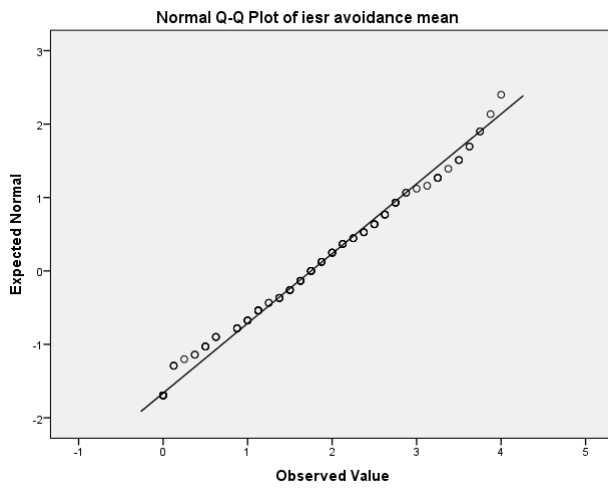
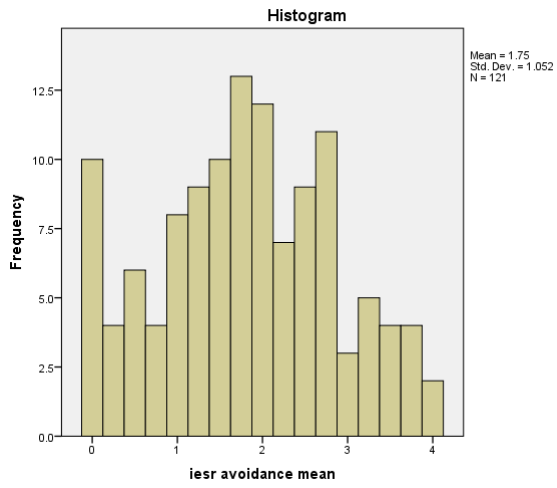
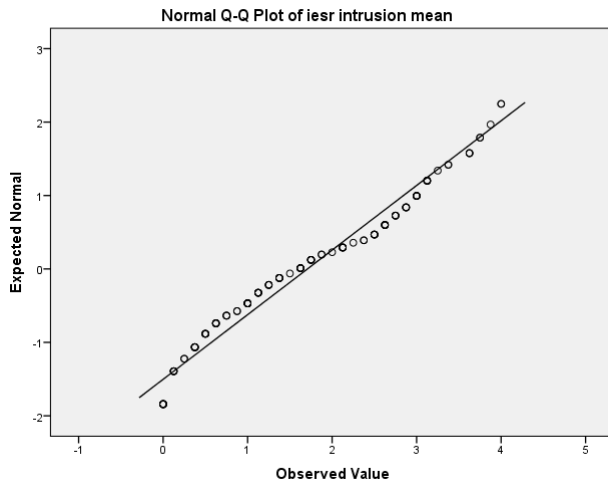


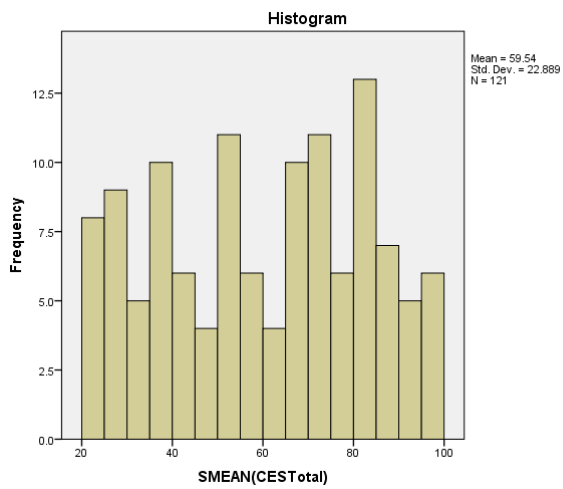
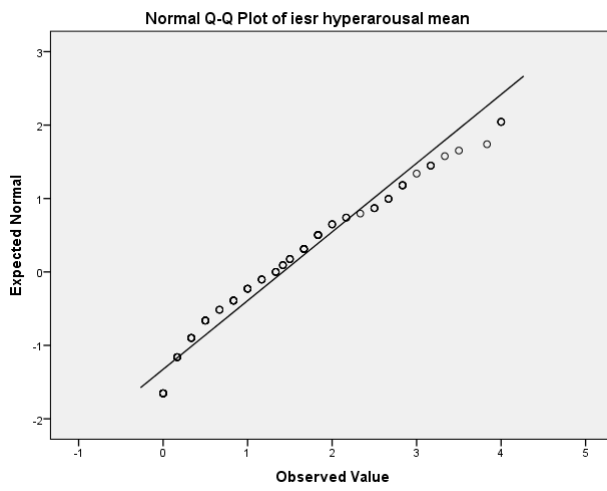
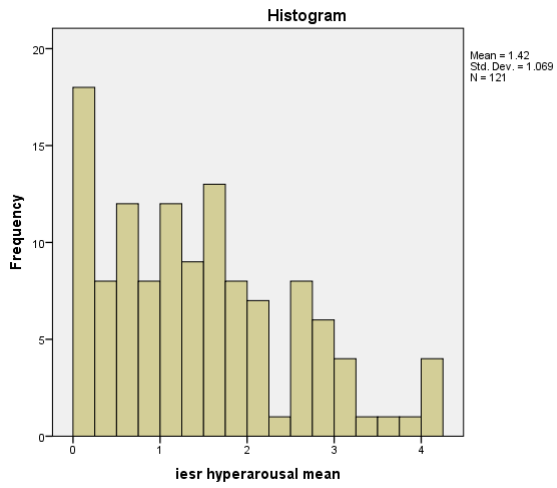




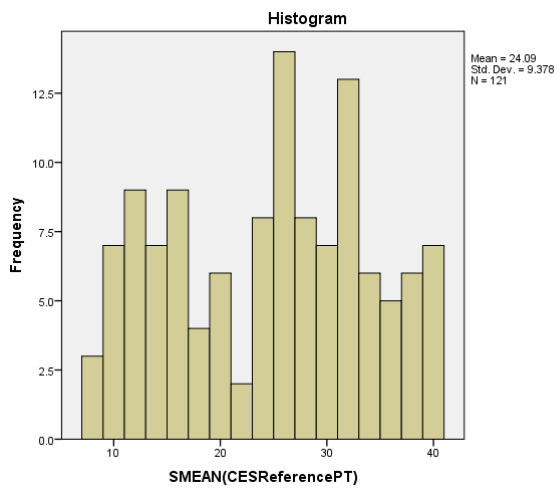
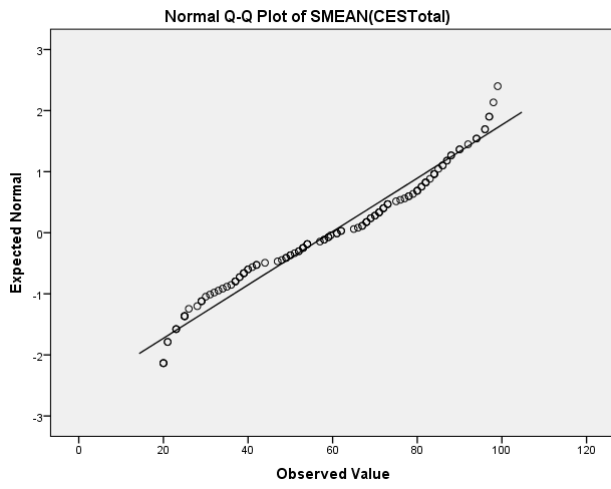


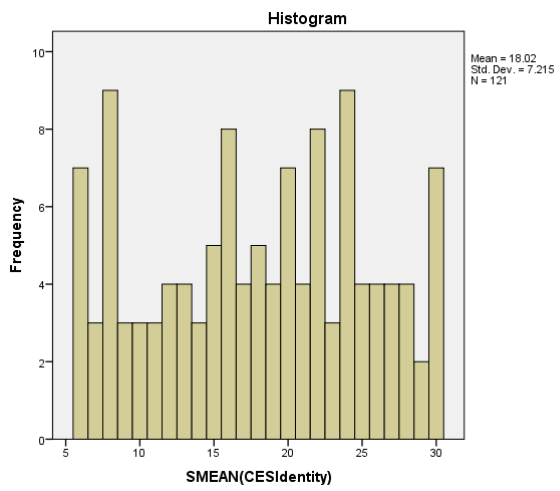
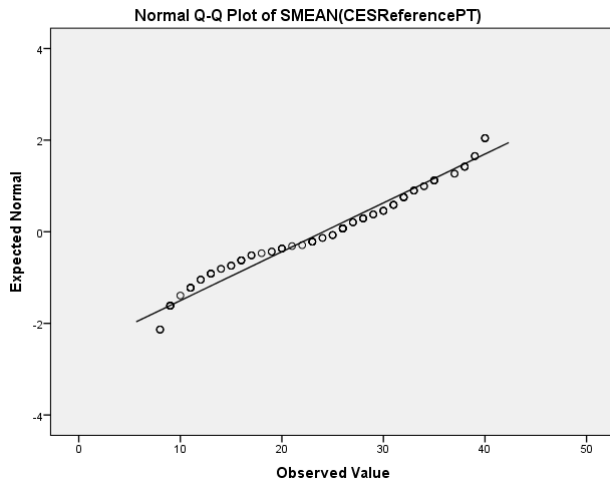


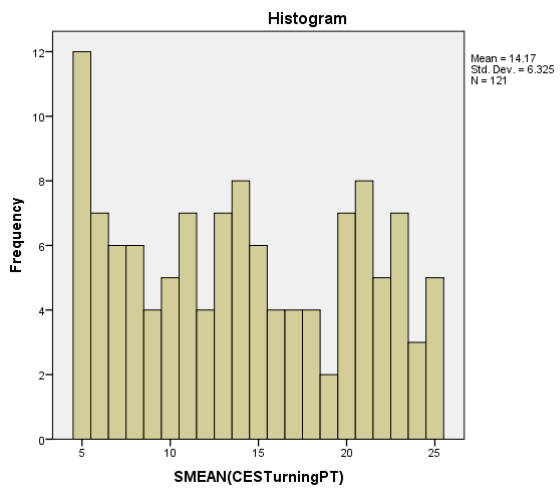
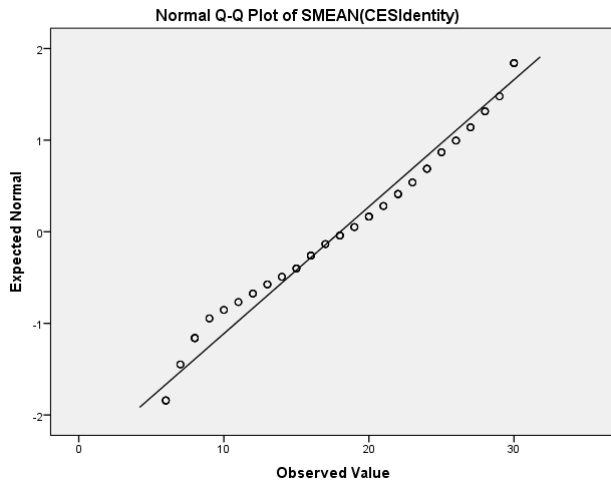


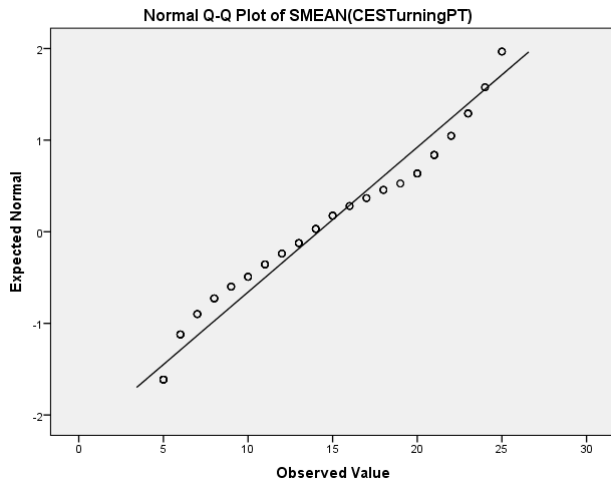




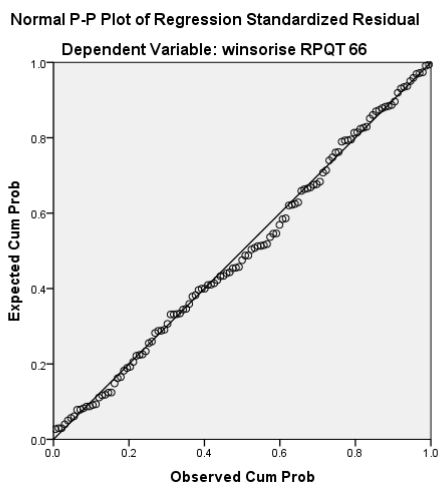
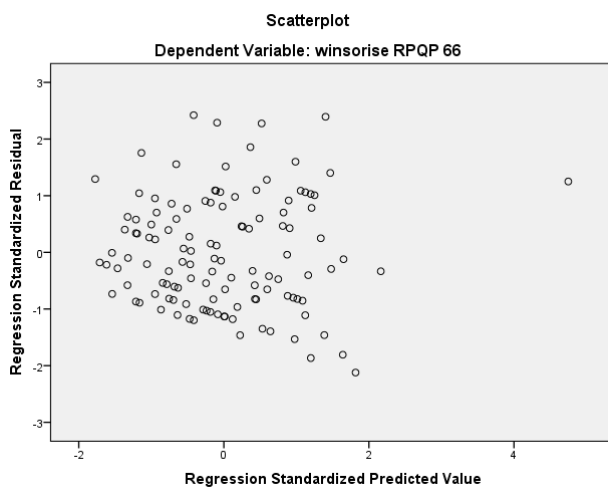
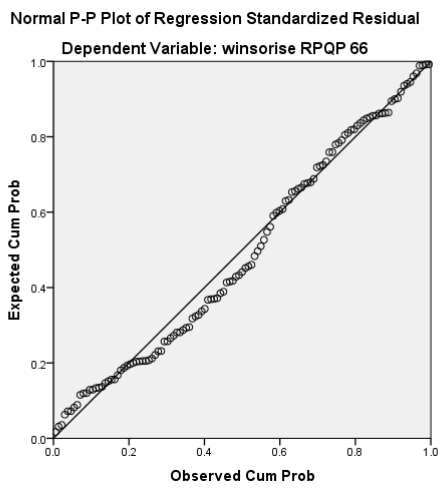


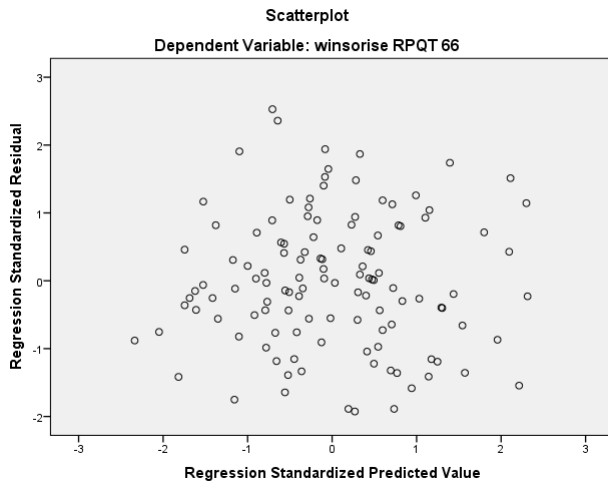






# Multiple Regression Assumption Tests





### Section 3.7

**Table 9 – Spearman’s Correlation coefficient bootstrapped significance value and confidence intervals**

|                     | ShameMemoryAge | YearsSinceSentenced |
|---------------------|----------------|---------------------|
| ShameMemoryAge      | 1              | -.065               |
| CI                  | 1-1            | -.24 - .12          |
| YearsSinceSentenced | -.065          | 1                   |
| CI                  | -.24 - .12     | 1-1                 |

\*. Correlation is significant at the 0.05 level (1-tailed). \*\*. Correlation is significant at the 0.01 level (1-tailed).

### Section 3.9.

**Table 10 - Bootstrapped Hierarchal Multiple Regression: Proactive Aggression**

|                | $\beta$ | t     | p     | Bias | 95% CI    | SE Beta |
|----------------|---------|-------|-------|------|-----------|---------|
| OAS2           | .34     | .360  | .00** | -.01 | .07 .31   | .54     |
| SCS            | .25     | 2.69  | .01** | -.00 | .014 .117 | .02     |
| IESR-Avoidance | .12     | 1.39  | .17   | -.01 | -.31 1.24 | .37     |
| Age            | -.28    | -2.64 | .01   | .01  | -.52 -.08 | .11     |

\*Correlation is significant at the 0.05 level (1-tailed). \*\*. Correlation is significant at the 0.01 level (1-tailed).  
Bootstrap results are based on 1000 bootstrap samples

### Section 3.10

**Table 11 - Bootstrapped Hierarchical Multiple Regression: Reactive Aggression**

|                   | $\beta$ | t     | p     | Bias | 95% CI |      | SE Beta |
|-------------------|---------|-------|-------|------|--------|------|---------|
| ESS               | .15     | 1.30  | .20   | .00  | -.04   | .15  | .04     |
| OAS2              | .20     | 1.92  | .06   | .00  | .00    | .25  | .06     |
| IESR-Avoidance    | .11     | 0.98  | .33   | .02  | -.48   | 1.45 | .49     |
| IESR-Hyperarousal | -.03    | -0.23 | .82   | -.03 | -1.11  | .87  | .50     |
| Age               | -.34    | -3.81 | .00** | .00  | -.71   | -.22 | .12     |

\*Correlation is significant at the 0.05 level (1-tailed). \*\*, Correlation is significant at the 0.01 level (1-tailed). Bootstrap results are based on 1000 bootstrap samples

### Section 3.11.

**Table 12 - Comparison of Violent Alert and No Violent Alert Groups**

| <u>Statistic</u> | <u>Value</u> | <u>F</u> | <u>df</u> | <u>Error df</u> | <u>p</u> | <u>Partial Eta Squared</u> |
|------------------|--------------|----------|-----------|-----------------|----------|----------------------------|
| Wilks' Lambda    | .96          | .438     | 5         | 114             | .2       | .04                        |

### Section 3.12.1.1

**Table 13 - Cohen's Structural Equation Modelling Sample Size**

|              | $\alpha = .01$ |               |              | $\alpha = .05$ |               |              | $\alpha = .10$ |               |              |
|--------------|----------------|---------------|--------------|----------------|---------------|--------------|----------------|---------------|--------------|
| # predictors | <u>Small</u>   | <u>Medium</u> | <u>Large</u> | <u>Small</u>   | <u>Medium</u> | <u>Large</u> | <u>Small</u>   | <u>Medium</u> | <u>Large</u> |
| - 1          |                |               |              |                |               |              |                |               |              |
| 3            | 780            | 10            | 100          | 547            | 100           | 100          | 233            | 100           | 100          |



**Section 3.12.2.2.**

**Table 14 – SEM Model Fit Indices**

|   | $X^2$ | df | p   | CMIN | GFI  | AGFI | NFI | RMSEA | RMSEA<br>90%CI |
|---|-------|----|-----|------|------|------|-----|-------|----------------|
| 1 | 16.77 | 2  | .00 |      |      |      |     |       |                |
| 2 | .08   | 1  | .77 | .08  | 1.00 | .99  | .99 | .00   | .00 - .16      |

**Section 3.13.1**

**Table 15 - Comparison of internal shame, other shame, social rank, shame memory traumatic feature and shame memory centrality across ethnic groups**

| Statistic          | Value | F    | df | Error df | p   | Partial<br>Eta<br>Squared | Observed<br>Power |
|--------------------|-------|------|----|----------|-----|---------------------------|-------------------|
| Piallai's<br>trace | .18   | .416 | 10 | 230      | .18 | .09                       | .16               |

**Section 3.13.2**

**Table 16 - Comparison of Ethnic Groups Reactive and Proactive Aggression**

| <u>Statistic</u>  | <u>Value</u> | <u>F</u> | <u>df</u> | <u>Error df</u> | <u>p</u> | <u>Partial<br/>Eta<br/>Squared</u> | <u>Observed<br/>Power</u> |
|-------------------|--------------|----------|-----------|-----------------|----------|------------------------------------|---------------------------|
| Pillai's<br>trace | .08          | 2.32     | 4         | 234             | .06      | .04                                | .67                       |

## Appendix F: Missing Data Management Procedures

### Missing Data Evaluation

Little's Chi-Square analysis of missing values was performed to determine if data were missing randomly or non-randomly (Little, 1988). It tests the following hypotheses:

Ho: Missing data are missing completely at random (MCAR).

H1: Missing data are not missing randomly (MNAR).

Fifteen total score and subscale scores were included in the analysis. 11 participants with missing data were identified, with missing values ranging from 1 – 2 per participant. Little's MCAR test supported the null hypothesis, that data were missing completely at random ( $X^2 = 22.48$ ,  $df = 69$ ,  $sig. = 1.00$ ). This suggested that any missing data were unlikely to be related to latent variables that would obscure the result of multivariate analyses (Schafer & Graham, 2002).

Multiple Imputation pattern analysis identified six variables (40%) with missing data. 11 participants (9%) had missing data. Overall, there were 15 missing data values of item non-response in the dataset (0.83%).

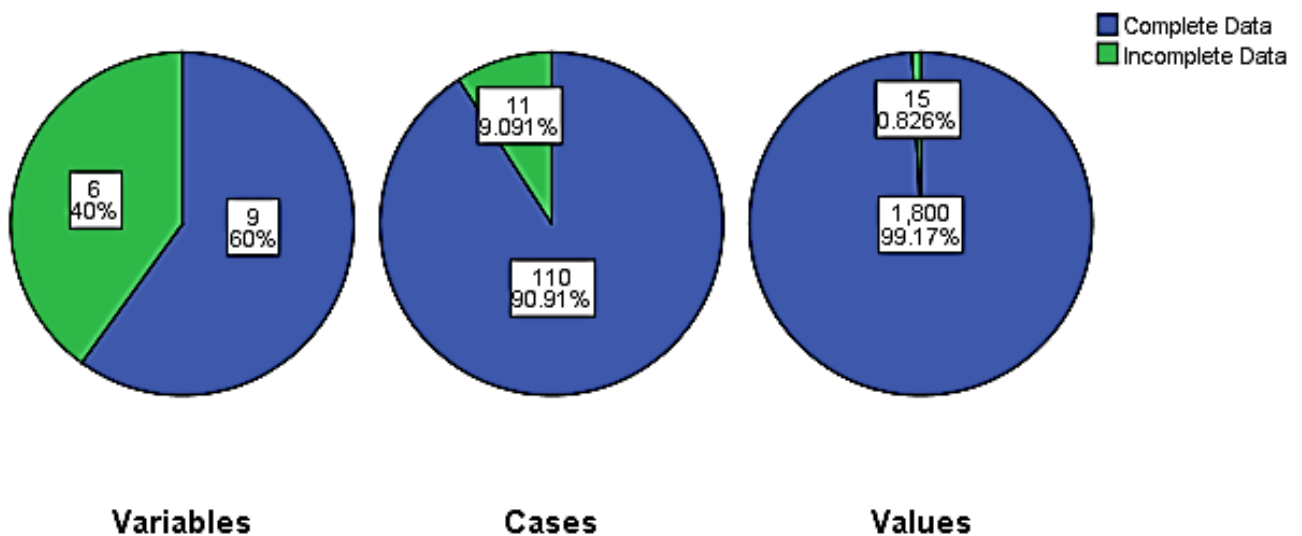


Figure 1 - Missing Data Pattern

Having no missing data was by far the most common pattern. Although the most frequent missing data occurred on the IESR and the ESS, inspection of Missing Value Pattern graphs indicated that 'missingness' was not significantly different across variables. The researcher reviewed individual participants with missing data ( $n = 11$ ). Three participants (27%) had standardised literacy scores in the borderline learning disability range. Eight participants were administered questionnaires by the student research assistant.

### Missing Data Management

On the basis of a small difference in missing data associated with the interviewer, two missing data procedures were considered by the researcher. Mean substitution (MS) was considered because it facilitates a greater number of analyses in SPSS. However this method can reduce the variance, covariance and inter-correlations between variables (Schafer & Graham, 2002) and underestimate the standard error of parameters, increasing the Type I error rate (i.e., analyses would be positively biased) (Sinharay et al., 2001). Multiple imputation (MI) replaces missing values with multiple simulations of computer-generated scores using Bayesian maximum likelihood estimation, MI is thought to obtain pooled estimates and standard errors that reflect missing data uncertainty as well as finite sample variation (Manly & Wells, 2015; Rubin, 1976; Schafer & Graham, 2002; Sinharay et al., 2001). Recent research indicates MI yields values equal or nearest to the ones obtained from complete data sets (Nartgün, 2015). MI is disadvantaged by facilitating fewer analyses on the dataset. The researcher performed MS and MI on two duplicate datasets.

### Multiple Imputation

All total score and sub scale variables ( $n = 15$ ) were included in MI analysis, having met the MAR assumption (Schafer & Graham, 2002). The SPSS 'automatic' imputation method scanned the data for monotonicity (rigid patterns of increasing or decreasing data). Assessing data to be MCAR, SPSS selected the 'fully conditional specification'. The fully conditional specification (FCS) is an iterative Markov chain

Monte Carlo (MCMC) method that can be used when the pattern of missing data is arbitrary (monotone or nonmonotone) (Azur, Stuart, Frangakis, & Leaf, 2011).

For each iteration, (FCS) method fits a univariate (single dependent variable) model using all other variables in the model as predictors. It then imputes missing values for the variable being fit. This method continues until the maximum number of iterations is reached, and the imputed values at the maximum iteration are saved to the imputed dataset. The Markov chain used by the FCS in this analysis specified the number of iterations or “steps” as 10, by default. Analyses run on each dataset were pooled according to Rubin’s (1987) rules.

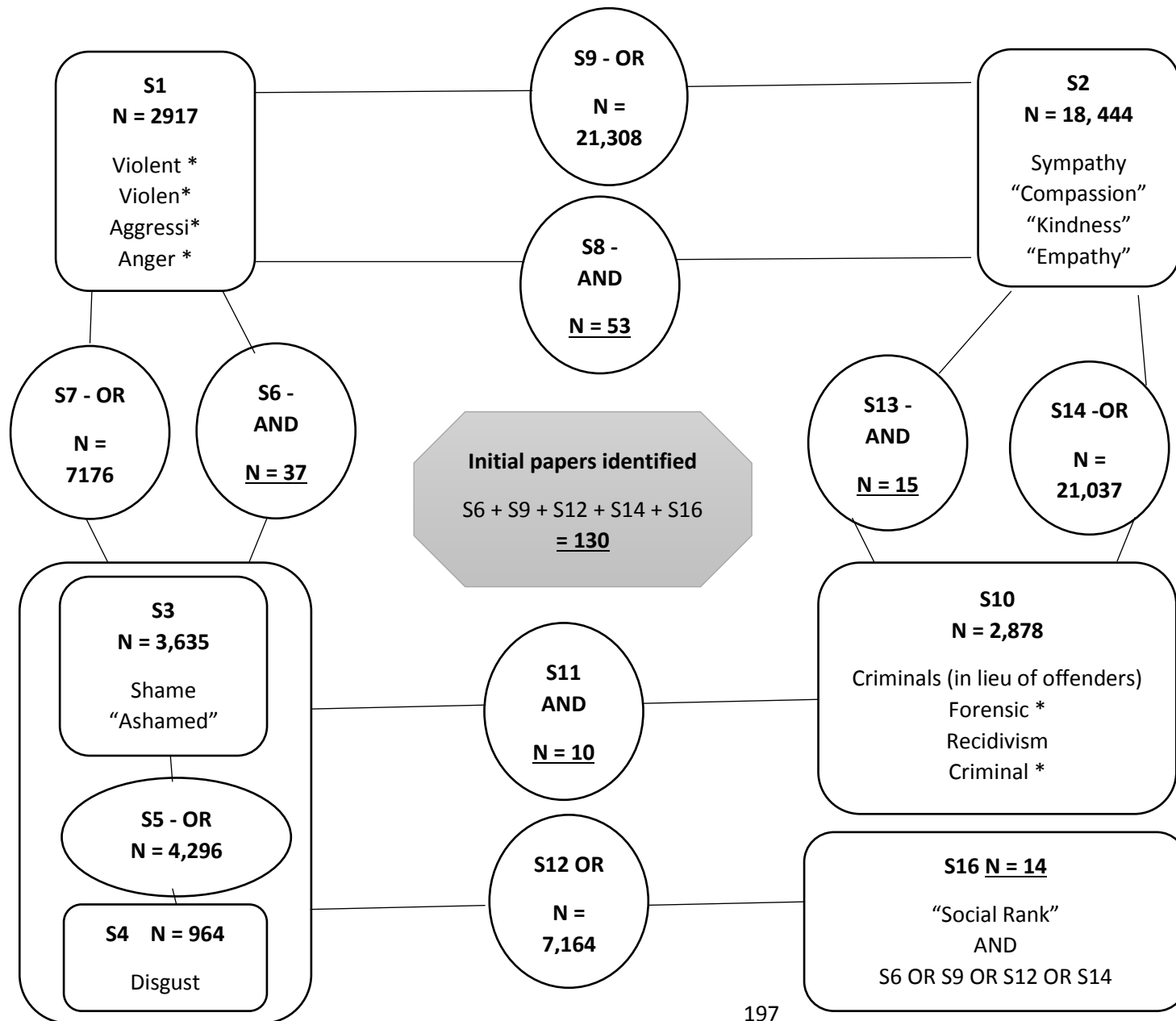
## Appendix G: Literature Search Procedures

The literature review was prepared using Booth, Papaioannou and Sutton's (2012) framework to set the search remit:

1. Who = male offenders
2. What = shame, social rank
3. How (will the study impact on the 'who') = situate and rationalise the current study which was aimed at exploring shame and violence.

A systematic database search was conducted to identify papers relevant to these objectives. The search was conducted using PsycINFO, PsychARTICLES, CINAHL Plus and Scopus with 'shame' as a search term, plus a range of search terms for violence, aggression and descriptors of offenders, juvenile delinquents and prisoners. The grey literature was explored using Google Scholar and other open source repositories (Research Gate, Academia, CORE, Prison Reform Trust). Relevant articles were identified, and their reference lists were searched to identify additional relevant publications. Qualitative and quantitative studies were included worldwide.

Male gender was applied as a limiter. Due to the small number of studies exploring shame and violence in adult male offenders, age and community samples were not used as exclusion criteria. Words with multiple spellings or endings were searched for with an \* which includes these variations. Modifiers 'OR' and 'AND' combining the search terms were applied to refine combinations of the search terms. Their results are depicted in the spheres. The grey box describes the pool of articles this review is drawn from. Alerts for these saved searches were set up for the researcher's Ebscohost account.



The second literature search also used Booth, Papaioannou and Sutton's (2012) framework to set the search remit:

1. Who = male offenders
2. What = social inequality, racism
3. How (will the study impact on the 'who') = situate and rationalise the current study which was aimed at exploring shame and aggression (including violence).

A systematic database search was conducted using PsycINFO, PsychARTICLES, CINAHL Plus and Scopus with 'shame' as a search term and a range of search terms for social inequality and racism and descriptors of offenders, juvenile delinquents and prisoners. The grey literature was explored using Google Scholar and other open source repositories (Research Gate, Academia, CORE, Prison Reform Trust). Relevant articles were identified, and their reference lists were searched to identify additional relevant publications. Qualitative and quantitative studies were included worldwide.

The same limiters, inclusion and exclusion criteria were applied as the first literature search. Alerts for these saved searches were set up for the researcher's Ebscohost account.

