

**The role of attachment in violent offending and
violence in institutions**

Acknowledgment

It's amazing to sit and think how many people have contributed to, or supported, my own motivation to complete this thesis and training. I can still remember the conversation I had with Mr B that set my professional life on course and made me want to make a difference in the world of forensic psychology.

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I have been fortunate throughout my life to have family and friends that I can always rely on for praise, encouragement, guidance, support and reminding me that there is something called the work/life balance!

Last but not least I dedicate this thesis to my mother and father- my secure base.

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Abstract

Many forensic patients report a problematic childhood which has an impact on their adulthood attachments. Therefore, attachment theory may prove to be a constructive model when assessing, formulating, treating and managing individuals with high levels of violence and to understand the internal repertoire of the offender. Thus, the overall aim of the thesis is to examine attachment style in an offending population, across different types of offender with a focus on violent offending and violence in institutions. With this aim in mind the thesis is structured into three chapters.

Chapter One presents a literature review using a systematic approach exploring attachment style and offending behaviour. The review included 9 studies and it was identified that attachment theory is useful in understanding the internal process of the offender and that offenders are more likely than non-offending controls to have an insecure attachment style. However, the predominant focus was on sex offenders so the need for more research looking at different offender groups, and any differences between them was highlighted.

Chapter Two presents a research study exploring attachment, anger and violence in 72 males detained in a high secure hospital. Overall, the sample were more likely to be categorised as having an insecure attachment style (specifically a dismissing attachment). Sex offenders were more likely to have a secure attachment style when compared to violent offenders. Looking at the two dimensional model of attachment, individuals with high attachment anxiety (negative view of self) were also likely to have high avoidance (negative view of others), which would correspond to a fearful attachment style.

Given that the literature has indicated a link between an insecure attachment with higher anger and violence, this was also explored. Those with a secure attachment style had lower anger temperament scores compared to those with an insecure style and the incident data identified that new admissions had higher rates of incidents compared to those who has been in the hospital for a longer period of time. Attachment style and anger scores did not predict violent incidences.

Chapter Three presents a critique of the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999) as this was a psychometric tool used in the research project to assess anger and literature has previously linked anger with violence. The appropriateness of the tool including reliability, validity and limitations along with an overview is likely to be beneficial for future use of the psychometric tool for clinical and research purposes as it has been identified as an appropriate tool in measuring anger in forensic patients.

Overall attachment style, anger, violent offending and institutional violence was explored. Attachment theory is a useful model and can be used to understand how individuals learn to regulate their emotions, how they view themselves and others and how they form, maintain and view relationships. These may be positive or negative depending on childhood experiences which follow through to adulthood. The model is applicable to forensic populations where deficits are commonly identified in these areas.

Introduction

The term violence is broad and has been widely used in the area of psychology and criminology. It is distinct from anger in that violence is an action/behaviour, while anger is an emotion/feeling that has been shown to contribute to violent behaviour at times. The issue of violent behaviour is an essential one for professionals working in both criminal justice and mental health settings, given the huge impact it has on individuals, their families and society as a whole. For example, Home Office statistics show that violence against the person offences have gone up by 6%. In 2006/07 they accounted for 24% of all reported crime and in 2011/12 they accounted for 30% of all reported crime, while the majority of other main offences remain stable during this time frame. To date, anger and violence have been understood from a range of theoretical perspectives which include psychodynamic (Fonagy, 2003), social and social learning (Bandura, 1973); ethological theories (Lorenz, 1966) and cognitive theories (Beck, 2000; Novaco, 1994). Although these have found situational and individual differences in why and how violence arises, given the role of emotion regulation in anger and violence, it could be argued that attachment theory could usefully be employed because a key focus is on how individuals process, regulate and manage emotions and how violence at times is used as a form of communication rather than just a destructive act (Adshead, 2002).

Definitions and risk factors for violent behaviour

The World Health Organisation (WHO, 2002, p.80) defines violence as *"the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury,*

death, psychological harm, mal-development, or deprivation". Three categories of violence are suggested: the first is **self-directed violence**, described as suicidal behaviour; the second is **interpersonal violence** described as being directed towards the family, intimate partner, or towards a member of the community; and the third category is **community violence** described as violence in institutions.

In order to identify those individuals most likely to commit violent behaviour, either towards themselves or others, research has extensively looked at risk factors for violence and violent behaviour. Factors identified have included historical, unchangeable ('static') items, such as: childhood attachment difficulties (Ward, Hudson, & Marshall, 1996), early age (Farrington, 2003), personality disorder (Ullrich, Yang, & Coid, 2010), psychopathy (Hare, 1999), schizophrenia (Hodgins, 1992), and substance misuse (Dowden & Brown, 2002). However, factors that are more likely to change ('dynamic') have also been identified, such as impulsivity (Webster, Douglas, Eaves, & Hart, 1997) and poor emotion regulation (Novaco, 1995). The acknowledgment that for a safe society it is important to understand, assess and predict violence, is reflected in clinical and research interest exploring individuals who commit violent offences (Fazel, Singh, Doll, & Grann, 2012).

Violent offending is complex but it can be understood as a division of violence and aggression that can lead to a period of imprisonment (Howells, 2004). In contrast to violent behaviour more generally, the Criminal Justice Act (1991) defines violent offending as behaviour: "*which leads, or is intended to lead, to a person's death or to physical injury a person*" (Wasik & Taylor, 1991, p.20). The Home Office also includes sexual offending as a form of violent offence within their definition. However, in the context of the thesis, the more

common distinction between violent and sexual offending will be maintained in order to investigate the differences between these groups of offenders. In summary, those who commit sexual offences with or without a violent element will be referred to as 'sexual offenders' and those who commit violent offences without a sexual component will be referred to as 'violent offenders'.

Defining violent offenders

Many classification systems have been generated to define violent offenders such as number of victims, attitudes, victim selection, extent of harm caused etc (Loeber & Farrington, 1998; McGuire, 2008; Woodworth & Porter, 2002). However, they all place emphasis on the offender's motivation for the offence. The two separate yet correlated subtypes of violent offender are, first, a reactive 'hot', hostile, impulsive, affectively driven type intending to harm someone. This is violent behaviour arising in response to threat stimuli (external or internally perceived), resulting in arousal and experience of emotion (anger and/or fear). An example would be an individual stabbing another in an argument. The second is proactive 'cold', instrumental, premeditated type in which violence towards another is secondary to the gaining of some other goal. Violent behaviour arising from minimal arousal and is more controlled. For example, instrumental violence could be employed for an individual to attain money, goods, and/or sexual gratification (e.g., Blair, 2007; Cornell, Warren, Hawk, Stafford, Oram, & Pine, 1996; Dodge & Coie, 1987; Meloy, & Sanford, 2006; Woodworth & Porter, 2002).

Both types have contributed to an understanding of violent behaviour. Individuals with a history of reactive violence appear to be more short-tempered and impulsive than non-violent

individuals (Stanford, Houston, Villemarette-Pittman, & Greve, 2003). In addition, it has been suggested that violent offenders score significantly higher on measures of hostility and violence compared to non-violent offenders (Woodworth & Porter, 2002). Research has confirmed that psychopathic offenders engage in instrumental violence more than reactive violence, while non-psychopathic violent offenders are more likely to engage in reactive violence (Blair, 2007). Research has also found that within institutional settings, those who display acts of instrumental violence have lower trait impulsivity scores on anger measures and fewer recorded acts of institutional violence compared to those who use reactive violence (Dolan & Fullam, 2004).

With these factors in mind, one is faced with the understanding, management, treatment and rehabilitation of the violent offender. It is suggested that these individuals have long, complex criminal histories (e.g. Farrington, 1998), have higher rates of recidivism compared to general offenders (Loza & Dhaliwal, 2005), and have a propensity to be complex, when engaging them in treatment (Heseltine, Howells, & Day, 2006). Therefore it is imperative to identify antecedents to violence to accomplish an effective therapeutic environment aimed at recovery and rehabilitation, with the aim of reducing reoffending after the individual is released. Recovery can be understood as a “process” that an individual goes through when “overcoming” mental health problems. It is a way of building and maintaining a “meaningful life” that is rewarding and positive even with the limits caused by an illness (Anthony, 1993, p 527).

In the UK, there is increasing emphasis on the use of an ecological model (WHO, 2002) because it is argued that violence can best be understood as arising from a variety of inter-

related factors. It draws on four risk factors, these include, individual factors (e.g., personal history, age, personality disorder and mental illness); their relationships with others (e.g., peers, professionals and family); their community (e.g., poverty, schools and institutions); and their societal attitudes (e.g., biased cultural beliefs supporting violence and religion; Figure 1).

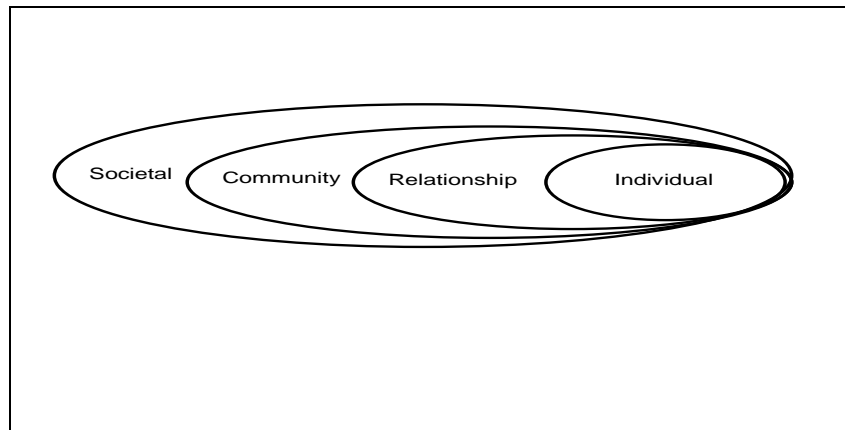


Figure 1. Understanding Violence: an ecological model (WHO, 2002)

The ecological model of violence enables professionals to deal with the factors that put individuals at greater risk for perpetrating violence along with factors that lower risk of them perpetrating violence (WHO, 2002). It is evidence based taking into consideration psychology research drawing upon societal and individual risk factors for violence (Dahlberg & Krug, 2002). Its main strength is that it helps to make a distinction between the influences on violence, which should guide treatment plans to prevent future violence, while at the same time providing a framework for understanding how they interact (Dahlberg & Krug, 2002). The model is therefore utilised for prevention and intervention purposes. Prevention of violence can occur before violence occurs (managing emotions that could lead to anger), immediately afterwards or over the longer term (rehabilitation and reintegration). It may

require detainment of an individual, due to their level of violence, as a way to prevent and offer intervention.

Managing violence

One key issue with violent offenders is that imprisonment does not necessarily reduce their level of violence which, in turn, impacts on staff, other prisoners or patients, and the general atmosphere in the institution, be it a prison or a forensic mental health setting. Thus, in terms of the management of the violent offender, in the first instance the priority might be to try and contain their violence.

Notably, one reason for developing anger management programmes in UK prisons was in order to manage disruptive and violent behaviour in institutional settings (Towl, 1994). This is because violence in institutional settings is common (Whittington & Richter, 2006). Research has indicated that in the UK around a third of patients per 100 admissions admitted to psychiatric hospitals had perpetrated at least one violent act within the setting (Bowers, Stewart, Papadopoulos, Dack, Ross, & Khanom, 2011). Forensic patients had more rates of violence and incidents (54.0, SD=17.1), in comparison to patients from acute units (44.9, SD=17.9) and general mental health psychiatric units (36.6, SD=12.6). Institutional violence has been defined as actual, attempted or threatened harm towards another individual which may include physical or verbal aggression (Bowers et al., 2011; Gadon, Johnstone, & Cooke, 2006; Papadopoulos, Ross, Stewart, Dack, James, & Bowers, 2012).

A recent meta-analysis exploring institutional violence found triggers varied, they included interactions between, patient and staff (e.g., miscommunication), patients and patients (e.g.,

not respecting personal psychological or physical space), individual issues (e.g., receiving bad news) and structural issues within wards (Papadopoulos et al., 2012). They concluded that by understanding factors that increase the likelihood of violent incidents, staff are more likely to predict them from happening and reduce occurrence. Once violence is manageable it is likely that treatment options for the offender will incorporate psychological intervention (Kemshall, 1996).

Treatment issues and the role of anger

To date, psychological treatment for adult violent offenders has been fairly minimal and they are not viewed as a particularly homogeneous group in relation to treatment (Davey, Day, & Howells, 2005). The extensive work that has gone into evaluating and developing sexual offenders treatment programs has not been the same for violent offenders treatment programs (Polaschek, Collie, & Walkey, 2004). Treatment has mainly been limited to formulation-based individualised psychological work (Browne & Howells, 1996) or to the previously mentioned anger management group work because a link in the literature has been made between anger and violence (Novaco, 1994).

In terms of violent offending, however, anger is not necessarily a criminogenic need as offending behaviour is not always driven by anger, even though it is a frequent antecedent to violent behaviour (Polaschek, Collie, & Walkey, 2004; Serin & Preston, 2001). Adaptive expressions of anger are both acceptable and beneficial (e.g., assertive explanations of feelings), but anger becomes problematic if it occurs frequently, for long periods of time and is most often expressed in the form of violence (Kassinove & Tafrate, 2002). It has been suggested that for offenders, therefore, that anger can be problematic and lead to violent

behaviour, requiring therapeutic intervention. For example, Spielberger (1991) found that offenders (especially violent offenders) frequently experience difficulties with regulating anger compared to other populations (Mills, Kroner, & Forth, 1998). Thus, Novaco (1994) suggested that angry feelings are a risk factor for violent behaviour and, although not all violent offences are considered as 'angry' offences (e.g., instrumental or acquisitive offending with a violent element), it can be argued that poor regulation of anger plays a role in violent offending (Howells, Watt, Hall, & Baldwin, 1997). Early research by Megargee (1966) attempted to explain the relationship between emotion regulation, anger and violent offending. He identified two distinct violent offending personality profiles: the under-controlled (frequently angry, impulsive) and the over-controlled (rarely angry, but a build up leading to extreme violence). Anger is considered an important role in attachment theory and it has been considered a useful model in understanding emotion regulation, anger, violence and personality (Fonagy, 1999; Griffin & Bartholomew, 1994).

Attachment theory

The theory offers a structure for professionals to understand how individuals create and construct their world through linkages between the early unique interactions with a caregiver and child and then later adult relationships. The origins of attachment theory was first originated by Bowlby (1969), based on the influences from ethology, information processing, psychoanalysis and developmental psychology. Bowlby referred to attachment as a "lasting psychological connectedness between human beings" (Bowlby, 1969, p.194). He argued that children are genetically inclined to form attachments in the first years of their life as a way in which to enhance their probability of existence; thus, children are evolutionarily prepared to internalise interpersonal and emotional experiences with caregivers.

Based on the quality of the child's interactions with their main caregivers, internal working models of self and others are developed which act as templates for how to form and maintain relationships in the future (Bowlby, 1969, 1973, 1988). For example, this can mean that the child sees themselves as having self-worth or not, that others are reliable or not, and so on. The accessibility and reaction of the primary caregiver to the child's emotional signals are central to this process (Bowlby, 1969, 1973, 1988). In understanding anger, it is vital to understand that children are not born with the capacity of regulating their arousal and emotional reaction. The primary attachment figure's reaction to the child's anguish signals, comforting, caressing, smiling, and feeding which allows for the development of reflective functioning in the child. This is how the child learns to understand their own thoughts and feelings, to regulate and control their own emotions, and to understand the mind and intentions of others.

Internal working models of attachment contain cognitive-affective information about whether the caregiver was perceived as an individual who responded to calls for support or protection (internal working models of other) and whether the self was experienced as commendable of receiving help from an individual (internal working models of self). This information eventually becomes a basic part of individuals' expectations of others and is integrated into their general feelings of self-esteem (Mikulincer & Shaver, 2007). Bowlby (1988) thought that attachment to others remained a fundamental role in interpersonal behaviour throughout the life of an individual and although childhood attachment is biologically programmed for every individual, type or style of attachment is influenced by the environment the child grows up in.

Significant amounts of research have indicated that those who suffer abusive childhood histories are more likely to develop insecure attachments in adulthood, although this is not inevitable (Cicchetti & Toth, 1995; Morton & Browne, 1998). In particular, the attachment system affects the way adults see their close relationships, cope with stress and regulate distress (Mikulincer & Shaver, 2007).

Attachment and anger

As outlined above, attachment can be understood as a form of dyadic emotion regulation which allows affect-regulatory capacities to develop in childhood (Schoore, 1996; Sroufe, 1995). Weiss (1991) suggests that relationships can only be defined as attachments if they display some key features which include proximity-seeking and using the attachment figure as a secure base from which to investigate the world. In simple terms attachment behaviour can be seen as any type of behaviour that results in an individual seeking or keeping close to a preferred individual. Children are not born with the ability of managing emotions and consequently need the support of their caregiver to develop self-capacities that allow for the ability to regulate, control and react to stressful situations appropriately. When these self-capacities are not developed properly in childhood, it results in difficulties with the ability to self-soothe and the tendency to seek maladaptive ways to manage and cope with negative feelings, resulting in aggression or self-injurious behaviours in adulthood (Briere, 1992).

In turn, anger is conceptualised as being expressed in situations of intense arousal when existing psychological defences breakdown (Davey, Day, & Howells, 2005). Bowlby (1973) stated that anger should be seen as an ordinary response of a child when their anticipation of safety and closeness from an attachment figure are jeopardised. He viewed anger as an adaptive response to separation because at times it motivates an attachment figure to pay

more thought in the future and by this means offer better, more dependable care to the child. Thus in general, in particular for adults, anger is useful in the way that it communicates a strong but understandable reaction to thoughtless or unfair treatment, instead of it just being a way to harm. Anger is a natural response to frustration and serves as an important communicative signal (Adshead, 2002). Bowlby (1973) labelled productive anger as the anger of hope, the reason being that it is intended to bring positive change to a relationship. On the other hand, anger can at times become so strong that it alienates or is harmful, therefore it becomes negative to a relationship and furthermore it can conclude in violence (the anger of despair; Bowlby, 1973).

Additionally, the relationship between the expression of anger and type of insecure attachment style has been identified (Mikulincer and Shaver, 2007). The expression of anger in those with a dismissing attachment style can result in the reactive expression of anger, being critical and devaluing of others emotional needs, and the use of anger to distance and control others. The expression of anger in those with a preoccupied attachment style can result in the constant expression of irritation, anger, anxiety; and the constant blaming of others for the person's own distress. In addition, they have difficulty being soothed by others. The expression of anger in those with a fearful attachment style can result in extreme expressions of anger that direct aggression and violence toward themselves or others.

Violence from an attachment perspective

Insecure attachment may hinder with the development of appropriate self-capacities to manage anxiety. The individual might be left with either an inability to manage their arousal levels and fear in response to threat, or to develop an appropriate response. Violence

therefore arises as a way to regulate and manage angry feelings. Violence therefore arises as a way to regulate and manage angry feelings.

It has been argued by some that the earliest form of psychological violence as a means to manage unpleasant feelings occurs when a baby's cries of hunger or distress are not responded to (unmet needs of survival) and the baby yells, cries, kicks and whirls their arms to get rid of the unpleasant feelings. That is, a bodily experience is used to manage an overwhelming negative experience (Parsons, 2009). Similarly, once adults feel threatened (actual or perceived) their attachment behaviour is activated (Mikulincer & Shaver, 2007). If, in childhood, they only learnt to manage unpleasant feelings physically and were not taught appropriate self-soothing and self-management techniques, this translates into inappropriate coping strategies. Thus, if social experience is a means to alleviate innate violence, using and behaving violently indicates a breakdown of typical development. Adults displaying unmanageable, apparently irrational violence tend to be those who were not enabled in childhood to develop secure attachment in which they felt loved and contained (Parsons, 2009). This supports the earlier work of Fonagy, Target, Steele and Steele (1997) who found that violence is a solution for resolving psychological conflict in offenders. They concluded that the problem is not in violent tendencies but in regulating negative emotions, where the emotion/feeling turns into action. As has already been outlined, anger is one emotion that has been found to increase the likelihood of violence (Bushman & Anderson, 1998).

In summary, the literature indicates that those with an insecure attachment are more likely to use violence as a physical response, in the absence of psychological mechanisms to get rid of anger and other negative feelings (Parsons, 2009). The literature has linked insecure attachment with anger arousal and anger arousal with violent behaviour (Fonagy, 2003;

Schore, 1996; Mikulincer & Shaver, 2007; Novaco's, 1994). Having low self control (Hayslett-McCall & Bernard, 2002), violence arises from individuals who believe that expressing or venting their anger outwardly would be an effective way to feel better (Bushman, Baumeister, & Phillips, 2001). Some research has begun to consider the implications of this in terms of sexual offending (e.g., Ward, Hudson, & Marshall, 1996) but, to date, limited research has considered violent offenders and the possible implications for offender rehabilitation.

Aim of thesis

Therefore, the aim of the thesis is to investigate whether attachment theory will prove to be a useful model when assessing, formulating, treating and managing individuals with high levels of violence and to understand the internal repertoire of the offender. The overall aim of the thesis is to examine attachment style in an offending population, across different types of offender with a focus on violence and institutional violence. However, given the acknowledged differences between male and female offenders, this thesis will focus on male offenders (Steffensmeier & Allen, 1998). Research suggests that female offenders have histories of sexual and/or physical abuse that appear to be major roots of their offending behaviour, addiction, and criminality (Pollock, 1998). In addition, there is one significant difference between male violence and female violence, and this is in the way violence is expressed (Jack, 2001; Motz, 2001). Whilst males tend to express their violence by physical means and through the committing of criminal offences, females tend to express their violence through psychological means, such as self-harming behaviour (Swaffer & Epps, 1999). The thesis is presented in three chapters;

Chapter One presents a conceptual literature review using a systematic approach that aims to offer an indication of the literature examining attachment style and offending behaviour. The main objectives of the review are to determine if attachment theory is applicable to an offending population, its contribution in understanding offending behaviour and to examine if there are differences in attachment style's across different types of serious offender (i.e. sexual and violent).

Having identified the current literature on offending behaviour, Chapter Two presents a research study exploring attachment, anger and violence in a high secure hospital. It is thought that this population would have extensive violent histories and high rates of institutional violence which warranted their detention in a high security hospital. The main objectives of the research are to determine if insecure attachment is a feature of the population (as would be predicted) and whether attachment style is related to anger scores and recorded incidents of violence in the hospital. Finally, the research aims to investigate if institutional violence can be predicted by attachment style. It is hoped that findings will have implications for understanding violence in institutions and contribute to the management and treatment of men in high security hospitals.

Given the potential role of anger in violent behaviour, it is essential to be able to measure anger expression in offenders. One of the most commonly utilised tools is the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999). Thus, Chapter Three presents a critique of STAXI-2 and its validity with a forensic population. The critique gives a summary of the psychometric measure and its psychometric properties, including validity, reliability and also outlines limitations.

Overall it is hoped that by exploring attachment style in offender's effective treatment can be offered to reduce the likelihood of future violence and also help manage offenders in institutional settings.

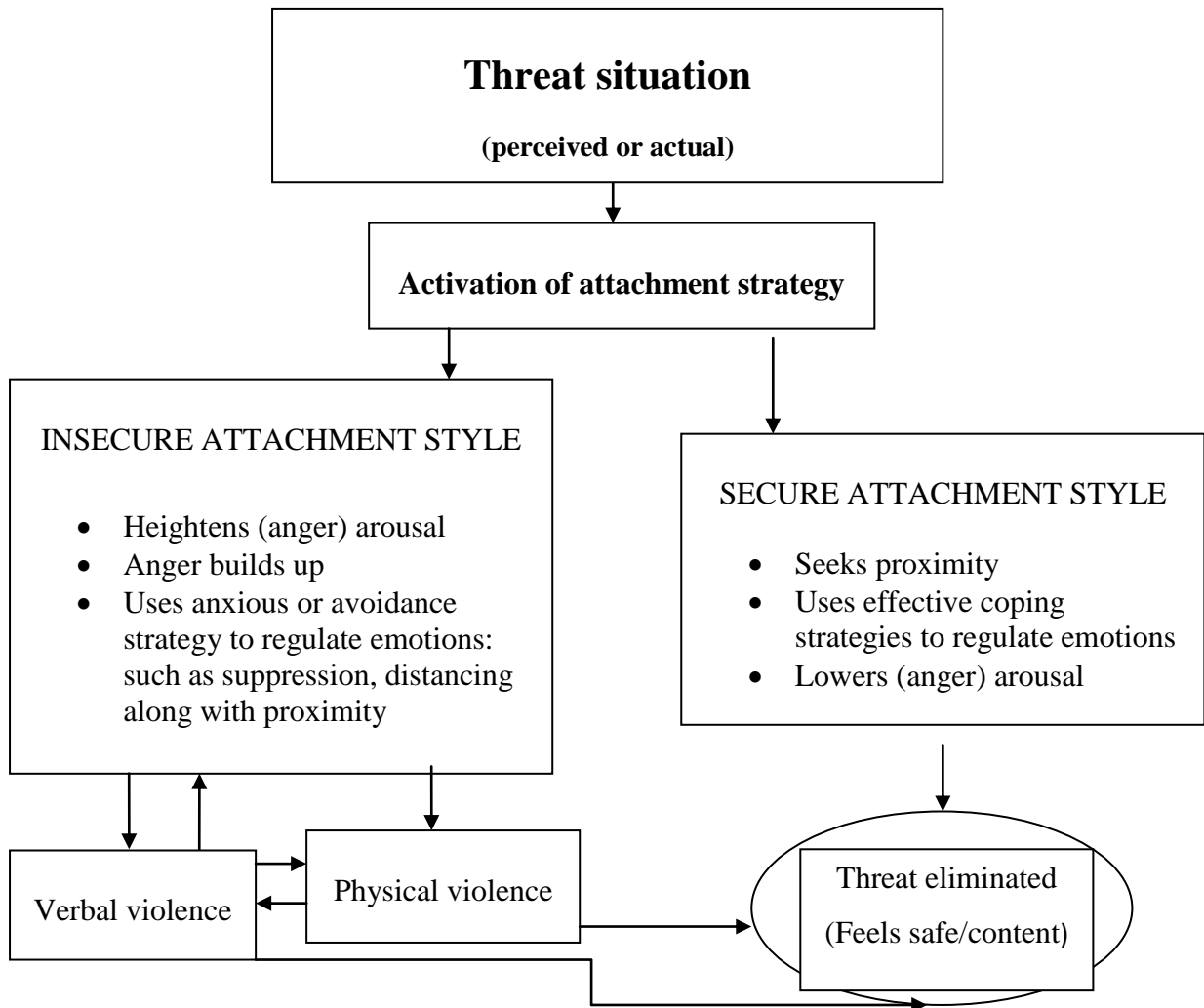


Figure 2. Hypothetical model of attachment, anger and violence based on literature

Chapter One

Attachment Style and Offending Behaviour: A Systematic Approach

Abstract

Attachment theory has been used to explain the internal processes of the offender, which can be beneficial in the risk assessment and treatment of sexual and/or violent offenders, trying to make sense of external behaviours. No previous literature review using a systematic approach examining attachment style and offending behaviour has been published. Therefore, the main objectives of this review were to identify: 1) is there a relationship between attachment style and offending behaviour generally? 2) is there a difference in attachment style between sexual and violent offenders?, and 3) what implications does attachment style have for understanding offending behaviour?

The inclusion criteria for studies were: males aged 18 years or above who have committed an offence, studies that look at offender type and attachment style, studies that compare different type of offenders (i.e. sexual and violent offenders) or those that compare offenders with the general population, the use of an appropriate validated attachment assessment measure and clear identification of attachment style and offender type. Peer-reviewed papers were the sole focus. A total number of 1565 hits were initially identified. After duplicate studies, irrelevant studies, those not meeting the inclusion/exclusion criteria were removed, 13 studies remained for quality assessment. Of these 13 studies, 4 were then excluded because the quality was deemed too low (i.e., 13/20 was the cut off score, lower than 60%). Therefore, 9 studies were reviewed.

The majority of studies were from outside the UK and found that insecure attachment was over-represented in an offending population, ranging from 64% to 97%. However, some found no differences between different types of offenders, while other research indicated that insecure attachment style was more specific to sexual offenders compared to violent

offenders or other type of offenders. In summary, more research is necessary on the potential differences in attachment style of violent and sexual offenders. Although models applying attachment theory to the understanding of sexual offending already exist, the same is necessary for other types of offenders (e.g. violent offenders) as this is currently absent in the literature, and this is an aim of chapter 2.

Introduction

Theories and models have been researched and developed as a way to increase our knowledge of the wide-ranging reasons for offending and processes underlying these behaviours. Through better understanding it is likely that effective management, treatment and prediction of future violence in offenders can be achieved. Theories and models have been used in an effort to know the motivation behind offending behaviour; these have included biological, sociobiological, cognitive, social cognitive, psychoanalytical, psychosocial, and affective theories. Attachment is an integrated theory that has been used to explain the internal processes of the offender and external behaviour.

In his original theory, Bowlby (1969, 1973, 1988) was interested in the link between childhood maternal loss and adulthood personality development. Bowlby proposed that individuals develop an ‘internal working model’ about relationships based upon expectations, beliefs and attitudes following-on from their childhood attachment experiences. In other words they form a guidance system about relationships, which consists of internalised expectancies (based on memories of past interactions) of an attachment figure’s responses to oneself and can lead to expectations of future relationships. When these memories are negative, it leads to negative cognitive biases in expectations of others behaviour. In brief, children need quality care from their caregiver which serves as a protective factor for later pathology.

An expansion of childhood attachment led to research looking at adult attachment classifications, particularly in the field of romantic attachment which measure current

attachment style (Fraley & Shaver, 2000; Sibley, Fischer, & Liu, 2005). Unlike caregiver-child attachment relationships, adult romantic attachment is mutual in the sense of giving and accepting care (Woods & Riggs, 2009). However, childhood attachment and adult attachment is connected to the way individuals seek proximity under conditions of perceived threat (anxiety) to elicit their distress. In childhood, this is through seeking proximity with their caregiver; in adulthood those with a history of distressing attachment relationships (unresponsive) with their caregiver respond to distress with intense, disorganised strategies (Smallbone & Dadds, 1998). This forms the basis of emotion regulation and expression of the individual.

Bartholomew and Horowitz (1991) derived and validated a four category model of adult attachment by drawing on Bowlby's (1988) theory of individual's view of self and others (see Table 1) and Hazan and Shaver's (1987) prototypical attachment style paragraphs. They used a student sample and individuals selected a paragraph (choice of three) that they felt best corresponded to the way they are/view close relationships. The model (Bartholomew & Horowitz, 1991) measures current close adult relationships and categorises them into type or style (i.e., secure, preoccupied, fearful and dismissive), which correspond with child attachment categories (Ainsworth, Blehar, Waters, & Wall, 1978). The model is based on the interaction of two underlying dimensions (view of self and view of others) and also identifies two forms of avoidant attachment style (fearful and dismissing; Figure 3). Since then, much of the literature about the assessment of adult attachment is aimed towards the two dimensions and four types identified in this model (Brennan, Clark, & Shaver, 1998).

Table 1

Types of attachment style (Bartholomew & Horowitz, 1991)

Attachment Style	Description
Secure (Autonomous)	Individuals who are secure in attachment style have a positive view of self, with high self esteem and a positive view of others, viewing others as warm and accommodating. Secure attachment develops from responsive and receptive parenting and is generally linked with future self-esteem and an ability to form close relationships with others. Secure individuals are able to regulate their emotions internally through effective techniques (Mikulincer & Shaver, 2007). Secure individuals have low attachment anxiety and low attachment avoidance.
Fearful (Avoidant)	Individuals who are fearful in attachment style have a negative view of self and a negative view of others. These individuals have a fear of rejection but desire closeness with others. Fearful attachment develops from negative, abusive and rejecting parenting leaving them feeling unlovable. Fearful individuals have high attachment anxiety and high attachment avoidance.
Preoccupied (Anxious/ Ambivalent)	Individuals who are preoccupied in attachment style have a negative view of self and a positive view of others, seeking approval from others. These individuals are anxious and afraid of intimacy. Preoccupied attachment develops from contradictory parenting or over-involved. Preoccupied individuals have high attachment anxiety and low attachment avoidance.
Dismissing (Avoidant; Angry- dismissing; Withdrawn)	Individuals who are dismissing in attachment style have a positive view of self and a negative view of others. These individuals value independence and are cynical about intimate relationships. Dismissing attachment develops from detached and unresponsive parenting. Dismissing individuals have low attachment anxiety and high attachment avoidance. They have difficulty regulating emotions internally and ineffective techniques such as hostility, distracting and separation (Maunder & Hunter, 2009).

In the literature, attachment has been measured both categorically (assigning one type of attachment to a person i.e. secure) and dimensionally (generating a scale score to suggest the extent a person has a type of attachment style). Categorisation assumes that individuals differ in category rather than degree (Bartholomew & Moretti, 2002).

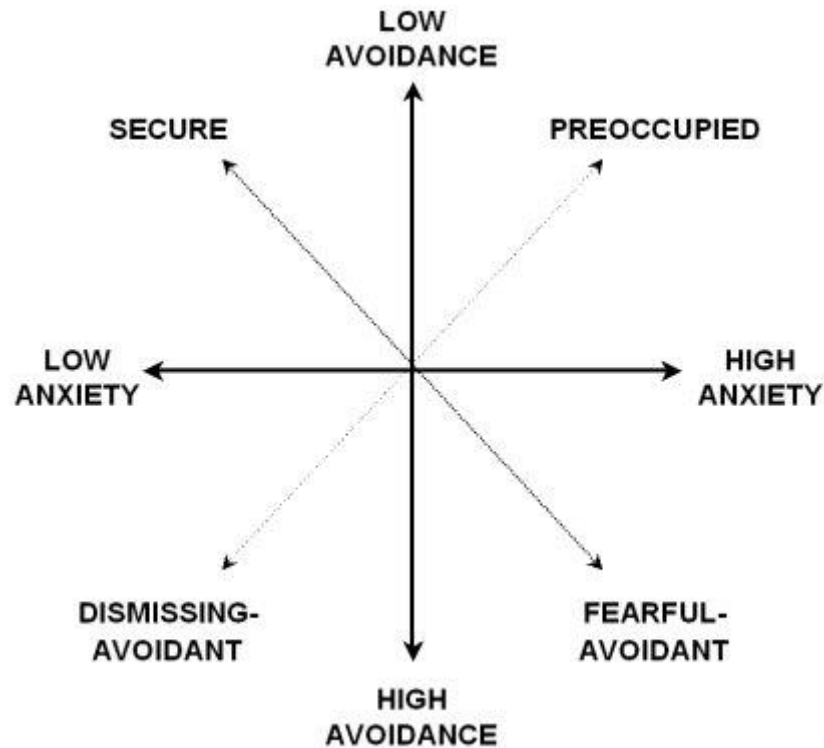


Figure 3. The two-dimensional model of individual differences in adult attachment (Brennan, Clark, & Shaver, 1998)

Fraley and Waller (1998) suggested that there should be a shift from using categorical assessments of attachment to graduated assessments of attachment style that produce a range of continuous scores because dimensional models of attachment are the most flexible and adaptive models of signifying individual differences (Fraley & Shaver, 2000). They propose attachment can be represented by two dimensional scales, one measuring level of avoidance

and one measuring level of anxiety. The anxiety scale captures the internalised model of self and the avoidance scale captures the internalised model of others as suggested by Griffin and Bartholomew (1994). Relatively low scores on both scales suggest a secure style (Figure 3).

Attachment measures

A number of interview and self report measures are available which focus on questions relating to relationships with caregivers as a child (e.g. the Adult Attachment Interview, George, Kaplan, & Main, 1985 and the Parental Bonding Instrument, Parker, Tupling & Brown, 1979). In addition questionnaires have been developed that measure attachment based on current rather than past relationships.

The Adult Attachment Interview (George, Kaplan, & Main, 1985) is lengthy to administrate, code and requires extensive training. The interview requires participants to reflect on their own childhood attachment experiences and assess likely impact of these experiences on their own development and behaviour. Adults that are rated as secure seem comfortable reflecting on their childhood experiences and are comfortable with closeness and their own emotions (Main, 1995), adults rated as preoccupied seem fearful, angry or confused about relationships, adults rated as dismissing remember very little from their childhood, providing brief responses and adults rated as unresolved/disorganised still are affected by unresolved trauma or loss (Hesse & Main, 1999).

Practical limitations of interview-based research have led to the development of a large number of self-report instruments to measure adult attachment (Brennan, Clark, & Shaver, 1998). In contrast to interviews, self-report attachment measures such as the Relationship Scale Questionnaire (RSQ; Griffin & Bartholomew, 1994) and The Experiences of Close

Relationships-Revised (ECR-R; Fraley, Waller, & Brennan, 2000) are scored and analysed without difficulty which make them ideal for research purposes (Ma, 2006). However, self-report questionnaires have often been criticised, for their theoretical basis, to tap into the unconscious and the reliance of the individual to accurately report how they view themselves and interact in close relationships. In support of self-report measures, though, due to the fact that questions investigate current attachment style/ close relationships, they do not elicit defensive responses about negative childhood experiences as none of the questions require the individual to reflect on their childhood experiences, rather reflect on their present relationships (Bartholomew & Moretti, 2002).

Attachment and offending

In itself, an insecure attachment style will not result in offending behaviour. Nevertheless, an insecure attachment has shown to contribute to a variety of interpersonal functional problems and *contribute* to offending behaviours (Gottfredson & Hirschi, 1990). Offending behaviour is multi-factorial and insecure attachment can be viewed as one factor that contributes to it (Van IJzendoorn et al, 1997; Ward, Hudson, & Marshall, 1996).

Looking more specifically at insecure attachment styles, Levinson and Fonagy (2004) suggest that offenders are more likely to be dismissing in their attachment style than non-offender controls, and that the capacity of forensic patients to reflect on mental states of self and others is significantly impaired, limiting their ability to empathise and this may make them more liable to offend. Thus, it has been suggested that different attachment styles are associated with different types of offending behaviour. Avoidant individuals (fearful/dismissing) may display antisocial behaviour in an attempt to create space for themselves from others (e.g. parents) or, by not adhering to rules, policies, regulations and laws, to show their lack of

concern for others (Allen, Moore, Kuperminc, & Bell, 1998). Those with a preoccupied attachment style may engage in offending behaviour as a way of crying out in an attempt to get attention and care, or as a way of expressing anger and bitterness (Allen, Moore, Kuperminc, & Bell, 1998).

Given that a link has been made with early adverse experiences and later offending behaviour (Farrington, 1997) an exploration of attachment styles in an offending population is warranted.

Aims and objectives

There are no systematic literature reviews that explore attachment style and offending behaviour, either in terms of specific offences (i.e., sexual offending) or more broadly capturing a number of offending groups. Therefore, all available studies that clearly define attachment style and use an appropriate measure of attachment within a male offending population were considered in relation to the following:

- 1) Is there a relationship between attachment style and general offending behaviour?
- 2) Is there a difference in attachment style between sexual and violent offenders?
- 3) What implications does attachment style have for contributing to an understanding of offending behaviour?

Method

Data sources

Initially a search was completed of the Cochrane Library (all years, completed on 16th December 2009). No systematic reviews were identified. In order to identify primary studies to address the review question a search on the following online database systems was conducted:

- 1) PsycINFO 1806 to May Week 4 2012
- 2) EMBASE CLASSIC 1947 to 2012 Week 21
- 3) EMBASE 1974 to 2012 Week 21
- 4) Ovid MEDLINE 1946 to May Week 3 2012

Search strategy

In December 2009 (updated and re-reviewed May 2012), an initial scoping search was conducted in order to assess the likely volume and quality of evidence to answer the objective. For this review, only studies with male offenders in which attachment style was specifically measured were included. The search was limited to peer-reviewed English language studies only. All articles were downloaded from an online database and retrieved electronically. Attempts were made to collect journals unavailable electronically from the University of Birmingham. The search terms used on the electronic database were:

Attachment style* OR Attachment*

AND

Offender OR Offend*OR Criminal*Offender OR Offend*OR Criminal

For the purpose of identifying whether there is a relationship between attachment style and offending behaviour to merit a research project exploring attachment style with an offending population the initial scoping exercise was able to rationalise only using these search terms as all the relevant studies were captured under these terms, a number of terms were used in the first instance (e.g., perpetrator) to see if different studies would be captured. However, this was not the case as the focus was on offending behaviour (e.g., sex offending) rather than perpetrator characteristics (e.g., impulsive) and additional terms which had previously been used as part of the scoping exercise was not required.

Study selection

The title and abstracts identified through the searches were scanned for relevance. Duplications were also removed at this stage. The remaining studies were reviewed using the following inclusion and exclusion criteria:

- Population: Males aged 18 years or above (no upper age limit was applied) who have committed an offence. This was to keep the systematic review focused as a separate literature exists for younger/juvenile offenders (Farrington, 1995). In addition, the research focuses on adult offenders and a systematic literature review on this group would be more relevant.
- Intervention: Studies that look at offender type and attachment style.

- Comparator: Studies that compare different type of offenders (i.e. sexual and violent offenders) or those that compare offenders with the general population.
- Outcomes: Use of an appropriate validated attachment assessment tool and clear identification of attachment style and offender type.
- Exclusion: Narrative reviews, doctoral dissertations, editorials, commentaries or other types of opinion paper, single case studies, female offenders, juvenile offender and studies that do not use an appropriate measure of attachment style.
- Language: English only

Quality assessment

After excluding studies that did not meet the inclusion criteria, qualities of each study were assessed based on a checklist established before the review. A copy of the quality assessment checklist can be found in Appendix 1. The quality assessment was adapted and derived from sample quality assessments forms used by previous doctoral students for their theses.

A scoring system was applied as follows:

Criteria fully met=2

Criteria partially met=1

Criteria not met=0

Unclear/ insufficient information

The overall score for each study was calculated by adding the scores for each of the ten items (highest possible score 20). Higher scores reflected a better quality article. Studies that obtain a score of 13-20 were included in the review and were viewed as high quality (65% plus),

below this score (60% or less) they were viewed as poor quality and were not included in the review.

Data extraction and syntheses

A total number of 1565 hits were initially identified. There were 207 duplicate studies that appeared in more than one search engine and these were therefore removed. This left 1358 studies, a further 748 were deemed not relevant after reviewing title and abstracts and 597 did not meet the inclusion/exclusion criteria based on the full text. This left 13 studies that were included for quality assessment. Of these 13 studies, 4 were excluded due to not meeting the quality threshold (score of 13-20). Therefore, 9 studies were included in the review (Figure 4). Data was extracted using a form established prior to the review noting the quality assessment score and the number of unclear or unanswered questions from the study.

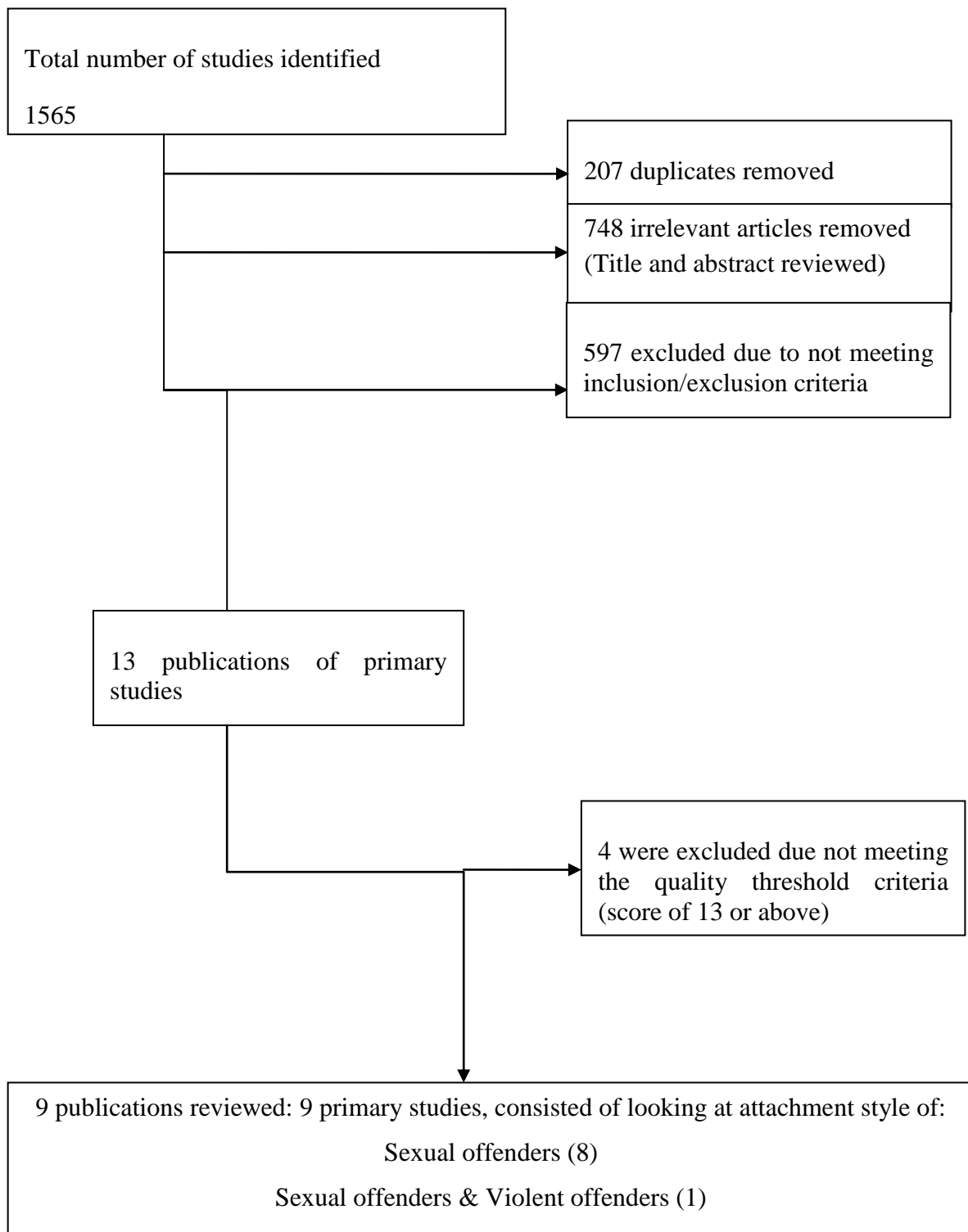


Figure 4. Search results of systematic review

Results

As Table 2 shows, all studies focused on the attachment style of sex offenders primarily and differences among different types of sexual offender (including child molesters and rapists of adult victims), while one (Baker & Beech, 2004) looked at violent offenders primarily as well. All the studies compared their primary type of offender with a different type of offender (non-sexual offender) or/and a control group of participants with no offending history (see Table 2 for more detail).

In terms of demographic detail, little information was given about ethnicity, only three studies commenting on their samples ethnicity, in these studies 69.3% were Caucasian (Lyn & Burton, 2004), 83% European American (Wood & Riggs, 2008), 63% European American (Wood & Riggs, 2009). The age of participants in the studies ranged from 18-75.

The sample size of the studies ranged from 56-188 (M=118). The country the studies were published also varied with one study being from the UK, one from Canada, two from New Zealand, two from Australia and three from American.

The studies all used a control group for comparison, suggesting good internal validity of the studies. Studies either used a group who had not committed any offences, a different offender group (e.g., violent non-sexual offenders) or both as controls.

Table 2

Overview and critique of the research studies included in the systematic review

Authors and year of year	Aim of the study	Measure of attachment	Sample population and setting	Main findings	Quality score
Baker & Beech, 2004 (UK)	To explore attachment style in sexual and violent offenders compared to a community sample	Relationship Scale Questionnaire	N= 56 20 rapists 15 violent offenders 21 community sample Various prisons	Correlational analysis and Chi-squared analysis found no statistically significant relationship was found in self reported attachment styles. Although child molesters were more likely than non-offending participants to report fearful or preoccupied attachment styles, however this was not statistically significant.	14/20
Hudson & Ward, 1997 (New Zealand)	To explore attachment style in child molesters, violent offenders and non-sexual non-violent offenders and compare it to several interpersonal variables.	Relationship Questionnaire	N= 147 55 child molesters 30 adult rapist 32 violent offences 30 non-sexual or violent offences	Chi-squared analysis found no statistically significant differences between offender type and attachment style. Correlational analysis found a statistically significant relationship between anger control subscale scores (as measured by the State Trait Anger scale; Spielberg, 1988) and type of offender, $F_{(3,147)} = 2.79$,	16/20

			Medium security prison	<p>p= .04, with child molesters reporting more control than violent offenders.</p> <p>Correlational analysis found a statistically significant relationship between Loneliness scores (as measured by the Revised UCLA Loneliness Scale; Russell, Peplau, & Cutrona, 1980) and attachment style, $F_{(3,147)}=3.96$, $p<.01$ with both secure and dismissing attachment style reporting significantly lower loneliness scores.</p>	
Lyn & Burton, 2004 (America)	To explore if insecure attachment is a feature of sexual offenders compared to non-sexual offenders and if there is an association with victim type.	Experience in Close Relationships	<p>N= 178 144 sexual offenders 4 non-sexual offenders</p> <p>Low security prison</p>	<p>Chi-squared analysis found a statistically significant relationship between fearful attachment and sexual offending, $\chi^2_{(1, 154)}=11.22$, $p<.001$.</p> <p>85.3% of sexual offenders had an insecure attachment (56% Fearful, 17.1% Preoccupied, and 11.6% Dismissing). 64% of non-sexual offenders had an insecure attachment (20% Fearful, 20% Preoccupied, 24% Dismissing).</p> <p>Correlational analysis found no significant relationship with attachment style and relationship to victim and severity of act.</p>	15/20
Marshall, Serran, &	To explore attachment style, and sexual abuse in	Childhood Attachment	<p>N= 83 29 non-</p>	<p>MANOVA analysis found no differences between groups on either maternal attachments or paternal</p>	13/20

Cortoni, 2000 (Canada)	child molesters and non-sexual offenders	Questionnaire	offenders 30 child molesters 24 non-sexual offenders Maximum and medium security prison	attachments and no difference between childhood sexual abuse and poor coping or insecure attachments. ANOVA analysis found a statistically significant difference with child molesters more likely to display emotion-focused coping than non-sexual offenders and non-offenders, $F_{(2, 80)} = 6.06, p < .004$.	
Sawle & Kear-Colwell, 2001 (Australia)	To explore attachment style and abuse history in male child molesters	Attachment Style Questionnaire	N= 70 23 Uni students 22 offenders victims of sexual assault 25 child molesters Community and custodial centre	ANOVA analysis found a statistically significant difference in adult attachment style between the three groups, with controls and victims recording significantly higher scores on the secure attachment scale, $F_{(2,67)} = 6.42, p < .005$. Child molesters and victims were had higher rates of insecure attachment compared to the University students.	14/20
Smallbone & Dadds, 1998 (Australia)	To explore attachment style in different types of sexual offenders	Relationship Scale Questionnaire Childhood Attachment	N= 80 16 adult rapists 16 intrafamilial child molesters 16 extrafamilial child molesters	Correlational and ANOVA analysis found that sex offenders had higher rates of insecure attachment style compared to non-offenders, $F_{(1,61)} = 6.49, p = .001$. Secondly sex offenders were less secure in their maternal attachments compared with the property offenders, $F_{(1, 61)} = 3.08, p = .042$.	13/20

		Questionnaire	16 property offenders 16 custodial correctional officers Correctional centre	Their hypothesis that extrafamilial child molesters would report more avoidant attachment than the other groups was not supported.	
Ward, Hudson, & Marshall, 1996 (New Zealand)	To explore attachment style in sexual offenders	Relationship Scale Questionnaire Relationship Questionnaire	N= 147 55 child molesters 30 rapists 32 violent 30 non-violent, non-sexual offenders Medium security prison	Chi-square analysis found a statistically significant difference between groups, $\chi^2_{(9)} = 19.68$, $p < .02$. Child Molesters were more likely to have fearful attachment style than non-offenders but so were violent offenders. Child molesters, violent offenders, and non-violent offenders had significantly higher rates of preoccupied attachment style compared to rapists. They concluded that men who had adult victims (rapists) and violent aggressive offenders were more likely to be dismissing in their attachment style. All offending groups were found to be significantly insecurely attached when compared to the general population.	17/20

Wood & Riggs, 2008 (America)	To explore attachment style in child molesters	Experience in Close Relationships	N= 112 61 paroled child molesters 51 community sample Community and custodial setting	Logistic multiple regression analysis suggests that attachment anxiety cognitive distortions regarding adult-child sex, and inconsistent empathic attitudes together predict child molester status. There finding suggest preoccupied and fearful contributes to the link of sex offending.	15/20
Wood & Riggs, 2009 (America)	To explore attachment style in child molesters	Experience in Close Relationships	N=188 96 paroled child molesters 92 community sample Community and custodial setting	Chi-square analysis found a significant difference between the two groups, $\chi^2 (3, 188) = 20.05, p < .01$, The community sample more likely than child molesters to be classified as secure, and child molesters more likely to be classified as fearful or preoccupied.	15/20

Description of studies

Two studies used the same sample but analysed the data differently and asked a different research questions therefore they will be discussed as two separate studies (Hudson & Ward, 1997; Ward, Hudson, & Marshall, 1996). However, caution must be taken as the same sample was used in both published studies. Bias may occur when using secondary data as the researcher is already aware of the results and by asking a similar question using the same data-set is able to provide further support for their original research question. In contrast, using a different data-set (sample) might show non-significant results and not support the original findings.

Of the nine studies, three looked at attachment style between different types of sexual offenders and non-sexual offenders (Hudson & Ward, 1997; Lyn & Burton, 2004; Ward, Hudson, & Marshall, 1996). Three of the studies looked at attachment style differences between different types of sex offender, non-sexual offenders and non-offenders (Baker & Beech, 2004; Marshall, Sarran, & Cortoni, 2000; Smallbone & Dadds, 1998). Two of the studies examined attachment style between child molesters and non-offenders (Wood & Riggs, 2008; Wood & Riggs, 2009) and one study examined attachment style between non-offending victims of child sexual abuse and child molesters (Sawle & Kear-Colwell, 2001).

The majority of studies found that insecure attachment was prevalent in an offending population. Comparing insecure attachment style between sex offenders and non-offenders found that sex offenders had a significantly higher rate of insecure attachment compared to the general population; for example, 85.3% of sex offenders in one study were insecurely attached (Lyn & Burton, 2004) compared to 27% of the general population (Wood & Riggs, 2009).

However, non-sexual offenders were also found to have higher levels of insecure attachment compared to the general population. For example, 64% of non-sexual offenders were insecurely attached (Lyn & Burton, 2004) and 97% of violent offenders were insecurely attached (Ward, Hudson, & Marshall, 1996). This could indicate that offenders in general differ from non-offenders in terms of attachment style.

Descriptive data synthesis

Ward, Hudson and Marshall (1996) recruited participants from a medium secure prison in New Zealand. Their participants consisted of 55 Child molesters, 30 rapists (adult victims), 32 violent offenders, and 30 non-violent and non-sexual offenders. Administering the RQ and RSQ they found that there was no significant difference among the four offender groups on the secure dimension. However, there were significant differences across the groups on insecure styles, with child molesters having higher rates of preoccupied attachment style compared to both violent and non-violent offenders ($\chi^2_{(9)} = 19.68, p < .02$). They also found fearful scores with both child molesters and violent offenders being significantly higher than non-violent non-sexual offenders, and dismissing scores with rapists and violent offenders being higher than the child molesters and non-violent non-sexual offenders. They concluded that men who had adult victims (rapists) were more likely to be dismissing in their attachment style whilst violent offenders (whether their victims are children or adults) were more likely to be dismissing in their attachment style. Therefore there was a difference among offender type.

Hudson and Ward (1997), using the same sample, re-analysed the data and asked a different question, using the RQ they wanted to compare attachment with interpersonal variables (such as anger and loneliness) which their first study did not do, they found that 21% were securely

attached, 12% preoccupied, 33% fearful and 35% dismissing in attachment style. No significant differences were found between offender type and attachment style although child molesters were more likely to be preoccupied or avoidant in attachment style. On the additional psychological measures child molesters were found to have greater control in managing their anger ($F_{(3, 147)} = 2.79, p = .04$), and secure and dismissing attachment style lower loneliness scores ($F_{(3, 147)} = 3.96, p = .01$).

Smallbone and Dadds (1998) recruited participants from three correctional centres from Australia. The sample included 16 adult rapists whose victims were unknown to them, 16 intra-familial child molesters, 16 extra-familial child molesters, 16 property offenders and 16 custodial correctional officers were used as controls in the study. Administering the CAQ and RSQ they firstly found that sex offenders had higher rates of insecure attachment style, compared to the non-offenders ($F_{(1, 61)} = 6.49, p = .001$). Secondly, that sex offenders were less secure in their maternal attachments compared with the property offenders ($F_{(1, 61)} = 3.08, p = .042$). Their hypothesis that stranger rapists would report more avoidant attachment than the other offending groups was not found. They concluded that an insecure attachment style, which is developed in childhood, potentially places some men at risk of offending in adulthood.

Marshall, Serran and Cortoni (2000) recruited participants from a medium and maximum-security Canadian prison, none of whom had engaged in treatment programmes (30 child molesters, 24 non-sexual offenders and a control group of 29 community non-offenders). Administering the CAQ they found no differences between groups on either maternal attachments or paternal attachments. Insecure maternal attachment was significantly

predictive of poor coping ($F_{(2, 80)} = 6.06, p = .004$). In conclusion, they found no significant differences among attachment style and offender group.

Sawle and Kear-Colwell (2001) recruited participants from custodial and community based treatment programmes in Australia. The sample consisted of 25 child molesters and 22 University student controls and a victim sample of 22 men who were non-offending victims of abuse occurring before the age of 14. Adminstrating the ASQ they found a significant difference in adult attachment style between the three groups, with controls and victims recording significantly higher scores on the secure attachment scale ($F_{(2,67)} = 6.42, p < .005$). They concluded that child molesters and victims had a higher rate of insecure attachment compared to the University students.

Baker and Beech (2004) carried their research in two English prisons. Participants were 20 men in prison for sexual offences against adults, 15 men in prison for violence against adult men, and a comparison group of 21 men living in the community with no convictions of either sexual or violent offences. Adminstrating the RSQ, they found no significant relationships in self-reported attachment dimensions.

Lyn and Burton (2004) carried out their research in a low security prison in America. The prison consisted of 900 prisoners, of which 600 had committed sex offences and 300 had committed other offences. All prisoners were invited to take part and 178 prisoners volunteered (19.8%). Of these 144 were sex offenders and 34 were not. The hypothesis that insecure attachment would be significantly linked with sexual offenders was supported. Adminstrating the ECR, they found high rates of insecure attachment in both the sexual and non-sexual offenders sample; 85.3% Sexual offenders had an insecure attachment (56% Fearful, 17.1% Preoccupied, and 11.6% Dismissing). 64% of non-sexual offenders had an

insecure attachment (20% Fearful, 20% Preoccupied, and 24% Dismissing). Measuring criminal behaviour they identified that the two groups had no differences. They concluded that insecure attachment style and offending behaviour is associated.

Wood and Riggs (2008) carried out their research contacting community treatment providers in America. 61 sex offenders convicted of child molestation compromised the experimental group and a group of 51 non-offending community controls were used. The final sample consisted of 112 between the ages of 21 and 69 ($M=39.07$, $SD=11.13$). Administering the ECR, results indicated that child molesters as a group tend to have negative internal working models of self and experience high levels of anxiety in adult relationships. Attachment anxiety was a significant predictor of child molester status. Their findings suggest preoccupied and fearful attachment style is associated with sexual offending.

Wood and Riggs (2009) carried out their research by contacting community treatment providers in America. The sample consisted of, 96 child molesters who were receiving sex offender treatment and a comparison group of 92 non-offending males recruited through local business, neighbourhoods' and church. The final sample consisted of 188 men aged between 19 and 77 ($M=42.04$, $SD=12.44$). Child molesters had significantly higher rates of fearful or preoccupied in attachment style compared to the non-offending participants.

Evaluation

a) Population

The population of offenders were mainly drawn from either a prison sample; these ranged from low, medium and high secure prisons (Baker & Beech, 2004; Hudson & Ward, 1997; Lyn & Burton, 2004; Marshall, Serran, & Cortoni, 2000; Ward, Hudson, & Marshall, 1996;

n=5) or a community and custodial setting (Sawle & Kear-Colwell; 2001 Smallbone & Dadds, 1998; Wood & Riggs, 2008; Wood & Riggs, 2009; n=4). Where the participants were recruited from did not have implications for significant or insignificant results, for example some prison samples did find a difference among attachment style (e.g. Ward, Hudson, & Marshall, 1996) while others did not (e.g. Baker & Beech, 2004).

b) Measurement of attachment in studies

The studies varied in their measurement of attachment. As outlined in Table 3, all used one of five self-report measures of attachment. These were the Attachment Style Questionnaire (ASQ; Brennan, Clark & Shaver, 1998; n=1), the Childhood Attachment Questionnaire (CAQ; Hazan & Shaver, 1987; n=1), the Experience in Close Relationships (ECR; Feeney, Noller, & Hanrahan, 1994; n=3), the Relationship Style Questionnaire (RSQ; Griffin & Bartholomew, 1994; n=1), and the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991; n=1). Two studies used a combination of either the RQ and RSQ or the CAQ and ASQ.

The questionnaires all conceptualise attachment style differently. The CAQ generates three style styles: Secure, Anxious and Avoidance. The ASQ generates five styles: secure, insecure preoccupation with relationships, insecure discomfort with closeness, insecure relationships as secondary and insecure need for approval. The ECR, RSQ and RQ generate four styles: secure, fearful preoccupied and dismissing or a two dimensional score: view of self (anxiety) and view of other (avoidance).

Whether a significant difference was found or not did not depend on the attachment measure used. For example in one study the RSQ findings did not show a difference among offender type (Baker & Beech, 2004) and in another study it did (Ward, Hudson, & Marshall, 1996).

Similarly in one study the CAQ did not find a difference with child molester and non-sexual offenders (Marshall, Serran, & Cortoni, 2000) and in another it did find a difference with sexual offenders and property developers (Smallbone & Dadds, 1998).

Table 3

Attachment measures used in studies

Measurement of attachment	Study/ Authors
Attachment Style Questionnaire (ASQ) Feeney, Noller & Hanrahan, 1994	Sawle & Kear-Colwell, 2001;
Childhood Attachment Questionnaire (CAQ) Hazan & Shaver, 1987	Marshall, Serran & Cortoni, 2000; Smallbone & Dadds, 1998*
Experiences in Close Relationships (ECR) Brennan, Clark & Shaver, 1998	Wood & Riggs, 2008; Wood & Riggs, 2009; Lyn & Burton, 2004
Relationship Questionnaire (RQ) Griffen & Bartholomew, 1994	Hudson & Ward, 1997; Ward, Hudson & Marshall, 1996*
Relationship Scale Questionnaire (RSQ) Bartholomew & Horowitz, 1991	Baker & Beech, 2004; Ward, Hudson & Marshall, 1996*; Smallbone & Dadds, 1998*

*Used two measures of attachment

C) Quality assessment scores

In terms of quality assessment the scores ranged from 13-17 out of 20, making all the studies not considerably different in terms of good quality. All the studies used an unbiased sample

(volunteered to participate), all had a control group made up of non offenders or a different type of offender, all used a standardised attachment measure and had a robust sample size.

d) Findings

As Table 4 identifies, a number of the studies found offenders (sexual offenders) had significantly higher rates of insecure attachment style when compared to non offending controls (Marshall, Serran, & Cortoni, 2000; Sawle & Kear-Colwell, 2001; Smallbone & Dadds, 1998; Wood & Riggs, 2008, 2009; n=5). In addition, a number of the studies found that sexual offenders had significantly higher rates of insecure attachment style when compared to violent offenders (Lyn & Burton, 2000; Smallbone & Dadds, 1998; Ward, Hudson, & Marshall, 1996; n=3). One study also found differences within insecure attachment style (fearful, preoccupied, and dismissing) and type of offender (Marshall, Ward, & Hudson, 1996). Surprisingly, one study did not find any differences in attachment style when comparing sexual offenders, violent offenders and non offending controls (Baker & Beech, 2004). Given that this was the only research conducted in the UK, it highlights a need for more research in the UK.

The offence paradigms in each study i.e. what constitutes a violent offender or non sexual/non violent offender was unclear as all the studies did not give much detail on this and therefore when making direct comparisons this should be kept in mind. This could also give an explanation to why some papers did or did not find differences in attachment style among different offending groups (Table 4).

Table 4

Attachment style differences across types of offender and/or non offending controls

Study	Quality score	Significant differences found between different types of offenders?	Significant differences found between control group of non offenders?	Explanation
Baker & Beech, 2004	14/20	NO	NO	No significant relationships were found when attachment style was compared in sexual offenders, violent offenders and non offending controls.
Hudson & Ward, 1997	16/20	NO	-	No significant relationships were found when attachment style was compared in sexual offenders (child and adult victims), violent offenders and non sexual or violent offending who were detained.
Lyn & Burton, 2004	15/20	YES	-	Insecurely attached individuals were more likely to be sexual offenders compared to non sexual offenders. Fearful attachment style was associated with a sexual offending history.

Marshall, Serran, & Cortoni, 2000	13/20	-	YES	Paedophiles scored significantly lower than the control group on secure attachment style.
Sawle & Kear-Colwell, 2001	14/20	-	YES	Sex offenders would report less secure childhood and adult attachment than would non offending controls.
Smallbone & Dadds, 1998	13/20	YES	YES	Sex offenders had higher rates of insecure maternal childhood attachment compared to non offenders. Sex offenders had higher rates of insecure maternal childhood attachment compared to property offenders.
Ward, Hudson, & Marshall, 1996	17/20	YES/NO	-	Violent offenders were more likely to have a dismissing attachment style. Child molesters were more likely to have a fearful attachment style. Insecure attachment was higher in all offender groups.
Wood & Riggs, 2008	15/20	-	YES	Child molesters were more likely than non offending participants to have high attachment anxiety and negative view of self.
Wood & Riggs, 2009	15/20	-	YES	Child molesters were more likely than non offending participants to have a fearful or preoccupied attachment style.

Discussion

This systematic review considered nine papers looking at the role of attachment in offending behaviour that were evaluated as being of reasonable quality. However, all but one of the papers was specific to sexual offenders with one comparing sexual offenders to violent offenders. Specifically, the systematic review aimed to answer the following question.

1) Does a relationship exist between attachment style and offending behaviour?

An insecure attachment is overrepresented in a male offending population, compared to a non-offending sample. All the studies identified in the systematic review showed that offenders had higher rates of insecure attachment compared to a secure attachment. The focus of the studies was with sexual offenders and/or comparing them to violent offenders or a community sample. Offending behaviour in general was not specified in the papers. It is therefore more appropriate to discuss findings in terms of sexual or violent offenders rather than general offending behaviour.

2) Is there a difference in attachment style between sexual and violent offenders?

Attachment theory has been able to contribute to the understanding of sexual offending. An observation often made about these offenders is that they have difficulty in establishing and maintaining close relationships (Hudson & Ward, 1997). It may be that the inability for sexual offenders to develop secure attachment relationships in childhood result in a failure for them to learn the interpersonal skills and self-assurance necessary to achieve intimacy with others in adulthood. These failures possibly then lead to maladaptive ways in gaining intimacy, which include sexual offending (Ward, Hudson, & Marshall, 1996).

The literature review suggested that insecure attachment may be associated with offending behaviour (in particular sexual behaviour) because higher rates of insecure attachment style were found in offending populations, compared to non offending populations (Lyn & Burton, 2004; Ward, Hudson, & Marshall, 2006; Wood & Riggs, 2009).

In the understanding of violent offending, a model of reflective functioning has been offered (Fonagy & Target, 1997; Fonagy, 2003). Fonagy suggests that the development of a secure attachment in childhood enables individuals the capacity to understand their own mental state and the mental state of others. Individuals with an insecure attachment do not learn the ability to mentalise effectively (the ability to think about other people's thinking) and by viewing others as objects rather than individuals, with their own thoughts, feelings, behaviours and motives are more liable to offend with little feeling of remorse. This arises from childhood experiences that did not promote the child taking on the perspective of others due to the hostility of their caregiver deterring them in doing so and a failure to achieve an understanding of traumatic interpersonal situations in adulthood due to unprocessed childhood trauma (Hansen, Waage, Eid, Johnsen, & Hart, 2011).

The evidence concerning if an insecure attachment is specific to sexual offenders or more generally to offenders and offending behaviour was contradictory. These contradictory results emphasis the need for further research on whether insecure attachment is specific to sexual offending or is a characteristic of offending behaviour overall. Research evidence suggests that the problematic histories of violent and sexual offenders are both characterised by neglect, violence and disturbance although clear distinctions have not been found between different offending groups (Haapasalo & Kankkonen, 1997). More research is required to explore violent offenders' attachment styles as the studies all primarily focus on sexual

offending, which makes it hard to compare. The lack of research looking at violent offenders highlights the need for further investing.

Within the sex offender group different insecure attachment styles have been linked to different type of sexual offence. For example, adult rapists are more likely than controls to have a dismissing attachment style, which is linked with the hostility and little regard for others (Baker & Beech, 2004). The review highlighted that child molesters are more likely than controls to display a fearful or preoccupied attachment style (Ward, Hudson, & Marshall, 1996; Wood & Riggs, 2009).

Dutton, Saunders, Starzomski and Bartholomew (1994) attempted to identify the attachment styles of men who perpetrated intimate partner violence. They found that perpetrators of intimate partner violence represented all three types of insecure attachment, (fearful, preoccupied and dismissing) and each style had particular defence mechanisms as a way to manage attachment anxiety. Those with a fearful attachment style showed behaviour of both avoidant and preoccupied, they experience attachment anxiety and avoidance, fearing rejection if attachment figure is too distant. Those with a preoccupied style try to please in an attempt to seek acceptance from others. They often present as very self-controlled except when experiencing loss anxiety, when they became very clingy and angry. Those with a dismissing attachment style present as detached emotionally, with limited empathy, cold and unconcerned in close relationships. They can, therefore, change between being distant emotionally to critical and controlling and do not have an organised strategy for dealing with attachment anxiety.

3) What implications does attachment style have for contributing to an understanding of offending behaviour?

The review has highlighted that attachment style is related to sexual behaviour as well as violent behaviour. Even though differences were found in some studies between sexual and violent offenders it is important to note that high rates of insecure attachment were also found in violent offenders. It can therefore be suggested that insecure attachment is applicable in understanding a variety of offender types but future research looking specifically at violent offender's attachment style would be useful, however clustering all offenders under insecure maybe enough and not separating individuals into offence type.

By conducting the review, an insecure attachment can be viewed as one feature in a multi-factorial explanation of sexual offending as the literature on sexual offending has moved away from single factor explanations to models that combine a number of aspects that play a part in understanding the origins and continuation of sexual offending (Polaschek, 2006). Three key areas have been researched and identified in understanding sexual offenders and their early attachment experiences (McCormack, Hudson, & Ward, 2002).

The first is exploring their attachment style and its relationship with intimacy deficits, and offending behaviour. Ward, Hudson, Marshall and Siegert (1995) expanded the literature looking at sexual offending and insecure attachment to explore in-depth the different types of sexual offending and the three styles of insecure attachment. Their attachment model aims to provide an understanding of the relationship between intimacy deficits and sexual offending and provides a detailed account of how these deficits combined with others factors (such as cognitive distortions) may result in sexual offending. They suggested that if sex offenders are insecurely attached, it is likely that aspects of their sex offending (e.g. violence or

impulsiveness) may be associated with the different types of insecure attachment style. The model suggests that those with a preoccupied style may seek emotional closeness with children, those with a fearful style may commit non-contact sexual offenders, whilst those with a dismissing style have aggressive and sadistic tendencies (Smallbone & Dadds, 1998). This maps onto research carried out by Main, Kaplan and Cassidy (1985) in which child with an avoidant attachment style were found to display aggressive and antisocial behaviour, whilst anxiously attached children as impulsiveness.

The second is concerned with early developmental experiences and its relationship with later sexual offending. Research has been consistent in supporting and establishing the stability of an individual's attachment style from infancy all the way through adulthood (Weinfield, Sroufe, & Egeland, 1999). The literature is also consistent in noting that the family backgrounds of sexual offenders are characterised by violence, neglect, and disturbance (Craissati, McClurg, & Browne, 2002) and sexual offenders have experienced a traumatic abusive childhood themselves and may not be able to develop secure attachments and seek out maladaptive ways of intimacy and closeness, they confuse sex with intimacy (Beech & Mitchell, 2005).

The third key area is concerned with adolescent/young offenders and their interactions with peers. However as the review targeted adult offenders this was not captured in the review and a large number of studies were not included in the review as the inclusion criteria of adults 18 years or over were not met. It is however important to acknowledge that a large area of research looking at attachment style in offenders focuses on younger offenders.

In summary, attachment theory has proved useful in understanding the offenders' early childhood experiences and its impact for later offending behaviour. The review has highlighted the gap in the literature regarding specific attachment styles of violent offenders and how their attachment styles may impact for later offending behaviour.

Limitations of the review

The main limitation throughout the studies in the review was 1) how attachment style is measured and conceptualised (e.g. categorical vs. dimensional approaches), 2) how sex offenders and non sex offenders were categorised. These were not consistent in each study therefore when making direct comparisons this should be kept in mind. Future research should 1) ideally measure attachment categorical and dimensional, same sample, to see if there are differences depending on the conceptualisation of attachment, 2) Take into consideration a violent and sexual group (i.e. sexual homicide) as some individuals have multiple offences and do not fit into one offence category.

Conclusion and recommendations

The majority of studies found that insecure attachment was overrepresented in an offending population; however, some found no differences between different types of offenders while other research indicated that insecure attachment style was more relevant to sexual offenders. These contradictory results emphasise the need for further research in to whether insecure attachment is more specific just to sexual offending or if it is a feature of offending behaviour overall. Even amongst those studies that have used the same attachment measure, differences occur in the way in which researchers have delivered, scored and analysed the measure (i.e. categorically or dimensionally). These methodological issues restrict any direct comparisons

that can be made between the study findings. The restricted use of self report measures always involves the possibility of response bias.

Attachment theory has been able to contribute considerably to the understanding of sexual offending. Models and theories have been developed from an attachment theory perspective in order to further our understanding of sexual offending. Further research is needed to consider other offending populations since the attachment styles of violent offenders or different offender type have yet not been identified (Ross & Pfafflin, 2007), nor has the importance of this for its application within an institutional setting.

Chapter Two

Attachment, Anger and Violence in a High Secure Hospital

Abstract

Research has highlighted that insecure attachment style may be a risk factor for later development of psychopathology, violence and offending behaviour due to deficits in regulating emotions. Given that those detained in a high security hospital exhibit problems in these areas it merits investigation. 72 participants were recruited from a high security hospital to examine differences between profiles of self-reported attachment style on the Relationship Scale Questionnaire (RSQ; Griffin & Bartholomew, 1994) along with anger scores (STAXI-2, Spielberger, 1999) and rate of violent incidents in the hospital.

Overall the sample had a higher rate of dismissing attachment style. Sexual offenders had a higher rate of secure attachment style compared to the violent offenders and those with a secure attachment style were less likely to endorse items indicative of 'Angry Temperament' on the STAXI-2 subscale. The majority of participants also had high attachment avoidance and anxiety. In addition, it was found that newer admissions had higher rates of incidents compared to those who had stayed longer in the hospital. Incidents in the hospital were not predicted by attachment style or by any other factor. Explanations including biases linked to self-report by offenders and the extreme number of incidents by some of the individuals is offered to interpret non finding. Recommendations for integrating knowledge of attachment style in treatment for offenders with mental disorder are presented.

Introduction

Institutional settings such as forensic psychiatric inpatient hospitals are unique environments where individuals are detained for mental disorders along with offending behaviours. Those detained in these environments live and interact with others they may not usually choose to associate with, which leads to complex relationships among residents and staff (Gadon, Johnstone, & Cooke, 2006). Attachment theory has contributed and added to the understanding of mental disorder, offending behaviour, anger and violence and, given that individuals in institutional inpatients settings are detained for these reasons, incorporating all the factors and exploring them further in a specific environment is warranted and can further our understanding in order to offer effective treatment and management of these individuals.

Attachment theory and mental disorder

Mental disorder can be clinically categorised as either mental illness (MI; such as schizophrenia or depression) or personality disorder (PD; such as antisocial personality disorder), although the Mental Health Act 1983/ 2007 no longer recognises these distinctions and categories them all under 'mental disorder'. Attachment theory has contributed to the understanding of mental disorder. It can be viewed as a crucial developmental role that will influence interpersonal functioning in later life, with attachment insecurity in childhood being a risk factor for later development of psychopathology (Weinfield, Sroufe, Egeland, & Carlson, 1999). Bowlby (1988) suggested that negative working models are likely to remain internalised by an individual once they are formed and remain a persistent influence on when forming new relationships. When individuals with negative working models of self and others meet people, they tend to be biased in their approach and they pay attention to

information that confirms their view rather than information that would disconfirm their view.

Bartholomew's (1990) four-category model of the self and other illustrates four types of attachment styles: secure, fearful, preoccupied and dismissing and the two underlying dimensions of self and other, self and other refer to the way an individual views others/ level of avoidance and the way an individual views themselves/ level of anxiety (see Figure 5). Secure and dismissing attachment styles have positive perceptions of the self. However, the model also shows that dismissing individuals, unlike secure individuals, have a negative view of others. This negative view leads to minimising close relationships, valuing independence, reducing the likelihood of proximity-seeking when faced with a threat. Preoccupied and fearful attachment styles have negative perceptions of the self, having low self-esteem. Preoccupied individuals have a positive perception of others, which might lead them to proximity-see excessively, while fearful individuals have a negative perception of others, which might lead them to socially withdraw and less likely to proximity-see. Fearful attachment is often considered the style that leads to the greatest problems in terms of adaptive social development (e.g. Brennan & Shaver, 1998; Shaver & Clarke, 1994).

		<u>View of self</u>	
		Positive	Negative
View of other	Positive	<p>Secure</p> <p>Trust others and feels worthy of others attention</p>	<p>Preoccupied</p> <p>Idealises others, emotional needy, seeks reassurance</p>
	Negative	<p>Dismissing</p> <p>High self worth, compulsively self reliant</p>	<p>Fearful</p> <p>Approach-avoidance, fears intimacy</p>

Figure 5. Four-category model of the self and other (Bartholomew, 1990)

A high proportion of individuals with mental health difficulties have been found to have an insecure attachment style and this has been viewed as a vulnerability factor for a variety of psychological conditions, such as depression (Sund & Wichstrom 2002), schizophrenia (Dozier, 1990) and personality disorders (Van den Berg & Oei, 2009). In addition, research exploring psychosis suggest that attachment in close relationships and the quality of interpersonal interactions may have implications for the development and maintenance of psychopathology (Berry, Barrowclough, & Wearden, 2008) and there is also an indication of an association between insecure attachment and symptoms of psychosis (Berry, Barrowclough, & Wearden, 2008).

The insecurely attached individual is unable to manage their distressing emotions and interpersonal behaviour and to recognise the unspoken emotional states of others. Notably these are all interpersonal traits that can be associated with the diagnosis of a personality disorder if it causing an individual problems daily, across all areas of their life. Personality

disorder is defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association (*DSM-IV*), 2000) as ‘an enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual’s culture’. Personality disorders can be viewed as belonging to clusters (Tyrer & Alexander, 1979), which can be mapped onto attachment styles. Cluster A: A group marked by odd, eccentric behaviour, avoidant of social contact (paranoid, schizoid and schizotypal, American Psychiatric Association, 2000). Cluster B: A risk-taking irresponsible group minimising the value of intimate relationships and displaying dramatic or erratic behaviours (dissocial and emotionally unstable, WHO, 1992 and borderline, antisocial, narcissistic, and histrionic, American Psychiatric Association, 2000). Cluster C: A group that have a pattern of instability in interpersonal relationships, self-image, and affects, and have a marked impulsivity that begins by early adulthood and is present in a range of contexts (anxious, anankastic, WHO, 1992 and avoidant, obsessive compulsive and dependent, American Psychiatric Association, 2000).

In understanding the psychopathic personality it has been regarded as an outcome of deficiency during childhood (Van den Berg & Oei, 2009). A caregiver uncomfortable with tears disgraces a crying child. The experience of vulnerability becomes linked with shame and the child avoids related experiences in the future. The child develops resistance: avoiding vulnerability and having a tendency for responding with anger rather than with sadness. This becomes entrenched in the individual’s personality and the individual loses the capacity to show compassion and empathy towards others (Parsons, 2009). Crawford, Shaver, Cohen, Pilkonis, Gillath and Kasen (2006) conducted research into the relationship between the different clusters of personality disorder and the different styles of insecure attachment. They

identified that a dismissing attachment style was associated to Cluster A personality disorders and preoccupied attachment style with Clusters B and C personality disorders. However, these results were based on an adolescent/young adult sample and further research is required looking at personality disorder and type of insecure attachment style. Personality disorder and violence has also been linked in the literature (Hemphill, Hare, & Wong, 1998; Johnson et al., 2000). In addition, Esbec and Echeburúa (2010) reviewed the literature on specific types of violence and type of personality disorder. They concluded that the literature does indicate a link between anger and violence in a sample of personality disordered individuals with the exception of psychopathy.

Their review suggests a moderate link with Cluster A personality disorders (paranoid, schizoid, schizotypal) and violence. For example, an association was found between paranoid personality disorder and physical violence towards a known victim. They concluded that their violence is driven by anxiety towards the known victim because traits of a paranoid personality (such as distorted thinking and feeling targeted) can lead individuals to react badly to perceived verbal attacks and retaliate with violence (Esbec & Echeburúa, 2010). In contrast, schizoid personality disorder is not usually linked to violent behaviour; however, this might be related to the limited amount of research published on this type of personality disorder (Loza & Hanna, 2006). With the limited research available, it is hypothesised that violence in such individuals is triggered when they perceive an invasion of their personal space. In addition, they have inadequate social skills and direct their anger out, which is likely to lead to violence (Esbec & Echeburúa, 2010). It has also been suggested that they have a number of victims during a single violent attack (Loza & Hanna, 2006). Similarly, Schizotypal personality disorder is not usually linked to violent behaviour, however violence

by individuals with schizotypal personality disorder might be motivated by their personality traits such as messianic, unwarranted, or supernatural beliefs (Esbec & Echeburúa, 2010). The review concluded that this violence is difficult to envisage with victims more commonly known to the offender (Esbec & Echeburúa, 2010). However, it is evident that more research looking at this type of personality disorder and violence is required.

In terms of Cluster B personality disorders (i.e., histrionic, narcissistic, anti-social and avoidant), the review also suggests a strong link with violence. In addition Cluster B is also associated more generally to offending behaviour (Van IJzendoorn et al., 1997).

They concluded that those with narcissistic personality disorder usually offend against a known victim, with violence occurring in response to an attack on their ego (*narcissistic injury*). Narcissism is a frequent trait in all types of violent offenders, especially those with antisocial personalities and psychopathic personalities (Hare, 1999). They usually give preference to their needs being met over others. Narcissistic personality disorder has also been found in different samples of sexual offenders, which it has been suggested may occur when an individual desires sex that is been refused them (Baumeister, Catanese, & Wallace, 2002). Having a high sense of entitlement they are driven by ego and not physical need (Baumeister, Catanese, & Wallace, 2002). Borderline personality disorder is typically characterised by high impulsivity, poor sense of self and an inability to regulate strong negative emotions effectively (Linehan, 1993). Violence is more likely to be driven by anger and as a way to release tension (Spielberger, 1999); thus, is commonly directed towards the self rather than towards others (Linehan, 1993). Similarly, the literature does not usually associate histrionic personality disorder with violent behaviour directed towards others (Esbec & Echeburúa, 2010). In contrast, in the literature, antisocial personality disorder is

closely linked to offending behaviour (Hart, 1998, Howard, Huband, Duggan, & Mannion, 2008, Ullrich, Yang, & Coid, 2010). Violent behaviour associated with antisocial personality disorder is triggered by their limited empathy for others and disregard for authority. They are prone to boredom and enjoy violence as it stimulates them (Spielberger, 1999).

In terms of Cluster C personality disorders (i.e., avoidant, dependent and obsessive-compulsive), Esbec and Echeburúa's review (2010) showed that Cluster C is only weakly associated with violence. Common traits among this group include being passive, having a desire to seek safety and having over-controlled personalities (Esbec & Echeburúa, 2010). These individuals may feel anger due to fearing abandonment or rejection. Therefore, violence against known individuals is common (Howard, Huband, Duggan, & Mannion, 2008).

Specifically, those with avoidant personality disorder may display violent behaviour directed towards females (Esbec & Echeburúa, 2010). They have an inability to build and maintain relationships because of past problematic experiences of rejection (Marshall, 2007); their victims are generally known to them or the victim represents the real or imaginary rejection they experienced (Esbec & Echeburúa, 2010). Those with obsessive-compulsive personality disorder may display violent behaviour if they experience a lack of control and their anger builds up (Coid, 2005). Their violence is not frequent but is usually directed towards a known victim and stalking has been linked to this personality disorder (Duggan & Howard, 2009). Those with dependent personality disorder rarely offend violently (Esbec & Echeburúa, 2010). Violent behaviour associated with this group is related to feelings of high anxiety and jealousy. It was concluded that the violence by such individuals is not frequent but is extreme in nature and can result in murder, sometimes followed by suicide (Esbec & Echeburúa,

2010). The review does not give any details of relevant research to add to their description of violence committed by dependent personality disorder.

The review was helpful because it draws attention to the literature on type of personality disorder and violence. It also brings to light a gap in the research literature looking at violence and specific types of personality disorder as some disorders (such as schizoid and histrionic) are under researched compared to other personality disorders, such as borderline and antisocial. The review was descriptive/ narrative in nature rather than critical and unfortunately some statements and hypotheses were not supported by relevant research. The main limitation of the review, though, is that it is unclear how research papers were selected. A systematic approach may have been a better way to address the question in order to minimise bias and select good quality papers for critical evaluation. A systematic review on type of personality disorder and type of violence would be extremely valuable to clinicians working with violent personality disordered offenders.

Mental health difficulties and offending behaviour

This is a controversial area, but some research suggests that individuals with schizophrenia have a higher rate of violence than those without mental illness (Jones, Van den Bree, Ferriter, & Taylor, 2010). Similarly, the diagnosis of a personality disorder (such as antisocial) has also been linked to increased levels of violence and an increased risk of future violence (Hart, 1998).

Additionally, an individual's rejection of their own treatment (medication/psychological therapy) as well as current mental state are also relevant to violence (Douglas, Guy, & Hart,

2009). It is therefore likely that these individuals will still display violent behaviour within institutions.

High security hospitals have provided care and treatment for mentally disordered offenders detained under the Mental Health Act since 1863. The field of mental health has evolved in the context of changing society with recent paradigms of care changing the emphasis towards patient focused, recovery and improved clinical outcome (Petch & Noak, 2010). High security hospitals treat individuals for mental disorder along with offending behaviour. Those detained in these hospitals have complex, long term problems, and present with significant challenging behaviour, needing to be managed safely with the highest form of security (Petch & Noak, 2010). There are only three high security hospitals in England making it a unique environment and given that individuals are admitted to high security hospitals due their level of violence being high it can be hypothesised that the rates of institutional violence in these establishments are also high.

Attachment and institutional violence

Strong correlations between institutional violence and individual factors such as age, gender and mentally disorder have been established (Webster, Douglas, Eaves, & Hart, 1997). Furthermore, dynamic and clinical factors such as lack of impulse control, high anger expression and temperament with little anger control (Rice, Harris, Quinsey, & Cyr, 1990) and behavioural inhibition and impulsivity, which are items on the PCL-R (Psychopathy Check List – Revised) and HCR-20 (Historical Clinical Risk-20) have also been found to strongly correlate with institutional violence (Webster & Jackson, 1997). The literature also suggests that in psychiatric hospitals, antecedents to violent behaviour can include anxiety,

negative attitudes, poor communication and wards with unclear staff patient boundaries (Katz & Kirkland, 1990; Whittington & Richter, 2006).

Research conducted in a high security hospital recently (Uppal & McMurrin, 2009) found a total of 5658 violent incidents recorded over a 1 year period (approximately 325 patients were in the hospital during the time of data collection). The majority of the violent incidents recorded were verbal non physical violence 2218 (39.18%). Thus, a major aim of staff in high secure hospitals is to decrease violent behaviour and to de-escalate aggressive episodes so they do not result in violent behaviour (Thomas, 2000) along with treating them, typically with medication, occupational therapies and psychological therapies (McGauley & Humphrey, 2003). The therapeutic relationship between staff and patients has been conceptualised as an attachment relationship which can provide a secure base for self-exploration and the modification of insecure attachment. Given the literature on attachment and offending it is probable that this unique population has attachment difficulties and assessing and formulating attachment style in individuals could have implications for understanding their pathology and also for their treatment and rehabilitation (Berry, Barrowclough, & Wearden, 2008).

A key important aim of inpatient psychiatric services is to create and offer a therapeutic environment that is safe (Bowers, 2005), but this is not possible at times due to the disruptive nature of some inpatients (Bowers, Simpson, & Alexander 2003). Anger has shown to be an important part in attachment processes (Bowlby, 1973, 1988), particularly in relation to aggression and violence (Lafontaine & Lussier, 2005) there should be profit in exploring how the anger, violence and attachment systems interrelate. Researchers have looked at the link between insecure attachment and anger. Individuals rated as 'avoidant' tend to suppress

anger because anger suggests an emotional investment in a relationship, which would contrast in their view of relationships as they prefer emotional distance from others and are extremely self-reliant (Cassidy & Kobak, 1988). Avoidant individual's anger is usually expressed in an indirect manner, which takes the form of unfocused antagonism or broad negative attitudes. Mikulincer (1998) found, for example, that adults with an avoidant attachment style fail to state they experience strong anger in response to challenging situations, but found that they were physiologically aroused and endorsed scores on anger measures suggesting hostile intent to individuals even when the individual's actions were not deliberate. Mikulincer (1998) concluded that these individuals are uncomfortable describing themselves as deprived or angry, even though their behaviour would suggest otherwise, they however react with resentment and detestation in response to challenging experiences of others. Further findings suggested that preoccupied individuals, because of their tendency to build up distress and think over and over again about distressing experiences, are susceptible to powerful and long-lasting periods of anger.

Previous research

An initial research study was conducted (Ratip, unpublished Masters dissertation, 2011). The study examined differences between profiles of self-reported attachment style as measured by the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) for offenders detained in a high security hospital who had either a violent or sexual index offence. Participants also completed self-reported psychological measures on self-capacities (Inventory of Altered Self-Capacities; Briere, 2000) and anger (State Trait Anger Expression Inventory-2; Spielberger, 1999). The RQ is a direct self-report categorical measure of attachment, it is made up of four

short paragraphs, and each describes a typical attachment type as it applies in close adult relationships. Participants were asked to circle the letter matching to the style that best describes them in close relationships then rate the degree of correspondence to each style on a 7-point scale.

Overall, respondents self-rated themselves on the RQ as insecure in attachment style and, specifically, the dismissing category. Looking at sub-types, sexual offenders scored significantly higher on preoccupied attachment category than their violent offending counterparts. This supported the work of Ward, Hudson and Marshall (1996) who noted that preoccupied types demonstrate a sense of personal unworthiness and a need for approval from others, continuously seeking security and affection through sex.

On the additional psychological measures, subscale means scores obtained in the high secure sample indicated some disturbance in: Interpersonal Conflict, Affect Dysregulation, and Tension Reduction Activities. These scales tap symptoms or experiences such as interpersonal anger or irritability, mood swings, problems in inhibiting the expression of anger and other strong negative emotions, with the probability that the individual will engage in externalising behaviour when frustrated or angered. As the majority of the sample were more likely to be dismissing in attachment style these results were not surprising as Briere (2000) found no statistically significant associations between this attachment style and the IASC sub-scales, even though the concepts overlap.

To develop that research further and to add to the existing literature looking at attachment style in offending populations, the aim of this research study was to use the RSQ as the measure of attachment which was more flexible than the RQ. This was because the RSQ gives a dimensional rating (continuous score) rating in terms of both the four attachment

styles (secure, fearful, preoccupied and dismissing) and the two way model (view of self and view of other), rather than assigning an individual simply to one type of attachment style. Also, the initial study (Ratip, unpublished Masters dissertation, 2011) considered the index offence only but it was felt that this may not have fully captured the offending history in a high secure population index offence. Taking this into account, offenders were categorised according to whether they had *ever* committed a particular type of offence and a third category of offender was developed, those who have committed violent and sexual offences. Finally, it is of interest whether attachment style can predict violent incidences as this would have implications for the management and treatment of offenders detained in a high security hospital.

Aims

Therefore, the aim of this research is to establish the profile of insecure attachment style found in male patients detained in a high security psychiatric hospital. It is also of interest whether there are differences in the profile of attachment style between violent, sexual and violent/sexual offenders, as previous research is inconclusive. Secondly, the samples' profile of self-reported anger management and expression will be explored, and compared with recorded incidents of violence in the hospital. The literature suggests that those with an insecure attachment style will be more likely to express angry feelings in their interactions with others and have greater difficulty controlling and managing angry feelings. This is likely to be reflected in higher rates of incidences for these individuals. Findings will have implications for the formulation of needs relating to relationship maintenance, with management and treatment implications for patients detained in a high security forensic psychiatric hospital.

Hypotheses

- 1) There will be a high rate of insecure attachment style in the high security hospital sample when measured categorically.
- 2) There will be a relationship between dimensional attachment style profiles measuring view of self (attachment anxiety) and view of other (attachment avoidance).
- 3) There will be significant differences in dimensional attachment style profiles reported by the three specific groups of offenders: those with only a history of convictions for violence, those with a history of sexual offending and a group who have offended both violently and sexually.
- 4) There will be a significant relationship between attachment style and anger index, anger expression and angry temperament (as assessed by the STAXI-2).
- 5) There will be a significant relationship between attachment styles and frequency of violent incidents within the high security hospital.

Method

Participants

The sample was drawn from a high security hospital that had approximately 207 male patients detained and/or sectioned under the Mental Health Act 1983 (updated 2007). Participants recruited for the study had to meet all requirements of the inclusion criteria.

- 1) Aged 18 years or over

- 2) Have committed a sexual or violent offence
- 3) English as their first language and/or bilingual
- 4) Deemed to have capacity to consent by their clinical team including their Responsible Clinician
- 5) Those that have been deemed suitable to approach by their clinical team including their Responsible Clinician

Of these, 123 patients met the inclusion criteria of which 106 patients (86.2%) were deemed suitable by their RC to approach. Two were deemed not to have capacity to consent and 15 deemed too mentally unwell to participate. Seventy-two patients (68% of the 106) agreed when approached to take part in the study.

Demographic details (age, ethnicity, date of admission, offending history and diagnosis) were obtained from participants' medical files. The HCR-20, which is updated every six months, in the patients' medical file, was used to obtain offending histories and most accurate diagnosis to date (ICD-10).

Procedure

The study was approved by the West London Research and Ethics Committee (REF: 11/LO/0410), West London Research and Development Consortium, and University of Birmingham College of Life and Environmental Science Ethics Committee (REF: RG 11-022) in May 2011.

Participants were identified for the study through a hospital database (generated by the Scientific Support Unit, SSU) by establishing the offence classification of every patient detained in the hospital. These are labelled as sexual, violent, 'other' or have multiple classifications. One hundred and twenty three participants were identified as meeting the inclusion criteria. The Responsible Clinician (RC) and clinical team for each potential participant was then contacted via letter (see Appendix 3). They were informed about the research and were sent the information sheet that would be given to participants along with the copies of the questionnaire. The letter also requested that the RC gave consent, via a written response, for the researchers to approach participants.

On receipt of consent from the teams, participants were then approached directly by the researcher who booked an appointment to see them. One hundred and six patients were deemed suitable to be approached by their RC. All patients deemed suitable were approached and 72 agreed to take part in the study. This meeting took place in an interview room on the ward where participants were provided with an information sheet (see Appendix 4) containing details about the study and asked if they would be willing to participate. The information sheet was clear as to the exact nature of the study. A consent form (see Appendix 5) was provided to ensure participants were aware of the confidentiality of their results as well as their right to opt out of the research, up to two weeks after as after this time period their results would be made anonymous and unidentifiable. The participants who agreed to participate had the option of completing the questionnaires during the initial meeting or a future appointment was made to see them to complete the relevant questionnaires (RSQ and STAXI-2). The participants were debriefed after completing the questionnaires and were invited to contact the researcher if any further queries were to arise. Demographic details

were obtained from the participants' files and stored on a database. Incident data was then requested, with proof showed that the research had ethical approval, by those who manage the hospital's intranet database incident system and this information was then stored on a database.

Design

The present study employed a cross-sectional design. No control group was used as the research was conceptualised as exploratory, introducing the application of a specific self-report rating of attachment style in a high secure forensic psychiatric population. The independent variable was attachment style profile and the dependent variables were (1) Offence (violent, sexual or violent and sexual) (2) Scores on the questionnaires (RSQ and STAXI-2) and (3) Violent incidents in the hospital.

Materials

The present study employed quantitative self-report questionnaires to measure attachment style and anger.

Measure of attachment: The Relationship Scale Questionnaire (RSQ; Griffin & Bartholomew, 1994)

Given the population and the reason for identifying current attachment styles for the purpose of research and not for clinical use, it was deemed that an appropriate assessment tool would capture attachment style, have low levels of intrusiveness, high levels of confidentiality and be administrated, scored and interpreted simply. The RSQ has also been used in previous

studies with an offending population (Baker & Beech, 2004; Smallbone & Dadds, 1998; Ward, Hudson, & Marshall, 1996) and therefore was utilised.

The RSQ was designed to obtain dimensional scores of each of the four attachment styles (secure, fearful, preoccupied and dismissing), or a two dimensional score of view of self (anxiety) and view of other (avoidance). It contains 30 short statements about how they view close relationships in general (e.g., “I find it difficult to depend on other people, I am nervous when anyone gets too close to me, I find that others are reluctant to get as close as I would like, It is very important to me to feel self-sufficient, I worry about being alone and I want emotionally close relationships.”) drawn from Hazan and Shaver's (1987) attachment measure, Bartholomew and Horowitz's (1991) Relationship Questionnaire, and Collins and Read's (1990) Adult Attachment Scale.

On a 5-point likert scale, participants rate the extent to which they agree with each statement (1 indicates it is not like them at all and 5 that it is very much like them). Scores for each attachment style are derived by taking the mean of the four or five items representing each attachment type. Five statements contribute to the secure style (statements 3, 9 (Reverse), 10, 15, 28 (Reverse) and dismissing attachment style (statements, 2, 6, 19, 22, 26) and four statements contribute to the fearful style (statements 1, 5, 12, 24) and preoccupied attachment style (statements 6 (Reverse), 8, 16, 25). Thirteen statements contribute to the view of self/anxiety scale (statements 5, 7, 9 11, 12, 13, 16, 17, 18, 21, 23, 25, 28) and ten statements contribute to the view of other/avoidance scale (statements 1, 2, 3, 4, 6, 8, 10, 14, 26, 30).

The RSQ can be used to categorise participants into their best fitting attachment style. The highest score obtained from the four attachment styles can be used to classify participants into an attachment category, but is not the ideal use of the measure. A moderate internal

consistency has been found between these scales are variable (alphas ranging from .41 for the secure style to .70 for the dismissing style; Griffin & Bartholomew, 1994).

Measure of anger: The State Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999)

The 57-item STAXI-2 measures components of anger and anger expression. Individuals rate themselves on 4-point likert scales that measure both the intensity of their anger at a particular time and the frequency with which that anger is experienced, expressed, and controlled.

The STAXI-2 consists of six scales, five subscales, and an Anger Expression Index that provides an overall measure of total anger expression. Items measure both the intensity of their anger at a particular time and the frequency with which anger is experienced, expressed, and controlled. The State Anger scale measures reactive anger as an emotional state related with the present situation. The Trait Anger scale measures how frequently angry feelings are experienced over time. The Anger Control subscales relate to the frequency with which an individual controls their expression or suppression of anger. The Anger Expression Index measures four anger-related traits: (1) the direct expression of external anger towards another person or objects (Anger Expression-Out); (2) internalising anger by holding it in or suppressing angry feelings (Anger Expression-In); (3) the ability to regulate angry feelings by preventing the direct external expression of anger in the direction of another person or objects (Anger Control-Out); and (4) the ability to regulate and suppress angry feelings by calming down or self-soothing (Anger Control-In).

The internal consistency reliability ranges from .73 to .95 for the total scale scores and from .73 to .93 for the sub-scales scores. The STAXI-2 has also been normed within a psychiatric population with all the State Anger scales and Trait Anger scales being significantly higher in a psychiatric population than normal adults. A critique of the STAXI-2 is offered in Chapter 3.

Measure of institutional violence

Retrospective incident data was used for the frequency of violence perpetrated within the hospital by those involved in the study as this was deemed as an unbiased method to capture institutional violence, which does not rely on self-report. Data was taken and available from January 2004- January 2012.

The hospital is required to keep records of all incidents that have occurred by completing an Incident Report record (IR1). All disciplines of staff are trained in completing IR1 forms including the researcher. Forms are completed on a computerised system that began in 2003 which documents all incidents ranging from sexual inappropriate behaviour, security breaches and violent behaviour (from verbal aggression to physical assault). The details of every incident have to be agreed by two members of staff and signed off as an accurate description of events. Violent incidents are recorded on every occasions that this is observed and arises. The incidents were categorised by type of violence using the same coding system as the IR1 form which was completed by the staff witnessing or involved in the incident:

- Assault Physical (towards patient) or Assault Physical (towards staff) or Assault Physical (towards other). This captures actual physical assault directed at another individual.

- Attempted Physical Assault (towards patient) or Attempted Physical Assault (towards staff) or Attempted Physical Assault (towards other). This captures any attempt to use physical violence against an individual which has been successfully stopped by staff.
- Assault Non-Physical (towards patient) or Assault Non-Physical (towards staff) or Assault non-Physical (towards other). This captures acts of verbal aggression, bullying, and manipulation.

Total IR1's were divided by period of admission (months) for each participant to get an average monthly total. This was to control for the length of time residing in the hospital as those who have been in the hospital longer may have more incidents, simply because they have had more time to perpetrate violence in the hospital.

Analysis

A priori power analysis was calculated based on the range of statistical methods that would be employed to analyse the data. The analyses (listed below) with an appropriate alpha level (0.05), effect size (medium) and power (0.80) estimated a sample size of approximately 79 participants would be required to study the relationships between these variables to be sufficient (Cohen, 1969). 72 participants were recruited, falling slightly short of the ideal number.

Descriptive statistics were conducted followed by inferential statistics. All data were screened for parametric assumptions by obtaining skewness and kurtosis values and by checking for outliers in histograms and stem and leaf plots. Kolmogorov–Smirnov significance was

checked for normal distribution. Non-parametric tests were used when assumptions for normality were violated (see results). Spearman's correlation was used as a measure of the linear relationship between two variables. Chi-square goodness of fit analysis was used for categorical data. A one-way ANOVA test was used to compare means of scores. Hierarchical regression analysis was used to see whether attachment style is predictive of the frequency and type of violent incident.

Results

Frequency data will be presented followed by inferential analysis for each of the hypotheses.

Descriptive statistics

A total of 72 participants took part in the study. The demographic and participant characteristics of those who participated are presented in Table 5. The majority of the participants in the study had violent offending histories (59.7%) and were White British ethnicity (68.1%). The participants were equally split in terms of diagnosis (50% have a primary diagnosis of mental illness and 50% a primary diagnosis of personality disorder based on their most current ICD-10 diagnosis as reported in their medical file). Typical diagnoses ranged from schizophrenia, depression, bi-polar disorder, paranoid personality and narcissistic personality disorder, but specific diagnosis for each individual was not noted because the research was not specifically exploring diagnosis and type of attachment style and like the Mental Health Act (2007) used the term 'mentally disordered' to describe the population. Likely symptoms associated with these disorders include hallucinations, delusions, feelings of grandiosity and paranoia. However, the researcher did not observe any overt signs that this was occurring during the data collection.

The mean age of the participants was 36.8 years old ranging from 18 – 68 years (SD=10.58).

The mean length of detention of the participants was 5.5 years ranging from one month, to over 25 years (SD 5.2, M=5.5 years) and the median was 3.6 years.

Table 5

Patient characteristics (N=72)

	N=72	%	SD
<i>Background Information</i>			
Mean Age (years)	36.8		10.58
Mean Length of Detention (years)	5.5		5.2
<i>Primary Diagnosis (ICD-10)</i>			
Mental Illness	36	50	
Personality Disorder	36	50	
<i>Ethnicity</i>			
White British	49	68.1	
Black British	13	18.2	
Other British	10	13.9	
<i>Offending History</i>			
Violent	43	59.7	
Sexual	12	16.7	
Violent and Sexual	17	23.6	

Profiles on the measures: self-reported attachment style and anger

The RSQ is able to determine attachment style for each participant and also explore view of self and other for each participant.

As shown in Table 6, the majority of participants (n=42, 58.3%) were identified using the Relationship Scale Questionnaire (RSQ) as having a dismissing attachment style, a further 24 (33.3%) reporting a secure style. There was an extremely low level of participants endorsing scores that would suggest a fearful or preoccupied attachment style. In total, 66.7% of the sample had an insecure attachment style.

As shown in Figure 6, the majority of participants had high anxiety and high avoidance scores, which show a negative view of self and a negative view of other.

Finally, Table 7 presents the sub-scale scores on the STAXI-2 set alongside the norms for a sample of 276 from a psychiatric population (Spielberger, 1999). The mean scores endorsed by the high secure sample are all (slightly) lower in comparison. T-scores above 75 or below 25 are considered clinically significant, T-scores are considered to be in the normal range if they are within this range. The sample was within the normal range on all subscale items, no scores reaching clinical significance.

Table 6

Attachment style of participants based on the RSQ (N=72)

Attachment style	N	Percent (%)
Secure	24	33.3
Fearful	4	5.6
Preoccupied	2	2.8
Dismissing	42	58.3
Total	72	100

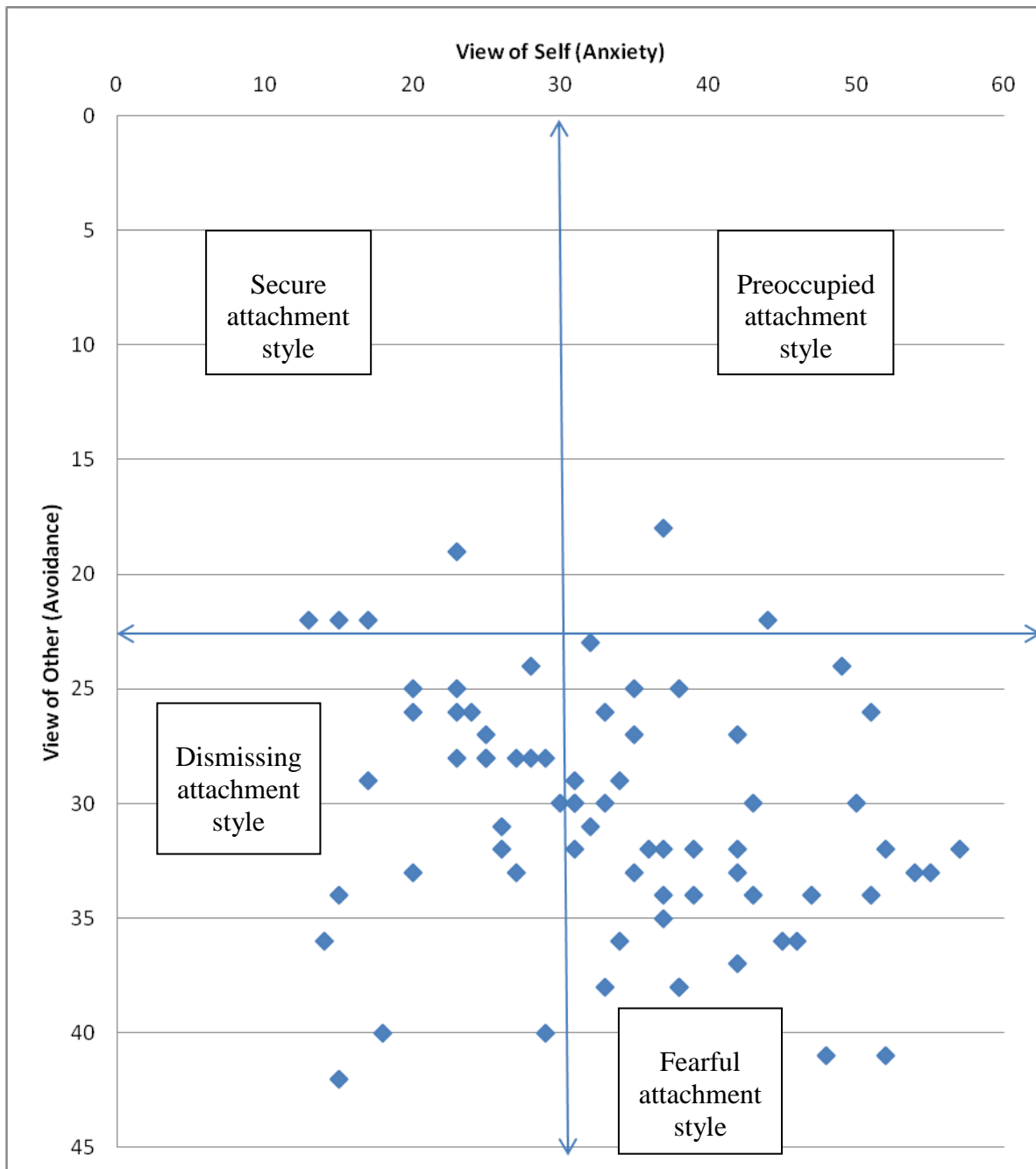


Figure 6. Participant position on the RSQ view of self (anxiety) and view of other (avoidance) scale according to Brennan et al.'s (1998) two dimensional model of self and other (N=72)

Table 7

Participants scores on the State Trait Anger Expression Inventory-2 (N=72)

STAXI-2 subscale	Mean scores from high secure sample (N=72)	T- Score high secure sample	Mean manual scores (from psychiatric population) (N=276)	T Score manual score
	M (SD)		M (SD)	
State Anger	17.36 (5.20)	30	22.71 (8.49)	60
Feeling Angry	6.14 (2.52)	28	9.16 (3.97)	60
Feel like Expressing Anger Verbally	6.04 (2.20)	37	7.73 (3.55)	57
Feel like Expressing Anger Physically	5.43(1.84)	50	5.96 (2.09)	75
Trait- Anger	17.89 (6.87)	35	20.14 (5.86)	50
Angry Temperament	6.71 (3.00)	45	6.88 (2.92)	47
Angry Reaction	7.54 (3.14)	25	9.61 (3.17)	50
Anger Expression-Out	15.07 (3.99)	47	15.68 (4.16)	50
Anger Expression-In	16.67 (4.78)	37	18.26 (4.68)	47
Anger Control-Out	21.29 (5.68)	50	21.06 (.23)	50
Anger Control-In	20.03 (5.95)	46	21.39 (6.13)	50
Anger Expression Index	38.42 (13.64)	40	39.58 (13.96)	45

Profiles of institutional violence

As shown in Table 8 the participants were involved in a total of 1886 incidents, with 76% being non physical assault and 24% being physical assault. The mean number of incidences was 26.2, the median number of incidences was 12 and the modal number of incidences was 4. The highest number of incidences by a participant was 369 and 15 participants had no recorded incidents.

Table 8

Violence of participants (N=72)

Violence	N	Percent (%)	Range	Mean	Median	SD
Assault Non Physical	1427	76	0 - 270	20	8	38.8
Attempted Assault	0	0	0	0	0	0
Assault Physical	459	24	0 - 99	6	2	13.9
Total IR1's	1886	100	-	-	-	-

Inferential statistics

H.1 There will be a high rate of insecure attachment style in the high security hospital sample when measured categorically.

Seventy-two response profiles were entered into a chi-square goodness of fit analysis, to test whether or not an observed frequency distribution differs from a theoretical distribution. As previously mentioned, the RSQ can be used to categorise participants into their best fitting attachment style. Participants obtain a dimensional score corresponding to each of the four attachment styles and the highest score (of these four) can be used to classify participants

into an attachment category. The highest score individuals obtained on the RSQ was identified as their primary attachment style and was used categorically for this analysis. A significant difference was found ($\chi^2_{(3)} = 59.11, p < .05$). The null hypothesis can therefore be rejected (all styles will be equally distributed) and this finding suggest that individuals detained in the high security sample are more likely than not to endorse a dismissing attachment style and comparatively few reported a preoccupied attachment style.

H.2 There will be a relationship between dimensional attachment style profiles measuring view of self (attachment anxiety) and view of other (attachment avoidance).

Assumptions were met for a parametric analysis and therefore a Pearson correlation analysis was conducted to examine whether there is a relationship between the underlying two dimensions of the RSQ, view of self and view of other. A statistically significant and positive relationship was found ($r=.251, p=.033$). A higher avoidance score indicated a higher anxiety score (see Figure 6).

H.3 There will be significant differences in dimensional attachment style profiles reported by the three specific groups of offenders: those with only a history of convictions for violence, those with a history of sexual offending and a group who have offended both violently and sexually

Assumptions were met for a parametric analysis and therefore a one-way ANOVA test was conducted to compare the three different offending groups with each of the four attachment style dimensional scores. There was a statistically significant difference within secure attachment style ($F(2.69) = 4.871, p = .01$). The Tukey post hoc tests indicated that sexual offenders were more likely to report a secure attachment style compared to violent offenders. No other significant differences were found.

H.4 There will be a significant relationship between attachment style and anger index, anger expression and angry temperament (as assessed by the STAXI-2)

Assumptions were not met for a parametric analysis (data was not normally distributed) therefore a Spearman's rho correlation analysis was conducted to examine whether there is a relationship between attachment style and anger index, anger expression and angry temperament. A secure attachment style and angry temperament revealed a significant and negative relationship ($r_s = -.248$, $p = .018$). A secure attachment style resulted in lower scores on the STAXI-2 Angry Temperament subscale. Those who endorsed a secure attachment style were more likely to report low(er) scores on the STAXI-2 Angry Temperament subscale. No other statistical significant relationships were found.

H.5 There will be a significant relationship between attachment styles and frequency of violent incidents within the high security hospital.

Assumptions were not met for a parametric analysis therefore a Spearman's rho correlation analysis was conducted to examine whether there is a significant relationship between attachment style and total number of violent incidents. Contrary to prediction, there was no significant relationship between attachment style (four styles and view of self and other were explored) and the total number of violent incidents. It was decided that the data would be explored further to see what variables statistically correlated with violent incidences. It was found that longer stay in the hospital resulted in lower rates of violent incidents ($r = -.296$, $p = .012$). No other statistical significant relationships were found.

As no statistically significant results were found it was assumed that no significant results would also be found completing hierarchical aggression analysis. However, for thoroughness,

hierarchical aggression analysis was utilised with frequency and then type of violent incidences as the dependent variable. The independent variable was insecure attachment style score and was entered into the regression model in the following order: dismissing, fearful and preoccupied. As expected, no significant results were found. In addition to explore all the data collected age, diagnosis, ethnicity and length of stay in the hospital were also entered into a stepwise regression. No statistically significant results were found.

Discussion

Overall the objective of this research was to examine self-reported attachment style in mentally disordered offenders detained in a high security hospital. Further, to examine patterns in attachment as endorsed by offenders with predominantly violent or sexual offences on the basis of the forensic and clinical literature that link attachment history with serious violence and offending. Due to the exploratory nature of the research a control group was not used as the research involved looking at specific variables (attachment, anger and violence) in a specific environment (high secure psychiatric hospital). The purpose was to explore any relationship or associations with the variables and institutional violence and use this information to inform treatment and management. However, a control group of non-offending individuals could perhaps have been helpful. Comparing attachment style and anger scores with non-offending individuals and an offending population detained in a high secure hospital may have highlighted differences and similarities.

Attachment in a high security hospital

The first aim was to establish a profile of self-reported attachment style in a sample of violent and sexual offenders with mental health needs. The sample used in the study can be

characterised by their detention under sections of the Mental Health Act (1983 amended in 2007) and the level of security required during their admission, which sets them apart from other forensic and clinical populations.

The first hypothesis proposed that the profile of attachment style would be predominantly best described as insecure within this high security hospital sample. This hypothesis was supported by the analysis: On the Relationships Scales Questionnaire (RSQ) exploring the entire sample, the majority were more likely to report, and be categorised as having an insecure attachment style, specifically and statistically significantly they were most likely to endorse a dismissing attachment style, irrelevant of offence. There are no published norms or values providing percentages of likely insecure attachment expected in a general population using the RSQ, therefore direct comparisons cannot be made. Individuals who are dismissing in attachment style have a positive view of themselves and a negative view of others. They also value independence and tend to present as pessimistic about close relationships. It has been hypothesised that a dismissing attachment style develops from detached and unresponsive parenting. This finding supports previous research that has found a high number of dismissing attachment styles in a forensic population.

Levinson and Fonagy (2004) suggested that offenders are more likely to be dismissing in their attachment styles compared to a non-offending sample. They observed that the capacity of forensic patients to reflect on mental states of self and others is significantly impaired, and that this limits their capacity to empathise, which in turn makes them more liable to offending behaviour. In the literature, there are also indications that dismissing attachment is related to antisocial disorders, for example Rosenstein and Horowitz (1996) found those with a conduct disorder were classified as having a dismissing attachment style and Allen, Hauser and

Borman-Spurell (1996) found that dismissing attachment measured in childhood was related to future offending.

Primary diagnosis was documented for each participant in this study. However co-morbidity is an acknowledged feature of the population (Taylor et al., 1998), with the majority of the high security population having dual diagnoses (Coid, 1992). Therefore, describing this sample as comprised of those detained under the Mental Health Act (2007) with a mental disorder and a history of offending is probably more useful as a descriptor for the purposes of this research.

This finding supports the work of Brennan and Shaver (1998) who have stated that attachment style is linked with mental health, implying that those who have developed a secure attachment style suffer less mental health problems than those with an insecure style. The Diagnostic and Statistical Manual of Mental Disorders fourth edition (DSM-IV) states that patients suffering deficits in mental health, particularly in personality disorders, often find developing and maintaining healthy relationships difficult, mainly as a result of not trusting others. Most empirical research has found that insecure attachment styles do relate to offending in particular with sexual offending (Smallbone & Dadds, 1998; Ward, Hudson, & Marshall, 1996) and violent offending in psychiatric populations (Van Ijzendoorn et al., 1997).

The second hypothesis suggested there will be a relationship between dimensional attachment style profiles measuring view of self (attachment anxiety) and view of other (attachment avoidance). This hypothesis was supported by the analysis. The higher the anxiety scores of the individual, the higher the avoidance score. By exploring the data, the two dimensional model indicates that fearful attachment was found to be high in the sample, this is suggestive

of high avoidance and high arousal as well as a negative view of self and other. A fearful style of attachment is considered to lead to the greatest problems in terms of adaptive social development and is linked with more severely disordered individuals and violent behaviour (Brennan & Shaver, 1998; Hudson & Ward, 1997; Jamieson & Marshall, 2000; Shaver & Clarke, 1994). Research has indicated fearful attachment as the common insecure style in criminal populations (e.g., Timmerman & Emmelkamp, 2006).

To date, there has been no agreement in the literature as to whether attachment is categorical or dimensional, however in a recent study it has been suggested that statistical power is lost when continuous variables are changed into categories (Ravitz, Maunder, Hunter, Sthankiya, & Lancee, 2010), therefore the dimensional approach is likely to be more precise.

The Relationships Scale Questionnaire (Bartholomew & Horowitz, 1991) was used in the study. The RSQ was used to measure attachment dimensionally using the four way model (secure, fearful, preoccupied and dismissing) and the two way model (view of self/ attachment anxiety and view of other/ attachment avoidance). In addition, by using the highest score obtained dimensionally for each participant an attachment style was established. Participants were more likely to be categorised as having a dismissing attachment style, however dimensionally scores placed them in the fearful attachment range. This highlights the inconsistency of dimensional and categorical attachment and raises an important issue, that depending on what measure is used, attachment style may differ therefore caution must be taken when findings are interpreted.

Attachment in populations of offenders

Generally, the life histories of serious offenders are troubled with abuse and neglect, such that secure attachments are less likely to be observed in forensic settings (Coid, 1992). Previous research has indicated that sexual offenders have an anxious attachment style, either preoccupied or dismissing, based on their victimology (Baker & Beech, 2004) and violent offenders are likely to have a fearful attachment style (Bowlby, 1973). Ward, Hudson and Marshall (1996) and Smallbone and Dadds (1998) found in their studies that insecure attachment styles were related to sexual and violent offending in psychiatric populations. Ward, Hudson and Marshall (1996) suggested that dismissing types are likely to demonstrate an aloof and hostile interpersonal style with associated empathy deficits. They proposed that rapists and non-sexual violent offenders generally fit into the dismissing category.

The third hypothesis stated that there will be significant differences in dimensional attachment style profiles reported by the three specific groups of offenders: those with only a history of convictions for violence, those with a history of sexual offending and a group who have offended both violently and sexually. This hypothesis was to some extent supported. However, contrary to prediction and on the basis of previous theory, in this sample sexual offenders reported a significantly higher rate of secure attachment style compared to violent offenders. Given this discrepancy it is important to consider the role of bias in the self report process in interpreting this finding. The literature remains mixed as to whether there is a difference among sexual and violent offenders relating to generic attachment style. This sample had a remarkably low rate of endorsement of the preoccupied and fearfully attached profiles, rendering these groups hard to compare by offence history. Sexual offenders may have also wanted to endorse greater security than is apparent in their day to day lives. It has

been suggested that sexual offenders contaminate self-report measures as they want to come across as positive and they are unreliable when self-reporting problems, minimising and denying problems (Gordon & Don Grubin, 2004). Although using self-report measures do have advantages which include the ability for researchers to collect large amounts of data, usually they have low levels of intrusiveness as individuals may find it easier putting things down on paper rather than verbalising them in an interview (Del Boca & Noll, 2000).

Another reason could be that the offence paradigms used in the study may not have been the same as used in other studies. Other researchers have undertaken investigations with prisoners (Baker & Beech, 2004; Sawle & Kear-Colwell, 2001; Wood & Riggs, 2009), but without any mental health difficulties or with mental health difficulties in low or medium security units (Hudson & Ward, 1997; Ward, Hudson, & Marshall, 1996) rather than high security hospitals. These participants could be viewed as less dangerous and would have committed less severe offences, making them fundamentally different as they require detention with the highest form of physical security. The Department of Health, 2010 has outlined the physical requirements of a high secure hospital such as perimeter security comparable to a Category B prison, close circuit television and staff with personal attack alarms). With only three high secure hospitals in the England the admission criteria is very specific: 1) The presence of a mental disorder; 2) Liability to Detention (under the Mental Health Act, 1983 amended in 2007); and 3) The highest levels of security are required, and a lesser degree of security would not provide a reasonable safeguard to the public (West London Mental Health NHS Trust; Hospital admissions panel operational policy).

Further research comparing both populations would be required to understand the complexities of making a comparison across populations; at present the findings cannot be generalised.

Attachment and its correlates in a high secure hospital

The second aim of the research was to explore self-reported attachment style and other psychological attributes including affect control and anger. Therefore, hypothesis four stated that there will be a relationship between attachment style and anger index, anger expression and angry temperament (as assessed by the STAXI-2). This hypothesis was to some extent supported with statistically significant results. Those with an insecure attachment were less likely to endorse items indicative of Angry Temperament than those with a secure attachment style. This finding supports the body of literature that links a secure attachment style with effective emotion regulation. Securely attached individuals are able to regulate their angry feelings and other negative emotions, reducing anxiety without it regularly becoming problematic. As children the securely attached individuals used their secure base (main caregiver) to help self soothe and get rid of unpleasant emotions which later in adulthood results in being able to manage, tolerate and regulate similar feelings (Ansbro, 2008).

However, contrary to what was hypothesised, no associations were found with attachment style and Anger Index or Anger Expression Out. This may reflect the fact that the subscale mean scores obtained in the high secure sample all fell within the normal range which may be at odds with their presentation. The normal range would suggest that the individual normally experiences, expresses or suppresses moderately little anger (Spielberg, 1988). Notably, Mikulincer's (1998) research is consistent with these findings in that individuals high on avoidance (fearful and dismissing) tend not to report strong anger in response to challenging

experiences. However, Mikulincer (1998) concluded that these individuals are often uncomfortable describing themselves as deprived or angry, yet their behaviour contradicts this (i.e., they don't report anger but do act on anger). Additionally, individuals high on avoidance self regulate by suppressing anger (Cassidy & Kobak, 1988). This could also give explanation for normal range STAXI-2 scores in the high secure sample. In addition a number of patients are in treatment and many reflected that if they had answered the questionnaires a couple of years back they would be answering it differently as they now were able to manage and tolerate anger better than previously and future research could explore anger and length of stay in hospital.

In a recent study, McEwan, Davis, MacKenzie and Mullen (2009) investigated the idea that the STAXI-2 is inclined to faking good in clinical forensic populations. Individuals engaging in impression management had considerably lower levels of reported trait anger, external expression of anger, and internal expression of anger, and higher levels of anger control. It might be concluded that the STAXI-2 was sensitive to faking good response biases in this sample of forensic patients and therefore cannot be deemed a reliable index of anger expression. This will be further discussed in chapter 3.

Attachment and violence in a high secure hospital

During January 2011-January 2012, 1597 violent incidences were recorded in the hospital (approximately 207 patients were in the hospital during the time of data collection). Of these, 289 (18.1%) were categorised as physical assault and the remaining as verbal assault or other. The fifth hypothesis stated that there will be a significant relationship between the attachment styles endorsed by participants with an insecure and insecure attachment style would be

predictive of a higher frequency of violent incidents. This hypothesis was not statistically supported.

The literature suggests that offenders who fail to understand their own state of mind and who are unable to access the mental states of others do not have the capacity required to know how others are thinking and what may make themselves feel better when they are feeling negative emotions. A dismissing attachment style is likely to be associated with difficulties in the articulation of feelings (Ansbro, 2008) and the communication of distress through action rather than words (Adshead, 2002). It was surprising to find the research did not find significant results.

Exploring the incident data it was clear that a small proportion of patients were responsible for high amounts of violence, and this is supported by research exploring incident data in high security (Uppal & McMurrin, 2009). It is also important to note that no attempted physical assaults were documented in the incident data and it might be that these are not routinely documented as *even though they should be*, and it could be speculated that due to the demanding nature of the work and busy nature of nursing in high security less serious acts of violence such as attempted assault and verbal assault, are not also documented routinely. This would then lead to an inherent bias in the incident data available.

Extreme (high) number of incidents was also found for some individuals. It was identified that these extreme scores were by patients who had been in the hospital for under a year, but had high rates of incidents. On statistical analysis this relationship was found to be significant. Longer stay in the hospital resulted in lower rates of incidents for individuals. This could reflect the progress made based on interventions and/or that individuals become older and may be less aggressive. An alternative explanation is that there is something about

the admissions process specifically that generates additional violence. It has been reported that a third of psychiatric inpatients experience violent behaviour during their admission (Healthcare Commission. National Audit of Violence, 2003–2005). Forensic patients are particularly sensitive to threat and react with anger/violence to it. The admission process itself becomes a threat situation, which is intensified by any additional mental disorder (Adshead, 2002). In turn, this stimulates provocation in a person who already has limited ability in managing stress appropriately, and patients will draw on past attachment behavioural strategies to manage their sense of threat or fear (Adshead, 2002).

The nature of a high secure milieu has been recognised as evoking violent behaviour, for example shared communal areas and elevated levels of scrutiny (Daffern, Ogloff, Ferguson, Thomson, & Howells, 2007). Consequently, it may be that the environmental setting rather than individual differences (i.e. attachment style) might be a better predictor of violence. Environmental correlates of violence in previous studies include overheating, crowding, noise, and overcrowding (Graham, Bernards, Osgood, & Wells, 2006). In addition, staff responses to hostility and arising conflict may influence the outcomes of situations (Graham et al., 2006).

Limitations of the study

Given the difficulties inherent in recruiting a sample of willing and able participants in a high security hospital, the current study has a comparatively robust sample via which to explore its main questions. One hundred and six potential participants were unable to take part, but it was felt that a 68% response rate was positive. Ideally, another ten patients might have strengthened the statistical analysis, as the sample size of 72 was just short of the 79 indicated by the power analysis.

Recruiting participants was difficult for a number of reasons. Firstly, many of the patients in the hospital have been in hospital for many years and are not always willing to participate in studies as they feel that they are regularly being approached to take part in research projects. Other problems with recruitment included the nature of mental illness itself in that participants were unpredictable and dangerous which posed risks for both the researcher and the participants themselves, as the questionnaires may have surfaced unpleasant feelings reflecting on anger and attachment. If a patient was deemed too unwell to be approached by their Responsible Clinician, they were not informed of the research. Although this was a necessary procedure it did effectively reduce the sample size and emphasises the problems with recruiting within a mentally disordered population.

In addition, during the time of data collection for this study, many changes and disruptions were occurring at the hospital including ward closures and directorate changes, with patients being moved and placed in either the Mentally Disordered Directorate or Personality Disorder Directorate and the Dangerous and Severe Personality Disorder Service being phased out, with patients moving back into the prison system or other DSPD services.

A primary limitation of this study is that it relied in part on a self-report instrument for the dependent variable (attachment style) within a detained sample, which was not necessarily honest/ acting with awareness about their own attachment style and other capacities. Forensic studies adopting self-report measures have often been criticised for both the validity of the tool used and the interpretation of its findings, especially when the purpose of such measures are transparent to the offender in question (Hanson & Bussiere, 1998; Kroner & Loza, 2001). Self-report data provided by mentally disordered offender patients has

demonstrated a tendency for these patients to underestimate their negative traits and overestimate their more positive ones, like nurturance (Hunt & Andrews, 1992).

The mental health problems of patients may also have caused problems when filling out the self report measures. Some of the participants may have been suffering from hallucinations, delusions, feelings of grandiosity and paranoia, which may have influenced their choice of response in the direction of seeking to please and/or maximising or minimising problematic behaviour. However, the researcher did not observe any overt signs that this was occurring. Demand characteristics and other confounding variables linked with using self report questionnaires were minimised by using standardised instructions and making participants aware that the research was completely separate to their treatment care pathways and that results would be anonymous and not fed back to their RC and their clinical teams.

Implications for policy, treatment and interventions

In the first instance when a patient is first admitted to the high security hospital it is essential that a secure base is established for the patient, given this being a highly threatening situation, it is important for staff to support patients and to communicate clearly to the new admission by inducting them sufficiently into the hospital. The aim being to alleviate apprehension and lower arousal as their attachment system will be activated at this point. Establishing boundaried, safe, positive relationships at the point of admission is likely to be crucial at the point of admission. The building and maintenance of a good working alliance between clinicians and patients could be viewed as similar to the development of an attachment relationship; staff can and frequently do create a secure base from which patients examine their problems (Adshead, 1998).

A difficulty of working in high secure hospitals is that each time a patient makes progress or deteriorates in mental state, they are moved onto another ward and have to start the entire process of engaging with a new environment, a new primary nurse, a new doctor among other things. The importance of patient's relationships to their carers is highlighted in attachment theory and as far as possible these moves should be carefully planned and kept to a minimum to reduce anxiety and tensions of the patients.

A major area of interest for clinicians is how to target treatment intervention for offenders with optimal efficiency and there is an expectation that most patients in high security are moved on to conditions of lower security within a maximum of five years (Minne, 2011). In clinical practice attachment theory can be used to formulate the developmental antecedents and interpersonal repertoire of an individual's clinical problems. Insecure attachment helps us understand how individuals manage anxiety and anger, their view of self and other, how they may be in close relationships, and their use of violence as a way of communicating internal distress.

The main finding of the research is that the majority of patients in a high secure sample have a dismissing attachment style, which supports previous research by Adshead (2002) who also confirmed the high rate of dismissing attachment styles in a population of violent offenders. This finding can be useful when treating those detained in a high security hospital. Hudson and Ward (1997) found that individuals with dismissing attachment styles and the associated problems they have with intimacy and in forming trusting relationships with adults tend to find it very difficult to engage in therapy, this likely resulting in longer hospital stay. Dismissing attachment has been linked with defensiveness, high levels of control and distancing (Bartholomew & Horowitz, 1991; Babcock et al., 2000), restricted emotional

expression, constrained self-disclosure and compulsive self-reliance (Bartholomew & Horowitz; Davis et al., 2003). Thus, these individuals may be extraordinarily reluctant to engage in the therapeutic relationship (Stuart & Noyes, 2006), which is acknowledged as highly significant in positive treatment outcome (Horvath, 2001), but also be more inclined to drop out without warning if things start to feel too intense (Dozier, 1990). The therapist may have to take a non confrontational, gentle approach with these individual and try to ensure that feelings of rejection do not arise in treatment.

Mentalisation based therapy (Fonagy & Bateman, 2006) is a psychotherapy that focuses on helping an individual to differentiate and separate out their own thoughts and feelings from others. It might be a favourable model to use in therapy with those who have an insecure attachment style because it aims to enhance an individual's capacity to think about their own and other peoples' mental states and improve their ability to identify and manage negative feelings, so it is less likely to manifest physically. Thinking and feeling about emotions at the same time enables individuals to tolerate, regulate and express feelings suitably.

The theory and evidence base behind the model is underpinned by attachment theory. Mentalising develops best in stable, secure relationships as the child's needs are responded to and their caregiver's response is predictable and consistent. Once children begin to acquire language, their caregiver talking clearly with them about their own and others desires, feelings, and worries can promote mentalisation. In contrast, inconsistent and inadequate parenting, leading to certain insecure attachment styles, can leave children unable to identify and understand their own feelings, as well as the feelings of others. The inability to mentalise has implications for personality disorders, as well as general psychological problems such as self-confidence (Fonagy & Bateman, 2006).

The aim of treatment is to explore times when an individual loses the ability to mentalise and to think about how mentalisation can be restored, for example, promoting perspective taking, labelling emotions and developing techniques to manage negative emotions.

Implications for future research

This study made use of self-report measures and this was helpful in allowing the respondent to report on himself, but leaves open the possibility that this could present a biased and inaccurate picture; particularly for those keen to fake good. Socially desirable and defensive responding has been documented as a confounding factor in self-report assessment tools (Paulhus & Reid, 1991). Forensic studies using self-report assessment tools have regularly been criticised for both the validity of the tool used and the analysis of their findings, in particular when the purpose of such assessment tools is clear to the offender (Hanson & Bussière, 1998; Kroner & Loza, 2001). In addition, self-report data provided by mentally disordered offenders has demonstrated likelihood for these respondents to underestimate their negative qualities and overvalue their more positive qualities (Hunt & Andrews, 1992). Future research should include a measure such as the Social Desirability Scales (Paulhus, 1991) which would be helpful when interpreting results.

Lyn and Barton (2004) suggested that self-report measures of attachment style are likely to be used in the future as the interview formats require training and take time to administrate and interpret. Future research could incorporate a number of attachment measures to gain the best representation of participants' attachment style.

In addition, a series of measures that is not based on self-report could be utilised. Informant-based assessments are widely used in personality disorder assessment (e.g. Zimmerman, 2004). Also, ratings of behavioural actions that form the interpersonal repertoire of the individual might provide a better indication of their attachment style rather than their self-rating of their own behaviour. The advantage of using observational methods (e.g., the CIRCLE; Blackburn & Renwick, 1996) is that where self-report measures only provide for recollections or descriptions of behaviours and emotions, observation allows for actual behaviours and emotions in both dyadic and group interactions to be measured directly. Observational data can be particularly useful in the assessment of verbal and non-verbal interpersonal behaviours within forensic psychiatric patients (Blackburn & Renwick, 1996). However, observer biases can also affect the interpretation of items on such measures.

Lastly, patients' running records could be used in future research. For each patient nursing staff are required to put a minimum of one entry in per shift which usually captures, presentation, mood, interpersonal behaviour and activity. It is possible that due to the nature of the work, not all violence (verbal) is documented/ captured in IR1 (as outlined in the discussion of the study). Running records could therefore give a rich understanding of an individual.

Conclusions

The current study builds on previous work exploring attachment. The first aim was to establish the profile of self-reported attachment style in a sample of violent and sexual offenders with additional mental health needs in a high security hospital. As predicted the current sample reported an insecure attachment style, specifically and significantly they were most likely to endorse a dismissing attachment style. Exploring the difference between

different types of offender there was a significant difference with sexual offenders more likely to report a secure attachment style compared to violent offenders.

The second aim of the research was to explore self-reported attachment style and other psychological attributes including affect control, anger and violence. Significant results were found with participants who endorse secure attachment style profile being less likely to endorse items indicative of 'Angry Temperament' on the STAXI-2 subscale. Explanations including biases linked to self-report by offenders and extreme scores on incident analysis are offered to interpret this non finding.

Chapter Three

Psychometric Critique of the State-Trait Anger Expression Inventory-2

Abstract

Chapter Three presents a critique of the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999). This was a psychometric tool used in the research project, commonly used to assess anger, and literature has previously linked anger with violence. The critique offers an overview of the assessment tool used in the previous research chapter and its psychometric properties, including reliability and validity. In addition limitations of the assessment tool are also presented. The STAXI-2 is made up of six scales, five subscales, and an Anger Expression Index that provides an overall measure of total anger expression. Individuals read single statements and then rate themselves on 4-point Likert scales. Items measures both the intensity of their anger at a particular time and the frequency with which anger is experienced, expressed, and controlled.

The assessment tool is used widely used in the field of forensic psychology for risk assessment, research and evaluation of treatment, it has been appropriately normed on the general population, psychiatric population and males and females across three age categories, there is scope to produce normative data on the forensic population of offenders.

Limitations are also discussed as assessment tools have often been criticised for being transparent and for offenders to accurately self-report on their own behaviour.

Introduction

The literature has indicated that anger (emotion) is often an antecedent to violent behaviour in offending populations (Serin & Preston, 2001; Polaschek, Collie, & Walkey, 2004), especially impulsive acts of violence which can be viewed as an expression of anger when coping strategies to regulate and manage anger breakdown. This has been linked to attachment theory which suggests that an insecure attachment has not enabled individuals to manage negative emotions appropriately in adulthood and therefore anger becomes problematic for these individuals. Therefore, it is important that an assessment tool is able to accurately measure and conceptualise problematic anger in individuals as this might need to be targeted in treatment in order to reduce the likelihood of future violence arising from anger.

Spielberger (1999) defines anger as: “a psychobiological emotional state or condition marked by subjective feelings that vary in intensity from mild irritation to intense fury and rage” (p.1). Anger is a basic human emotion and is a natural automatic response to perceived threats, injustices and disappointments, which can differ for individuals in frequency, amount, duration and expression (Kassinove & Tafrate, 2002) and can be seen as having a positive adaptive function (useful) or a negative maladaptive function (not useful) (Novaco, 1975). In adults anger is purposeful to the extent that it communicates a forceful but appropriate reaction to perceived thoughtless or unfair action, instead of being just a way to harm. Novaco (1994) argues that anger is a natural emotional response to frustration and whilst it is a trigger for aggression and violent behaviour, it does not always lead to this response. It is important for an individual to regulate, release and manage anger that builds up internally in order to move on, if this does not happen it may result in problematic behaviour.

Anger can become problematic to the extent that it interferes with normal daily functioning affecting relationships and resulting in psychological and physiological problems (Novaco, 1975).

The main theoretical account of anger is Novaco's (1994) model of anger and consists of three key concepts: cognitions (appraisals), arousal/provocation (tensions and agitations) and behaviour (withdrawal and antagonism). Anger is seen as an emotional response that arises from perceptual and other cognitive processes, leading to arousal linked with physiologically stimuli, in response to environmental cues and the likely outcome of anger depending on the individual's own behavioural patterns that have been developed and reinforced (Bandura, 1983). Kassonov and Tafrate (2002) suggest that some individuals are more inclined to become angry more frequently and are more likely to display their anger outwardly in the form of aggression in almost any situation as a result of personality characteristics and traits (such as those diagnosed with an Antisocial Personality Disorder (externalise anger) or Borderline Personality Disorder (internalise anger)).

Spielberger (1999) built on this theory and stated that anger has two distinct forms. First it can be viewed as a fluctuating emotional state (known as state anger), or second it can be a more stable personality trait (known as trait anger) which varies in duration and ways it is expressed. It can be expressed outwardly (anger out), physically, or verbally, towards the source of frustration or towards substitute targets such as objects. Alternatively, anger may be withheld and suppressed (anger in). Research has suggested that anger arousal is a mediator for aggression and violent behaviour, particularly hostile aggression (Novaco, 1994). Hostile aggression (also known as affective, impulsive or proactive aggression) has been understood

as an impulsive act, unexpected, driven by anger, having the final purpose of harming the intended individual, and happening as a response to frustration (Berkowitz, 1993).

Measuring anger

There are several ways to measure anger. These include self-report psychometric assessment tools (Novaco Anger Scale; Novaco, 1994 and the State-Trait Anger Expression Inventory-2; Spielberger, 1999), observational approaches (i.e., using the Chart of Interpersonal Reactions in Closed Living Environments; Blackburn & Renwick, 1996), or physiological measurement (e.g., blood pressure).

Overview of the STAXI-2

The State Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999) is a self-report assessment tool targeted and normed with psychiatric patients (the participants all recruited from a high security hospital) and it differentiates between types of anger expression: Anger-Out, Anger-In and Anger-Control. Anger-Out explores an individual's likelihood of expressing anger through either verbally or physically means. Anger-In explores an individual's likelihood of holding on to anger internally without expressing it externally. Anger-Control explores an individual's likelihood of engaging in behaviours aimed to reduce overt anger expression.

Practical evaluation

The STAXI-2 manual offers detailed instructions for administration and scoring. It suggests that from administering to scoring it approximately takes 15 minutes making it a simple tool to utilise. It also suggests a reading age of 11 is required to complete the assessment tool. The

manual contains a lot of useful information on the construction and development of the STAXI/STAXI-2, guidelines for interpretation, validation studies, a summary of research using the assessment tool, and a Bibliography.

The STAXI-2 (Spielberger, 1999) is based on the original 44 item STAXI (Spielberger, 1988). The original STAXI was developed by Spielberger in 1998 and was published as the STAXI-2. Spielberger developed and revised the assessment tool to measure the components of anger for an inclusive assessment of normal and abnormal personality. The assessment tool measures the experience, expression and control of anger and is used within the medical, psychiatric and psychology field (Spielberger, 1999).

The STAXI-2 consists of six scales, five subscales, and an Anger Expression Index that provides an overall measure of total anger expression. Items measure both the intensity of their anger at a particular time and the frequency with which anger is experienced, expressed, and controlled. The State Anger scale measures reactive anger as an emotional state related with the present situation. The Trait Anger scale measures how frequently angry feelings are experienced over time. The Anger Control subscales relate to the frequency with which an individual controls their expression or suppression of anger. The Anger Expression Index measures four anger-related traits: (1) the direct expression of external anger towards another person or objects (Anger Expression-Out); (2) internalising anger by holding it in or suppressing angry feelings (Anger Expression-In); (3) the ability to regulate angry feelings by preventing the direct external expression of anger in the direction of another person or objects (Anger Control-Out); and (4) the ability to regulate and suppress angry feelings by calming down or self-soothing (Anger Control-In).

Table 9

Brief overview of the STAXI-2 scales and subscales

STAXI-2 subscales	Number of items	Scale/subscale range	Description on scale/ subscale
State Anger (S-Ang)	15	15-60	Measures the intensity of angry feelings at a particular time
Feeling Angry (S-Ang/F)	5	5-20	Measures the intensity of current feeling
Feel like Expressing Anger Verbally (S-Anger/V)	5	5-20	Measures current feelings of expressing anger verbally
Feel like Expressing Anger Physically (S-Anger/P)	5	5-20	Measures current feelings of expressing anger physically
Trait- Anger (T-Ang)	10	10-40	Measures how often angry feeling is experienced
Angry Temperament (T-Ang/T)	4	4-16	Measures angry disposition without specific provocation
Angry Reaction (T-Ang/R)	4	14-16	Measures the frequency of angry feelings in negative situations
Anger Expression Out (AX-O)	8	8-32	Measures how often angry feelings are expressed
Anger Expression-In (AX-I)	8	8-32	Measures how often angry feeling is suppressed
Anger Control-Out (AC-O)	8	8-32	Measures how often external anger is controlled
Anger Control-In (AC-I)	8	8-32	Measures how often internal anger is controlled
Anger Expression Index (AX- Index)	32	0-96	Produces an anger profile based on all the items

The anger profile and interpretation of the STAXI-2 considers scores that fall between the 25th and 75th percentiles as normal and clinically non-significant. Spielberger (1999) suggests that individuals who endorse scores above the 75th percentile have difficulty managing and regulating anger which may be problematic affecting their daily functioning and can be viewed as problematic resulting in the individual experiencing difficulties in relationships and/or experiencing psychological and physiological problems. Spielberger (1999) suggests that individuals who endorse scores below the 25th percentile, especially on the subscales, Trait Anger, Anger Expression Out and Anger Expression In, experience and express anger in minimal and manageable ways which do not affect their daily functioning as these individuals are able to regulate their anger affectively, suppressing small levels of anger. Spielberger (1999) does also note that if an individual endorses low scores on all the scales they might be in denial that they are experiencing and expressing angry feelings.

Development of the STAXI-2

The STAXI-2 is an expansion on the STAXI (Spielberger, 1988, 1996) with an increase of self-report items from 44 to 57. Three aims guided the revised version: The first aim was to provide an evaluation of the mechanism of anger that link to the assessment of personality pathology (trait anger), second was to provide assessment for anger control and lastly it aimed to measure suppressed anger. In order to consider the advance of the revised anger scales, a 69 item STAXI Experimental Test Form (STAXI-ETF) was developed (Forgays, Forgays & Spielberger, 1997). Factor structure and test construction established the appropriateness of items the assessment tool should consist of.

Using a sample of university students for each gender (700 females and 700 males), factor analyses were conducted to determine the power of the loadings of each test item of the

STAXI-ETF and to understand the transparency of each item as linked to the theoretical classification of the STAXI-2 scales and subscales. An eight factor result was shown; with those items deemed to be unclear or outdated being removed, as were the items that did not add to the item total correlations, consequently 57 items were selected to construct the STAXI-2. The items comprising the State Anger, Trait Anger, Anger Expression and Anger Control subscales were additionally assessed in separate factor analyses. This accounted for the differences in the occurrence of experiences and expression of anger for individuals as well as providing additional validation for the configuration of the assessment tool.

Psychometric properties

Spielberger (1999) stated that the STAXI-2 measures the experience, expression and control of anger. In order to assess this and identify if the STAXI-2 is an accurate measure of the construct of anger the reliability and validity of the assessment tool will be discussed.

Reliability

The term reliability refers to the extent to which an assessment tool measures a construct and produces reliable outcomes. A number of factors which relate to reliability will be explored. An assessment tool determined reliable if it is able to produce similar results if used again in similar circumstances.

a) Internal consistency reliability

Internal Consistency Reliability refers to correlations between different items on the same assessment tool. This type of reliability is utilised in order to determine the stability of results across items on the same assessment. When a question on an assessment tool seems to be

similar to a further test question, it may point towards the questions being used to determine reliability. Because the two questions are similar and designed to measure the same thing, the respondent should answer both questions the same, which would indicate that the assessment tool has internal consistent reliability. An alpha coefficient of at least .70 is said to confirm good internal reliability (Kline, 1999). Spielberger (1999) reports the alpha coefficient on the Angry Reaction subscale for normal adults, as at least .76 for females (n= 977) and at least .73 for males (n= 667). For all other scales and subscales the alpha co-efficiencies are reported to range from .84 to 0.93. It can therefore be said from these findings that the STAXI-2 shows sufficient internal consistent reliability which is unbiased by gender or psychopathology.

b) Test-retest reliability (temporal stability)

The test-retest reliability method is a way of testing the stability and reliability of an assessment tool over a period of time, assessed using correlation analysis a minimum level of .70 must be achieved in order to satisfy a good standard and be seen as test-retest reliable. An assessment tool is expected to yield the same or similar results for an individual, on more than one occasion (taking into account confounding variables that may affect scores).

The coefficients for the original STAXI were acknowledged as being appropriate in identifying test-retest reliability (Bishop & Quah, 1998; Jacobs, Latham & Brown, 1988). Kroner and Reddon (1992) examined the psychometric properties of the Anger Expression, State Anger and Trait Anger scales of the STAXI using a prison inmate population. They established that the test-retest coefficients for the Trait Anger scale were stronger than the coefficients for the State Anger scale. A strong test-retest score for the Trait Anger scale is expected as trait anger is associated with personality characteristics (unlikely to change over

time) that may make individuals more likely to perceive and react angrily to situations, while state anger is associated with mood and across situations, therefore it would be thought states are more likely to be inclined to change during test-retest analysis. The test-retest reliability for the STAXI-2 is not documented in the manual and has yet to be established.

Validity

The term validity refers to whether an assessment tool measures what it is supposed to measure. There are diverse types of validity which relate to psychometric properties of measurements.

a) Face validity

Face validity refers to the common sense understanding of the item questions that the assessment tool consists of and simply means that an assessment tool superficially looks like it is should be measuring its target. It is clear that by reading the items of the STAXI-2, they are appropriate in exploring the construct of anger. Face validity, however, is a biased analysis and lacks scientific evidence; it is therefore a requirement that other areas of validity are also measured.

b) Concurrent validity

Concurrent validity refers to the extent to which an assessment tool correlates with other validated measures testing the same concept. Concurrent validity has been researched for the original versions of STAXI but with limited research for the STAXI-2. Spielberger (1988) suggests and reports good concurrent validity of the original STAXI with the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957) (range from .66-.73), and the Hostility (Cook &

Medley, 1954) (.43-.59) and Over Hostility Scales (Schultz, 1954) (range from .27-.32) of the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1967). Significant correlations would be expected with measures that assess hostility and anger given the literature suggestive that hostility involves feelings of anger and assessment tools assessing hostility assess feelings of anger (Spielberger, 1999).

Furthermore, Spielberger (1999) found a significant positive correlation with the Neuroticism and the Psychoticism scale of the Eysenck Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975). A moderate correlation was found between the Neuroticism scale and Trait Anger subscales of the STAXI-2 (range from .49-.50), which links with the literature suggesting that individuals high in neuroticism and trait anxiety experience angry feeling but they have difficulty expressing it externally (Spielberger, 1999). A small positive correlation was found between the Psychoticism scale and State Anger (range from .26-.27) and Trait Anger subscales of the STAXI-2 (range from .20-.21), which links with the literature suggesting that individuals high in psychoticism have personality characteristics suggestive of aggression and interpersonal hostility. These individuals also experience anger more frequently than those who score low(er) on Psychoticism (Spielberger, 1999). Whilst statistically significant, due to it being a correlational analysis, it is difficult to conclude the direction of the cause and effect.

Swaffer and Epps (1999) established a positive correlation between all the STAXI items and at least four of the items of the Novaco Anger Scale (NAS; Novaco, 1994), these included the frustration subscale, the intensity and irritability subscales in the arousal domain, the impulsivity and indirect subscales in the behavioural domain. Given that both assessment tools assess the experience and expression of anger this would be expected, additional

research is required in order to identify if the STAXI-2 is concurrently valid with the NAS as it has additional items.

c) Predictive validity

Predictive validity refers to the amount in which an assessment tool is capable to predict other measures of the same construct at a point in the future. Markovitz, Matthews, Wing, Kuller and Meilahn (1991) provided support to suggest the STAXI is a predictor of hypertension and blood pressure. Hypertension and blood pressure has been established to co-occur with the chronic experience of anger which has implications for our physical health and wellbeing (Spielberger, 1999). Although a significant finding for the medical field, additional research into the quality of predictive validity of the STAXI-2 on other populations and disciplines is needed. This is true for the forensic population and for violent offenders as anger is a possible indicator for aggression within the offending population (Novaco, 1994).

d) Content validity (logical validity)

Content validity is not the same as face validity; it refers to what the assessment tool actually measures in comparison to what it superficially appears to measure. Content validity refers to whether an assessment tool measures all aspects of the construct and requires statistical testing. Spielberger (1999) developed the STAXI and STAXI-2 in order to differentiate and overcome the misunderstanding between anger, hostility and aggression. His theoretical framework of state anger and trait anger as well as anger expression allows for distinctions between the three dimensions. Spielberger (1999) further developed the assessment tool to measure the construct of anger in its suppressed form by adding the Anger Control scale to the STAXI-2.

e) Construct validity

Construct validity refers to the degree an assessment tool is able to show a link with the test scores and the theoretical construct. The STAXI and the STAXI-2 have been researched widely in the medical field and health psychology field predominantly which have included looking at the role of anger on hypertension and high blood pressure (Culbertson & Spielberger, 1996) and its effects on gender and ethnic differences (Johnson, 1989a; 1989b). Research has also focused on cardiovascular activity and reactivity (Engelbreton, Matthews, & Scheier, 1989), coronary heart disease (Lisspers, Nygren, & Soederman, 1998) and Post Traumatic Stress Disorder (Castillo, Baca, Conforti, Qualls, & Fallon, 2002).

In the forensic psychology literature and specifically with violent men the STAXI and STAXI-2 has been utilised for assessing the effectiveness of anger management treatment programmes (Ireland, 2004), studies exploring intimate partner violence (Barbour, Eckhardt, Davison, & Kassinove, 1998), and offending populations (Foley, Hartman, Dunn, Smith, & Goldberg, 2002; Eckhardt, Jamison, & Watts, 2002), adolescent offenders (Swaffer & Epps, 1999), and male sexual offenders (Dalton, Blain, & Bezier, 1998).

Spielberger (1991) identified that for male offenders anger is problematic and maladaptive. He found that offenders frequently experience difficulties with regulating their anger and prison inmates scored considerably higher on the STAXI specifically on the scales measuring anger arousal and expression compared to other populations, especially violent offenders (Mills, Kroner and Forth, 1998). Novaco (1994) suggests angry feeling is a risk factor for violent behaviour, and although it has been recognised that not all violent offences are considered as angry offences it can be argued that poor regulation of anger plays a role in violent offending (Howells, Watt, Hall, & Baldwin, 1997).

Eckhardt, Jamison and Watts (2002), identified that men who committed violence against their partners obtain higher scores on the Trait Anger and lower scores on the Anger Control scales of the STAXI-2 when compared to non-violent men. These findings are consistent with related empirical research studies which have highlighted anger as a risk factor for the perpetration of Intimate Partner Violence (George et al., 2001; Mauro, Cahn, Vitaliano, Wagner, & Zegree, 1988). This suggests that men who committed violent offences in general or specifically against their partner experience more intense levels of anger arousal and have tendencies to express their anger out.

Foley et al. (2002), using an inpatient psychiatric population of Canadian men engaging in a six-month anger treatment programme, identified a link with institutional violence and anger scores on the STAXI. The STAXI assessment tool was administered to the men before and after the treatment programme. The results were collected and analysed, together with institutional incidents data. Statistical analysis showed a significant decrease in the overall STAXI score and in the trait subscale score after treatment, and lower overall STAXI scores were accompanied by lower levels of institutional incidences. This suggests that the STAXI is a useful assessment tool when assessing treatment programs aimed at targeting anger and when used together with institutional incident data is a valuable.

Appropriate norms /populations

To achieve an accurate interpretation of a psychometric measure, normative information is an important requirement. Percentiles provide information on how a respondent compares with other respondents in a particular normative sample. The normative sample for the STAXI-2 is based on the responses of two populations. The first is a community sample consisting of 1644 adults, (977 females and 667 males). The mean age for the sample was approximately

27 years, with ages ranging from 16 years to 63 years. The sample's occupational background was varied and included students (post and undergraduates), managers and other professionals. The STAXI-2 has been normed for females and males across three separate age groups, allowing for better interpretive value when compared to other measures assessing the construct of anger. The second sample is a psychiatric population consisting of 274 psychiatric in-patients, of these 103 were females and 171 males who completed the STAXI-2 routinely at the point of admission. The psychiatric inpatients endorsed higher scores than the community sample on the Anger-In scale and endorsed lower scores on the Anger-Control-Out scale and the Anger-Control-in scale, suggesting that they have less control over the outward or inward expression of anger compared to most adults in the community (Spielberger, 1999).

In terms of normative information a limitation of the STAXI-2 is that it is mainly related to a United States based population on which it has been standardised. The STAXI-2 has been effectively adapted into over 27 languages. It has been adapted so it can have psychometric properties for both clinical and research usage across cultures (Barrio, Aluja, & Spielberger, 2004), as the construct of anger and factors that lead to violence may arise due to cultural interpretations (Novaco, 1994).

Distorted responding

Socially desirable and defensive responding has been documented as a confounding factor in self-report assessment tools (Paulhus & Reid, 1991). Forensic studies using self-report assessment tools have regularly been criticised for both the validity of the tool used and the analysis of its findings, in particular when the purpose of such assessment tools are clear to the offender (Hanson & Bussière, 1998; Kroner & Loza, 2001). In addition, self-report data

provided by mentally disordered offenders has demonstrated likelihood for these respondents to underestimate their negative qualities and overvalue their more positive qualities (Hunt & Andrews, 1992).

A fundamental limitation of the STAXI-2 is that it does not contain any type of validity scale. In a recent study by McEwan, Davis, MacKenzie, and Mullen (2009), they investigated whether the STAXI-2 is vulnerable to impression management in clinical forensic populations. They found that individuals engaging in impression management had significantly lower levels of reported trait anger, internal and external expression of anger and elevated levels of anger control. The STAXI-2 was vulnerable to social desirability response bias in clinical forensic populations.

Spielberger (1999) suggests that low scores on all subscales (those that fall below the 25th percentile) may point towards defensive responding. He suggested professionals use clinical judgment in identifying this and acting cautiously when reporting results.

Conclusion

The STAXI-2 (Spielberger, 1999) is self-report assessment tool of 57 items designed and developed to measure the experience, expression and control of anger. A review of self-report assessment tools for anger by Eckhardt, Norlander and Deffenbacher (2004) concluded that the STAXI-2 operates on a robust understanding of anger that incorporates varied styles of expressing and coping with anger. The STAXI has reported good psychometric properties relating to its reliability and validity, while research on the STAXI-2 is more limited. It can be assumed however, that the psychometric properties for the revised measure are just as good as the original STAXI because revisions were based on the original STAXI after

empirical research data. It would be beneficial to conduct more research and evaluations specifically on the STAXI-2.

The STAXI-2 has been appropriately normed on males and females using a community population and psychiatric inpatient population, across three age categories. However the samples have all been from a US based population. Regardless, it is still widely used in risk assessments, research and as an assessment tool, a pre and post measure, in anger management interventions in the forensic field of psychology in the UK (Ireland, 2004). It would be beneficial to conduct research and evaluations using other populations.

Finally, caution must be taken when using self-report assessment tools with a forensic population as measures have often been criticised for both the validity of the assessment tool used and the interpretation of its findings, especially when the purpose of such measures are transparent to the offender in question (Hanson & Bussière, 1998; Kroner & Loza, 2001). Spielberger (1999) suggests that if a professional using the measure, with clinical judgment, believes the respondent is responding in a biased approach, an added measure to test for distorted responding should be considered.

Discussion

Attachment theory is not a theory of all interpersonal relationships but of a certain type of close relationship that includes (amongst other features) trust, verbal and non-verbal communication, soothing contact and protective care in the face of genuine or perceived threats to survival and safety (Bowlby, 1969). Secure attachment provides an essential ingredient for emotional and cognitive growth in the developing child and is a primary protective factor against the development of psychopathology and later violent behaviour (Levy & Orlans, 2000).

With this in mind the aim of the thesis was to identify the role of attachment in violent offending, with an aim of formulating what makes some individuals more likely to follow serious violent offending pathways, understanding the implications that an insecure attachment has on regulating anger arousal and offering treatment and managing individuals in institutional settings, with high anger and violence, in a safe environment. A number of objectives were identified in order to achieve the overall aim of this thesis and these are discussed below. A long term aim of this thesis would be to use the findings in the research study to treat and manage offenders in a high security hospital.

Main findings relevant to the literature

Chapter 1: Attachment Style and Offending Behaviour: A Systematic Approach

The systematic literature review was able to justify exploring attachment style within an offending population because insecure attachment was found to be over-represented with this population. The studies identified predominately looked at attachment styles among sexual offenders, with comparisons made with violent offenders and non-offending controls.

Attachment theory has been useful in the sexual offending literature in identifying individual vulnerability factors which may make some men more liable to offend. Contradictory findings were found in establishing whether there was a difference between types of offender and attachment style, which identified the need for more research to be conducted in this area.

Chapter 2: Anger, Attachment and Violence in a High Secure Hospital

The main finding in this chapter was that there was a high prevalence of reported dismissing attachment style in a high security hospital sample. This was regardless of offending history, diagnosis and ethnicity. This finding is significant and adds to the literature that links dismissing attachment style with violence (Levinson & Fonagy, 2004; Ross & Pfäfflin, 2004; Wampler & Downs, 2009; Van Ijzendoorn et al., 1997). Exploring attachment style among offenders found that sexual offenders had higher rates of secure attachment style compared to violent offenders. This is an interesting finding and contradicts previous research looking at sexual offenders' attachment style. However, given the self-report nature of identifying attachment style it can be hypothesised that the questionnaires were transparent to the participant and they gave answers that did not truly represent their honest view of close relationships but an answer they thought would represent them in a positive light. Exploring anger and attachment style it was found that those with a secure attachment style were less likely to be angry without specific provocation. Furthermore, attachment style was not linked to the number of violent incidents in the hospital, which was a surprising finding given the literature linking attachment, anger and violence. However it is acknowledged that violence is complex and can arise from a number of antecedents. The main limitation of the study was the use of self-report questionnaires and this will be discussed under the limitations section.

Chapter 3: Psychometric Critique of the State-Trait Anger Expression Inventory-2

The critique highlighted that the tool is derived from an evidence-base exploring anger. As the tool incorporates the theoretical model of anger, tapping into trait anger (i.e. if anger is part of an individual's personality, if anger is over or under controlled for an individual and if anger is instrumental or reactive), the tool is an appropriate measure of anger and is widely used in forensic psychology.

Overall, therefore, the findings from this thesis suggest that attachment style can be seen as having implications for violent behaviour (Figure 7) and is a useful model in understanding why and how violence may arise. Violence arising due to the inability to affectively regulate emotions when faced with a threat situation (perceived or actual) and the only way to manage the threat is to do something physical (violence).

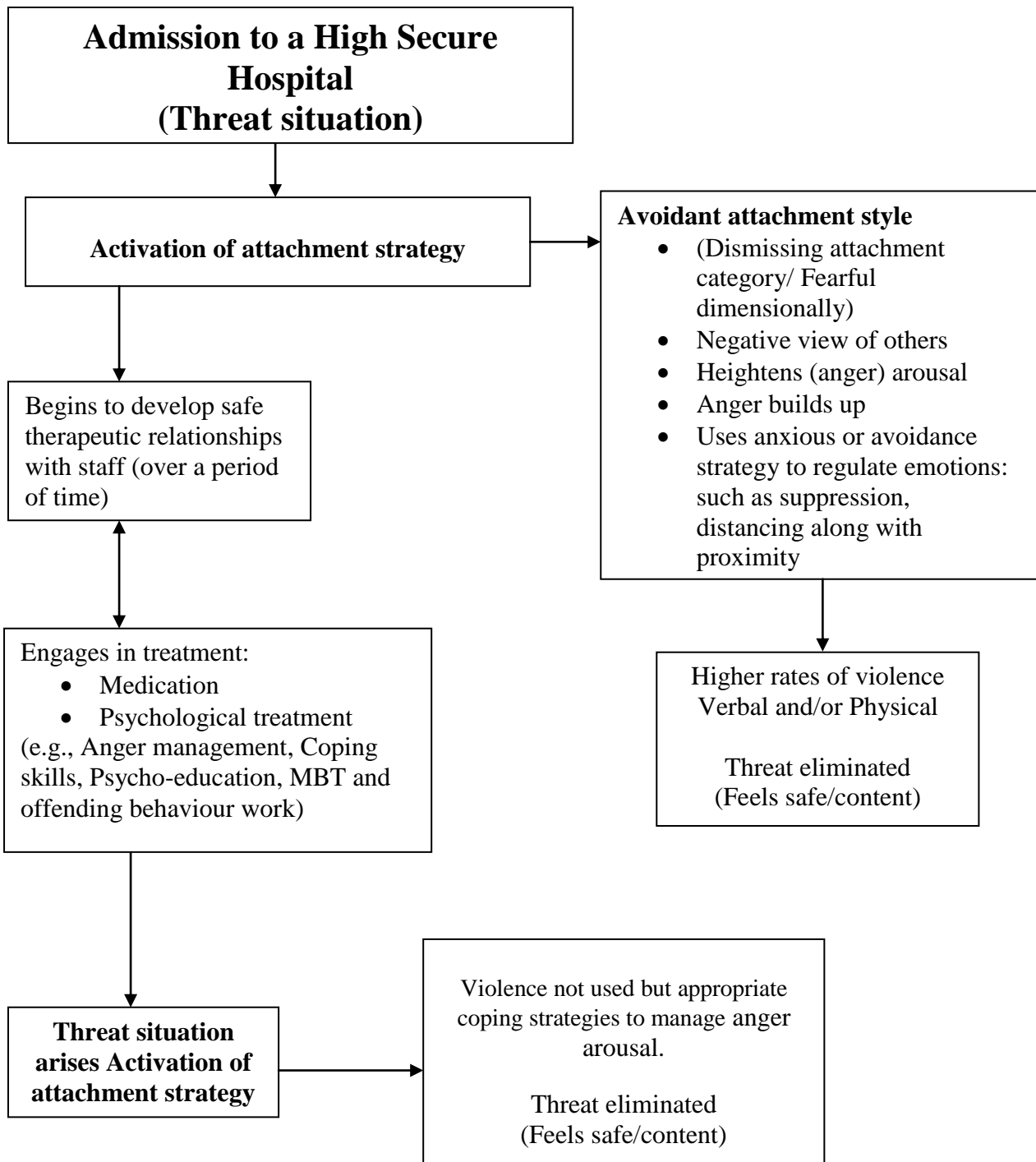


Figure 7. Hypothetical model of attachment, anger and violence based on results

Strengths

The main strength of the thesis is that it included a large sample size of violent offenders, with no known history of sexual offending detained in a high security hospital. This adds to the literature on attachment theory and offending as previous studies of this specific group of offender has been limited, with the focus being on sexual offenders. Research is mixed on whether insecure attachment is specific to sexual offenders only or if it is also relevant to violent offenders. This research would suggest that it is very relevant to violent offenders as sexual offenders were more likely to have a secure attachment style compared to violent offenders in a high secure hospital sample. A further strength was that attachment theory was applied to interpret findings and suggest treatment and management options for the offender. This shows the value it has for applying it to offender populations.

Another strength of the thesis was that in the literature, as previously discussed, there is a debate whether attachment style should be measured either categorically or dimensionally. The research drew attention to the fact that by measuring the sample categorically a dismissing attachment style was found but by measuring the sample dimensionally a fearful attachment style was found (high anxiety and high avoidance). Both dismissing and fearful attachment style represent an avoidant attachment style, having a negative view of others. The difference being that those with a dismissing style have a positive view of themselves, while those with a fearful style have a negative view of themselves. Thus, both the fearful and dismissing groups show avoidance of close relationships, but differ in the importance placed on others' acceptance. It is important that future research addresses these methodological issues and a consensus reached on how attachment style should be measured. In addition, the RSQ uses a four category model of attachment; however other measures

(such as the ECR-R and even the AAI) use a three category model and do not distinguish between the fearful and dismissing styles of attachment, therefore the research has highlighted that an avoidant attachment style most prevalent in a high secure hospital.

Furthermore, the importance of linking theory with practice in clinical work is highlighted. Attachment theory can be used to formulate the developmental antecedents and interpersonal repertoire of an individual's clinical problems. Insecure attachment helps us understand how individuals manage anxiety and anger, their view of self and other, how they may be in close relationships, and their use of violence as a way of communicating internal distress. Given that the research also found higher rates of violence in newly admitted patients, this can be understood from an attachment theory perspective. When a patient is first admitted to a high security hospital it is essential that a secure base is established for the patient, given this being a highly threatening situation, it is important for staff to support patients and to communicate clearly to the new admission by inducting them sufficiently into the hospital. The aim is to alleviate apprehension and lower arousal as their attachment system will be activated at this point. Establishing boundaried, safe, positive relationships at the point of admission is likely to be crucial at the point of admission. The building and maintenance of a good working alliance between clinicians and patients could be viewed as similar to the development of an attachment relationship; staff can and frequently do create a secure base from which patients examine their problems (Adshead, 1998).

Limitations

The main limitation of the research study was the use of self-report measures and, although this was helpful in allowing the respondent to report on himself, it leaves open the possibility that this could present a biased and inaccurate picture; particularly for those keen to fake

good. To address this issue, in retrospect a measure to capture this would have been helpful in order to highlight bias and validate research findings. A measure such as the Paulhus Deception Scales (Paulhus, 1998) which taps into impression management and self-deceptive enhancement would have been valuable. If the study is replicated in the future this should be included.

The mental health problems of patients may also have caused problems when filling out the self report measures. Some of the participants may have been suffering from hallucinations, delusions, feelings of grandiosity and paranoia, which may have influenced their choice of response in the direction of seeking to please and/or maximising or minimising problematic behaviour. However, the researcher did not observe any overt signs that this was occurring. Demand characteristics and other confounding variables linked with using self report questionnaires were minimised by using standardised instructions and making participants aware that the research was completely separate to their treatment care pathways and that results would be anonymous and not fed back to their RC and their clinical teams.

Due to the reading ability of some of the patients the researcher read the question items to those participants that requested this. The participant then indicated how well that described them from the options given to them from the likert scale. A strength of this approach was that it enabled those participants with reading limitations to take part in the study. However, it could have led to significant differences in participant responses. For example, those participants that could not read may have responded differently due having to verbalise their response than writing it.

A further limitation was the use of retrospective incident data which was used to capture violence. It is possible that the incident data was inaccurate when recorded or could have

contained biases. This was flagged up as there were no incidents of attempted assault in the data, which is highly unlikely. Also some incidents may have been documented (likely to be verbal incidents) in the patients running daily records but not documented as an IR1. In retrospect it may have been valuable to examine the running record in combination with IR1 data to get a larger picture of an individual's violence.

In addition the number of years that incident data was available for individuals varied depending on their length of stay in the hospital. This was controlled by calculating the average number of incidents per year, but having a similar quantity of data for each patient would have been a more accurate representation and not having this may have affected the results.

Applicability of findings

A number of factors must be taken into consideration when applying and interpreting the findings reported in the research study. The participants were all drawn from a high security hospital, which in itself is a very specific and unique environment. It is acknowledged that the findings discussed may not be generalisable to other inpatients settings, due to the heterogeneity of the sample. The literature however does fit in with the findings and the importance of applying attachment theory in the management and treatment of offenders in high security.

Future research

It is surprising that the central issue of attachment is frequently overlooked with regards to psychopathy. The relationship between attachment and psychopathy was first anticipated by Bowlby (1944) to give explanation of the affectionless personality of juvenile thieves, for

whom lack of warmth and troublesome childhoods was thought to have created an absence of curiosity for others. Attachment theory suggests that children who fail to develop a secure attachment with their primary caregiver are not provided with the opportunity to learn how to be empathic and therefore this increases a child's risk for interpersonal difficulties which can include psychopathic tendencies such as a lack of empathy.

Links have been made between an insecure attachment and psychopathy (Blair, Mitchell & Blair, 2005) and future research could explore this further given the evidence from adult populations which highlight the difficulty in treating psychopathic personality (Salekin, 2002). It has been suggested that individuals high in primary psychopathy do not experience negative emotions, such as fear, stress and guilt (Cleckley, 1988). From an attachment perspective it can be suggested that the persistent nature of psychopathy is related to the chronic interpersonal and emotional deficits that form the core of the disorder. The beginning of this may lie within a breakdown of the early parent child relationship, insecure attachment may be a seed that become entrenched over time. Previous research has found that the dismissing style of attachment is more prevalent in populations of violent adult offenders (Van IJzendoorn et al., 1997; Fonagy, 1997). However, none of these studies included formal measures of psychopathy. This finding is also related with the current research as a dismissing attachment style was over-represented in this sample and in hindsight it may have been interesting to have also collected any completed PCL-R scores of the participants.

A number of suggestions for future research have already been noted. In addition, to develop the research and thesis aims, replication of this study could include the following; a) incident data could also be examined to determine whether more comprehensive individual factors, situational factors and structural factors are predictive of type and/or level of violence, b)

additional measures could be added to measure impression management of participants and self reported attachment and anger, c) a number of attachment style measures could be utilised to gain a fuller understanding of an individual's attachment style, d) type of mental illness, type of violence and type of attachment style could explored, e) type of personality disorder, type of violence and type of attachment style could explored. Lastly, research could be broadened to include participants from medium secure units, prison populations, female populations and non-personality disordered inpatient populations to supplement the findings of the current study.

Conclusion

Attachment theory helps us understand 1) how individuals behave in interpersonal relationships; 2) how individuals regulate their emotions; 3) personality development; and 4) the importance of childhood experiences impacting later adulthood. Most empirical tests of these theoretical ideas have focused on exploring an individual's attachment style, the systematic pattern of relational expectations, emotions, and behaviour that results from internalisation of a particular history of attachment experiences and consequent dependence on a particular attachment-related strategy of affect regulation (Shaver & Mikulincer, 2002).

An insecure attachment style, as discussed, has been linked with an inability to effectively manage negative emotions such as anger, as effective capacities are not learnt through positive childhood experiences and maladaptive behaviours are adopted to manage negative emotions. Anger is a normal human emotion but if the expression, frequency and intensity is high, it becomes problematic, affecting normal daily functioning. Anger is conceptualised as being expressed in situations of intense arousal when existing psychological defences breakdown and has been linked in the literature as an antecedent to violent behaviour.

Attachment theory can be applied to an offending population as research suggests that the rate of insecure attachment is high. Identifying an individual's attachment style enables professionals to gain insight into the deficits that might result in violent offending behaviour, such as lack of empathy, little regard for others, high emotional arousal and negative view of others. Attachment deficits can be understood as severely rooted problems rather than gaps in learning and treatment should aim to provide a secure base for these individuals in institutions, with staff modelling positive relationships, as offenders may have not previously experienced this.

In conclusion, an individual's attachment style alone cannot predict violent behaviour; however an insecure attachment can be viewed as one factor that makes individuals more vulnerable to using violence, due to deficits in managing and regulating negative emotions anger is expressed through violent behaviour.

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Appendix One

Quality Assessment Form

Criteria fully met=2
Criteria fully met=1
Criteria not met=0
Unclear/insufficient information

1. Clear hypothesis/ research question? (Is the reader aware of the nature of the study?)

2. Was an appropriate method used to answer the question? (Design? Sample?)

3. Was the sample selection biased? (Participants recruited fairly?)

4. Was the description of participant's background/demographic factors clear and comprehensive?

5. Was a validated measure of attachment used? (E.g. RQ, RSQ, ECR etc, self-report or interview?)

6. Was there a comparison group? (1=Compared another offending group, 2=Compared to general population and another offending group)

7. Was there good statistical analysis? (E.g. Parametric vs. non-parametric, was the right statistics used?)

8. Were the results well reported? (E.g. Effect size, significant vs. non significant results discussed?)

9. Can findings be generalised? (Can the results be applied to the UK population?, Do the results of the study fit with other available evidence?)

10. Has the limitations of study been discussed? (E.g. Use of self-report measures etc)

Total /20

Appendix Two

Data Extraction Form

General information

Date of data extraction:

Record number:

Authors:

Article title:

Type of publication:

Country of origin:

Study characteristics

Aim/objectives of the study:

Study design:

Inclusion/exclusion criteria:

Recruitment of participants:

Unit of allocation (prison, hospital etc)

Participant's characteristics

Age:

Ethnicity:

Diagnosis:

Offence:

Measures

Attachment measure:

Validity

Reliability

Findings

Other additional information

Appendix Three

UNIVERSITY OF
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RC consent form

Dear Dr X

We are conducting a study investigating the relationship between a patient's attachment style, anger and incidences of violence.

Attachment, Anger and Violence within a high security hospital

The research is being carried out within the Psychological Services and in collaboration with the Centralised Groupwork Service and University of Birmingham. The study has been peer reviewed and approved by the X Research Ethics Committee and the X Consortium.

The study aims to approach patients with a history of sexual or violent offending and with their consent complete a series of questionnaires on their relationships and anger expression (RSQ and STAXI-2 as attached). Consent to access their incident data will also be requested.

We are writing to you to seek your opinion regarding the suitability of patients named below who are under your care. We would like to ask whether the clinical team, would have any objections or concerns if the following patients were approached for possible participation in this study:

Patient(s) Names Here

We have included consent forms for you to sign to indicate your opinion about each patient's suitability to take part in this study. We would appreciate it if you would return the consent forms for our records. If in your opinion a patient is not suitable to be approached please can you indicate on the consent form(s). Please also find a patient information sheet, for your information.

To ensure the welfare of participants we will also inform participants primary nurses of their involvement in the study should any concerns or issues arise following involvement in the research.

We would like to thank you for your time. If you have any queries, please do not hesitate to contact Derya Ratip or Estelle Moore on ext 4492.

Yours sincerely, Derya Ratip, *Trainee Forensic Psychologist*

Patient's name:

Please tick where appropriate:

Consultant's agreement that patient is suitable for the study

The above patient has **CAPACITY** to consent to participate in this study

If the patient is not **suitable**, please state why: (too unwell, unwilling)

.....
.....

Consultant name:

Consultant signature:.....

Date:

Appendix Four

UNIVERSITY OF
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Participant information sheet

Researcher: Derya Ratip

You are being invited to take part in a research study. Before you decide to take part it is important for you to understand why this research is being done and what it will involve. Please take time to read the following information carefully. Take time to decide whether or not you wish to take part. You can also talk to others about the study.

Title of project: Attachment, Anger and Violence in a High Secure Hospital

What is the purpose of the study?

The key aim of the study is to compare individual relationship styles (attachment style) across a range of offending behaviours, within a population of offenders with a variety of mental health needs. Additionally the research aims to examine the relationship between relationship styles and violence within the hospital. The study will be conducted in X Hospital supervised by Dr Estelle Moore in conjunction with the University of Birmingham.

Why I have been invited?

This study aims to examine the relationship styles of male patients detained within a high secure hospital, who have been sectioned under the mental health act 2007 and have committed an offence. Your Responsible Clinician has been contacted and is aware you are being approached for the study.

Do I have to take part?

No, taking part is entirely voluntary. It is up to you to decide whether or not to take part. If you take part, you are free to stop taking part at any time during the research without giving a reason. If you decide not to take part or to stop, this will not affect your treatment.

What will happen to me if I take part?

If you do take part an appointment will be made to visit you in a private and quiet interview room on your ward. You will be asked to sign a form giving consent and be given an opportunity to ask any further questions you have. You will be asked to complete a total of 4 questionnaires. Two questionnaires relating to your feelings about close relationships, one consisting of 4 items and the second 30 items. You will then be asked to complete *one* questionnaire relating to managing negative emotions and the view of yourself and other consisting of 60 items and one questionnaire relating to anger consisting of 57 items. These should take no longer than 35minutes to complete. Information will be gathered from your medical files (age, ethnicity, diagnosis, admission date and offence) held in the psychology department and information from incident report records will also be accessed.

What happens when the research study ends?

All information will be stored safely in confidence and the researcher will ensure that your contributions are completely anonymised. Discussions about the project and findings will take place with the supervisor of this project, Dr Estelle Moore and the academic supervisor.

The study will be written up anonymously, possibly for publication in a Psychology Journal and will also contribute to an educational degree. If you would like general feedback from the questionnaires this will be provided.

However, **ALL identifiable information** will be removed to ensure your contributions are anonymous (that is, it will not be possible to identify your material). Data will be reported as group and not by individual data scores.

Will taking part be confidential?

Yes. If you decide to take part, we will keep your information in confidence. All information will be kept at a secure location which will not be accessible by anyone in the research team. The procedures for handling, processing, storing and disposing of data are compliant with the Data Protection Act 1998.

The only time information would be shared with other professionals, would be in exceptional circumstances if you revealed or disclosed information that may indicate a risk of harm to yourself or others. This can include physical and/or psychological risks (e.g. distress). If this were to happen such disclosures would need to be followed up with your clinical team which would be true in any therapy session.

What are the benefits of taking part?

We cannot promise the study will have definite benefits. However the data obtained may provide useful information about relationship style and violent incidences that may positively influence clinical practice by offering improved/alternative treatment and by understanding and managing violence within high security.

What if a problem arises?

If you have a concern about any aspect of this study, you should ask to speak with the researcher who will do her best to answer your questions. If you remain unhappy and wish to raise a complaint, you can do this through the NHS complaints procedure. Details can be obtained from the hospital nursing staff on your ward.

Contact details

Derya Ratip Trainee Forensic Psychologist X Hospital or Dr Estelle Moore Lead Clinical and Forensic Psychologist, CGS on extension 4492.

Thank you for taking the time to read this information

Participant consent form

This study aims to explore the Relationship style, anger and violence win a high security hospital. We would like to ask you to participate in our study. You do not have to take part and your decision will not affect your treatment at X Hospital.

Please initial the relevant boxes:

I have read and understood the information sheet

I wish to take part in the study and understand that I am free to withdraw at anytime, without giving any reason, without my healthcare or legal rights being affected

I give consent for the researcher to access my medical files (to gain demographic details), use the data generated from the questionnaires and IR1 data in the write up of the study

I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from X Trust or from regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.

I would like more information

Participant Full name

Signed/ Dated

Researcher Full name **Derya Ratip**