

Volume 1

**Intentional Self-Injury in Male Prisoners:
The Role of Social Status, Shame and Anger**

Lynda Todd

D.Clin.Psy. 2002

University College London

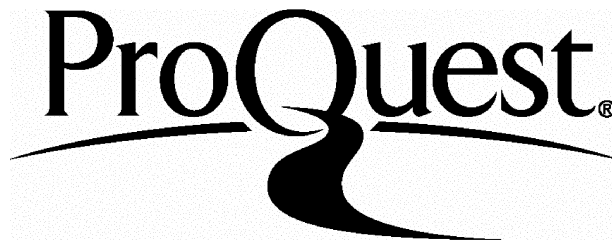
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ABSTRACT

Social Rank Theory (Gilbert, 1992) has proposed that following abusive childhood experiences, an individual remains vulnerable and sensitive to low social status and shame. A perception of low status and feelings of shame may result from rejection, loss of attractiveness or loss of rank. In order to avoid further conflict or an additional loss of status, an individual may attempt to escape the situation or to display behaviours representative of submission. Anger may provide a means of defending against shame, through blaming the other for one's shamed position. Therefore, if the risk is not too great, an individual may enter into conflict with the shaming other. Prisons have often been regarded as exceptionally shame-based institutions. To attack others and become violent may be one means of saving face and avoiding a loss of status, however, aggression toward others may not be adaptive if it will lead to further defeat. Consequently, intentional self-injury may be a more adaptive means of responding to the experiences of shame and anger elicited by a fall in status. The following study therefore aimed to investigate whether intentional self-injury amongst male prisoners related to childhood abuse, low social status, shame and anger. The study involved a comparison of self-injurious (n= 40) and non-self-injurious male prisoners (n=33). Findings suggested that male prisoners who self-injure experience greater childhood emotional abuse, higher levels of situational shame, higher state anger and a greater tendency to suppress their feelings of anger. The theoretical implications of this research are discussed and consideration is given to possible paths for future research. In addition, suggestions are made regarding intervention and practice within the prison system.

ACKNOWLEDGEMENTS

I will always be especially grateful to Eddie for his endless patience, love and support, which has given me with the stamina and enthusiasm to persevere and complete this piece of work. I am also exceptionally grateful to my mum and dad who have both been unfailing in their love and encouragement, which has provided me with the self-belief and work-ethic necessary to accomplish this thesis and course. Thanks to Ailsa, Kirstie and Luke for your friendship, inspiration and coffee, without which this would have been a far more stressful and solitary undertaking. I am also grateful to Janet Feigenbaum and Robert Halsey for your advice and guidance throughout this process. Finally, I would like to thank the prisoners and staff of HMP Pentonville for your cooperation and participation, because without your help this research would most certainly not have been possible.

1. INTRODUCTION

Self-injury is a serious problem within the British prison system. Unfortunately, there seems to be much confusion surrounding self-injurious behaviour. The confusion appears to arise from an ambiguity with regard to the definition of self-injury, a sparsity of theoretical understanding, and meagre recommendations for intervention. The following will therefore attempt to define self-injury and provide a rationale for this study of self-injurious behaviour amongst male prisoners. A summary of Social Rank Theory (Gilbert, 1992) will be presented, and it will be argued that childhood abuse experiences, perceptions of social status, and the emotions of shame and anger are all intimately linked, especially for individuals at the bottom of a pecking-order. Subsequently, it will be proposed that male self-injurious behaviour within the prison system may be understood in terms of Social Rank Theory (Gilbert, 1992). Thereby, relevant research focusing upon prison self-injury will be reviewed with specific emphasis upon social rank-related factors.

1.1 Intentional Self-Injury

1.1.1 Defining Self-Injury

'I chose the sharp serrated knife...I placed it across my left forearm on the underside... (and)...I slowly made a one-inch cut. I thought I could feel each tooth of the knife's edge bite into and tear a little piece of skin...When I finished the inch, blood ran down my forearm in a neat stream...It was like medicine for my fears'

(Annika's story, cited in Levenkron, 1998, pp.26)

The above quote eloquently describes an experience of self-injury. Mental health clinicians and researchers have however, struggled to reach a consensus regarding the

definition of such behaviour. The following section will therefore attempt to unravel the profusion of terms surrounding this topic, and thereby provide some clarity as to the phenomenon under investigation in this study. Specifically, debate has raged over two central issues concerning the definition of self-injury. Firstly, much consideration has been directed to the question of whether self-injury can or even should, be separated from suicidal behaviour. Secondly, professionals have continued to deliberate over exactly which behaviours constitute self-injury.

Suicide and attempted suicide pertain to behaviours in which the intention of the individual is to die (Williams, 1997). Some studies have encompassed all non-fatal self-inflicted injurious behaviour under the heading of attempted suicide (Hughes & Owens, 1995; Liebling & Krarup, 1993). A number of authors thus appear to have adopted the stance that individuals who have injured themselves through attempting suicide, and individuals who have injured themselves without intent to commit suicide belong to the same population (Hirsch, Walsh & Draper, 1982; McGaughey, Long & Harrison, 1995). In contrast, Favazza (1996) identified a clear distinction between these two groups and commented that: *'A person who attempts to commit suicide seeks to end all feelings, but a person who self-mutilates seeks to feel better'* (pp.271). Further, Pattison and Kahan (1983) argue for the separate existence of non-suicidal self-injurious behaviour by proposing a 'deliberate self-harm syndrome' which involves *'painful, destructive and injurious acts...without the apparent intent to kill themselves'* (pp.867).

Demographic information relating to suicide and self-injury in the U.K. testifies to the distinction of these groups (Office for National Statistics, 2002; Oxford Monitoring

System for Attempted Suicide, 2002). There exists a gender bias for self-injury and suicide, but in opposite directions. Whilst rates of suicide are higher for males than females, rates of self-injury are consistently higher for females than males. The rates of both suicide and self-injury also vary across age groups, but again the pattern is different for each. Throughout the 1990s, female suicide has been highest in the 45 plus age group and lowest in the 15-24 year age group. In contrast, female self-injury reaches a peak in the 15-24 year age group and is lowest in the 55 plus age group. Male suicide rates remain high across the 25-54 year age group and peak again in the 75 plus age group. Like suicide statistics, male self-injury is also highest in the 25-34 year age group, but the second highest rate of self-injury occurs in the 15-24 year age group, which is the group with the lowest suicide rates. Furthermore, the lowest rates of self-injury for men occur in the 55 plus age group, and so, unlike suicide, remain low for those aged over 75 years.

Therefore, self-injury and attempted suicide appear to be two distinct phenomenon. Nevertheless, researchers have often continued to group these individuals together due to difficulties in establishing the intention underlying the behaviour and hence whether the behaviour was suicidal in intent or not (Liebling & Krarup, 1993). Many authors (Linehan, 1993; Williams, 1997) thereby argue for the utility of the term 'parasuicide', proposed by Kreitman (1977). Parasuicide is defined as an intentional behaviour which causes non-fatal harm to the self. As a result, this term therefore avoids the necessity of clarifying an individual's motives, but equally, to adopt this approach may obscure crucial distinctions between the suicidal and non-suicidal individuals. In an attempt to overcome this problem, researchers have used lethality of method to provide an index of suicidality (i.e. the more potentially lethal the

method of self-injury, the greater the suicidal intention of the individual) (O'Donnell, Farmer & Catalan, 1996; Powell, 2000). However, critics argue that individuals may be unaware of the potential consequences of their behaviour, or may be unable to readily access a less lethal method of injury (Williams, 1997). Thus, lethality may offer only a very imprecise assessment of suicidal motivations. Instead, an alternative means of assessing intent would be to ask the individual directly about the motivation underlying their self-injurious act.

Accepting the proposition that there exists a group of individuals who purposely inflict injury upon themselves, there still remains the debate over which behaviours actually constitute self-injury. Numerous terms have been developed in order to distinguish the various forms of self-injurious behaviour. These have included 'self-mutilation' (Favazza, 1992; 1996; Levenkron, 1998) which refers largely to self-inflicted cutting, although such severe behaviours as castration or eye enucleation (gouging out the eye) have also been incorporated under this heading. The more precise terms of 'self-cutting' and 'wrist slashing' have been applied to denote the purposeful cutting of the skin, often with the use of a razor blade or other sharp object (Greenspan & Samuel, 1989; Grunebaum & Klerman, 1967; Nelson & Grunebaum, 1971; Pao, 1969). Skin damage can also result from 'self-burning' which involves burning of skin by a cigarette, naked flame or heated element (Soni Raleigh & Balarajan, 1992). The term 'self-poisoning' (Bancroft & Marsack, 1977) similarly refers to a specific behaviour, and has been applied to the intentional ingestion of substances including drugs or excess medication with the intent to cause harm to the self. In addition, researchers have also investigated the specific behaviour of 'blood-letting' which is a term used to describe the intentional removal of blood from the

body (Parkin & Eagles, 1993). It can be seen from the various behaviours described above, that individuals may inflict injury upon their own bodies through many diverse methods.

A converse approach to defining self-injury would be to adopt an all-encompassing term such as 'deliberate self-harm' (Pattison & Kahan, 1983). However, it has been argued that this term is equally unhelpful and suffers from ambiguity, particularly due to being overinclusive (Crighton & Towl, 2000; Walsh & Rosen, 1988). 'Harm' enables this phrase to refer potentially to such behaviours as nailbiting, smoking or overeating. In turn this leads to such a lack of specificity that it becomes difficult to boundary the research or draw meaningful implications. Likewise, 'deliberate' suggests a behaviour over which thought and deliberation has been given. Since self-injurious behaviour is frequently described as impulsive (Favazza, 1992), the term deliberate may not be representative of much self-injury. Instead, the term 'intentional self-injury' (ISI) has been advocated by Crighton and Towl (2000). 'Intentional', describes a behaviour that is carried out on purpose, without indicating the degree of forethought. 'Injury' indicates a set of behaviours involving immediate physical damage or hurt. The term ISI is therefore not so overinclusive as to be rendered meaningless, but equally, provides the advantage of encompassing a range of self-damaging acts.

1.1.2 Intentional Self-Injury in Male Prisons: A Rationale

Defining self-injury has proven problematic within general self-injury literature, and likewise clarifying the definitions and distinctions between attempted suicide and self-injury has also plagued government and prison policy. As an example, a Home Office

review (HM Chief Inspector of Prisons for England and Wales, 1984) conducted by HM Chief Inspector of Prisons in 1984 recommended that an effort be made to construct working definitions of an attempt at suicide and an episode of deliberate self-harm. This appears to have been no straightforward task because seven years later, by the publication of a further HM Prison Service Internal Review entitled 'Prevention of Suicide and Self-harm in the Prison Service' (HM Chief Inspector of Prisons for England and Wales, 2001), it was again recommended that these terms be differentiated and defined.

The HM Prison Service Safer Custody Group has collated information on rates of self-injury in prisons for England and Wales (HM Prison Service Safer Custody Group, 2002). Statistics were obtainable for the years 1998-2001 only. Information prior to this was not publicly available due to the presence of inconsistencies in earlier data as a result of errors in the recording and monitoring systems. Nonetheless, it was clear from the trend across this four-year period that despite government reviews, self-injury continues to remain a serious problem in the prison system, with a total of 7486 incidents of 'self-harm' (including both self-injury and attempted suicide) occurring in 2001. These rates of self-harm have increased gradually from 1998-2001 for both women and men. The rate of self-harm has risen from 68 to 985 incidents per 1000 female prisoners and similarly has increased from 47 to 86 incidents per 1000 male prisoners. These figures represent the number of self-harm incidents, as opposed to the number of prisoners who have self-harmed. Data regarding the number of prisoners who have self-harmed is not recorded and therefore it seems likely that the figures presented, incorporate multiple incidents by a single prisoner. Although self-harm rates are higher amongst female than male prisoners, men

represent approximately 94% of the total prison population. Therefore in real terms, across the four-year period, male self-harm has constituted approximately 80% of the total self-harm incidents. Consequently, the prison service as a whole must cope with a far greater number of self-harm incidents by its male inmates.

The 2001, HM Prison Service Internal Review expressed concerns regarding the limited options open to prison staff when responding to such incidents of self-harm, indicating that for many staff the only choice available is to increase observation of the prisoner. The option of heightened observation was not however, considered a panacea. Instead it was recognised that increased observation may further increase the negative feelings which initiated the self-harm and thereby increase the likelihood of further self-harming behaviours. A circumscribed set of additional recommendations were therefore provided, including the suggestion that those who self-harm should not be housed in individual cells; structured out-of-cell activities should be encouraged; a positive atmosphere within prisons should be promoted; and individual support should be provided to those who self-harm. Although a list of responses were recommended, the report nevertheless concluded that '*Prisons urgently require advice on which interventions work*' (HM Chief Inspector of Prisons for England and Wales, 2001, pp.32) for those who self-harm.

1.1.3 Intentional Self-Injury Summary

The following study will utilise the term intentional self-injury (ISI), as recommended by Crighton and Towl (2000). In order to avoid any further confusion of terms, the self-injurious behaviours to be investigated in this study will include hitting, scratching, biting, cutting, burning, bruising, breaking bones, overdosing,

strangulation, hanging, body ligatures, blood-letting and the consumption or insertion of harmful substances or objects, thereby identifying a specific set of behaviours which involve physical damage or hurt. The following study will also attempt to preserve the distinction between attempted suicide and ISI. Therefore, information regarding motivation will not be assessed according to the lethality of the method used because many prisoners may be severely restricted in their access to methods of self-injury. Rather, the following study will adhere to the recommendation of the 2001 Internal Review which suggests that *'judgements about intent must be informed by the prisoner's explanation of their behaviour'* (HM Chief Inspector of Prisons for England and Wales, 2001, pp.31). Finally, ISI is clearly a significant problem within the prison system and both the prison service and government are now requesting advice regarding the support, management and prevention of ISI in our prisons. In order to recommend treatment or intervention to a prison service struggling to tackle the ever-increasing rates of self-injury, a first step may be to better understand intentional self-injury within the context of the prison system. Since the majority of self-injury incidents are carried out by male inmates, the following study will focus specifically upon non-suicidal ISI in male prisoners.

1.2 Psychological Explanations of Intentional Self-Injury

The theories or psychological explanations of self-injury are almost as numerous as the forms of self-injury themselves. The following section will however provide a brief overview of factors associated with self-injury in the general literature. Subsequent sections will then focus specifically upon the Social Rank Theory of self-injury under investigation in this study and factors related specifically to self-injury in the prison system.

1.2.1 Psychiatric Diagnoses

Self-injury or self-harm is not considered a distinct psychiatric disorder, despite calls for such a categorisation (Favazza, 1992; Pattison & Kahan, 1983). Instead, self-injury has been observed in individuals with various diagnoses including for example, borderline personality disorder, dissociative personality disorder, psychosis, depression, and learning difficulties (Walsh & Rosen, 1988). However, as an identified diagnostic criterion, self-injury receives little reference. The criteria for depression and dysthymia diagnoses refer only to suicidal thoughts and behaviours, but such behaviours remain unspecified. Thus, self-injury is directly referred to only within the DSM-IV diagnosis of borderline personality disorder and the ICD-10 criteria for emotionally unstable personality disorder (borderline type). Consequently, the presentation of self-injury is often assumed to automatically indicate a borderline disorder but, although there appears to be a high prevalence of borderline diagnosis amongst those who self-injure (Tantum & Whittaker, 1993), there is far from a one hundred percent correspondence. It is therefore important to look beyond diagnostics in order to obtain a more comprehensive understanding of self-injurious behaviour.

1.2.2 Problem Solving, Over-General Memory and Hopelessness

One study compared the problem solving abilities of patients who were recently hospitalised following an overdose and patients admitted to hospital for surgery (Evans, Williams, O'Loughlin & Howells, 1992). Participants were presented with the Means-Ends Problem Solving test, in which they were required to complete the middle section of a story having been provided with an initial problem and a desired end point. Results found that overdose patients produced fewer solutions and the

solutions produced were also less effective. Furthermore, Linehan and colleagues (Linehan, Camper, Chiles, Strohsal & Shearin, 1987) conducted a study exploring the interpersonal problem-solving abilities of parasuicidal inpatients, suicide ideators and non-suicidal psychiatric inpatients. Findings showed that parasuicidal patients were less active in their problem solving abilities, relying more upon others. Such research suggests that when experiencing a difficulty in generating alternatives, self-injury may provide a coping solution to a problem. In line with this, self-reports would appear to support the view that self-injury, '*enables (the self-injurer)...to cope with the pain and torment*' (Babiker & Arnold, 1997, pp.73).

Williams (1997) suggests that this difficulty in problem solving may be attributable to over-general memory. In studies comparing overdose patients, and hospital controls it was found that the overdose patients when requested to retrieve specific autobiographical memories were more likely to respond by describing a general memory rather than one based upon a specific event (Williams & Broadbent, 1986). Williams (1997) therefore argues that if required to problem-solve based upon generating solutions from previous experience, the individual will be severely impaired since they will retrieve only a very general description of past situations, possibly lacking the detail necessary to construct an effective coping strategy in the present. Indeed the study conducted by Evans and colleagues (Evans et al, 1992) also assessed memory abilities and found a significant correlation between memory and problem solving, for as autobiographical memories became more general, so the effectiveness of problem declined.

Self-injury has been associated not only with the recall of past events but also future thinking or hopelessness. Patients who were admitted to hospital following an overdose were requested to generate a list of things they were looking forward to in the future and a list of things they were not looking forward to (MacLeod, Rose & Williams, 1993). Compared with a group of hospital controls and a group of non-hospital controls, the overdose patients produced as many negative events in the future, but fewer positive events. Similarly, Linehan and colleagues (Linehan, Goodstein, Nielson & Chiles, 1983) administered the Reasons for Living Inventory and found that parasuicidal patients endorsed significantly fewer reasons for living than general and psychiatric controls. Williams (1997) thus argues that parasuicidal behaviours, which would include self-injury, may be a response to a sense of hopelessness in the future.

1.2.3 Emotion Regulation, Interpersonal Difficulties and Communication

A number of studies exploring individuals' reasons for intentional self-injury have identified self-injury as a means of regulating intense emotion or relieving tension (Babiker & Arnold, 1997; Favazza, 1996; James & Hawton, 1985; Levenkron, 1998). Not only is this a relief of tension, but a number of self-reports also describe self-injury as a means of turning the intolerable emotional pain into a more visible, manageable, physical pain (Babiker & Arnold, 1997). In particular, authors have pointed to an association between self-injurious behaviour and the feelings of anger and hostility (Babiker & Arnold, 1997; Levenkron, 1998; MacLeod, Williams & Linehan, 1992; Walsh & Rosen, 1984). This may also relate to the interpersonal difficulties experienced by self-injurers often prior to the self-injurious incident, for in a study of overdose patients, it was found that arguments with a key person (e.g.

spouse) were extremely common prior to the overdose (Bancroft, Skirmshire, Casson, Harvard-Watts & Reynolds, 1977). Alternatively, rather than an escape from emotion, self-injurers report cutting or burning in order 'to feel', describing beforehand feeling numb, blank or at the extreme, reporting a dissociative state (Babiker & Arnold, 1997; Levenkron, 1998; Smith, Cox & Saradjian, 1998). Furthermore it has been suggested that the management of emotions through self-injury may be fuelled by self-hatred, self-disgust or self-loathing (Babiker & Arnold, 1997; Smith, Cox & Saradjian, 1998; Walsh & Rosen, 1988). Thus, believing the self to be 'bad' may lead the individual to punish and attack their own body.

Experiencing the difficult interpersonal relations described above, it has been argued that self-injury acts as a means of communication (Babiker & Arnold, 1997; Hodes, 1990; Walsh & Rosen, 1988). As an example, Hodes (1990) described a case study in which 'overdosing is carried out by those who believe that other kinds of communication are not heard' (pp.327). If indeed self-injury acts as a form of communication, the meaning of such an act may be many and varied. Some have argued that self-injury is a means of manipulation, attention-seeking or a 'cry for help', although given the frequent negative responses to self-injury (Arnold, 1995) it would seem that this is a somewhat simplistic explanation. Instead self-injury may be a 'last ditch strategy' (Tantum & Whittaker, 1993, pp.205) to gather some control in often highly conflicted relationships and negotiate a path between over protection and rejection.

1.2.4 Biology and Addiction

Endogenous opioids are neurochemicals within the brain that are released when the body is injured and result in an insensitivity to pain, a positive feeling of calmness or a 'high' (Konicki & Schulz, 1989). Thus it may be that constitutionally increased opioid levels raise the threshold for pain and thus self-injury becomes easier. Alternatively, the 'high' produced by the release of endogenous opioids following self-injury may be rewarding. Indeed it has been proposed that it is possible to become addicted to one's own endogenous opioids and as such it becomes necessary to release more in order to achieve the same feeling, thus possibly maintaining or increasing self-injurious behaviour (Tantum & Whittaker, 1993). There has also been evidence to suggest that the neurotransmitter serotonin is involved in self-injurious behaviour. Low levels of the product of the metabolism of serotonin (metabolite 5-HIAA) has been associated with various impulsive behaviours (Bourgeois, 1991), including self-injury and in particular, serotonin levels have been found to be low in the cerebrospinal fluid of suicide attempters (Asberg, Schalling, Traskman-Bendtz & Wagner, 1987). Specific medications (serotonin reuptake inhibitors) which act to increase serotonin levels have shown some success in reducing self-injurious behaviours including zimelidine (Montgomery, McAuley, Roni, Roy & Montgomery, 1981); fluvoxamine (De Wilde, Mertens, Medericson, Keptner & Peterson, 1985); and fluoxetine (Markovitz, Calabrese, Schultz & Meltzer, 1991). This may suggest that self-injury is in part the consequence of a tendency toward impulsive behaviour as a consequence of lowered serotonin.

The above explanations, incorporating various factors associated with self-injury are based largely upon research and clinical experience with self-injurers living in the

community or within psychiatric settings, and thus the majority tend to be female. Therefore the focus will now turn to Social Rank Theory, since it is proposed that this may provide a helpful framework within which to understand the self-injury inflicted by males in a prison environment.

1.3 Social Rank Theory

Firmly embedded within the prison system there exists a distinct hierarchical structure. The uniform of the officer represents a position of power. Within the officer ranks, increasing authority is then indicated by silver pips upon the epaulets. Although no such visible indicators of 'rank' exist within the prisoner population, the prisoners are not without a hierarchy. Extensive bullying is known to exist within adult male prisons (Ireland, 1999; 2000), thus creating victims in its wake. Likewise, commonly used terms such as 'Joey', refer to a prisoner who carries out the bidding of others, and would also seem to suggest an endemic hierarchical structure. Equally, there are legitimised forms of social status for prisoners, including for example, work as a cleaner, servery assistant or gardener. The following section will therefore outline Social Rank Theory (Gilbert, 1992), which contains at its core the concept of social status. Subsequent sections will then consider how Social Rank Theory may apply to self-injurious behaviour within the prison system.

1.3.1 Evolutionary Theory and Social Rank

Darwin (1996; 1998) proposed three processes of selection which enhance the transmission of genes from generation to generation. Natural selection is a mechanism which favours the inheritance of characteristics which improve survival in a specific physical environment (e.g. camouflage). Intrasexual selection is a selection

strategy which favours the inheritance of characteristics (e.g. strength) that provide advantages in competition with conspecifics (others of the same species). Finally, Intersexual selection is a selection strategy which favours the inheritance of characteristics which are attractive and desirable to mates (e.g. plumage). Gilbert and colleagues (Gilbert, 1992; Gilbert, Price & Allan, 1995) have focused particularly upon the two sexual selection mechanisms within their theory of Social Rank. These authors have suggested that the characteristics related to Intrasexual and Intersexual selection are closely related to an individual's position within the social hierarchy of the species and consequently, effect the reproductive success of the individual.

In certain species, preventing others accessing breeding resources is achieved through controlling, threatening or attacking others. This threat display is known as Resource Holding Potential (RHP) and is based upon factors likely to improve winning ability, including size, strength, skill, weapons and allies. There will be some conspecifics who are stronger and others who are weaker and therefore it is important not simply to continually challenge and waste energy and resources in conflicts which will be lost. If an individual is likely to lose the encounter then to submit ensures that the loser survives, and although not optimal for reproductive success, it is preferable to being injured or possibly killed in conflict. Equally it is important not to miss opportunities to challenge which will result in victory and improve reproductive success. Gilbert (1992) therefore suggests the existence of an internal cost-benefit analysis, based upon continuous social comparisons between the self and others.

Thus, according to Social Rank Theory, some social comparisons will involve comparisons of relative RHP. A challenge by a conspecific may elicit a number of

possible responses (Gilbert, 1992). If an individual assesses themselves to possess favourable RHP then the individual may remain and fight. In contrast, if an unfavourable comparison of RHP is made and escape is not restricted, then the individual may take-off in flight to avoid any further loss of RHP. However, many animals, including humans, live within groups. Group living is a means of protection and ultimately survival, and thus to flee may not be adaptive. The final option may therefore be to present a submissive display including lowering of the eyes, gaze avoidance, a fear grin, shrinking in stature, and hiding or concealing behaviours. These signals of submission indicate that they are weaker and of no challenge, and therefore need not be attacked. Such submissive behaviours are triggered involuntarily, in response to a loss, failure or threat of attack. The aim of these behaviours is therefore to alter the state of mind of the attacker to ultimately reduce the risk of unnecessary injury or death through further attack (Gilbert, 1997). Should an individual have been in conflict and lose, then Gilbert (1992) suggests that one final response option is reverted escape. This involves returning to the aggressor for reconciliation and reassurance. In summary, the existence of a hierarchy and the presence of an internal cost-benefit analysis enable an individual to avoid unnecessarily engaging in endless direct conflict.

Gilbert (1992) suggests that the agonistic or threat behaviour described above is not the only means by which primates, and in particular humans, obtain status and control. Indeed, although humans may continue to compete physically it is more likely that they will compete in other forums including work, social or sporting arenas. Status or a high social comparison may therefore be gained through demonstrating attractive qualities, including intelligence, sporting prowess, physical

beauty, or humour. These social displays then attract others and enable an individual to build alliances and form affiliative relationships and thereby status may be voluntarily conferred upon the individual. Gilbert (1992) refers to this ability to elicit positive attention and social rewards as Social Attention Holding Potential (SAHP). Evolutionary theory would suggest that those able to elicit positive SAHP improve their inclusive fitness with higher social status, attracting better quality mates and allies, and eliciting greater support. An individual may therefore avoid or back down from a challenge in order to prevent the possibility of being disliked, rejected or ridiculed and thus ultimately, avoid a potential loss of status. Consequently, concern at losing attractiveness may also lead to submissive behaviours such as appeasement or compliance or may lead to the instigation of avoidance and escape.

Gilbert (1992) has proposed that humans form a third set of social comparisons based upon their relative similarity to others, which has been termed 'group fit' (Allan & Gilbert, 1995). Finding a place within a social group confers great advantages to survival through protection from predators. In addition, this sense of fitting-in and being similar to others and belonging to a group arguably enhances popularity and status. Accordingly, it is suggested that feeling different and like an outsider creates concern that one will be rejected, thus losing affiliation and kinship.

Overall, Gilbert (1992) has argued that humans are more likely to apply SAHP strategies to elicit social rewards and therefore improve social status, as opposed to the more aggressive RHP strategies in which status is gained through enforced dominance. The type of strategy applied may however be dependent upon the social group or social context. In certain settings it may be unattractive to be weak and

subordinate, whilst in other environments it may be unattractive to be pushy and aggressive. Later sections will therefore consider how these strategies may play-out within the context of a male prison.

1.3.2 Social Status and Submissive Behaviour Research

Gilbert and Allan (1994) investigated the proposition that the social comparisons made by individuals would relate to their submissive and assertiveness behaviours in a sample of mental health workers. To investigate this hypothesis, three questionnaires were administered to participants: 1) the original 5-item Social Comparison Rating Scale (Gilbert & Allan, 1994) which assessed judgements of relative social rank; 2) the Submissive Behaviour Scale (Allan & Gilbert, 1997; Gilbert & Allan, 1994) which measured the frequency of behaviours identified as submissive; and 3) the Scale for Interpersonal Behaviour (SIB; Arrindell & Van der Ende, 1985), which measured both the probability of engaging in specified assertive behaviours and the resultant degree of distress. Findings indicated a high negative correlation between social comparisons and submissive behaviour ($r = -.53$); between social comparisons and the experience of distress during assertiveness ($r = -.56$); and a positive correlation between social comparisons and the probability of engaging in assertive behaviours ($r = .33$). These results suggest that forming an unfavourable social comparison of the self in relation to others is associated with greater submissive behaviour and a higher level of distress in assertive situations and a reduced likelihood of engaging in assertive behaviours. This study was however limited in that submissive behaviour was found to correlate with social comparisons of relative rank (relative RHP), but did not explore the association between submissive

behaviour and social comparisons of relative social attractiveness (relative SAHP) or group fit.

In line with the above comment, Allan and Gilbert (1995) developed further the Social Comparison Rating Scale, extending it to an 11-item measure which assessed not only social comparisons in terms of social rank but also assessed social comparisons based upon attractiveness and fitting into the social group. Using this adapted measure, Gilbert has conducted further studies exploring the relationship of submissive behaviour and social comparison (Gilbert, Allan, Ball & Bradshaw, 1996). Findings have repeatedly identified high correlations, not only in normal populations but also in clinically depressed samples ($r = -.58$; Gilbert & Allan, 1998). Research however, does not yet appear to have directly investigated social comparisons and submissive behaviour within a prison environment.

1.3.3 Shame, Social Comparisons and Submissive Behaviour

As described previously, a fall in social status may result from a number of processes. Firstly, social status may drop as the consequence of unsuccessfully challenging or protecting breeding resources. Secondly, the lowering of social status may result from an inability to attract mates or allies. Additionally, social status may fall as a consequence of rejection or exclusion from a social group. It is then essential that an individual achieve an awareness of this alteration in social status and adapt his behaviour accordingly. Gilbert (1997) suggests that the affect of 'shame' provides just such a function. He regards shame as an evolutionary adaptation designed to '*alert the self and others to detrimental changes in social status*' (Gilbert, 1997, p114). Shame thereby impels the individual toward escape or appeasement as a

means of minimising any further injury to one's status or image. The association of shame and submissive behaviour is vividly described by Darwin (1998): *'Under a keen sense of shame there is a strong desire for concealment. We turn away the whole body, more especially the face, which we endeavour in some manner to hide. An ashamed person can hardly endure to meet the gaze of those present, so that he almost invariably casts down his eyes or looks askant'* (Darwin, 1998, pp.319-320).

From an evolutionary perspective Gilbert (1992) has been reluctant to modularise the separate components of an experience and suggests that a shame experience is the totality of a cognitive, behavioural, emotional and biological response. According to Gilbert (2000b) the cognitive component of shame involves a self-perception of low social status in comparison to a superior other, who may be the source of the put-down, ridicule or rejection. He however distinguishes between internalised and externalised shame depending upon the source of these negative judgements. He proposed that shame may result from self-judgements, which assess the self to be imperfect, inadequate or inferior in some way, without the flaw necessarily coming to the awareness of others. In addition, Gilbert suggested that shame may also result from beliefs about judgements made by others about the self (Goss, Gilbert & Allan, 1994). This is in accordance with earlier Darwinian ideas which recognised that blushing, a behavioural marker of shame, *'arose from thinking about what others think of us'* (Darwin, 1998, pp.333). Gilbert (1992) also proposed that shame encompasses a high level of physiological arousal to potential threat which in turn blocks explorative and resource acquiring behaviours. Instead, the behavioural component of shame consists of hiding, concealing, gaze avoidance, blushing and possible tears, which are precisely the submissive behaviours likened to low social

status. Finally, Gilbert (1998) has acknowledged the affective component of shame which may be experienced as one of a number of feelings from within the shame-family of emotions including shame itself, severe embarrassment, disgust (with the self), humiliation, chagrin, or mortification.

In a sample of eighty students, Gilbert and colleagues (Gilbert, Allan, Ball & Bradshaw, 1996) found a correlation between shame, as measured by the Other as Shamer Scale (OAS; Goss, Gilbert and Allan, 1994) and both the Submissive Behaviour Scale (.49) and the Social Comparison Rating Scale (-.57). The association between high levels of shame and both perceptions of low social status and high levels of submissive behaviour has been replicated in further research. Gilbert (2000a) explored the relationship between social comparisons, submissive behaviour and shame, as assessed by both the OAS and the Test of Self-Conscious Affect (TOSCA; Tangney, Wagner & Gramzow, 1992), an extremely widely used and well-validated shame measure (Andrews, Qian & Valentine, 2002). Both shame scales correlated significantly positively with submissive behaviour in a student sample (OAS, $r = .57$; TOSCA, $r = .56$) and a clinically depressed sample (OAS, $r = .69$; TOSCA, $r = .61$). Likewise the OAS and TOSCA shame scales were both significantly negatively correlated with the social comparison ratings reported by both the student (OAS, $r = -.61$; TOSCA, $r = -.51$) and clinical samples (OAS, $r = -.53$; TOSCA, $r = -.53$). In summary, it would appear that perceptions of low social status, submissive behaviours and feelings of shame are strongly connected both theoretically and empirically.

1.3.4 Social Status, Shame and Psychopathology

As a clinical psychologist, one main focus for Gilbert has been the role of shame in the development of various psychopathology. Many authors have cited shame as a central issue in mental health difficulties (Andrews, 1995; 1997; Harder, 1995; Lewis, 1971; Nathanson, 1994; Tangney, 1995). Gilbert has however focused specifically upon the social status aspect of shame, particularly in relation to depression (Gilbert, 1992; 2000a; Gilbert, Allan & Trent, 1995).

Depression has been described as an historically adaptive submissive strategy (Gilbert & Allan, 1998; Price & Sloman, 1987) which inhibits challenging or inquisitive behaviours, following an involuntary loss of status. Allan and Gilbert (1997) have found that submissive behaviour has shown a significant positive correlation with depression in both a student sample and a clinically depressed sample. Furthermore, these authors have found that social comparison ratings correlate significantly negatively with depression scores and finally that shame as measured by both the TOSCA and the OAS, correlates significantly positively with depression (Gilbert & Allan, 1998; Gilbert 2000a). More recently, Andrews and colleagues (Andrews, Qian & Valentine, 2002) have also found that shame at time one, predicts later depression in a sample of students. In summary, theory and research support the presence of a relationship between depression and both social status and shame, with higher levels of depression showing an association with high levels of shame, low social status and higher levels of submissive behaviour.

1.4 Anger

Just as the components of the shame experience have been discussed, so the following section will attempt to provide a description and definition of anger. Research investigating the relationship between anger and shame will then be explored. Finally, it will be proposed that anger may be a response to a shaming experience and that the expression of anger is dependent upon social rank variables.

1.4.1 Defining Anger

Observed as both innate and universal, anger is considered to be one of the primary human emotions, along with happiness, sadness and fear (Ekman, 1992; Power & Dalglish, 1997). Anger has been regarded as an adaptive emotion with strong survival value. Anger may motivate behaviour by increasing the energies expended to achieve a specific goal, or anger can activate aggression which may enable an animal to fight within its own species for a superior rank which simultaneously brings access to food and breeding resources. Anger may also prompt defensive behaviour against attack either from within one's own species or from a predator (Novaco, 1998).

Anger, like shame, is a complex experience with a number of constituent parts including specific triggers, cognitions, affective experiences, biological and behavioural responses. According to Novaco's model of anger (1979) the precipitating events may for example, include evaluation threat or disrespect from others, challenge or provocation by others, unfairness and injustice, or frustrations of a goal. In a study investigating anger-eliciting events on psychology students, it was found that the events could be characterised in three ways: 1) personal inadequacies

and failures associated with unattained goals; 2) frustrating events related to public or social aspects of the self; and, 3) incidents involving interpersonal exploitation (Snell, McDonald & Koch, 1991). Many of these anger-provoking events appear similar to the situations that Gilbert suggests may accompany shame.

Theorists secondly postulate a cognitive component to anger including cognitions, attributions and appraisals (Eckhardt & Deffenbacher, 1995; Tescher, Conger, Edmondson & Conger, 1999). Power and Dalglish (1997) suggest that whilst some anger-responses may be triggered automatically, most will involve some form of cognitive appraisal in the fuelling of the anger affect and in general that '*Anger is the result of an appraisal of some deliberate, negligent or at least avoidable, slight or wrongdoing; that the anger is most usually directed at another person (though clearly it can be directed at the self or inanimate objects)*' (1997, pp.305). Such an attribution again displays a similarity to certain shame experiences described by Gilbert (1992) including the belief that the other is responsible for one's humiliation and shame.

These cognitions thereby fuel the emotional component of the anger experience which includes the individual's phenomenological experience and the applied labels and descriptors. Spielberger and Sydeman (1994) propose that anger may be '*marked by subjective feelings that vary in intensity from mild annoyance or irritation to intense fury and rage*' (Spielberger & Sydeman, 1994, pp.300). These authors propose that there exists a disposition toward anger (Trait Anger), which is the tendency to perceive a wide variety of situations as annoying or the tendency to then respond to these situations with increased levels of state anger (Spielberger & Sydeman, 1994).

Furthermore, it is suggested that such states of anger will fluctuate over time (State Anger).

In addition, the anger experience also incorporates a behavioural response (Novaco, 1998; Tescher et al., 1999). The behavioural component of anger is often thought of as aggressive, outwardly directed anger involving verbal or physical aggression toward objects or other people. Anger need not however be expressed outwardly. Instead, Spielberger (1988) conceptualised three routes via which anger may be expressed. Anger may be directed inward and thereby suppressed and not articulated; anger may be demonstrated externally toward objects or other people; and the expression of anger may be controlled in a constructive manner. Likewise, Tangney and colleagues in the development of the Anger Response Inventories (ARI; Tangney, Wagner, Hill-Barlow, Marschall & Gramzow, 1996) also differentiated between the adaptive and maladaptive expression of anger.

1.4.2 Anger, Shame and Social Status

Helen Block Lewis (1971) was one of the first to recognise an association between the emotions of shame and anger. In a series of case studies, Lewis highlighted a phenomenon which she termed 'humiliated fury'. This refers to an experience of shame in which the individual imagines a disapproving or rejecting other. The individual then attempts to defend against such shame and regain a sense of control by directing anger outwards toward others in retaliation for such rejection. Forming a similar association, Nathanson (1994) has suggested that the shame experience often provokes an unwanted self-image which an individual may attempt to defend against. Anger may then provide one potential route of defence, leading to the initiation of an

attack upon others when placed in positions of inferiority or powerlessness. In a review of case studies, Miller (1985) also identified a pattern in which individuals exposed to shame would become angry with the individual perceived to be the source of the shaming. In addition, Miller described an alternative route by which shame and anger may be related. Miller noticed that individuals who have become angry, then become ashamed of their anger. Tangney and colleagues however argue that shame motivating anger is a more probable account for an association between shame and anger than the reverse of anger motivating shame. Such a conclusion was drawn from analysis of personal shame experiences, which found that anger was relatively infrequently cited as the cause of shame and furthermore, feelings of anger were as likely to result in guilt as shame (Tangney, 1992; Tangney, Marschall, Rosenberg, Barlow & Wagner, 1994 as cited in Tangney, Wagner, Barlow, Marschall & Gramzow, 1996).

Tangney and colleagues (1996) assessing children, adolescents, students and adults found that across all groups shame is significantly positively correlated with anger arousal, as assessed by the Anger Response Inventories (ARI; Tangney et al, 1996). Furthermore, there was a consistent significant positive association between shame and malevolent intentions in anger-provoking situations. Not only did shame correlate with intentions, but shame also showed a significant positive correlation with reported actual responses to anger. In particular shame was significantly positively associated with physical and verbal aggression toward others and objects, self-directed aggression and the suppression of anger. In contrast guilt was significantly negatively associated with all of the above. Shame, unlike guilt also did not correlate with adaptive responses to anger including discussing the matter with the

target of their anger or taking corrective action to fix the anger-provoking situation. Tangney and colleagues (1996) therefore summarised that '*shamed individuals have at least two clear routes for managing their feelings of shame. The more passive route involves interpersonal withdrawal-shrinking, withdrawing, hiding from the shame eliciting situation. The more active route involves reactivating the impaired self through other-directed anger...and externalising blame onto others involved in the shame-eliciting situation*' (Tangney, et al., 1996, pp.806).

Allan and Gilbert (2002) postulate that social rank may act as the factor to determine whether an individual is likely to express anger outwardly toward others, or to suppress anger inwardly. Averill (1982, cited in Power & Dalgleish, 1997) using diary and self-report questionnaires investigated individuals' personal experiences of anger. As an outcome of the study, a list of rules associated with participants' anger expression was created. The list included the rule that '*Anger is more appropriately directed at a peer or subordinate than at a superior*' (Averill, 1982 cited in Power & Dalgleish, 1997, pp.309). Similarly, Allan and Gilbert (2002) have also found an effect of perceived social rank upon the expression of anger in a student sample. Those individuals who rated themselves as generally lower in social status and displaying higher levels of submissive behaviour also reported a higher level of suppressed anger, as measured by the State-Trait Anger Expression Inventory (STAXI; Spielberger, 1988). It was predicted that self-ratings of higher social rank in general would also be associated with higher levels of outward anger expression in general. This was not however found, possibly due to the low levels of outward verbal and physical aggression in a student sample. On manipulation of the social rank situation, participants reported an increase in the suppression and control of

anger and a reduction in the outward expression of anger when in a low rank position compared to a superior other. In contrast, when in a position of high rank, participants reported an increase in outwardly directed anger and a decrease in suppressed anger and anger control. In summary, it would appear that anger is more likely to be expressed toward a subordinate than a superior.

As in the above study which produced conflicting findings regarding the association between ratings of general social status and the outward expression of anger, there have been further contradictory findings within the shame-anger literature. In an earlier study by Tangney and colleagues (Tangney, Wagner & Gramzow, 1992) it was found that shame, as assessed by the TOSCA, was not correlated with the outward expression of anger. The outwardly-directed anger had been assessed by the assault and verbal hostility scales of the Buss Durkee Hostility Inventory (Buss & Durkee, 1957). Likewise, Gilbert and Miles (2000) found a minimal relationship between global measures of shame (OAS and Personal Feelings Questionnaire-2) and externalised anger as measured by the physical aggression and verbal aggression scales of the Buss and Perry Aggression questionnaire (Buss & Perry, 1992). There was however a significant positive association between the two shame measures and both the subjective experience of anger scale and hostile attitudes scale, of the Buss and Perry questionnaire, which assess more internalised measures of anger. It is possible that the studies conducted by Gilbert and Tangney have at times failed to find a relationship between shame and outwardly directed anger because these samples have consisted largely of a student population, for whom the general tendency to express anger through aggression is exceptionally low. A more consistent

relationship between the outward expression of anger and both shame and social status might be present in a population with a higher level of aggressive tendencies.

The concept of 'saving face' within situations involving male violence may provide a clear example of shame provoking anger. Archer (1994) attempts to explain why apparently trivial altercations between men may lead to extreme violence and commented that: *'They are not really about trivial matters, but about the relative status of the protagonists: one of them cannot back down without rendering himself subordinate and less powerful in the social group. He has to save face'* (pp. 128).

'Face-saving' refers to the maintenance of dignity (Collins, 1992), which in turn reflects the concepts of retaining honour and rank. For Gilbert (1992) a loss of honour or rank would equate to a loss of status and possible shame. Archer (1994) proposed that in particular groups of young males, any such shame is almost bypassed, by eliciting anger and possibly aggression. According to Campbell (1986) anger may be beneficial for marginal males who are possibly unemployed with little access to sources of status and few alternative means available to maintain their self-esteem. Consequently, physical confrontation becomes an important means of achieving status and reputation. Aggression, however puts the individual at risk of harm but Daly and Wilson (1994) comment that: *'Dangerous acts are adaptive choices if positive fitness consequences are large enough and probable enough to offset the negative consequences'* (pp.268).

Thus, whilst in a student population there may be many routes through which an individual is able to attain social status, other than through aggression, this may be

less available to males within a prison population. However, even within a context in which aggression brings about status, there may be occasions when the risks of defeat and subsequent loss of status are too great, and thus anger may be suppressed.

1.5 Childhood Abuse Experiences

Social Rank Theory has proposed that certain individuals may be predisposed to the experiences of shame, unfavourable social comparisons and consequently unconstructive anger responses. The following section will explore childhood abuse and consider how early abusive experiences may create a vulnerability within an individual toward shame, perceptions of low social status and anger as an adult.

1.5.1 An Evolutionary Model of Childhood Abuse

Humans have adopted what is termed a K-selection strategy for breeding (Dawkins, 1989). This means that rather than producing extremely large numbers of offspring with little time then for individual investment (r-strategy), humans produce few offspring in which there is a high investment. Thus, rather than behaviours being hard-wired at birth, much of an individual's neural network and behavioural repertoire is flexible and open to learning during the many years of child development. Such a breeding strategy is however at risk from a poor quality environment in which either physical nourishment or social factors (e.g. care giving) are lacking. With less determinism on the part of nature, a disruption within the nurturing process, such as abuse and neglect may have a very great impact not only upon development, but also upon an individual's adult life.

'All forms of abuse are, by definition, forms of power distinctions where the abused is forced into a subordinate – controlled – position by the abuser' (Sloman, 2000).

In general, children are almost by definition in positions of powerlessness in comparison to the adults around them. As Sloman described above, the additional experience of abuse, enforces, against the will of the child, their subordinate position. Parents or other significant adults may force this submission by physically beating the child into surrender; emotionally denigrating the child into subordination with put-downs such as 'stupid' or 'ugly', or by coercing, threatening or physically restraining the child into sexual submission. Sloman further proposes that in the face of extremely authoritarian or abusive parents, quickly submitting often brings a speedy end to conflicts and therefore is an extremely adaptive response. Children who must submit relentlessly, lack the opportunity within their development to learn about negotiating conflict. The child has little opportunity to gain an understanding of when to submit, when to challenge or when to assert the self within relationships.

Sloman (2000) suggested that these forms of enforced submission may all involve excessive shaming. In accordance with Sloman, Gilbert (2000b) has argued that the recognition of a child's talents, abilities and lovability enable the child to develop with a non-shamed sense of the self. In contrast, Gilbert suggested that childhood abuse leads to a construction of internal models of the self as bad, flawed or inferior. Consequently, Gilbert (1992) has proposed that the abused individual adopts a self-defensive, protective strategy which in turn increases vigilance to threat and increases self-focus in an attempt to ensure the self is not sending signals that might provoke punishment, aggression or put-downs. The following will therefore explore the

research investigating the relationship between childhood abuse and experiences of low social status, shame and anger in adulthood.

1.5.2 Childhood Experiences, Social Status and Shame

As Gilbert proposed, research has supported the hypothesis that shame may be an outcome of problematic childhood experiences. Gilbert, Allan and Goss (1996), investigated early parenting and adult experiences of social rank and shame in a sample of female university students. The Parental Bonding Instrument (PBI; Parker, Tupling & Brown, 1979) was administered which assesses both parental care and parental overprotection. Gilbert and colleagues also added a further four items to assess 'parental put-downs' and found that both the new mother and father put-down scales had good internal consistency (.94). There was also good test-retest reliability over a 5 week period for the mother put-down scale ($r = .85$) and the father put-down scale ($r = .77$). In addition the authors also included four questions assessing whether the participants believed that their mother or father had favoured a sibling above them. This scale again showed high internal reliability and good test-retest reliabilities. Overall, results found that for this group of female university students, a lack of maternal care, high overprotection, high levels of put-down and a favouring of another sibling related to increased levels of submissive behaviour, self-perceptions of low social rank and increased levels of shame (as measured by the OAS and the Internalised Shame Scale (Cook, 1987)). Paternal behaviours appeared to exert a similar influence, although overprotection, put-downs and favouring of another sibling by the father appeared to exert a greater impact upon feelings of shame than upon perceptions of social rank. The authors explain that due to the unintentionally small number of male students recruited, the sample on which the analysis was

conducted consisted only of female students. Consequently, it is difficult to extrapolate these results to a male population.

Andrews and colleagues (Andrews, Brewin, Rose & Kirk, 2000) investigated PTSD symptoms in victims of a violent crime. Results showed that experiences of childhood sexual and physical abuse were significantly related to PTSD symptoms. Additional analyses found that shame was significantly correlated with childhood abuse experiences and that shame then mediated the relationship between childhood abuse and adult PTSD symptoms in victims of violent crime. Previous research by Andrews (Andrews, 1995; Andrews, 1997; Andrews & Hunter, 1997) has also found that childhood abuse is significantly correlated with shame in individuals suffering from depression and bulimia. In a study involving depressed patients (Andrews & Hunter, 1997), it was found that those with a history of childhood abuse (either physical or sexual) experienced significantly higher levels of bodily shame. In addition, Andrews (1995) found that childhood abuse was correlated with shame in a group of older community women and with further analysis identified that shame again mediated the relationship between childhood abuse and depression. Andrews (1997) has also interviewed a community sample of young women and found that women who had experienced either physical or sexual abuse displayed significantly higher levels of bodily shame and higher rates of bulimia nervosa. The Andrews' studies have assessed only sexual and physical abuse using a standardised interview schedule, thus excluding consideration of the possible role of emotional abuse or neglect. Although some male subjects were included in the above studies investigating the links between childhood abuse and current experiences of shame (Andrews & Hunter, 1997; Andrews et al., 2000; Gilbert, Allan & Goss, 1996), the

majority of participants have again been female. Furthermore, even those studies which did involve male participants, have tended to investigate very prescribed areas of shame including shame relating to a violent incident (Andrews et al., 2000) or otherwise shame relating to one's body (Andrews & Hunter, 1997). It is not therefore possible to generalise and determine whether childhood physical or sexual abuse would relate to more global experiences of shame in males, which could for example, be assessed by the Other as Shamer Scale (Allan, Gilbert & Goss, 1994; Goss, Gilbert & Allan, 1994).

1.5.3 Childhood Experiences and Adult Victimization

There has been limited research investigating childhood abuse and social status. The following section will therefore summarise some research exploring childhood abuse and adult victimisation, which one might expect to relate to low social status, or low rank. Research surrounding adult victimisation has also suffered from a gender-bias. Often studies have focused upon females as victims, whilst males have been cast in the role of perpetrator (Cloitre, Tardiff, Marzuk, Leon, Portera, 2001).

Nonetheless, Goodman and colleagues investigated correlates of recent assault in a group of patients, both male and female with severe mental illness (Goodman, Salyers, Mueser, Rosenberg, Swartz, Essock, Osher, Butterfield & Swanson, 2001). It was found that the experience of being assaulted (either physically or sexually) in the last year was significantly associated with childhood physical abuse and childhood sexual abuse for both male and female patients. In another recent study, Cloitre and colleagues (2001) also focused upon a sample of psychiatric inpatients and investigated the relationship between childhood abuse, adult victimisation and adult

interpersonal violence, as assessed by the Cornell Violence Interview. Results showed that those who had experienced some form of childhood abuse (either sexual or physical) were 2.5 times more likely to be adult victims of assault. Those who had experienced childhood abuse were also twice as likely to perpetrate violence. Finally patients who had experienced childhood abuse were five times more likely than those who had not experienced abuse to have both experienced victimisation as an adult and perpetrated violence. The abuse experienced by participants in this study was predominantly physical abuse, largely carried out by other family members against the respondent. In conclusion, the studies exploring childhood abuse and adult victimisation, suggest that those who are abused as children are more likely to be placed in the role of victim again as an adult, a role which is possibly indicative of low social status and shame.

1.5.4 Childhood Experiences and Anger

The association between abuse and difficulties with anger expression has been observed at an early stage. Research has shown that children who have experienced physical or verbal abuse display higher levels of anger and aggression toward the self and toward others (Egeland, Sroufe & Erickson, 1983). Hoglund and Nicholas (1995) investigated the relationship between anger, shame and abusive family environments in a sample of male and female university students. Findings showed that students who had experienced greater exposure to emotional abuse reported higher levels of shame (as measured by the shame scale of the TOSCA), covert and overt hostility (as assessed by the Buss-Durkee Hostility Inventory), and both expressed and suppressed anger (as measured by the Spielberger State-Trait Anger Expression Inventory). When physical abuse experiences were also considered, the relationship between

abusive experiences and anger became even stronger, suggesting that exposure to more than one type of abusive experience may increase an individual's difficulties in managing their anger. Further evidence for this relationship was presented by Scott and Day (1996) in a study of female survivors of childhood sexual abuse. The results suggest a high correlation between the number of incest trauma symptoms and suppressed anger as measured by the State-Trait Anger Inventory. These authors reported that in a comparison with the norms of the anger scale, the women who had experienced CSA reported higher rates of state, trait and suppressed anger than normal female controls.

Gilbert and Gerlsma (1999) investigated a group of psychiatric patients, (almost exclusively outpatients) and explored the relationship between self-report measures of depression, anxiety, and hostility with measures of parental behaviour. The results showed that adult experiences of hostility were not related to low emotional warmth/care but were significantly related to high levels of parental overprotection as assessed by the Parental Bonding Instrument. Hostility was also significantly correlated with recollections of parental shaming and parental favouring of a sibling, even after controlling for warmth and overprotection.

A further study investigated childhood experiences and adult feelings of anger and aggressive behaviour in a sample of men who had assaulted their wives (Dutton, Ginkel & Starzomski, 1995). Childhood experiences of parental shaming were assessed with the EMBU (Egnda Minnen Beträffande Uppfostran; Memories of my Upbringing; Perris, Jacobsson, Lindstrom, von Knorring & Perris, 1980). Findings showed a significant positive correlation between the experience of being shamed by

a parent and experiencing physical and verbal abuse as a child. Shaming experiences and abuse experiences were both positively correlated with adult feelings of anger including the degree of hostility and the frequency and magnitude of anger experienced as an adult. Furthermore, shaming by parents was also positively correlated with physical and verbal abusiveness toward their wives. Additional analyses were therefore conducted and results showed that once childhood verbal and physical abuse scores were partialled out, then shaming by parents was no longer significantly correlated with anger. Alternatively, when shame is partialled out the positive correlation between physical abuse and anger or between verbal abuse and anger disappears. This suggests that the relationship between childhood abuse and adult anger may require the presence of not only aggression but also shame within these early experiences.

Overall, it would appear that early childhood shaming or abuse experiences predispose an individual to adult experiences of shame, dysfunctional anger and the likelihood of being placed in a victimised position. These findings broadly support Social Rank Theory (Gilbert, 1992) which suggests that childhood abuse creates a shamed sense of the self and prevents the child from learning how to negotiate hierarchical relationships and conflicts. Those who are abused may subsequently remain extremely sensitive and vulnerable to the experience of low social status, shame and submissive behaviour. Theory then posits that a proneness to shame in turn predisposes an individual to an increased tendency to experience anger and to manage these feelings of anger in an unconstructive manner. The following sections will return to the male prison environment and will suggest that self-injurious

behaviour has been a social-rank response to the co-occurring experiences of low social status, shame and anger.

1.6 Intentional Self-Injury and the Prison Environment

Much research relating to ISI in prison has attempted to identify a variety of factors relating to self-injury, often without reference to an underlying theoretical model (Crighton, 2000). Crighton and Towl (2000) comment on this atheoretical approach and suggest that *'Future research into self-injury and suicide...should not simply limit itself to establishing correlations with traditional sociological, demographic and diagnostic variables'* (Crighton & Towl, 2000, pp.64). The following section will therefore apply an evolutionary model in an attempt to understand self-injurious behaviour in prison.

Shaming or loss of rank may be responded to through fight, flight, submission or reverted escape in which the submissive loser returns to the aggressor to seek reconciliation and reassurance (Gilbert, 1992). A prison is an unusual environment in which flight, withdrawal or escape is restricted by the physical barriers imposed and thus avoidance of a dominant other may not be possible. Toch (1975) described such restriction in the New York prison system where: *'it is difficult or impossible to implement avoidance strategies...Such a retreat option is precluded both by the physical structure and by the social norms of the prison; it invites weakness or trouble but doesn't get you far enough away from potential antagonists'* (Toch, 1975; pp.166).

The option to directly challenge and express aggression through fighting may also be impaired due to the severe penalties imposed by authorities for rule-breaking or because there is a high likelihood that one's challenger may be an aggressive-prone male and consequently to fight may lead to defeat. It could be speculated that self-injury provides an alternative means of responding to a loss of status and the possible feelings of anger that this may invoke. It is plausible that self-injury functions in one of four ways. Firstly, self-injury may act as a method of flight (Livingston & Beck, 1997) bringing about a transfer to another wing or possibly the healthcare unit of the prison. Secondly, self-injury may even act as a means of indirect 'fight'. Kernberg (1987) for example, described self-mutilation as the '*relieving enactment of revenge*' (pp.344). Likewise, Stone (1987) argued that ISI may be considered a response to punish perpetrators of abuse and therefore may act as an indirect expression of the rage felt at such shaming. As a third option, self-injury may act in a similar manner to reverted escape, in that it may be a means of mobilising reassurance and replenishing SAHP. Self-injury may necessitate physical care from others and thus may be a means of '*mobilising help from others*' (Crighton & Towl, 2000, pp.63). Finally, self-injury may function in a manner similar to the submissive behaviours described previously. Not only do submissive behaviours terminate further attack, but Gilbert (Gilbert, 1992; Gilbert, Price & Allan, 1995) also argued that a submissive behaviour is a means of terminating one's own intense arousal. Many sufferers have described self-injury as a form of relief from intense and painful emotions (Levenkron, 1998; Babiker & Arnold, 1997). Furthermore, reporting upon a number of anthropological studies, Favazza (1996) commented that '*self-mutilation is a safer outlet than the direct expression of anger toward...important people who might retaliate*' (pp.273).

Thus self-injury may provide a means of managing high arousal without risking a further loss of status or rejection.

If self-injury is a response to a loss of status, and the resultant feelings of shame and anger then it may be predicted that self-injury would relate to the following factors: 1) factors which predispose an individual to an increased sensitivity to changes in status or shame, including childhood abuse; 2) factors associated with a loss of status and shame in adulthood; 3) factors associated with an increased tendency toward anger and the unconstructive expression of anger. The following will explore relevant prison self-injury literature and will argue that ISI has shown an association with all such factors. However, research surrounding prison ISI remains limited, and therefore reference will be made not only to male self-injury but also to self-injury amongst the female prison population.

1.6.1 Intentional Self-Injury and Childhood Experiences

Prison-associated literature appears to show a connection between self-injury and disrupted or abusive parenting as a child. Liebling, Chipchase and Velangi (1997) conducted a series of semi-structured interviews with women who had self-harmed in Ashworth Maximum Security Hospital. Results showed that 92.5% of the women interviewed considered their self-harm to be related to certain childhood and life experiences. The three most common reasons cited (in rank order) were 1) sexual abuse; 2) family stress, rejection and blame; and, 3) physical, emotional and psychological abuse. A study investigating self-harm in male Ashworth patients also identified childhood abuse as an associated factor in later self-harm (White, Leggett & Beech, 1999). The authors reported rates of physical and sexual abuse for the self-

harm group, but rather than reporting rates for the non-self-harm group, the authors reported rates for the total sample and analyses were not conducted to compare the groups statistically on these measures. However extrapolating from the results section, it would appear that whilst 32.5% of the self-harm group had experienced some form of abuse, only 16.7% of the non-self harm group were identified as having such childhood experiences. There is also a possibility that this study may have overlooked the presence of abuse in patients' histories because the data were gathered from clinical notes and reports, rather than direct contact with the patient themselves. Although based upon a predominantly 'criminal' population, regional secure units and special hospitals contain a population which also possess a coinciding severe mental health problem and therefore may not be representative of the inmate who self-injures within a prison context.

Bach-Y-Rita (1974) reported (in the U.S.) upon 8 case studies of men who were admitted to a special prison unit for violence. These were a group of non-psychotic men who had scars due to self-mutilation. From clinical 'examination', the author notes that *'the early history of these men revealed considerable environmental deprivation and tumultuous families. Six of the eight described one or both parents or surrogate parents as cruel; six of the eight described considerable violence in the family'* (Bach-Y-Rita, 1974, pp.1018). Lester (1991), also in the U.S, conducted a survey on inmates in Vermont correctional facilities. The suicidal history was available for 454 predominantly male inmates (441 men) and these were divided into three groups: those who had never contemplated suicide; those who had thought of suicide but not acted, and those who had attempted suicide. It was, however, unclear from the article exactly how attempted suicide had been defined and whether some

measure of lethality or intention had been applied. On interviewing the inmates the author found that those who had attempted suicide were significantly more likely to have received physical punishment from their parents than non-suicidal inmates. Interpretation of the results was difficult since it also remained unclear whether the inmates who had only experienced suicidal ideation were included within either group for the analyses. Furthermore, there were no details given of the measures administered to gather this personal information. In a more recent study, Powell (2000) investigated levels of childhood trauma, as measured by the Childhood Trauma Questionnaire, (CTQ, a retrospective self-report measure; Bernstein & Fink, 1998) in self-injurious and non-self-injurious U.S. male prisoners receiving psychiatric treatment. The study deliberately excluded any inmate who had committed a self-injurious act with the purpose of ending their lives. Findings supported the hypotheses that histories of childhood trauma and negative parental behaviours were associated with self-injurious behaviour. Although informative, it is also uncertain whether information obtained from U.S. penitentiaries is directly transferable to the populations of a British prison.

In a large study purporting to investigate suicide amongst young offenders (Liebling, 1991, as cited in Crighton, 2000), Liebling included in the research any inmate who had intentionally self-injured and required treatment in the healthcare department. Using semi-structured interviews, Liebling found that the 'suicide attempters' were more likely to report family violence that resulted in hospitalisation and placement in local authority care. Livingston (1994, as cited in Livingston, 1997) likewise found that prisoners who had self-injured were significantly more likely than controls to have been in local authority care for extended periods of time. Liebling and Krarup

(1993), again applied a semi-structured interview approach to attempted suicide and self-injury in male prisoners. Results found that the subject group (suicide attempters and self-injurers) were significantly more likely to have experienced childhood sexual abuse, to have been placed in care due to 'family problems', and to have been bullied at school compared with a control group of prisoners. Again there is a confusion of terms, with self-injury and attempted suicide once more collapsed together and therefore it remains unclear whether such childhood experiences are significantly associated with both groups, or only one.

1.6.2 Intentional Self-Injury, Social Status and Shame

Social Rank Theory would predict that such childhood abuse experiences would lead to adult perceptions of low social rank, unfavourable social comparisons, shame and submissive behaviour. From searching the literature, it would appear that research has not yet administered social rank specific measures such as the Social Comparison Ratings Scales (Allan & Gilbert, 1995) or the Submissive Behaviour Scale (Gilbert & Allan, 1994) to a prison population. Prison research does however associate self-injury with factors that one might consider representative of low social status or factors likely to result in a loss of status.

Gilligan (1996), a psychotherapist and former director of the Massachusetts's prison system has written powerfully about the shaming nature of U.S. prison institutions. From the point of first contact with the prison, Gilligan has argued that prisoners are engulfed in a ritual of utter shame and humiliation which he terms the '*total degradation ceremony*' (pp.154). This ceremony refers to the strip-searching of prisoners on admission, and involves the inmate spreading the cheeks of his buttocks

to display his anal orifice to the group of officers for digital examination. Gilligan (1996) likens this to '*a 'presenting' ritual by which both animals and humans symbolize relations of dominance and submission*' (pp.154). In the U.K. anal examinations are not routinely performed, and only two officers will conduct the initial body search of an inmate. The prisoner is offered a prison robe to wear, and therefore the body search should involve only partial nakedness at any one time and the prisoner is required only to squat, without examination, to check for any unauthorised articles which may have been 'plugged'. Nevertheless, it seems likely that even the U.K. the admissions procedure may to some extent '*terrify and humiliate the new inmate...by demonstrating to him the complete and total power the prison ...has over him, and...intimidate him into submitting totally to the institution and its officers*' (Gilligan, 1996, pp.154).

About one third of all self-injury occurs in the first week of imprisonment (Phillips, 1986; Kerkhof & Bernasco, 1990) and the rate remains particularly high during the first three months of detention (Crighton & Towl, 2000). In accordance with this finding, the custodial status for the majority of self-injurers seems to be remand (Wool & Dooley, 1987), which is the initial stage of custody prior to conviction. Entering into a prison means that an individual moves from their role as a member of the public, to a role as a 'prisoner'. This in itself may be perceived as a loss of societal rank and may possibly be accompanied by feelings of shame at being thought of by others as a prisoner, or shame following reflection upon their crime and their behaviour. Wright (1991) supports this proposition and comments that '*Incarceration...symbolizes the unworthiness of the individual to live among the law abiding and the failure of the person to contribute to society in a meaningful and*

acceptable way' (pp.2). As a new member to the prison environment, it might be predicted that an individual would be near the bottom of any pecking-order in relation to other prisoners. In addition, an offender is able to exhibit only very minimal control over their lives, being told when to get up, when to wash and when to eat. The newly admitted prisoner may therefore also experience a severe loss of power over their own lives and consequently may feel in a disadvantaged status in relation to the prison officers and the prison system.

Prison also means that an individual is separated from friends and family, who are possible sources of Social Attention Holding Power (SAHP). Liebling (1995), in her semi-structured interviews, found that inmates in the attempted suicide group were less likely than controls to have received consistent or useful contact from friends, family or the probation services outside of prison. The Department of Health commissioned an Office for National Statistics Report (1998) to gather data regarding psychiatric morbidity within the prison population, including information relating to deliberate self-harm. This was an extensive study, involving approximately 5% of the prison population. Results showed that a larger proportion of self-harmers/suicide attempters (12%) reported receiving no family contact in comparison with a control group of prisoners (6%). This study did not gather data on the exact timing of the self-injury or suicide attempt and therefore was not clear whether these behaviours occurred during or prior to imprisonment. Nonetheless, it might be predicted that if an individual were concerned about the perception of themselves in eyes of others, then to receive no contact might confirm that they were indeed flawed and worthless and therefore to be shamed.

As previously discussed, depression has been conceptualised as a response to a loss of status and control (Gilbert, 1992), leading to a reduction in challenging behaviours and therefore an avoidance of further potential losses of status or rank. Prison research has shown some indication that self-injury may relate to this 'defeated' position. Smyth, Ivanoff & Jong (1994) administered the Beck Depression Inventory to a group of parasuicidal prisoners in the U.S. It was found that 66.7% of the sample had a score indicative of clinical depression. Be that as it may, there was an important limitation to this study, in that no comparison group was used and therefore it may be that inmates within the general prison population would also exhibit such levels of depression. Inch and colleagues (Inch, Rowlands & Solimon, 1995) compared a group of self-harming and control male prisoners and found that self-harmers reported significantly higher scores on the General Health Questionnaire (GHQ). The authors took this to indicate that the self-harming group were substantially more depressed. However, the GHQ is not a direct measure of depression but rather a measure of psychological ill-health. More convincingly, Biggam and Power (1999) administered the Hospital Anxiety and Depression Scale to prisoners with and without a history of parasuicidal behaviour and found that the parasuicidal group were significantly more depressed.

An evolutionary model would predict that certain prison conditions would further heighten the importance of social rank and exacerbate differences in status. For example, the issue of social rank may be particularly crucial in overcrowded conditions. Under these circumstances, resources may be scarce and therefore competition may be increased. As a consequence this may lead to more conflicts in which one person must submit. In a U.S. study, Cox and colleagues investigated

trends in prison populations and compared these with the subsequent rates of self-mutilation and attempted suicide (Cox, Paulus & McCain, 1984). Reporting upon archival data from Parchman Prison in Mississippi, these authors noted that following a 30% reduction in the prison population over a few months at the end of 1976, the rate of 'inmate-on-inmate assaults' dropped by approximately 60%. Additionally, by 1977 the rate of self-injury and attempted suicide had almost halved.

The above study suggests that the rate of self-injury may vary according to the level of conflict within an environment. An evolutionary model would suggest that to be bullied or victimised and therefore to be of lower status within a conflict, would lead to a loss of Resource Holding Potential (RHP). Further evidence of an association between rank and self-injury therefore arises from research that has found a correlation between victimisation in prison and self-injurious behaviour. A semi-structured interview approach was applied in a study exploring reasons for self-harm in young offenders (Inch, Rowlands and Soliman, 1995). The most common reason cited by young offenders for their self-harm was being bullied. Such bullying involved the forced handing over of possessions, physical threats or attack and in one instance, sexual assault. In an earlier study of young offenders it was quoted that as much as 78% of self-injury may have been related to bullying (Power & Spencer, 1987). This figure consisted of prisoners who stated that their self-injury was an attempt to avoid conflict with other prisoners (50%) and others who reported that their self-injurious behaviour was an attempt to prompt a change of location (28%), which Power and Spencer hypothesised may have been to avoid further bullying. Much of the research relating to bullying has focused upon young offender populations, as described above. Although limited, similar findings have been reported in adult

populations. An extensive study by Liebling and Krarup (1993), found that male inmates who had both self-injured and attempted suicide were significantly more likely than controls to have experienced bullying during their imprisonment.

Livingston and Beck (1997) propose a cognitive-behavioural model for understanding self-injury in relation to bullying behaviour. These authors argue that self-injury is a learned operant behaviour, bringing about escape or avoidance of bullying. In evolutionary terms, it may be hypothesised that self-injury acts as an avoidance behaviour. Self-injury may reduce a further loss of RHP by instigating removal of an individual from a bullying situation or lead to increased observation from health professionals and thereby reduce the likelihood of further bullying.

1.6.3 Intentional Self-Injury and Anger

Anger, and the manner in which anger is expressed, has become integral to the discussion of intentional self-injury. Toch (1975) conducted extensive qualitative interviews with 381 male prisoners who had self-injured or attempted suicide within New York correctional facilities and one county-jail. In addition Toch and his team carried out 175 interviews with control participants who had not injured themselves in custody. The interviews were then transcribed and subjected to content analysis. In many interviews the role of anger is central to the experience of self-harm, and one man tells about the necessity of self-injury as a means of managing anger without resorting to violence:

'I feel I have too much anger and frustration within me, and I feel sooner or later it has to come out some way....I feel if I let it go too long, then I will become violent, and I don't want to become violent' (pp.168).

Wright (1991) connected self-injury and violence, but assumed that those who self-injured would be at the receiving end of violence. In his study comparing violent and victimised male prisoners it was hypothesised that the self-harm group would fall within the category of 'victims', defining the 'victim' almost synonymously with the self-injurious prisoner. The results contradicted this hypothesis, and it was found that this sample of self-harming inmates in a U.S. penitentiary instead exhibited violent behaviour toward others. Caution should however be exercised in generalising the findings from this study because the results were based upon an extremely small sample of only 8 self-harmers. Jones (1986), also in the U.S, collected information from the case records of 67 prisoners who had a history of self-mutilation and 68 controls. Results found that the self-mutilation group had committed more assaults during their current detention, and had faced more disciplinary action from the prison. Jones (1986) argued that this increased level of discipline and assaultive behaviour is representative of higher levels of hostility amongst self-mutilators in prison. These results must also be interpreted with caution, because it is unclear whether such 'aggression' measures do in fact reflect underlying differences in affective state. Cookson (1977) attempted to investigate the emotional component of anger in female self-mutilating prisoners in a U.K. prison. It was found that self-mutilators scored significantly higher on general hostility, acting out hostility and self-criticism than the population of the prison as a whole. The psychological measure was referred to as the HDHQ, and few further details were provided, making it difficult to sufficiently evaluate these findings. In addition it was unclear whether the prison population as a whole differed from the self-injury group on any demographic variables that may have explained this discrepancy. Based upon a sample of female prisoners, it is also

not possible to be certain that such findings could be generalised to men in prison. Overall, research does seem to suggest an association between self-injurious behaviour, higher levels of anger and the unconstructive expression of anger. Research has yet to directly explore subjective experiences of anger in a sample of self-injurious male prisoners.

1.7 Summary and Aims

Prison literature suggests that shaming events are rife within this institution. Gilbert (2000b) has proposed that such shaming events in adulthood may be particularly pertinent for those who have been exposed to earlier shaming experiences. It has been argued that childhood abuse provides one such early shaming experience, and therefore leaves an individual vulnerable and hyper-sensitive to possible future rejections, denigrations, or humiliations. As a means of defending against the painful experience of shame which encompasses, unfavourable social comparisons, submissive behaviours and an negative perception of the self, an individual may respond with anger. Thus, those prone to shame may also be prone to intense feelings of anger and consequently, the unconstructive expression of anger.

The following study will therefore explore this Social Rank Model of shame and anger within a sample of self-injurious male prisoners. Thereby the study will investigate the interrelationships between the above variables in a sample of male prisoners who have self-injured. This will involve testing the following hypotheses:

1. Measures of the shame experience will correlate with measures of social status: shame will correlate positively with submissive behaviour and

negatively with social comparison judgements; and submissive behaviour will correlate negatively with social comparison judgements.

2. Measures of the shame experience will correlate with the intensity of anger emotions: Shame will correlate positively with state and trait anger; submissive behaviour will correlate positively with state and trait anger; and social comparison judgements will correlate negatively with state and trait anger.
3. Measures of the shame experience will correlate with the expression of unconstructive anger: Inwardly and outwardly directed anger will correlate positively with measures of shame, positively with submissive behaviour, and negatively with social comparison judgments.
4. Childhood abuse experiences will correlate with the experience of shame: Childhood abuse will correlate positively with shame, positively with submissive behaviour and negatively with social comparisons.
5. Childhood abuse experiences will correlate with the tendency to experience anger and with the unconstructive expression of anger: Childhood abuse will correlate positively with state anger and trait anger and will correlate positively with both outwardly and inwardly directed anger.

The study will then move on to examine whether there is a relationship between self-injury in male prisoners and the above factors of childhood abuse, shame, social status and anger. It is proposed that self-injury may be a response to both the painful experience of shame and the intense feelings of anger provoked by touching upon 'feelings of weakness, impotence, inferiority and inadequacy as a man' (Gilligan, 1996, pp.180). If this were so, then it would be predicted that prisoners who self-injure would display significantly different responses to measures assessing social status, shame, anger and childhood abuse than would a group of controls. This will therefore involve testing the following hypotheses:

1. Prisoners who self-injure will have experienced higher rates of childhood abuse than the control group.
2. Prisoners who self-injure will perceive themselves to be of lower social status, will display higher levels of submissive behaviour, and will report greater shame than the control group of prisoners.
3. Prisoners who self-injure will experience a greater tendency and intensity of anger than the control group.
4. Prisoners who self-injure will report a greater tendency to express anger in an unconstructive manner (both outwardly and inwardly) than the control group and thus will report a reduced ability to control their angry feelings.

2. METHODS

2.1 Overview

This piece of research was conducted in conjunction with a research colleague who wished to investigate personality disorder and related beliefs in prisoners who self-injure. Both studies were to involve recruiting a similar group of participants and so it was agreed that we would work in collaboration, with each researcher gathering both sets of data and sharing the demographic information gathered. The following section will therefore outline the manner in which this research was conducted and in doing so, will address certain key issues including the setting, the ethical considerations, the participants, the procedure, and the measures applied.

2.2 Setting

The research was conducted in a Local Category B (medium-security) male prison within the London area. The prison contained a population of approximately 1200 prisoners at any one time. These prisoners were then located on one of the six normal location wings, the drug detoxification wing, the vulnerable prisoners unit (for those deemed at risk among the general prisoner population) or the healthcare wing. In order to carry out the research, individual participants were met in consulting rooms based within the healthcare wing.

2.3 Ethical Considerations

Ethical approval was obtained from the University College London / University College London Hospital Committees on the Ethics of Human Research, and a copy of the ethics approval letter may be found in Appendix 1.

The opportunity for participants to consent voluntarily, without coercion, and to be as fully informed as possible is crucial when considering the ethical constraints of research. Within a prison environment however, prisoners are forcefully detained and instructed in their everyday activities, only able to make very limited choices. Therefore, at the outset of meeting with a potential participant, substantial time was allocated to explaining the requirements of the study. The voluntary nature of the study was also stressed and it was highlighted that any decision to take part or decline would in no way affect their detention, official records, sentencing or potential parole. The aim of this was to maximise the individual's ability to decline participation in the research if they so wished.

The provision and limits of confidentiality within the research was also considered to be of utmost importance. Prisoners would be escorted by officers to the hospital wing in order to participate, and consequently prison staff would be aware of their involvement in the research. Although it was highlighted to participants that the content of their answers generally would not be divulged, it was also stressed that confidentiality would be broken should the participant express a serious intent to cause injury to themselves, another person, or provide information relating to a breach of prison security.

The researcher would highlight the above issues in conjunction with providing an information sheet and consent form to all participants (see Appendix 2 and 3). The information sheet addressed the issues of consent, confidentiality, an explanation of the reasons for the study, the requirements of the study, and the support available

following the study. Once participants had received all relevant information, they were required to complete the consent form, which acted as a final check to ensure that participation was voluntary and informed.

Approximately 3-4 hours with each participant was required in order to administer the full battery and given such a lengthy period, it was thought necessary to provide participants with refreshments. This involved further ethical consideration since a prisoner's access to such items as biscuits is restricted within the prison environment. Consequently, it was possible that biscuits might be used as marketable goods within the prison or may act as a strong enticement for prisoners to participate, thus inhibiting their free choice. Therefore prior to conducting the study authorisation was sought from the prison governor and limits were set to ensure that refreshments were consumed during administration and not returned to the cell.

2.4 Procedure

2.4.1 Inclusion / Exclusion Criteria

This study attempted to investigate intentional self-injury (ISI) and by definition this meant that individuals allocated to the experimental group should themselves have purposely caused physical injury to their own body. All members of the self-injury group had therefore reported to the researchers at least one incident of self-injurious behaviour which had resulted in physical damage, but which was non-suicidal in intent. The control group consisted of individuals who had not self-injured intentionally during their current imprisonment.

It was decided to exclude individuals who had a current or past history of psychosis from both the self-injury and control groups. An individual with psychosis may have self-injured in response to hallucinations or delusional beliefs, rather than through personal volition to harm the self. Furthermore, given the complexity of the language in many of the questionnaires, participants not sufficiently fluent in English were also excluded. Information regarding psychotic symptomatology and language skills were obtained from the prisoner's medical records prior to the offer of an appointment.

2.4.2 Recruitment Procedure

In an attempt to estimate the number of participants required, previous research was consulted to estimate the likely effect size for the relevant variables under investigation. To the knowledge of the author, no research had been conducted investigating shame or social rank and self-injury in prison. However, a study conducted within U.K. prisons by Liebling and Krarup (1993) had examined childhood abuse, an alternative variable under investigation within this piece of research. The Liebling and Krarup study compared self-harming and non-self-harming male prisoners and it was found that the self-harming group were significantly more likely to have experienced sexual abuse (see Appendix 4). Although not ideal, due to the scarcity of relevant previous research, a power calculation was conducted based upon these figures. On the basis of the two proportions reported in the Liebling and Krarup study (0.37; 0.06), a sample size of 33 in each group was necessary to ensure 80% power to detect the predicted difference in childhood experiences. Therefore an attempt was made to recruit this number into both the experimental and control groups.

The restraints of the prison system meant that the usual routes of recruitment such as letters, opt-in slips or approaching the participant directly were not possibilities. In addition, a significant proportion of prisoners experience difficulties in reading or writing and therefore posters, information sheets or opt-in slips would have limited the representative nature of the sample. Instead, a number of alternative recruitment routes were activated. Potential experimental group participants were identified in three ways: 1) via the F2052SH, a form which can be opened by any member of staff who considers an individual to be at risk of suicide or self-harm. A list of prisoners with an open F2052SH was produced from the prison's central computer database and subsequently it was possible to ascertain from the individual's medical file whether an incident of self-injury had in fact taken place during their current imprisonment; 2) approaching staff based on the healthcare wing for names of healthcare prisoners who had self-injured; 3) via the F2052 incident log, which contained details of the actual self-injury incidents that had occurred over the previous month.

The control group participants were identified via a full listing of current prisoners produced regularly by the central computer database. Matching for ethnicity was important because previous research has found that a disproportionately high number of white prisoners self-injure in comparison to prisoners from other ethnic origins (Livingston, 1997). Therefore once the controls had been matched for ethnicity with the self-injury group, the control participants were then randomly selected from the remaining list of names. Once selected for either the experimental or control groups, the prisoner would then receive an appointment slip to attend the healthcare wing on a designated day, and would be approached by an officer on that day to be escorted to the healthcare consultation rooms. Thus, due to the constraints of the prison system,

the first opportunity to explain the reason for the invite became available when the prisoner actually attended the hospital wing and met with a researcher.

2.4.3 Administration Procedure

As previously described, an information sheet was provided for all participants, after which an opportunity was provided for prisoners to ask any questions. If the participant was willing to take part in the study, they were then requested to complete the consent form. Having consented, all participants then completed a battery of interviews and questionnaires. Throughout this process of consent and administration, participants were offered as much help as they required to read the questionnaire instructions and items or to clarify any terms or ambiguities. Refreshments were provided during the 3-4 hour administration of the battery. Administration was not however continuous, but was usually presented over two sittings involving a 2-hour break during which participants would return to their cell for lunch, thus hopefully minimising fatigue.

If the prisoner did not attend at the outset of the day then their wing officers would be approached to determine the reason for the non-attendance. Should the prisoner have been unable to attend due to an alternative commitment (e.g. social visit or education) or to difficulties within the system (e.g. lack of staff to escort the prisoner) then another appointment for this prisoner would be arranged. Any prisoner who refused to attend the health care wing, could not be considered to have declined to take part in the study, since they would have had no knowledge about the purpose of their appointment. However, due to the limited data-collection period for this study,

prisoners who had outright refused to attend the health care unit prior to meeting a researcher were not contacted again.

In the circumstances that the prisoner did not return following the break, again their wing officers would be contacted and an explanation established. No prisoner directly refused to return to complete the battery after the break. Nevertheless, there were a number who were unable to return in the afternoon due to other commitments or difficulties within the system. Circumstances within the prison also means that at times the allotted administration time was significantly reduced (e.g. staff training and all prisoners were required to return to their cells). In such situations an alternative appointment was arranged, although by this date some prisoners had been either transferred to another prison or released and therefore their battery remained incomplete.

2.5 Measures: Questionnaires and Interviews

The following will describe the measures that were administered in this study and where appropriate, the psychometric properties of each will be discussed.

2.5.1 Demographic Measures

Demographic data was gathered by means of a set of introductory interview questions (see Appendix 5). Based upon these questions participants were required to provide information regarding their age, ethnicity, level of education, index offence and the length of time served during their current detention. As previous research had suggested that prisoners on remand are more likely to self-injure than those who are convicted, it was decided to also gather information relating to the prison status, and

thus whether the prisoner was on remand (i.e. not convicted or sentenced); on judge's remand (i.e. convicted but not sentenced); or sentenced.

2.5.2 Intentional Self-Injury Measures

From a review of the prison literature surrounding self-injury, a comprehensive list of self-injurious behaviours was created (see Appendix 6). Participants were then asked how many times during their current detention they had engaged in each behaviour. The suicidal intent of the behaviour was then assessed, based upon the suicidal intent of attempt subscale of the Overt Aggression Scale Modified (OAS-M; Coccaro, Harvey, Kupsaw-Lawrence, Herbert & Bernstein, 1991). The OAS-M is a 25-item semi-structured interview, containing nine subscales. The subscales include: Verbal Aggression, Aggression against objects; Aggression Against others; Aggression against self; Global irritability, Subjective irritability; Suicidal tendencies; Intent of attempt; and Lethality of attempt. The aggression items of the OAS-M were adapted from the original OAS (Yodofsky, Silver, Jackson, Endicott & Williams, 1986). The irritability and suicidality items were adapted from the Schedule for Affective Disorders and Schizophrenia (SADS; Spitzer & Endicott, 1978, as cited in Coccaro et al, 1991). The authors do not provide specific questions for the interview. Instead, in order to assess the intention underlying the self-injurious behaviour, the authors recommend that the following areas be evaluated: the likelihood of being rescued; the precautions against discovery; the action to gain help during or after the attempt; the degree of planning; and the apparent purpose of the attempt. Suicidal intent of attempt is then rated on a 6-point likert scale from 0 (obviously no intent) to 5 (Extreme, every expectation of death). A behaviour was then classified and recorded

as self-injurious if there was no suicidal intent (0), minimal suicidal intent (1), or if the participant was ambivalent (2).

2.5.3 Shame Measures

The Test of Self-Conscious Affect for socially deviant populations (TOSCA-SD; Hanson & Tangney, 1995, cited in Tangney, 2002) is a 15-item questionnaire adapted from the adult TOSCA, (TOSCA; Tangney, Wagner & Gramzow, 1992) which contains one of the most widely used and validated shame scales (Andrews, Qian & Valentine, 2002). The TOSCA-SD was developed specifically for use with incarcerated respondents (see Appendix 7). In each item a day-to-day scenario is described (e.g. 'You borrow your friend's car and accidentally scratch it'). Alongside each scenario are four possible responses to this situation (e.g. 'You would apologise and offer to repair it'). Participants are then required to rate on a 5-point scale the likelihood of responding in each of the four ways, from 1 (not likely) to 5 (very likely).

In the original TOSCA (Tangney, Wagner & Gramzow, 1992) the four statements accompanying each scenario represent four different types of response to the prescribed situation. Each statement characterises either a shame response, a guilt response, an externalisation response (a response representing externalising of the cause or blame for the situation) or a detachment response (a response representing detachment or unconcern with the situation). These items thus created four distinct subscales, which provided indices of situational shame, guilt, externalisation and detachment. The original questionnaire was later modified to be more appropriate for an offender population (Hanson & Tangney, 1995, cited in Tangney, 2002). On

investigation of this new TOSCA-SD the reliability coefficients for the guilt, externalisation, and detachment scales were very similar to the original TOSCA, however the internal consistency of the shame scale was dramatically lower (.47) (Hanson & Tangney, 1995, cited in Tangney, 2002). It was found that the original shame scale consisted of two unrelated components within offenders ($r = -.04$). The first subscale was termed 'negative self-appraisal' and referred to global negative evaluations of the self including a sense of being worthless or powerless (e.g. 'You would think I'm terrible') and displayed an internal reliability of .62. The second component was entitled 'behavioural avoidance' and referred to a desire to hide or escape (e.g. 'You would leave as quickly as you can') and demonstrated an internal consistency of .65. Therefore although the TOSCA-SD has been less widely researched than the adult version of the TOSCA, findings of an apparent distinction between the two facets of shame within offenders suggests that the TOSCA-SD would be a more appropriate measure than the adult TOSCA. Since the Negative Self-Appraisal scale (NSA) has displayed a more typical relationship with other variables (e.g. guilt), this study examined only the NSA scale as an index of shame (Hanson & Tangney, 1995 cited in Tangney, 2002). This TOSCA-SD measure therefore provided a measure of a global sense of shame in specific situations.

The Other As Shamer Scale (OAS; Allan, Gilbert & Goss, 1994; Goss, Gilbert & Allan, 1994) is an 18-item questionnaire developed from modification of the Internalized Shame Scale (ISS; Cook, 1987). The ISS is a self-evaluation measure of shame, whilst in contrast the statements within the OAS refer to beliefs about how others see the self (e.g. Other people see me as small and insignificant). Each item of the OAS requires participants to rate the frequency of the shame feeling or experience

on a five-point scale from 0 (never) to 4 (almost always). The OAS scale then provides an overall total shame score and three potential subscale scores which relate to: 1) being seen as inferior (e.g. 'Others see me as not measuring up to them'); 2) experiences of emptiness (e.g. 'Others think there is something missing in me') and; 3) how others behave when they see me make mistakes (e.g. 'Other people look for my faults'). The OAS is based upon the assumption that individuals who experience shame do so almost continuously (i.e. it is not necessary to present specific scenarios to participants), and therefore the OAS produces a measure of global chronic shame.

The OAS has displayed good internal consistency with a reliability coefficient of .92 (Goss, Gilbert & Allan, 1994). Similarly, the subscales of the OAS correlated highly with the overall OAS measure, from .83 to .91. The scale also has demonstrated good construct validity exhibiting a high correlation of 0.81 with the ISS (Goss, Gilbert & Allan, 1994) and a correlation of .54 – .65 with the TOSCA (Gilbert, 2000a). The following study will utilise only the total OAS shame score (see appendix 8).

2.5.4 Social Status Measures

The Social Comparison Rating Scale (SCRS; Allan & Gilbert, 1995; Gilbert & Allan, 1994) is an 11-item questionnaire measuring self-judgements of relative social rank, status and attractiveness (see Appendix 9). The individual must rate themselves along a 10-point bi-polar scale (e.g. 'in relation to others I generally feel: Inferior 1 - 10 Superior'). Allan and Gilbert constructed this questionnaire based upon the conception that humans apply three forms of comparison and consequently, the questionnaire produces not only a total score for social comparison, but also three subscale scores. The subscale Rank, measures comparisons regarding relative

strength and power (e.g. 'Weaker – Stronger'). The Attractiveness subscale assesses comparisons based upon social attractiveness (e.g. 'Unlikeable – More Likeable'). Finally, the Group Fit subscale assesses comparisons regarding relative similarity to others (e.g. Left out - Accepted).

The total SCRS scale has shown high internal reliability with a Cronbach alpha for the 11-item total score ranging from .88 in a clinical sample to .91 within a student sample (Allan & Gilbert, 1995). Analysis of the factor structure differed according to the sample, with a two-factor structure emerging from the student sample of rank and group fit, with attractiveness loading onto both factors. In contrast for the clinical group, as predicted the three-factor structure emerged. For both groups social comparison ratings highly correlated with psychopathology, with group fit appearing the most salient comparison for the student sample. In contrast, rank and attractiveness emerged as the most salient factors for the clinical group. As Allan and Gilbert (1995) summarise, the relevance of particular social comparisons may depend upon the individual's social environment and psychopathology. Analysis in the following study will therefore utilise the scale total score.

The SCRS has shown good construct validity, correlating with other measures of status and with measures of general psychopathology. Gilbert and colleagues have repeatedly found negative correlations (Allan & Gilbert, 2002; Gilbert, 2000a; Gilbert, Allan, Ball & Bradshaw, 1996) between the SCRS and the submissive behaviour scale, a self-report measure of behaviours representative of submission, ranging from -.47 to -.62. The SCRS has also been found to correlate negatively with measures of psychopathology including depression as assessed by the Centre for

Epidemiological Studies Depression Scale ($r = -.44$) and the depression subscale of the SCL-90-R ($r = -.39$; Allan & Gilbert, 1995), which is a self-report clinical rating scale assessing a range of psychopathology. The Rank subscale of the SCRS has also correlated with the Neuroticism ($r = -.41$) and the Introversion ($r = -.54$) scales of the Eysenck Personality Scale (Gilbert & Allan, 1994).

The Submissive Behaviour Scale (SBS; Gilbert & Allan, 1994) is a 16-item questionnaire developed from the work of Buss and Craik (1986) who had generated a large list of submissive behaviours. Those behaviours which were most highly agreed upon as submissive, which were not symptoms of depression or anxiety, and which represented involuntary submission were selected for inclusion in this new scale. Participants were then required to rate the frequency of each submissive behaviour (e.g. 'I blush when people stare at me') on a five-point likert scale from, 0 (never) to 4 (always). This scale has shown satisfactory internal reliability with a Cronbach alpha of .89 and test-retest reliability of .84 in an undergraduate sample (Gilbert, Allan & Trent, 1995). The SBS has been found to correlate highly ($r = .73$) with the sub-assertive scale of the Inventory of Interpersonal Problems (Gilbert, Allan & Trent, 1995). Furthermore, the SBS has also been found to correlate highly with various forms of psychopathology as assessed by the SCL-90-R (Allan & Gilbert, 1997). A copy of the SBS may be found in Appendix 10.

2.5.5 Anger Measure

The State-Trait Anger Expression Inventory (STAXI; Spielberger, 1988) is a 44-item questionnaire measuring five components of anger. The first ten items provide an index of State Anger, thereby assessing the strength of current feelings of anger

(e.g. 'I feel like yelling at somebody'). Participants are required to rate the intensity of their present angry feelings from 1 (not at all) to 4 (very much so). The following scale produces a measure of Trait Anger, which aims to assess the tendency to perceive a wide range of situations as anger-provoking and to respond to these situations with raised state anger (e.g. 'I am a hot-headed person'). Participants are required to rate how they generally feel on a four-point scale, from 1 (almost never) to 4 (almost always).

The STAXI also measures the way in which these angry feelings are expressed. The third component of anger assessed by the STAXI is therefore Anger Expression. This scale consists of twenty-four items and for each item participants are required to rate on a four-point scale the frequency with which they react or behave in the manner described when feeling angry, from 1 (almost never) to 4 (almost always). The Anger-Expression scale consists of four subscales. The first factor, Anger-In measures the frequency with which angry feelings are held in or suppressed (e.g. 'I keep things in'). The second subscale is termed Anger-Out and measures how often an individual expresses anger towards other people or objects (e.g. 'I do things like slam doors'). The third Anger Expression subscale is termed Anger Control and measures the frequency with which an individual attempts to control the expression of their anger (e.g. 'I keep my cool'). The overall Anger Expression scale assesses the frequency with which anger is expressed, regardless of the direction. This score is calculated by subtracting the anger control score from the total anger-in and anger-out scores and then adding a constant of 16 which prevents the possibility of a negative expression score. Anger-Control may be regarded as a scale which assesses

appropriate anger regulation and therefore may be considered adaptive. Conversely, Anger-In and Anger-Out scales reflect difficulties in the regulation of angry feelings.

The State and Trait anger scales have displayed high internal consistency with alpha coefficients of .90 and .82 in a sample of adult males (Spielberger, 1988). For the 8-item Anger-In and the 8-item Anger-out subscales the internal consistency was again high, with alpha coefficients of .86 and .75 respectively. The anger control subscale displayed similar internal consistency with an alpha coefficient of .81. Factor analyses also identified the three scales as measuring three clearly distinct constructs. Factor loadings for the Anger-Items ranged from .58 to .72 on the Anger-In factor and from -.16 to -.17 on the Anger-out factor. Likewise factor loadings for the Anger-out items ranged from .44 to .72 on the Anger-out factor, and from -.12 to -.17 on the Anger-in factor. The Anger-Control factor was found to correlate negatively with the Anger-Out factor (-.59) and did not correlate at all with the Anger-In factor. The STAXI has also demonstrated test-retest reliability with correlations ranging from .62-.81 across a 14-day period for all scales except the State-Anger scale ($r = .21$), but this is a state measure and therefore stability over time would not be expected (Spielberger, 1988).

The STAXI has also shown evidence of convergent validity (Spielberger, 1988). The Trait anger scale displayed correlations of .66 to .73 with the total hostility score for the Buss-Durkee Hostility Inventory (Buss & Durkee, 1957). This questionnaire has been administered to prison populations and normative data published (Spielberger, 1988). This lent further support to the selection of this anger questionnaire, given the potential excess of anger difficulties within the population under investigation in

this study. The Anger Expression total score has received less validation, therefore this study will utilise the State Anger scale, the Trait Anger Scale, The Anger-In scale, the Anger-out scale and the Anger Control scale.

2.5.6 Childhood Abuse Measure

The Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) is a retrospective self-report instrument for adolescents and adults. The questionnaire contains 28 items measuring childhood trauma experiences including physical abuse (e.g. 'People in my family hit me so hard that it left me with bruises or marks'); sexual abuse (e.g. 'Someone tried to touch me in a sexual way or make me touch them'); emotional abuse (e.g. 'People in my family called me things like 'stupid', 'lazy' or 'ugly''); physical neglect (e.g. 'I had to wear dirty clothes'); and emotional neglect (e.g. 'I felt loved', one of the seven reversed items). Respondents then rate the truth of each statement for the period of when they were growing up on a 5-point scale from 1 (never true) to 5 (very often true). The questions largely refer to experiences within a relatively standard family unit, however many of the participants may have grown up in foster homes, children's homes or within untraditional family structures. Therefore those who did not grow up with their parents, were instead asked to answer the questions in relation to their main carers. On analysis this questionnaire will produce 5 subscale scores which correspond to each type of traumatic childhood experience (emotional abuse, physical abuse, sexual abuse, emotional neglect and physical neglect). Each subscale score is based upon five items from the questionnaire and therefore scores may range from 5-25 for each form of abuse. In addition, a further three items are included to assess the tendency of a

participant to minimise or deny such abusive experiences, creating a denial subscale.

A definition of each form of abuse and neglect may be found in Appendix 11.

The CTQ has demonstrated good psychometric properties. The internal consistency of the questionnaire has been shown with reliability coefficients ranging from .60 for the physical neglect subscale to .96 for the sexual abuse subscale, across a range of samples (Bernstein & Fink, 1998). The test-retest reliability of the questionnaire also appears strong, with intraclass correlations ranging from .79 to .86 over an average period of 3.6 months, suggesting that the impact of transient mood upon reporting is limited (Bernstein & Fink, 1998). This questionnaire has also demonstrated convergent validity with good correlations between interview-based ratings of abuse (Childhood Trauma Interview) and CTQ subscale scores ranging from .42 to .58 (Bernstein & Fink, 1998). Finally the questionnaire has demonstrated a consistent five-factor structure, again across a variety of samples (Bernstein & Fink, 1998; Scher, Stein, Asmundson, McCreary & Forde, 2001).

2.5.7 Depression Measure

The **Beck Depression Inventory-Second Edition** (BDI-II; Beck, Steer and Brown, 1996) is a 21-item questionnaire measuring the severity of depression. This questionnaire was developed to assess the symptoms of depression which correspond to the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, - Fourth Edition) criteria for depressive disorders. The BDI-II has replaced the amended Beck Depression Inventory (BDI-IA; Beck, Rush, Shaw & Emery, 1979), which had itself been developed from the original Beck Inventory (BDI; Beck, Ward, Mendelson, Mock & Erbaugh, 1961). For each item participants are required to select the one

statement out of four which best describes their experiences over the previous two weeks. Each statement is rated on a 4-point scale from 0-3 and these scores are then summed to provide a total depression score.

The psychometric characteristics of BDI-II have been investigated in both an outpatient psychiatric sample (n=500) and a college sample (n=120) (Beck et al., 1996). The questionnaire displayed good internal consistency with a coefficient alpha of .92 for the outpatient sample and .93 for the college students. The scale also demonstrated a test-retest correlation of .93 (based upon 20 outpatients administered 1 week apart). The scale also showed a high construct validity, correlating highly with other well-established measures of depression including the BDI-IA (.93), and the Hamilton Psychiatric Rating Scale for Depression ($r = .71$).

2.5.8 Questionnaire Administration

As described above, this study was conducted in collaboration with a research colleague, who was investigating the issue of personality disorder within male prisoners who self-injure. The personality disorder research required administration of the following measures: the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First, Spitzer, Gibbon & Williams, 1997); the Personality Beliefs Questionnaire (Beck, Butler, Brown, Dahlsgaard, Newman & Beck, 2001); and the Social Desirability Scale (Crowne & Marlowe, 1960). Each researcher gathered data for both the personality disorder research and this piece of research, relating to social rank theory. The demographic, self-injury and depression data were shared across studies. For all participants the demographic interview questions and the self-injury questions were completed first. The administration of

the remaining questionnaires and interviews was then counter-balanced. Approximately half of the participants received the personality disorder battery first, followed by the social rank battery (as previously detailed) and vice versa. Both batteries required approximately 1.5 hours to administer, and the questionnaires and interviews within each battery were administered in a set order. The personality disorder battery was presented in the following order: SCID-II questionnaire; SCID-II Interview; Personality Beliefs Questionnaire; Social Desirability Scale. The social rank battery was likewise administered in the following set order: OAS; STAXI; TOSCA; CTQ; SBS; SCRS; BDI-II.

2.6 Participants

2.6.1 Characteristics of the Sample

The sample consisted of 73 male prisoners. Initially from prison system information, 37 were recruited as self-injurers, and 36 were recruited as controls. However, on the basis of information obtained at the point of interview, it was found that 3 of those recruited as controls, had in fact self-injured during their current detention and thus were allocated to the experimental group. Consequently, the sample consisted of 40 prisoners who reported to have intentionally self-injured during their current detention and 33, who, during their current imprisonment reported not to have self-injured intentionally. The participants ranged in age from 21 - 48, with a mean age of 30.88 years. The sample consisted predominantly of individuals who identified themselves as White (86.30%), although there were a number of individuals who described themselves as either Afro-Caribbean (6.85), Asian (2.74), or Other-non-white (4.11). Approximately 64% had no formal qualifications, 19% had achieved a City and Guilds or equivalent vocational training, and the remaining participants had obtained

some academic qualification including GCSEs or equivalent (11%), and A-levels of equivalent (6%) either at school or through further education.

The current prison status of participants also varied, with 32.80% on remand, 13.70% convicted but not yet sentenced, and 53.42% convicted and sentenced. The time served by participants during this current imprisonment ranged from 0.25 - 65 months at time of interview. Based upon the Home Office categorisation system (Home Office Research and Development Statistics, 2002), crimes were classified as either violent, property-related, drug-related, or other. It was found that within this sample, 32.88% had been charged with a violent crime, 34.24% were charged with a property-related crime, 13.70% had been charged with a drug-related crime and 19.18% were charged with an other crime which included driving offences. Details regarding the demographics of the sample may be found in Tables 3 and 4 of the Results section.

2.6.2 Participants who were Excluded or Refused

Due to the difficulties of communication within the prison system it was not always possible to ascertain the reasons for non-attendance by all prisoners. It was also often unclear whether a prisoner had even received an invitation to attend the health care unit to take part in the research. A prisoner was therefore not included as someone who had refused unless a researcher had met with them, and the prisoner had declined participation at this point. In total, six prisoners declined to take part in the study. Of the six who refused, two were known to have self-injured. Limited demographic details are available for those who refused to participate in Tables 1 and 2 of the Results section. Information relevant to the inclusion and exclusion criteria was not always available in the medical records and therefore seven prisoners were excluded

from the study at the point of meeting with a researcher. Three were excluded on the basis of psychotic symptoms, two were excluded due to language difficulties (English was not their first language) and two were excluded due to their self-injurious behaviour being solely suicidal in intent. All of those who were excluded on the basis of psychosis and language difficulties were known to have self-injured.

2.7 Design and Analysis of Data

Data was entered and analysed using the SPSS, statistical computer package. All data was then checked for accuracy prior to conducting any analyses.

This study was designed to investigate the association between a set of social rank-related variables in a sample of self-injurious male prisoners. This study attempted to replicate previous research that had found associations between shame, social comparisons, and submissive behaviour. In addition, this study also attempted to replicate findings that have identified an association between shame experience variables (shame, submissive behaviour, social comparisons) and anger; shame experience variables and childhood abuse; and childhood abuse and anger. In order to explore the relationships between the variables of interest, Pearson Product Moment Correlations were calculated for each association.

Furthermore, it was predicted that self-injurious prisoners would differ significantly from a group of controls on the above social rank-related variables. This study was therefore designed to investigate the effects of the between subjects independent variable, group (i.e. ISI group and control group) upon a set of dependent variables. These measures were grouped into three categories (i) measures assessing the

experience of shame (shame, social comparisons, submissive behaviour); (ii) measures assessing the level and expression of anger; and (iii) measures assessing childhood abuse and neglect. In order to explore these hypotheses t-tests and chi-square analyses were conducted to explore whether the two groups differed significantly on each dependent variable.

3. RESULTS

3.1 Data Analysis

Analysis of the data in this study required extensive use of parametric tests. One of the underlying assumptions of a parametric test is that any continuous dependent variable under investigation should be normally distributed. In order to assess the normality of the variable distributions, the significance of the skew for each variable was computed. This involved converting the skew values to z-scores, by dividing the skew value by the standard error of skew. z-scores less than 2.51 ($p < 0.01$) were considered normally distributed (Tabachnik & Fidell, 1996). For those variables which were significantly skewed, transformations were applied in an attempt to produce a normal distribution. The variables under investigation in this study were only ever positively skewed and therefore either square root or logarithmic transformations were applied. In order to allow for comparison with other studies the means presented in the tables below are based upon the original scores rather than the transformed scores.

The basis of a t-test also involves the comparison of two group means. The mean of a sample may however be unduly influenced by an extreme score, or outlier. Within this study, an outlier was defined as any score that deviated more than three standard deviations from the mean of that variable (Clark-Carter, 1997). Z-scores signify how far (in standard deviations) any one score is from the mean. All scores were therefore converted to z-scores and scores more than three standard deviations from the mean were thereby removed. The means displayed in the tables below are presented with the outliers removed in order to more accurately represent the data under analysis. It

is also important to note that this study involved distinct groups of participants and therefore normality and outliers were investigated separately for each group.

3.2 Participation

The total sample of recruited prisoners (Recruited Group) were compared with those prisoners who had attended for a meeting with the researcher but had declined to take part (Refusal Group). For those who refused to participate only limited demographic information was available including Age, Time served (in prison during this current detention), Ethnic origin and Prison status (i.e. Remand, Convicted but not sentenced, Sentenced). Analyses were therefore conducted to investigate whether the Recruited Group significantly differed from the Refusal Group on these specific variables. Table 1 and 2 display the comparative results for both groups.

Age and Time served were both continuous variables and as such independent samples t-tests were applied to examine whether the two groups differed on these variables. The Recruited group contained two outliers on the Time served variable and these were removed. The Time served variable also displayed a significant skew and therefore a logarithmic transformation was applied and a normally distributed variable was created. As can be seen from Table 1 below, the Refusal Group was significantly older than the Recruited group ($t_{(77)} = 2.17, p = 0.033$), but the groups did not differ on the Time Served in prison during this detention ($t_{(75)} = 0.57, p = ns$).

The remaining variables of Ethnic Origin and Prison Status were both categorical. In general chi-square analyses would be applied to such categorical data, however due to the small number in the Refusal Group, more than 20% of cells in a chi-square

analyses would have contained fewer than 5 participants and thus any chi-square analysis would have been invalid. The Ethnic Origin variable was thereby collapsed into two categories, white and other. Likewise the Prison status variable was collapsed into sentenced and unsentenced. It was then possible to apply Fisher's Exact Probability test to compare the two groups on these factors. As can be seen from Table 2, the groups did not differ significantly according to either Ethnic Origin (Fisher's Exact $p = ns$) or Prison Status (Fisher's Exact $p = ns$).

Table 1: Age and Time Served Demographics: A Comparison of the Refusal and Recruited Samples

Demographics	Recruited Group			Refusal Group			t	df	p
	n	mean	(SD)	n	mean	(SD)			
Age (years)	73	30.9	(7.08)	6	37.50	(8.50)	2.17	77	0.033*
Time served (in months)	71	4.62	(6.32)	6	3.92	(3.11)	0.57	75	0.570

* $p < 0.05$

Table 2: Ethnic Origin and Prison Status Demographics: A Comparison of the Refusal and Recruited Samples

Demographics	Recruited Group (n = 73)		Refusal Group (n = 6)		Fisher's Exact p
	n	(%)	n	(%)	
<u>Ethnic Origin</u>					0.958
White	63	(6.85)	4	(16.67)	
Other	10	(2.74)	2	(16.67)	
					.683
<u>Prison Status</u>					
Unsentenced	34	(32.88)	2	(16.67)	
Sentenced	39	(53.42)	4	(66.66)	

3.3 Potentially Confounding Variables

3.3.1 Demographics

The remaining analysis will refer only to the Recruited Group, which consisted of both the ISI sample and the control sample. Initial analyses were conducted in order to compare the ISI and control groups on various demographic measures. If the groups differed on any demographic variable then it was planned that this variable would be taken into account in relevant future analyses. Tables 3 and 4 display the demographic findings for these two comparison groups.

The demographic variables of Age and Time Served were both continuous and therefore two independent samples t-tests were conducted on these factors. The Age variable was normally distributed and contained no outliers. In contrast, the Time Served variable contained outliers, and thus one outlier was removed from the ISI group and two outliers were removed from the control group. The Time served variable was also significantly skewed and therefore a logarithmic transformation was applied to create a normally distributed variable. Thereafter, the independent samples t-tests were performed on the Age ($t_{(71)} = 0.69, p = ns$) and transformed Time Served ($t_{(68)} = -1.37, p = ns$) variables and no significant differences were found between the self-injury and control groups.

The remaining demographic variables were all categorical in nature and therefore either chi-square analyses or the Fisher's Exact Probability test were conducted in order to determine whether the groups differed significantly on any of these factors. Due to the small number of non-white participants in the control group, a chi-square analysis would have been considered unreliable and therefore Fisher's Exact

Probability test was conducted to compare the Ethnic Origin of the two groups, whilst chi-square analyses were computed for the remaining variables. The Ethnic Origin (Fisher's Exact $p = ns$), Qualifications ($X^2_{(2)} = 1.40, p = ns$) and Offence Type ($X^2_{(3)} = 6.09, p = ns$) were not significantly different between the two groups. The chi-square analysis for Prison Status ($X^2_{(2)} = 9.26, p = 0.01$) was however significant. A disproportionately large number of the self-injury group were being held on Remand or Judge's Remand (awaiting sentencing) than would have been expected, and therefore a lower proportion of the self-injury group were Sentenced than would have been expected.

Table 3: Age and Time Served Demographics: A Comparison of ISI and Control Samples

Demographics	ISI Group			Control Group			t	df	p
	n	mean	(SD)	n	mean	(SD)			
Age (years)	40	31.40	(7.31)	33	30.24	(6.84)	0.69	71	0.491
Time served (in months)	39	4.08	(6.38)	31	4.39	(3.93)	-1.37	68	0.176

Table 4: Categorical Demographics: A Comparison of ISI and Control Samples

Demographics	Total Sample (n=73)	ISI Group (n=40)	Control Group (n=33)	Chi-sq	df	p
	n (%)	n (%)	n (%)			
Qualifications				1.40	2	0.497
No formal	47 (64.38)	28 (70.00)	19 (57.58)			
Vocational	14 (19.18)	7 (17.50)	7 (21.21)			
Academic	12 (16.44)	5 (12.50)	7 (21.21)			
Offence				6.09	3	0.110
Violent	24 (32.88)	17 (42.50)	7 (21.21)			
Property	25 (34.24)	10 (25.00)	15 (45.46)			
Drug	10 (13.70)	4 (10.00)	6 (18.18)			
Other	14 (19.18)	9 (22.50)	5 (15.15)			
Prison Status				9.26	2	0.010*
Remand	24 (32.88)	17 (42.50)	7 (21.21)			
JR ¹	10 (13.70)	8 (20.00)	2 (6.06)			
Sentenced	39 (53.42)	15 (37.50)	24 (72.73)			
Ethnic Origin				(Fisher's Exact)		0.496
White	63 (86.30)	33 (82.50)	30 (90.90)			
Other	10 (13.70)	7 (17.50)	3 (9.10)			

¹ JR: Judge's Remand, during which the prisoner is convicted but not yet sentenced.

* p < 0.05

3.3.2 Depression

Previous research has found that those who self-injure tend to display significantly higher levels of depression than controls (Biggam & Power, 1999; Inch, Rowlands & Solimon, 1995; Smyth, Ivanoff & Jong, 1994). Other than self-injury, the measures under investigation in this study including shame and childhood abuse have also been shown to relate to depression (Andrews, 1995; Gilbert, 2000a; Gilbert & Allan, 1998). An independent samples t-test was therefore conducted to examine whether the self-injury and control groups differed on the variable of depression. If the groups should significantly differ then it was planned that depression would be controlled for in relevant future analyses. From Table 5 below, it can be seen that the self-injury group report a significantly higher level of depression than the control group ($t_{(62)} = 4.40, p = 0.001$). In summary, future analysis therefore needs to take Prison Status and Depression into consideration where relevant.

Table 5: Depression: A Comparison of ISI and Control Samples

Dependent Variable	ISI Group		Control Group		t	df	p
BDI-II	34	26.35	30	13.33	4.40	62	0.001**

*p < 0.05 **p < 0.01

BDI-II = Beck Depression Inventory Second Edition

3.4 Methods of Intentional Self-Injury

Table 6 below, presents the types of self-injurious behaviour investigated, the number of participants reporting each type of self-injury and the total number of incidents relating to each type of self-injury. As can be seen from the table, superficial cutting was the most widely used method of self-injury, with over half of the ISI group reporting to have injured in this manner. Repeatedly hitting fists against the wall was the most frequently used method of self-injury, but it would appear that about one quarter of the self-injury group applied this method of self-injury on a large number of occasions, rather than the behaviour being common throughout the self-injury group. A total of 493 self-injury incidents were reported by the 40 participants in the ISI group. Whilst some members of the group had self-injured on only one occasion, one person had in fact self-injured 148 times. Since one or two members of the group had self-injured substantially more often than most group members the median number of self-injury incidents was computed for the group, as opposed to the mean. Results showed that there was a median number of 2.5 self-injury incidents per person

Table 6: Methods of Intentional Self-Injury

Type of Self-Injury	No. of self-injury incidents	No. of prisoners who used this form of self-injury
Hit self	0	0
Bit self	1	1
Scratch self	53	3
Repeatedly banged head	88	9
Repeatedly hit fists against wall	150	11
Superficial cut	112	21
Serious cut	40	10
Superficial bruise	0	0
Serious bruise	0	0
Superficial burn	30	1
Serious burn	2	1
Broken bones	0	0
Overdose	3	3
Consumption of harmful substances	2	1
Insertion of harmful objects	0	0
Blood-letting	0	0
Body ligature	1	1
Hanging	8	8
Strangulation	3	2
Total No. of ISI Incidents	493.00	
Median No. of ISI incidents per person	2.50	

3.5 Data Preparation for Variables of Interest

The variables assessing social status, shame, anger and childhood abuse were assessed for normality and outliers.

3.5.1 Shame and Social Status

All shame and social status variables were normally distributed with no outliers. The means and standard deviations for the sample as a whole and for the two comparison groups are presented below in Table 7.

Table 7: Shame and Social Status: Means and Standard Deviations

Dependent Variable	Total Sample			ISI Group			Control Group		
	n	mean	SD	n	mean	SD	n	mean	SD
SCRS	63	63.70	(14.01)	33	60.70	(15.53)	30	67.00	(11.48)
SBS	65	22.23	(9.23)	35	24.03	(9.78)	30	20.13	(8.20)
OAS	69	32.68	(14.85)	38	35.92	(15.38)	31	28.71	(13.36)
NSA	66	15.12	(5.37)	37	16.65	(5.52)	29	13.17	(4.55)

SCRS	=	Social Comparison Rating Scale
SBS	=	Submissive Behaviour Scale
OAS	=	Other As Shamer Scale
NSA	=	Test of Self-Conscious Affect (TOSCA) Negative Self-Appraisal Scale

3.5.2 Anger

The State Anger variable contained one outlier within the control group and this score was removed. The State Anger variable was also significantly positively skewed. Despite both a square root and logarithmic transformation, the State Anger variable remained significantly skewed. It would have been possible to apply non-parametric tests at this point, since non-parametric tests are more robust under conditions of significant skew. Unfortunately, non-parametric tests were not appropriate since such tests do not allow for the possibility of controlling for Prison Status and

Depression. An alternative solution was therefore devised. 55.2% of responders scored 10.00 on the State Anger scale of the STAXI, which means that they endorsed experiencing none of the anger feelings at the time of completing the questionnaire. In contrast, 44.8% of responders scored above 10.00, thus endorsing State Anger feelings to some extent. Since approximately half of the total sample endorsed some degree of State Anger and half did not, it was decided to create a dichotomous categorical variable from the original continuous State Anger variable. This enabled the possibility of conducting a chi-square analysis to determine whether the groups differed on the issue of experiencing some level of State Anger. Consequently, if required a binary logistic regression could then be applied, to control for Prison Status and depression, with the dichotomous State Anger variable as the dependent variable.

The remaining anger variables were normally distributed with no outliers. The anger variable means and standard deviations for the ISI group, the control group and the sample as a whole are presented in Table 8 below.

Table 8: Anger: Means and Standard Deviations

Dependent Variable	Total Sample			ISI Group			Control Group		
	n	mean	SD	n	mean	SD	n	mean	SD
State	67	13.60	(6.51)	37	15.59	(7.77)	30	11.17	(3.21)
Trait	68	22.46	(6.14)	37	24.14	(6.63)	31	20.45	(4.89)
Angin	68	19.52	(4.46)	37	20.92	(3.70)	31	17.84	(4.76)
Angout	68	18.60	(4.41)	37	19.41	(3.95)	31	17.65	(4.79)
Angcont	68	19.19	(5.93)	37	18.57	(5.66)	31	19.94	(6.25)

All scales belong to the State-Trait Anger Expression Inventory:

State = State Anger Scale
 Trait = Trait Anger Scale
 Angin = Anger In Scale
 Angout = Anger Out Scale
 Angcont = Anger Control Scale

3.5.3 Childhood Abuse

There were a number of outliers on the various CTQ scales: The Emotional Abuse scale contained one control group outlier; the Sexual Abuse scale contained one control group outlier and one ISI group outlier; and the Physical Neglect scale contained one control group outlier. All of the above outliers were removed. In addition, all CTQ scales were significantly skewed and therefore transformation of each scale was attempted. Square-root transformations were sufficient to reduce the skew of the Emotional Abuse, Emotional Neglect and Physical Neglect scales. A further logarithmic transformation was performed on the Physical Abuse scale to successfully create a normally distributed variable. Although square root and logarithmic transformations were conducted, the Sexual Abuse scale continued to remain significantly skewed.

The application of non-parametric tests would have prevented the possibility of controlling for Prison Status and Depression. In a similar manner to the State Anger variable, an alternative solution was devised. The frequency of specific responses to the Sexual Abuse scale were explored and it was found that 75.4% of respondents reported to have experienced no sexual abuse, whilst 24.6% reported to have experienced some level of sexual abuse in childhood. It was therefore decided to create a dichotomous categorical variable, which represented either 'sexual abuse' or 'no sexual abuse'. The creation of such a variable would enable the application of chi-square analysis to investigate whether the groups differed in terms of the proportions who had experienced childhood sexual abuse. Then, if a significant difference should exist, a binary logistic regression could be conducted to control for the variables of Prison Status and Depression.

The childhood abuse variable means and standard deviations are presented below in Table 9.

Table 9: Childhood Abuse: Means and Standard Deviations

Dependent Variable	Total Sample			ISI Group			Control Group		
	n	mean	SD	n	mean	SD	n	mean	SD
CTQEA	62	10.95	(4.94)	34	12.41	(5.36)	28	9.18	(3.74)
CTQPA	63	10.52	(6.03)	34	11.91	(6.46)	29	8.90	(5.12)
CTQSA	61	6.61	(3.69)	33	7.42	(4.56)	28	5.64	(1.95)
CTQEN	63	12.38	(6.28)	34	12.88	(6.33)	29	11.79	(6.29)
CTQPN	62	8.02	(3.53)	34	8.88	(4.00)	28	6.96	(2.55)

All scales belong to the Childhood Trauma Questionnaire:

- CTQEA = Emotional Abuse
- CTQPA = Physical Abuse
- CTQSA = Sexual Abuse
- CTQEN = Emotional Neglect
- CTQPN = Physical Neglect

3.6 The Relationship between the Variables under Investigation in

Self-Injurious Male Prisoners

The following section will address the first set of hypotheses under investigation.

This will involve assessing whether a relationship exists between the shame, social status, anger and childhood abuse variables within male prisoners who self-injure.

In order to control for depression, partial Pearson Product Moment Correlations were conducted to investigate the associations between these variables. Correlations may be unduly influenced by bivariate outliers, i.e. an individual's combination of scores may be highly unusual. Scatterplots were therefore created for each pair of correlations in order to identify any potential bivariate outliers, but no obvious outliers existed. This series of partial correlations are presented in Table 10.

3.6.1 Social Status and Shame

Initial partial correlations were conducted between the shame and social status variables. Results found that the two shame variables, NSA and OAS, were significantly positively correlated ($r_{(31)} = 0.470$, $p = 0.006$). As predicted, the two social status variables, SCRS and SBS were significantly negatively correlated ($r_{(29)} = -0.387$, $p = 0.032$), for as social comparison ratings lowered, submissive behaviours increased. The NSA shame scale correlated significantly positively with the SBS ($r_{(31)} = 0.410$, $p = 0.018$) and likewise the OAS shame scale correlated positively with the SBS ($r_{(31)} = 0.545$, $p = 0.001$). The NSA shame scale correlated significantly negatively with the SCRS ($r_{(29)} = -0.553$, $p = 0.001$). However after controlling for depression, the correlation between the OAS shame scale and the SCRS did not quite reach significance ($r_{(29)} = -0.305$, $p = ns$). Thus, with the exception of one set of correlations, the shame and social status variables display a consistently significant relationship within this sample of self-injurious male prisoners even once depression has been partialled out.

3.6.2 Shame, Social Status and Anger

Analysis then moved on to explore the relationship between the anger variables and both the shame and social status variables. Results showed a significant positive correlation between Trait Anger and the OAS shame variable ($r_{(31)} = 0.459$, $p = 0.007$). The Trait Anger measure was not however significantly related to the alternative shame variable, NSA ($r_{(31)} = 0.228$, $p = ns$) or to the Social Status variables, SBS ($r_{(31)} = 0.042$, $p = ns$) and SCRS ($r_{(29)} = -0.318$, $p = ns$). State Anger did not correlate significantly with any of the shame or social status variables.

The variables assessing anger expression included Anger In, Anger Out and Anger Control. Anger In did not display a significant correlation with either the social status or the shame measures, although there was a trend toward a significant correlation with the OAS scale ($r_{(31)} = 0.318$, $p = 0.071$ (ns)). Anger Control likewise showed no significant correlation with either the shame or social status variables. The tendency to express anger outwardly (Anger Out) was not significantly correlated with either shame measure, nor was outwardly directed anger correlated with social status, once depression was partialled out.

3.6.3 Childhood Abuse, Social Status and Shame

The next set of correlations involved the relationship between the childhood abuse, shame and social status variable. OAS shame correlated significantly positively with the Emotional Abuse ($r_{(30)} = 0.558$, $p = 0.001$), and the Physical Abuse ($r_{(30)} = 0.540$, $p = 0.001$) scales of the CTQ, but did not correlate significantly with the Emotional Neglect scale ($r_{(30)} = 0.282$, $p = ns$), the Physical Neglect scale ($r_{(30)} = 0.199$, $p = ns$) or the Sexual Abuse scale ($r_{(29)} = 0.053$, $p = ns$) of the CTQ. In contrast, the NSA shame measure did not correlate with the CTQ scales. Likewise, the social status variables did not correlate significantly with any childhood abuse scale once depression had been partialled out.

Table 10: Partial Correlations Controlling for Depression in Self-Injurious Male Prisoners

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13
1 OAS													
2 NSA	.470**												
3 SCRS	-.305	-.553**											
4 SBS	.545**	.410*	-.387*										
5 State	-.139	-.049	-.149	-.295									
6 Trait	.459**	.228	-.318	.042	.290								
7 Angin	.318	.242	-.220	.156	.112	.244							
8 Angout	.289	-.174	.212	-.141	-.026	.365*	.131						
9 Angcon	-.119	-.198	.195	-.002	-.189	-.448**	-.028	-.061					
10 CTQEA	.558**	.175	-.317	.156	-.183	.197	.083	.043	.266				
11 CTQPA	.540**	.083	-.223	.239	-.142	.223	.322	.101	.238	.640**			
12 CTQSA	.053	.009	-.138	.229	.111	-.167	-.042	-.180	.179	.341	.219		
13 CTQEN	.282	.123	-.254	.288	-.131	-.138	.298	-.217	.314	.662**	.551**	.450*	
14 CTQPN	.199	.004	-.255	.232	.070	-.181	.195	-.219	.418*	.513**	.645**	.447*	.759**

*p < 0.05

**p < 0.01

3.6.4 Childhood Abuse and Anger

Overall, the scales of the CTQ do not correlate significantly with the anger variables, neither the level of anger, nor the expression of anger. There is a trend towards a positive association between the Anger In scale and Physical Abuse scales ($r_{(30)} = 0.322, p = 0.072$ (ns)), but this does not reach significance. The Anger Out scale showed no significant association with any of the CTQ scales. The Anger Control scale did however display a positive correlation with the Physical Neglect scale ($r_{(30)} = 0.418, p = 0.017$).

3.7 A Comparison of Self-Injurious and Control Male Prisoners

The following section will compare the ISI and control group scores on the three factors under investigation. The first set of tests will contrast the two groups on the shame and social status variables, the second set of tests will compare the two groups on the anger variables and finally, the third set of tests will evaluate possible differences between the groups on the childhood abuse variables. Repeated use of a statistical test increases the chances of rejecting the Null hypothesis even though it is true, and so there is an increased risk of making a Type I error. In order to reduce the likelihood of a Type I error, it has been recommended that the significance level be adjusted to take into account the number of times a test is conducted (Clark-Carter, 1997). Within each set of tests, a Bonferroni adjustment was therefore applied and this involved dividing the usual significance level of 0.05, by the number of tests to be carried out.

3.7.1 Social Status and Shame

Four independent samples t-tests were planned to investigate whether the self-injury and control groups differed on measures of social status and shame. As a consequence, the results of the t-tests were evaluated against a significance level of 0.0125 (see Table 11). Based upon this criterion the self-injury group reported significantly higher levels of shame than the control group on the Negative Self-Appraisal shame scale of the TOSCA ($t_{(64)} = 2.74, p = 0.008$). The groups reported no significant difference on the OAS ($t_{(67)} = 2.05, p = ns$), the SBS ($t_{(63)} = 1.72, p = ns$) or the SCRS ($t_{(61)} = -1.82, p = ns$). Although not significant, results show a consistent trend in the direction predicted, with the self-injury group displaying higher shame scores (OAS), higher levels of submissive behaviour (SBS) and lower social comparison rating scores (SCRS).

Table 11: t-test Comparisons of Social Status and Shame

Dependent Variable	ISI Group		Control Group		t	df	p
	n	mean	n	mean			
OAS	38	35.92	31	28.71	2.05	67	0.044
NSA	37	16.65	29	13.17	2.74	64	0.008*
SBS	35	24.03	30	20.13	1.72	63	0.090
SCRS	33	60.70	30	67.00	-1.82	61	0.074

* $p < 0.0125$

OAS	=	Other As Shamer Scale
NSA	=	Test of Self-Conscious Affect (TOSCA) Negative Self-Appraisal Scale
SBS	=	Submissive Behaviour Scale
SCRS	=	Social Comparison Rating Scale

Although the groups reported significantly different levels of NSA, it is possible that these differences are simply due to group differences in either depression or Prison Status. An analysis of Covariance (ANCOVA) was therefore conducted to determine whether Group differences in NSA remain significant, once depression and Prison

Status have been controlled for. The Prison Status variable was categorical and thus was entered as a fixed factor in the ANCOVA, whereas depression, being a continuous variable was entered into the ANCOVA as a covariate. As can be seen from the Table 12 below, once Prison Status and Depression have been controlled for, the main effect of Group is no longer significant ($F_{(1,57)} = 2.74$, $p = ns$).

Table 12: Analysis of Covariance: The Effect of Group on NSA (Controlling for Prison Status and BDI)

Main Effect	df	Mean Square	F	p
Group	1	73.206	2.740	0.103
Status	2	29.730	1.113	0.336
BDI	1	16.063	0.601	0.441
Error	57	(26.719)		

* $p < 0.05$ Values inside parentheses represent mean square errors.

3.7.2 Anger

A second set of t-tests were conducted to explore whether the self-injury and control groups differed on variables assessing various aspects of anger. Five of the STAXI scales were investigated in this study and therefore, once again to avoid inflating the likelihood of a Type-I error, the significance level of 0.05, was divided by 5. Independent samples t-tests were therefore evaluated against a significance level of 0.01. As was described previously, despite transformation, the State Anger scale remained significantly skewed and therefore was recoded into a dichotomous variable representing, ‘no state anger’ or ‘some degree of state anger’. As a consequence a chi-square test was conducted to analyse this categorical variable.

As can be seen from Tables 13 and 14 below, the self-injury group displayed significantly higher levels of suppressed Anger In ($t_{(66)} = 3.00$, $p = 0.004$) and were significantly more likely to express some level of State Anger ($X^2_{(1)} = 13.49$, $p =$

0.001). Although not reaching the significance level required, Trait Anger ($t_{(66)} = 2.63, p = ns$) approached significance, involving the self-injury group again reporting a higher level of anger. The groups did not display a significant difference in the reported levels of Anger Out ($t_{(66)} = 1.66, p = ns$) or on the Anger Control scale ($t_{(66)} = -0.95, p = ns$).

Table 13: Chi-square Comparisons of State Anger

Dependent Variable	ISI Group		Control Group		χ^2	df	p
	n	mean	n	mean			
State	37	15.59	30	11.17	13.49	1	0.001*

* $p < 0.01$

State = State-Trait Anger Expression Inventory, State Anger scale

Table 14: t-test Comparisons of Anger

Dependent Variable	ISI Group		Control Group		t	df	p
	n	mean	n	mean			
Trait	37	24.14	31	20.45	2.63	66	0.013
Angin	37	20.92	31	17.84	3.00	66	0.004*
Angout	37	19.41	31	17.65	1.66	66	0.101
Angcont	37	18.57	31	19.94	-0.95	66	0.348

* $p < 0.01$

All scales belong to the State-Trait Anger Expression Inventory:

Trait = Trait Anger Scale
 Angin = Anger In Scale
 Angout = Anger Out Scale
 Angcont = Anger Control Scale

It was again necessary to control for the possible effects of depression (BDI-II) and Prison Status upon the anger variables. Anger In was a continuous dependent variable, and as such an analysis of covariance (ANCOVA) was applied to control for

the effects of Prison Status and depression. As a continuous variable, depression was entered into the ANCOVA as a covariate, whilst Prison Status, a categorical variable, was entered as a fixed factor into the ANCOVA. From Table 15 below, it can be seen that the main effect of Group remains significant ($F_{(1,58)} = 4.17, p = 0.046$).

Table 15: Analysis of Covariance: The Effect of Group on Anger In (Controlling for Prison Status and BDI)

Main Effect	df	Mean Square	F	p
Group	1	78.467	4.168	0.046*
Status	2	13.551	0.720	0.491
BDI	1	31.880	1.694	0.198
Error	58	(18.824)		

*p < 0.05 Values inside parentheses represent mean square errors.

State Anger, as a categorical variable was instead entered into a binary logistic regression, in which again Prison status and BDI were controlled for. Logistic regression made it possible to determine whether Group independently predicted membership in the State anger groups (i.e. no state anger or some level of state anger), above and beyond the effect of BDI and Prison Status. As can be seen from the Table 16 below, Group is the only variable to significantly, independently predict membership of the State Anger groups ($B = 1.93, Wald = 7.19, p = 0.007$).

Table 16: Binary Logistic Regression: The Independent Effect of Group on State Anger (Controlling for Prison Status and BDI)

Variable	B	Wald	df	p	Exp(B)
Status (1)	0.036	0.002	1	0.962	1.037
Status (2)	-0.788	0.696	1	0.404	0.455
BDI	0.054	3.792	1	0.051	1.055
Group (1)	1.932	7.187	1	0.007*	6.902

*p < 0.05

3.7.3 Childhood Abuse

The ISI and control groups were compared on all five childhood abuse and neglect variables. Following application of the Bonferroni correction, the outcomes of the following statistical tests were therefore evaluated against a significance level of 0.01 and results can be seen in Tables 17 and 18. Firstly, independent samples t-tests were conducted on the four normally distributed variables of Physical Abuse, Emotional Abuse, Physical Neglect and Emotional Neglect. As described previously, due to skewness, the Sexual Abuse scale had been recoded into a dichotomous variable ('sexual abuse' or 'no sexual abuse'). Consequently, a chi-square analysis was then conducted upon this categorical variable in order to compare the ISI and control groups on this scale. Results showed that the self-injury group reported a significantly higher level of childhood Emotional Abuse than did the control group ($t_{(60)} = 2.73, p = 0.008$). Although not reaching the required significance level, the Physical Abuse ($t_{(61)} = 1.91, p = ns$), Physical Neglect ($t_{(60)} = 2.21, p = ns$) and Sexual Abuse ($\chi^2 = 2.96, p = ns$) scales all approach significance, with the self-injury group consistently reporting higher levels of abuse. Furthermore, the groups did not report a significant difference in the experience of childhood Emotional Neglect ($t_{(61)} = 0.67, p = ns$).

Table 17: t-test Comparisons of Childhood Abuse Experiences

Dependent Variable	Self-Injury		Control		t	df	p
	N	Mean	N	Mean			
CTQEA	34	12.41	28	9.18	2.73	60	0.008*
CTQPA	34	11.91	29	8.90	1.91	61	0.061
CTQEN	34	12.88	29	11.79	0.67	61	0.505
CTQPN	34	8.88	28	6.96	2.21	60	0.031

*p < 0.01

All scales belong to the Childhood Trauma Questionnaire:

CTQEA = Emotional Abuse

CTQPA = Physical Abuse

CTQEN = Emotional Neglect

CTQPN = Physical Neglect

Table 18: Chi-square Comparison of Childhood Abuse Experiences

Dependent Variable	Self-Injury		Control		χ ²	df	p
	n	mean	n	mean			
CTQSA	33	7.42	28	5.64	2.96	1	0.085

CTQSA = Childhood Trauma Questionnaire, Sexual Abuse Scale

Since there was a significant difference in the level of Emotional Abuse experienced by the two groups, it was then necessary to investigate whether this difference could be explained by group differences in Prison Status or depression. An ANCOVA analysis was therefore conducted in an attempt to control for these variables. As a categorical variable, Prison Status was entered as a fixed factor into the ANCOVA, whilst depression, being a continuous variable, was entered into the ANCOVA as a covariate. From the Table 19 below, it can be seen that the main effect of Group remains significant ($F_{(1,55)} = 3.97$, $p = 0.043$), once Prison Status and depression are controlled for.

Table 19: Analysis of Covariance: The Effect of Group on Emotional Abuse (Controlling for Prison Status and BDI)

Main Effect	df	Mean Square	F	p
Group	1	1.902	3.970	0.043*
Status	2	0.0524	0.109	0.873
BDI	1	0.0859	0.179	0.633
Error	55	(0.479)		

*p < 0.05 Values inside parentheses represent mean square errors

The Childhood Trauma Questionnaire also contained a denial scale that attempted to assess the tendency to minimise abuse experiences. An independent samples t-test was therefore conducted to examine whether the groups were significantly different in their tendency towards denial. Results found no significant difference ($t_{(61)} = 1.08$, $p = ns$).

3.7.4 Independence of Variables

It was predicted that childhood abuse, low social status, high levels of shame and high levels of anger would predispose an individual to intentionally injure themselves within a prison environment. Thus far, the self-injury and control groups were found to differ significantly on six factors: Prison status, BDI-II, Emotional abuse, NSA (shame), Anger In and State Anger. However, once BDI-II and Prison status were controlled for, NSA was no longer significant. Further investigation was therefore conducted in order to examine whether the effects already identified as significant overlap with each other, or whether these independently predict membership of the self-injury or control groups. A binary logistic regression was therefore conducted. As can be seen from Table 20 below, the only variable to independently predict group

membership, over an above the other variables was State Anger (B = -1.905, Wald = 5.497, p = 0.019).

Table 20: Binary Logistic Regression: Independence of Effects

Variable	B	Wald	df	p	Exp(B)
Status (1)	1.328	2.252	1	0.133	3.772
Status (2)	1.540	1.669	1	0.196	4.664
BDI	0.047	1.357	1	0.244	1.048
EA	1.123	3.179	1	0.075	3.073
AngIn	0.147	2.205	1	0.138	1.159
State	1.905	5.497	1	0.019*	6.720

*p < 0.05

3.8 Summary of Results

In terms of the interrelationships between variables within the self-injury group, only a portion of the hypotheses were confirmed. Overall, the shame and social status variables were related largely as predicted. There was some limited association between the anger and shame variables, although no significant association between anger and social status. Likewise, childhood abuse displayed some relationship with the measures of shame, but exhibited a minimal association with social status and anger variables.

The outcome of the between groups analyses also provided support for some of the initial hypotheses. Results showed that the self-injury group reported generally higher levels of childhood abuse and neglect, although only the Emotional Abuse scale reached a significant difference. The self-injury group also displayed consistently higher levels of shame and lower social status, although again only the Negative Self-Appraisal scale reached significance. Similarly, the self-injury group reported a greater tendency towards feelings of anger, and in addition reported a greater

tendency to suppress the emotion of anger. Furthermore, once depression and Prison Status were controlled for, the self-injury group continued to show a significantly higher level of State Anger, Anger-In and Emotional Abuse. From this list of variables, it would appear that only State anger exerts an independent effect upon the likelihood of belonging to the self-injury group.

4. DISCUSSION

Social Rank Theory (Gilbert, 1992) provides an explanation for the cohesion of a group of factors including childhood abuse, shame, social status and anger. This theory would suggest that the experience of childhood abuse places an individual in an unwanted and painful position of low status. The individual is thus left with a shamed sense of the self and without experience of successfully negotiating a hierarchical relationship. Instead, the individual is forced to submit, escape or appease in the face of an aggressor to avoid further attack. Constantly vigilant for put-downs or rejections, such individuals then remain prone to perceptions of the self as low in status and prone to feelings of shame. Anger and blaming of the other for one's shamed position, then acts as a defence against these uncomfortable and intolerable feelings of shame. Having experienced difficulties negotiating dominant-subordinate relationships, the individual may then express their anger in an unconstructive manner, either through verbal or possibly physical aggression, or by suppressing the anger inwardly. Just as childhood abuse has been considered a vulnerability factor for shame, childhood abuse has also been considered a vulnerability factor for self-injurious behaviour. It was therefore proposed in this research that the relationship between childhood abuse and self-injurious behaviour may in part be explained by the predisposition of childhood abuse to leave an individual prone to low status, shame and anger. Consequently, self-injury may be a response to the intolerable position of low social status and the overwhelming emotions of shame and anger. This may be particularly so within a prison context that is often considered to be an especially shaming environment, where social status and rank become excessively important (Gilligan, 1996)

This study had two specific aims. The first was to explore the interrelationships between childhood abuse, social status, shame and anger in a group of self-injurious male prisoners. Secondly, this study attempted to investigate whether males who self-injure in prison have experienced higher levels of childhood abuse, lower social status, higher levels of shame and higher levels of anger than a group of control prisoners. The following section will address the research results in relation to the two main aims of the study. Thereafter, the methodological strengths and limitations of this piece of research will be discussed. Final consideration will then be given to the implications of this study for future research and clinical practice.

4.1 Aim 1: Interrelationships between Factors in Self-Injurious Male Prisoners

The initial set of hypotheses involved the investigation of the association between childhood abuse, social status, shame and anger within a group of self-injurious male prisoners. A set of specific hypotheses were outlined as follows: a) there would be a significant association between perceptions of comparative social status, submissive behaviour and shame; b) shame, social status and submissive behaviour would be significantly related to the level and expression of anger; c) childhood abuse would be significantly associated with social status and shame; and d) childhood abuse would be significantly associated with the level and expression of anger.

4.1.1 Shame and Social Status

Social Rank Theory (Gilbert, 1992) would predict that shame acts as an alerting mechanism to a drop in social status and thereby prompts submissive behaviour. Such a behaviour is used as a signal of submission to a dominant other in order to

terminate any further attack. Results from this study showed a significant association between the two shame measures, which suggests that a global chronic sense of shame as measured by the OAS, is highly associated with the proneness to experience shame in specific situations, as assessed by the NSA subscale of the TOSCA in a group of self-injurious male prisoners. The two social status measures were also highly associated, whereby increasingly unfavourable social comparisons were associated with greater submissive behaviour. Both shame measures were also significantly associated with submissive behaviour. Thus, increasing shame was associated increasing submissive behaviour. Increasingly unfavourable social comparisons were also significantly associated with an increasing proneness toward shame. However in contrast to the initial hypotheses, the association between chronic shame and social comparisons did not quite reach significance after controlling for depression. In sum, these results appear overall to support the hypothesis of a link between shame and social status within self-injurious male prisoners. This extends previous research which has found a similar association between these factors within either clinical or general population samples (Gilbert, 2000a; Gilbert, Allan, Ball & Bradshaw, 1996; Goss, Gilbert & Allan, 1994).

4.1.2 Shame, Social Status and Anger

Anger has been hypothesised to act as a means of defence against the pain of shame (Gilbert, 1992; Lewis, 1971; Nathanson, 1994; Tangney et al., 1996). It has also been proposed that those prone to shame and low social status, struggle to negotiate hierarchical relationships and thus often manage feelings of anger toward others in an unconstructive manner (Allan & Gilbert, 2002; Sloman, 2000). As expected, findings from this study showed a significant association between the OAS and the Trait

Anger scale of the STAXI, suggesting that self-injurers who experience high levels of global chronic shame also tend to perceive a wide range of situations as anger-provoking and respond to such situations with increased levels of anger. This supports previous findings by Tangney and colleagues (Tangney et al., 1996; Tangney, Wagner, Fletcher & Gramzow, 1992) who have investigated shame and anger in student samples. The NSA shame scale was not associated with Trait Anger and neither shame scale showed a significant association with the State Anger variable. The shame measures also did not show any significant association with the measures assessing outwardly and inwardly expressed anger, although the OAS approaches a significant association with the suppressed anger scale. A number of studies exploring the relationship between shame and the outward expression of anger have utilised a student sample (Gilbert & Miles, 2000; Tangney et al, 1996; Tangney, Wagner, Fletcher & Gramzow, 1992). Results from these studies have been somewhat contradictory, with only some identifying an association between shame and the outward expression of anger. It has been suggested that any lack of association may have been attributable to the low level of aggressively expressed anger in such student samples (Gilbert & Miles, 2000; Tangney et al., 1996; Tangney, Wagner, Fletcher & Gramzow, 1992). Nonetheless, it would seem from this study that even in a group of self-injurious prisoners, who are perhaps more likely to express anger outwardly than students, there does not seem to be a strong relationship between experiences of shame and the outward expression of anger.

Similarly, no significant association was found between social status and the direction of anger expression, after controlling for depression. Results thus did not support the hypotheses that lower status would relate to the increasing outward expression of

anger, the increasing suppression of anger, and the decreasing constructive expression of anger. Thus, factors other than an individual's general sense of shame and perceived social status may be impacting upon the manner in which feelings of anger are expressed. For example, it is possible that likelihood of being discovered and 'punished' by officers strongly influences the tendency to outwardly express anger. Alternatively, it may be that the effect was too small to be detected by this relatively small sample of 40 self-injurious male prisoners.

4.1.3 Shame, Social Status and Childhood Abuse

Social Rank Theory (Gilbert, 1992) suggests that childhood abuse results in a difficulty negotiating hierarchical situations and a sensitivity to low social status and a shameful experience of the self (Gilbert, 1992; Sloman 2000). Results from this study found that after controlling for depression emotional abuse and physical abuse were significantly positively associated with the OAS measure of shame, although not with the NSA shame measure. Thus the greater an individual's level of such abuse, the higher their levels of reported global chronic shame. In contrast to the stated hypotheses there were no significant associations between social status variables and childhood abuse experiences, although there was a trend toward a relationship between higher levels of emotional abuse and less favourable social comparisons. In sum, it would seem that these findings provide some tentative evidence that early abuse experiences are related to a shamed sense of the self in adult self-injurious male prisoners. Such shame may not however be related to low social status, but may for example be associated with shame regarding one's behaviour or character (Andrews et al, 2002). These findings add somewhat to previous research which has tended to show a more convincing association between shame and childhood abuse in various

sample groups including samples of clinically depressed participants (Andrews & Hunter, 1997), individuals suffering from bulimia nervosa (Andrews, 1997), PTSD victims of violent crime (Andrews et al., 2000), and student samples (Gilbert & Gerlsma, 1999).

4.1.4 Childhood Abuse and Anger

It has been argued that a child who is put-down, humiliated and forced into subjugation (Gilbert, 1992; 2000b; Sloman, 2000) will experience a shamed sense of self and in order to protect against shame in adulthood, will respond with anger. Furthermore, since the individual may have lacked experience of resolving conflict with others who are perceived to be of higher status, then it was predicted that those who had experienced abuse would also struggle to express their anger in an adaptive manner. Results from this study found that after controlling for depression, childhood abuse did not display a significant association with Trait Anger or State Anger within the self-injury group. Likewise, childhood abuse did not show a significant association with the unconstructive outward expression of anger, nor the unconstructive suppression of anger. There was however a trend toward a positive association between suppressed anger and physical abuse, suggesting an increasing tendency toward seething internally in those self-injurers who had experienced physical abuse. Contrary to the initial hypotheses, there was a significant association between increasing physical neglect and an increasing ability to control anger. Given the number of correlations conducted, it may well be that this finding represents a Type I error, particularly as previous research and theory would struggle to explain why those self-injurers who experienced greater physical neglect in childhood should be more able to constructively manage their anger as adults. Overall, these findings

relating to the relationship between childhood abuse and anger seem to contradict previous research which has for example, found an association between childhood abuse and both the suppression and outward expression of anger as measured by the STAXI in a sample of students (Hoglund & Nicholas, 1995). Similarly, an association has been found between childhood abuse and both hostility and aggression in males who have assaulted their wives (Dutton, Ginkel, Starzomski, 1995), and who are perhaps a more similar comparison group to participants in this study. It may therefore be that the effect was too small to be detected by the size of this self-injurious sample, or it may be that factors other than childhood abuse exert an influence upon the intensity and expression of anger in self-injurious prisoners

4.2 Aim 2: A Comparison of Self-Injurious and Control Prisoners

Addressing the second set of hypotheses, the findings of this study suggest that prisoners who self-injure experience significantly higher levels of situational shame, suppressed anger, state anger, and childhood emotional abuse. The following section will focus upon each set of factors and the related hypotheses separately.

4.2.1 Intentional Self-Injury and Childhood Abuse

Previous research has repeatedly found a relationship between childhood abuse and the emotions of both anger and shame. Such abuse has ranged from put-downs to being less favoured than a sibling (Gilbert, Allan & Goss, 1996), to neglect (Gilbert, Allan & Goss, 1996) and to physical or sexual abuse (Andrews, 1995; Andrews, 1997; Andrews et al., 2000). The prison literature surrounding the relationship between childhood abuse and self-injury has largely been based in either the U.S. (Bach-Y-Rita, 1974; Lester, 1991; Powell, 2000), or refers to Special Hospital

settings within the U.K. (Liebling et al., 1997; White et al., 1999). Of the U.K. male prison studies conducted, one has focused upon young offenders (Liebling, 1991) whilst the other did not differentiate between self-injury and attempted suicide (Liebling & Krarup, 1993). This study therefore attempted to investigate childhood abuse experiences in male self-injurious adult prisoners and consequently, it was predicted that self-injurious male prisoners would report higher levels of childhood abuse than controls. Results found that the self-injury group did indeed report significantly higher levels of emotional abuse than the control group. There was also a trend towards an increased experience of childhood physical neglect, physical abuse and sexual abuse in those who self-injure compared to the control group, but these did not reach significance. Overall, the findings provide some limited support for the Social Rank Theory explanation of self-injury which has been posited in this study. It may be that emotional abuse, including being told that one is 'stupid, lazy or ugly' (Bernstein & Fink, 1998), relates to self-injury through predisposing an individual to a shamed sense of the self, and a sensitivity to shaming or status-losing situations which may be reminiscent of childhood. Subsequent self-injury may result as a means of managing, in a safe manner, the intense feelings of inadequacy or fury that arise.

4.2.2 Intentional Self-Injury, Social Status and Shame

It has been hypothesised that low status prompts the experience of shame, which is an extremely uncomfortable and even agonising emotion. Self-injury may relate directly to shame and low status through the provision of relief from such intense emotions. Equally, to escape the feelings of inadequacy, incompetence and inferiority engendered by shame, an individual may become angry and blame others for their shamed position. Thus, self-injury may be associated with shame through providing a

release from shame-prompted anger. Self-injury may offer a reduction in physiological arousal directly (Williams, 1997), or else may prompt a transfer, thus enabling the individual to escape from the shaming situation (Livingston & Beck, 1997). It is also possible that self-injury may recruit support and thus boost the individuals sense of status and attractiveness to others (Crighton & Towl, 2000). The aim of this study was not however to investigate the exact function of the self-injurious behaviour, but instead to firstly examine whether there was any relationship between social status, shame and self-injury. Accordingly, prison self-injury research has indirectly seemed to implicate the role of shame and social status in self-injurious behaviour. Many of the factors which have been associated with self-injury appear to reflect a position of low status, a loss of rank or attractiveness or a shaming experience. Such factors have included recent admission to prison (Crighton & Towl, 2000; Kerkhof & Bernasco, 1990; Phillips, 1986; Wool & Dooley, 1987), a lack of social support from family and friends (Liebling, 1995; Office of National Statistics Report, 1998), overcrowding (Cox, Paulus & McCain, 1984) and victimisation (Inch, Rowlands & Solomon, 1995; Liebling & Krarup, 1993; Livingston & Beck, 1997; Power & Spencer, 1987). Research had not however, directly explored perceptions of social status, submissive behaviour or shame in self-injurious male prisoners. This study therefore both predicted and investigated whether self-injurious male prisoners would report lower social comparison ratings, greater submissive behaviour and higher levels of shame. In accordance with the hypotheses, results found that the self-injury group reported significantly higher levels of shame, as measured by the NSA scale which assesses shame responses to potentially shaming situations. The self-injury group also reported higher chronic shame (as measured by the OAS) but this did not quite reach significance. Likewise, the ISI group displayed less favourable

social comparisons and higher submissive behaviour but again this difference was not significant.

Hence, these results cautiously suggest that self-injurers are somewhat more prone to shame than controls, and it may be that although self-injurers are not significantly more chronically shamed, they may instead be more vulnerable to feelings of shame when in specific situations. In previous research shame has been shown to correlate with psychopathology in general, and depression in particular (Andrews, 1995; Andrews & Hunter, 1997; Gilbert, 2000; Gilbert, Allan & Trent). The self-injury group in this study displayed significantly higher levels of depression than controls and once the effect of depression were controlled for, group (i.e. ISI or control) no longer had a significant effect upon shame scores. Thus, the higher shame proneness in the self-injury group may be attributable to generally higher levels of psychopathology, rather than any specific relationship to self-injurious behaviour.

4.2.3 Intentional Self-Injury and Anger

It has been suggested in this study that self-injury may be a response to intense feelings of anger which the individual finds problematic to express in a constructive manner. Thus, when unable to outwardly communicate anger through aggression (possibly due to low status), unexpressed anger becomes intolerable and self-injury results (Toch, 1975). Research would appear to suggest that male self-injurers in prison experience greater anger than controls and tend to be more aggressive (Cookson, 1977; Jones, 1986; Toch, 1975; Wright, 1991). Much of the research has however been conducted in the U.S. and has been often been based upon the behavioural manifestations of anger (Wright, 1991; Jones, 1986), as opposed to

assessing the more phenomenological experiences of anger. Although Cookson (1977) attempted to explore the affective experience of those who self-injure in prison this involved a solely female sample. This study thereby attempted to examine both the internal experiences of anger and the manner in which anger is expressed in male prisoners who self-injure. Findings showed that indeed those who self-injure experience significantly higher levels of State Anger, which represented the intensity of their angry feelings at the point of participation in the study. Although not quite significant, there was also a trend toward the self-injury group generally experiencing intense anger in a wide range of situations (Trait Anger). In addition, the self-injury group reported a significantly higher tendency to suppress their feelings of anger than did the control group, although there were no significant differences in the tendency to express anger outwardly toward others or objects or in the tendency to control angry feelings. From these results, it seems that self-injurers did not report higher levels of the unconstructive outward expression of anger, which contradicts some previous findings (Jones, 1986; Wright, 1991). The differing measures used within the studies may account for this contradiction. Previous research has often used incidents of aggression recorded by the prison system (Jones, 1986; Wright, 1991) as an index of anger, whereas in this study, the outward expression of anger was measured according to self-report. It may therefore be that the self-injury group underestimated the tendency to express anger outwardly or else, through a preference to appear socially desirable, underplayed the extent to which they may direct anger at others or objects. It is also possible that the prison system may miss many instances of verbal or physical aggression, which the inmates contain amongst themselves and thus prison records may be somewhat inaccurate. Alternatively, these findings may provide some evidence for Gilbert's proposal (1992; 2002) that social status effects

the direction of anger expression. As described above, despite non-significant findings there is a tendency for the self-injury group to report lower social comparisons than the controls. Even if a group does not perceive themselves to be of lower status, the self-injury group may be concerned about potential losses of status. Thus, to suppress anger and avoid a conflict in which they may face further rejection, humiliation or defeat would be a protective strategy. Allan and Gilbert (2002) have suggested that those low in social status would fluctuate in the direction of their unconstructive anger depending upon the source of their perceived injustice: if the other person is of high status then anger would be suppressed but if the other is of low status then anger would be outwardly directed. Instead, it would appear that self-injurers have no greater difficulty in managing outwardly directed anger than the controls. Based upon Gilbert's theory, it could be speculated that concerns regarding low status or shame are so constant for the self-injury group that these individuals repeatedly inhibit anger and thus adopt a submissive strategy in the face of conflict.

As discussed previously, the self-injury group in this study were significantly more likely to be on remand and displayed significantly higher depression than the control group. Such findings are in line with previous research (Crighton & Towl, 2000; Kerkhof & Bernasco, 1990; Livingston & Beck, 1997, Phillips, 1986). Thus when considering all the measures administered, the self-injury group displayed significantly higher depression, suppressed anger, state anger and emotional abuse and were, as stated above, more likely to be on remand or judge's remand (i.e. convicted but not sentenced). Further analysis found that when examined together, only state anger significantly predicted membership of the self-injury group, above and beyond these other variables. Hence, it would seem that there is some evidence

for the initial hypothesis that self-injury is a means of managing or expressing intense emotions and in particular, anger. These results give some indication that those who self-injure experience greater levels of anger and struggle to find a constructive manner in which to express these strong emotions, instead suppressing the feelings inside.

4.3 Methodological Considerations

The following section will address the procedures involved in conducting this study. In doing so, consideration will be given to both the strengths and limitations of this research.

4.3.1 Sample

The sample was recruited through an appointment slip, inviting each prisoner to attend the healthcare unit. Due to difficulties obtaining information within the prison system, it was generally not possible to track the reasons for initial non-attendance. It is therefore possible that the sample of self-injurers and controls is highly self-selected, incorporating only those prisoners who were willing to accompany officers to meet with unknown professionals, for an unknown reason. In a comparison of the recruited sample and the sample who refused to participate (following an initial meeting with a researcher), results showed that the groups were broadly similar, although those who had refused were significantly older. Accordingly, caution must be exercised in applying these findings across the age range of prisoners. Resembling previous research, the self-injury group within this study were predominantly of white ethnic origin and so the control group was largely matched according to this factor. As a result, the outcome of this research is principally applicable to white prisoners.

Furthermore, this study was conducted within a Local category B adult male prison within the London area, in which the majority of prisoners were either on remand or had received relatively short sentences. As a consequence, results may not be applicable to young offenders, female prisoners or adult male prisoners in more long-term establishments. Prison regimes also vary across establishments and so any generalisation of these findings to other Category B prisons must be judicious. On the other hand, this piece of research took place within an environment in which there are extreme limitations on the possible hours of contact with participants. There was at times a lack of staff to escort prisoners to research sessions, and there were numerous difficulties in successfully communicating an intention and desire to meet with potential participants. Thus overall, to have recruited 40 self-injurious male prisoners and 33 controls provides a reasonable sample when conducting research within this environment.

4.3.2 Measures

Shame

As mentioned in the introduction, there is much debate about the definition and measurement of shame. Within this study two measures of shame were adopted, one which attempted to measure chronic global shame (OAS), and another which attempted to measure proneness to shame in specific situations (NSA). Findings showed a significant correlation of .47 between the Negative Self-Appraisal shame scale and the Other as Shamer scale. However, given that these measures were both attempting to assess some aspect of shame, such a correlation may appear low, as a correlation of about .60 might have been more expected (Gilbert, 2000). These measures of shame were also correlated to differing degrees with measures of

childhood abuse and anger. It may be that these measures assess slightly different aspects of the same concept (shame), although it is also possible that there exists a high level of noise in one or both of these measures.

In considering the possibility that these shame measures assess different aspects of shame, Gilbert and colleagues (Allan, Gilbert & Goss, 1994; Goss, Gilbert & Allan, 1994) have commented upon a distinction between internalised and externalised shame that may reflect a distinction between the OAS and the NSA scales. These authors have described internalised shame as being derived from self-judgements which assess the self to be imperfect, faulty or defective in some way. In contrast, shame may also result from beliefs about others' judgements of the self. The NSA scale assesses self-judgements, and asks participants to rate negative evaluations of the self by the self. Meanwhile, the OAS focuses upon how one believes the self is viewed by others. It is interesting to note that the self-injury group showed a significant difference to the control group on the internalised shame measure, as opposed to the externalised shame measure which required individuals to think about what may be in the mind of others. It may be that self-injurers experience greater internal shame, but do not differ from controls in their experience of external shame. Alternatively, research has found that individuals with a diagnosis of borderline personality disorder (one criteria of which is self-injury) perform more poorly than controls on tasks assessing theory of mind (Stokes, 2001). Indeed, at least six of the self-injury group commented upon how difficult they were finding the externalised OAS questionnaire to complete and required encouragement to continue with the questionnaire, stating that they could not possibly know what other people were

thinking. Differences between the groups on chronic global shame may therefore have been obscured by possible difficulties in answering the questions of the OAS.

Social Status

The social status measures of submissive behaviour and social comparison ratings displayed a high association. In addition, both status measures were associated with a proneness to shame. Such findings suggest that these measures were assessing a relatively robust construct. Nonetheless, the two groups failed to significantly differ on the social status measures. One possibility is that in fact there exists no difference in the perceived social status of the self-injury and control groups. Alternatively, it may be that whilst these measures provide a good measure of social status in a general or clinical sample, these measures may have lacked the necessary sensitivity to detect subtle differences in status within a prison setting.

The gross status differences between prisoners and prison staff or between prisoners and individuals within the community, may have overshadowed the ability of the social status measures to assess more subtle and fine-grained differences in status within the prisoner population. For example it may be that Submissive Behaviour Scale items such as 'I listen quietly if people in authority say unpleasant things about me' do represent submissive behaviour, but such submissive behaviour may be displayed by most prisoners in response to prison officers. Similarly, it may be that most prisoners report feeling 'inferior' in comparison to others, given the many powerful professionals within the prison system. Thereby in an attempt to accurately assess the relative status of prisoners, it may have been useful to amend the questionnaire instructions. In the Social Comparison Rating Scale for example, rather

than being interested in how prisoners view themselves 'in comparison to others' the instructions could have been rephrased to read 'in comparison to other prisoners'. Likewise items from the Submissive Behaviour Scale could have been amended to detect submissive behaviour in relation to other prisoners (e.g. 'I listen quietly if powerful or influential prisoners say unpleasant things about me') rather than referring to other people in general.

It is also possible that the representation and communication of status may be significantly different between the enclosed prison context and the world outside of the prison walls. Consequently, the social status measures may not have accurately captured submissive behaviours or status positions within the prison environment. For example, whilst the Submissive Behaviour Scale contains an item referring to avoidance of eye contact, a participant in the study described status being achieved through maintaining eye contact and not being the first to look away. 'Not looking away first' may be endorsed in a slightly different way to an item measuring a general tendency to not give eye contact at all. The same may apply to the Social Comparison Rating Scale, in that constructs representing status in prison may differ from the constructs representative of social status in the general population. As an example, prisoners may label an individual as a 'Main man' (a prisoner with status and influence on a prison wing) or at the opposite extreme as a 'Runner' (a prisoner who undertakes tasks and jobs for others). Applying constructs familiar to prisoners and representative of status distinctions within the prison may enable a more accurate assessment of status in the prison-specific context.

Anger

The STAXI measured current feelings of anger, the general tendency toward experiencing anger and the expression of anger (Spielberger, 1988). Anger expression included measuring outwardly directed anger toward others or objects, suppressed anger and anger control. It was predicted within this study that self-injury may be a response to intense feelings of anger, based upon the blaming of others to escape from feelings of shame or else an excessive anger reaction toward others in a hierarchical relationship. It is possible however, that shame which involves a negative appraisal of the self may in fact relate to self-directed anger, with the individual blaming themselves for this shameful position (Tangney et al., 1996). Equally, anger in response to difficulties within a hierarchical relationship also need not be directed at the other, but may be aimed at the self, if one blames the self for the possible inadequate management of the situation. The STAXI however assessed only other-directed anger and suppressed anger, and therefore excluded measures of self-directed anger. The STAXI also did not provide the opportunity to assess factors which may precipitate feelings of anger. Thus it was not possible to determine directly whether shaming experiences in particular cause greater anger than other frustrations in general. On the other hand, the STAXI is an extremely widely administered measure of anger, particularly within forensic settings. Additionally, the STAXI has been validated upon a prison sample (Spielberger, 1988), which is an extremely important issue considering the potentially very high levels of anger within this group.

Childhood Abuse

One particular concern in the administration of childhood abuse measures, is the possible tendency to under-report such experiences. In this study the groups did not differ on the denial scale of the Childhood Trauma Questionnaire (Bernstein & Fink, 1998). This therefore suggests that there was no greater a tendency to idealise childhood experiences or under-report abuse experiences by either group. Consequently, there would appear to be no glaring reason to consider that the self-report information provided was vastly inaccurate. It is possible that the identification of abuse may however have improved through the use of an interview-based measure or by referring to reports within the prison medical records in addition to administration of the questionnaire-based measure.

4.3.3 Administration Procedure

A number of the participants within the study could not read and write. The questionnaires were therefore read aloud to these participants. For those able to complete the questionnaires themselves, a researcher remained in the room throughout to answer any possible questions. This may have affected responses, possibly increasing the likelihood of socially desirable answers. Comparison of the two groups upon the denial scale of the CTQ, appeared to indicate that any tendency toward denial would have been equally present across both groups, although one cannot be certain of this with regard to the other measures. The opposite perspective may be taken, in that the presence of the researcher may be considered a positive aspect of the research. Remaining with the prisoner throughout administration of the questionnaires is likely to have improved response rates, and reduced the occurrence

of missing data. In addition, the researcher was able to ensure more thoroughly that participants clearly understood the instructions before completing each measure.

4.4 Design

4.4.1 Causality

Theoretically, this study has suggested that the experience of childhood abuse, low social status, shame, and anger are causal in self-injury. The design of this study does not however allow for causality to be determined. Instead, it is possible only to say that those who self-injure report higher levels of childhood emotional abuse, are more prone to shame, report higher levels of state anger and have a greater tendency to suppress these feelings of anger. An alternative interpretation of the results could be that following an incident of self-injury, an individual may then experience feelings of shame at their behaviour, or feel angry towards others for their reaction to the self-injurious incident. Longitudinal research would be required to tease these factors apart and determine whether a proneness towards shame, high state anger and the suppression of anger precede self-injurious behaviour.

4.4.2 Power

Overall, from reviewing the findings it would seem that in a number of instances it has not been possible to reject the null hypothesis. As predicted, there was for example a trend toward the self-injury group experiencing higher levels of physical abuse, physical neglect and emotional neglect, although only emotional abuse reached significance. Similarly, as hypothesised, the self-injury group reported higher levels of global chronic shame, submissive behaviour and lower social status, but again these did not reach significance. There was a number of dependent variables explored

within this study and therefore importance was given to the minimisation of Type I errors. Accordingly, Bonferroni corrections were applied and thereby a result was required to reach a more stringent probability level before being regarded as significant. As a consequence, this may have inflated the Type II error rate and subsequently, the null hypothesis may have been accepted when in fact it was false. Furthermore, it may have been that the effect sizes relating to shame, social status and childhood abuse were too small to be detected given the size of the sample and thus the study did not contain sufficient power to find some of the real results. Ideally, it would have been preferable to obtain data from a larger sample of ISI and control prisoners.

Despite some attempt to reduce the likelihood of false positive results, there is also a possibility that the significant findings from this study may represent Type I error, and thus the null hypothesis may have been wrongly rejected. If at all possible, further research replicating the current findings would provide additional support for these positive results and reduce concern that the results are the consequence of Type I error.

4.5 Future Research

From the above discussion, it would appear that one path for future research may be to focus upon the issue of measurement. Certain measures utilised in this study, including the OAS, SBS, SCRS have not, to the knowledge of the author, previously been applied to a prison sample and as a result may lack reliability or validity within the prison population. Future research might therefore consider assessing the test-retest reliability of these questionnaire in a sample of prisoners. It may also be useful

for research to investigate the use of alternative shame measures. Both the NSA and OAS scales assess global shame which is either chronic or in response to specific situations and so it may be useful to explore specific spheres of shame. A questionnaire has recently been developed by Andrews and colleagues (Andrews, Qian & Valentine, 2002) entitled the Experience of Shame Scale (ESS). This questionnaire assesses characterological shame (e.g. have you felt ashamed of any of your personal habits?), behavioural shame (e.g. have you worried about what other people will think of you when you do something wrong?), and bodily shame (e.g. have you avoided looking at yourself in the mirror?). It may be that if those who self-injure, experience more chronic shame than controls, then such shame may relate to a specific aspect of the self, as opposed to a global shamed sense of the self. Alternatively, research could continue to explore chronic global shame in those who self-injure by administering the Internalised Shame Scale (Cook, 1987). Internalised shame requires an individual to introspect about their own beliefs about the self, as opposed to considering what others may think of them. This would hopefully overcome any difficulties self-injurers may experience in thinking about the minds of others (Stokes, 2001).

The social status questionnaires were developed through administration to normal and clinical samples but as previously suggested, it may be that within the prison environment somewhat different factors reflect status. A qualitative approach to research, possibly involving interviews with staff and prisoners may provide a method of generating behaviours or social positions which represent submission, low rank, unattractiveness or lack of group fit within the context of a prison. Additionally, if further research supported the importance of shame-proneness in self-injury then it

would also be useful to explore the specific prison factors which provoke shame, low status or anger. For example it might be hypothesised that such factors as victimisation by other prisoners, the frequency of visits, telephone calls or letters from family and friends, would correspond to a sense of low status, lack of attractiveness, shame and possibly anger.

If self-injury is considered a response to shame and anger then it would be predicted that in some way self-injury provides a function, even if only a relief from such intense and painful affect. Further research might explore the consequences of self-injurious behaviour within prison or the reasons provided by self-injurers for their behaviour. For example, it might be explored whether self-injury provides a means of achieving a transfer (possibly to a healthcare wing) and thus avoids some form of shaming, including possibly rejection or victimisation by other inmates. Again a qualitative approach could be applied, involving interviews with self-injurious prisoners to explore their experiences of prisons or reasons and functions of their self-injury. It may thereby be possible to examine accounts for themes of low status, or shame.

The underlying theory within this study argued that some feelings of anger may be prompted by the experience of shame and there was some tentative association between shame and the tendency to experience anger in the ISI group. One means of more directly addressing this issue would be to administer a questionnaire such as the Novaco Anger Scale (1994), which assesses not only the experience of anger but also the situations which provoke angry reactions. One of the situation categories is entitled 'evaluation, threat and disrespect' (e.g. Someone making fun of the clothes

you are wearing), which may hold particular similarity to situations in which one's status is challenged. Overall, the STAXI assesses the emotional and behavioural aspects of anger, with less focus upon the cognitive components of the anger experience. In particular, it may be interesting to explore the attributions made by self-injurious prisoners regarding the blame or responsibility for an injustice or humiliation. Whilst some of the anger felt by self-injurers may be directed towards others, some angry feelings and possibly some blame may be directed towards the self. Gilbert and Miles (2000) have developed a questionnaire entitled the Sensitivity to Social Put-Down Scale, which requires participants to evaluate the extent to which they blame themselves for a social put-down situation and the extent to which they blame others. The ARI (Anger Response Inventories; Tangney et al., 1996), anger questionnaire would also provide a measure of self-directed anger, although this measure has not yet been validated on a prison sample. Moving on from attributions to consider more underlying cognitive structures, future research might examine the schemas of self-injurious male prisoners. For example, the Young Schema Questionnaire (Young, 1999) contains a subscale entitled shame schema. This may assist in elaborating in more detail the relationship between childhood abuse and any proneness to shame in adulthood amongst self-injurious prisoners. One final issue to consider for future research is the method of data gathering. This study was based upon a self-report measure of outwardly directed anger, and it may be useful in future research to consider applying a more objective measure of overt anger in order to avoid the possibility of under reporting aggressive behaviours.

4.6 Clinical Implications

As discussed in the introduction, the government is keen to obtain advice regarding interventions with those who self-injure in the prison system. This piece of research has provoked many questions that future research will hopefully begin to answer. In addition however, this study has also provided some tentative evidence on which to base possible suggestions for intervention within the prison system. Anger appeared to be a key factor in differentiating those who self-injured from prisoners who did not. Current state levels of anger were higher and the tendency to suppress anger was also higher in the self-injury group. In general, anger management courses are a resource already available within most prisons. These courses tend to be accessed by those who express outwardly, aggressive anger, presumably because such a display of anger is often more clearly evident to prison staff. Nevertheless, it may be appropriate to refer self-injurers to such a resource. As an alternative, Dialectical Behaviour Therapy groups have been established within some prisons. A core component of such groups focuses upon emotion regulation and the tolerance of distress, and therefore may also provide a means of enabling the self-injurer to manage extreme feelings of anger in a more productive way (Linehan, 1993). This is not however a simple solution because in order to manage anger, it is necessary to have an opportunity to utilise new coping strategies and possibly express angry feelings in a controlled and assertive manner. Life on the wing of a prison institution may not however provide many opportunities to practice and explore such strategies, with assertiveness possibly being mistaken for insolence in the face of authority.

The findings from this study, also suggest areas of focus for assessment with those who self-injure. Much previous research has highlighted sexual abuse and physical

abuse as a key predisposing factor toward self-injury (Liebling & Krarup, 1993; Powell, 2000; Lester, 1991). Instead, this study found that significantly higher rates of emotional abuse were reported within the self-injury group. It may therefore be very important to explore with the individual the types of messages that they received from parents and family whilst growing up, as well as the more visible forms of abuse. This is perhaps especially important since emotional abuse, along with emotional neglect, and physical abuse correlated significantly with chronic global feelings of shame within the self-injury group, and therefore appeared to continue to exert an impact upon the individual's experience of themselves.

Finally, these results tentatively suggested that a proneness to shame may be an important issue for those who self-injure. Although there is limited clinical psychology input to many prisons, with the demand far outweighing provision, self-injurious prisoners appear often to be referred to this service. Shame and the awareness of shame, is therefore a key issue in conducting any clinical work. Clinicians may be advised to remain particularly alert to non-verbal indicators of shame, including the loss of eye contact or turning away of the head. Gilbert (2000b) has suggested that whilst it is essential to be empathic to the patient's feeling state, it is also important not to collude with the patient in shame avoidance. This would include addressing the shame-rage spiral, which refers to the triggering of anger from an experience of shame. If prone to shame, then it may be important for the prison system to consider how to assist the self-injurer in developing a more respected, higher status position within the environment. Status can be gained not only through aggression and strength, but could also be gained through attractiveness. Accordingly, the self-injurer could be encouraged to socialise, involve themselves in

activities during association periods and reduce isolation. It may also be appropriate for prison officers to allocate a job to those who self-injure such as cleaning or working on the servery, both of which confer increased status on a prison wing. Nevertheless, such a solution is not without problems for if an individual is prone to being victimised then such a central role on the unit may expose the individual to greater victimisation. Consequently, there is perhaps also a supervisory role for staff in monitoring carefully potential ridicule or bullying.

4.7 Final Summary

This study was based upon Social Rank Theory (Gilbert, 1992), and thus self-injury was conceptualised as a response to low status, painful feelings of shame and intense feelings of anger. Investigating the relationship between these variables within the self-injury group, it seemed that shame and social status were strongly related. In addition, findings showed that both anger and childhood abuse were to some degree associated with shame, although not with social status. From the comparison of ISI and control group prisoners, it would appear that within this study, anger was the most salient factor for male prisoners who self-injure. Not only were the self-injurious group more likely to express some level of current anger, but this group also tended to suppress their feelings of anger to a greater extent. The self-injury group also reported higher levels of childhood abuse, although only reports of emotional abuse were significantly higher. Furthermore, self-injurers reported a greater proneness toward shame in specific situations, although this appeared to be a less robust relationship with self-injury and could possibly be accounted for by the higher level of depression in the self-injury group. Contrary to the initial predictions, the groups did not display significant differences in social status. In conclusion, it would seem

that there is some tentative support for a Social Rank approach to self-injury, but further research is clearly required. Self-injury is an extremely serious and painful problem for the individual prisoner and for the prison service as a whole. There is therefore a grave need for further research which may be able to provide an increased understanding and additional recommendations for intervention.

5. REFERENCES

- Allan, S., & Gilbert, P. (1995). A Social Comparison Scale: Psychometric Properties and Relationship to Psychopathology. *Personality and Individual Differences*, 19, 293-299.
- Allan, S., & Gilbert, P. (1997). Submissive behaviour and Psychopathology. *British Journal of Clinical Psychology*, 36, 467-488.
- Allan, S., & Gilbert, P. (2002). Anger and anger expression in relation to perceptions of social rank, entrapment and depressive symptoms. *Personality and Individual Differences*, 32, 551-565.
- Allan, S., Gilbert, P., & Goss, K. (1994). An exploration of shame measures-II: psychopathology. *Personality and Individual Differences*, 17, 719-722.
- Andrews, B. (1995). Bodily shame as a mediator between abusive experiences and depression. *Journal of Abnormal Psychology*, 104, 277-285.
- Andrews, B. (1997). Bodily shame in relation to abuse in childhood and bulimia: A preliminary investigation. *British Journal of Clinical Psychology*, 36, 41-49.
- Andrews, B., Brewin, C.R., Rose, S., & Kirk, M. (2000). Predicting PTSD Symptoms in Victims of Violent Crime: The Role of Shame, Anger, and Childhood Abuse. *Journal of Abnormal Psychology*, 109, 69-73.
- Andrews, B., & Hunter, E. (1997). Shame, Early Abuse, and Course of Depression in a clinical sample: A Preliminary Study. *Cognition and Emotion*, 11, 373-381.
- Andrews, B., Qian, M., & Valentine, J.D. (2002). Predicting depressive symptoms with a new measure of shame: The Experience of Shame Scale. *British Journal of Clinical Psychology*, 41, 29-42.

- Archer, J. (1994). Power and Male Violence. In J. Archer (Ed.), *Male Violence* (pp.310-331). London: Routledge.
- Arnold, L. (1995). *Women and Self-Injury: A survey of 76 women*. Bristol: Bristol crisis Service for Women.
- Arrindell, W.A., & Van der Ende, J. (1985). Cross-sample invariance of the structure of self-reported distress and difficulty in assertiveness: A confirmatory approach. *Behaviour Research and Therapy*, 26, 337-339.
- Asberg, M., Schalling, D., Traskman-Bendz, L., & Wagner, A. (1987). Psychobiology of suicide, impulsivity and related phenomena. In H.Y. Meltzer (Ed.), *Psychopharmacology: The third generation of progress*. New York: Raven Press.
- Averill, J.R. (1982). *Anger and aggression: An essay on emotion*. New York: Springer-Verlag.
- Babiker, G., & Arnold, L. (1997). *The Language of Injury: comprehending self-mutilation*. Leicester: The British Psychological Society.
- Bach-Y-Rita, G. (1974). Habitual violence and self-mutilation. *American Journal of Psychiatry*, 131, 1018-1020.
- Bancroft, J., & Marsack, P. (1977). The Repetitiveness of Self-poisoning and Self-injury. *British Journal of Psychiatry*, 131, 394-399.
- Bancroft, J., Skrimshire, A., Casson, J., Harvard-Watts, O., & Reynolds, F. (1977). People who Deliberately Poison Themselves: Their Problems and Their Contacts with Helping Agencies. *Psychological Medicine*, 7, 289-303.
- Beck, A.T., Butler, A.C., Brown, G.K., Dahlsgaard, K.K., Newman, C.F., & Beck, J.S. (2001). Dysfunctional beliefs discriminate personality disorders. *Behaviour Research and Therapy*, 39, 1213-1225.

- Beck, A.T., Rush, A.J., Shaw, B.F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.
- Beck, A.T., Steer, R.A., & Brown, G.K. (1996). *Beck Depression Inventory-Second Edition Manual*. San Antonio: The Psychological Corporation.
- Beck, A.T., Ward, C.H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561-571.
- Bernstein, D.P., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report manual*. San Antonio: The Psychological Corporation.
- Biggam, F.H., & Power, K.G. (1999). Suicidality and the state-trait debate on problem solving deficits: A re-examination with incarcerated young offenders. *Archives of Suicide Research*, 5, 27-42.
- Bourgeois, M. (1991). Serotonin, impulsivity and suicide. *Human Psychopharmacology*, 6, S31-S36.
- Buss, A.H., & Durkee, A. (1957). An inventory for assessing different kinds of hostility in clinical situations. *Journal of Consulting Psychology*, 21, 343-348.
- Buss, A.H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, 63, 452-459.
- Buss, D.M., & Craik, K.H. (1986). Acts, dispositions and clinical assessment: The psychopathology of everyday conduct. *Clinical Psychology Review*, 6, 387-406.
- Campbell, A. (1986). The streets and violence. In A. Campbell & J.J. Gibbs (Eds.), *Violent transactions: the limits of personality* (pp.115-132). Oxford: Blackwell.
- Clark-Carter, D. (1997). *Doing Quantitative Psychological Research: From design to report*. Hove: Psychology Press.

- Cloitre, M., Tardiff, K., Marzuk, P.M., Leon, A.C., & Portera, L. (2001). Consequences of Childhood Abuse Among Male Psychiatric Inpatients: Dual Roles as Victims and Perpetrators. *Journal of Traumatic Stress*, 14, 47–61.
- Coccaro, E.F., Harvey, P.D., Kupsaw-Lawrence, E., Herbert, J.L., & Bernstein, D.P. (1991). Development of Neuropharmacologically Based Behavioral Assessments of Impulsive Behavior. *Journal of Neuropsychiatry and Clinical Neuroscience*, 3, S44-S51.
- Collins. (1992). *Concise English Dictionary*. Glasgow: HarperCollins.
- Cook, D.R. (1987). Measuring shame: The internalised shame scale. *Alcoholism Treatment Quarterly*, 4, 197-215.
- Cookson, H.M. (1977). A Survey of self-injury in a closed prison for women. *British Journal of Criminology*, 17, 332-347.
- Cox, V.C., Paulus, P.B., & McCain, G. (1984). Prison crowding research: the relevance for prison housing standards and a general approach regarding crowding phenomenon. *American Psychologist*, 39, 1148-1160.
- Crighton, D. (2000). Suicide in prisons: a critique of U.K. research. In G. Towl, L. Snow & M. McHugh (Eds.), *Suicide in Prisons* (pp.26-47). Leicester: British Psychological Society.
- Crighton, D. & Towl, G. (2000). Intentional self-injury (ISI). In G. Towl, L. Snow & M. McHugh (Eds.), *Suicide in Prisons* (pp.48-65). Leicester: British Psychological Society.
- Crowne, D., & Marlowe, D. (1960). A new scale of social desirability of psychopathology. *Journal of Consulting Psychology*, 24, 329-354.

- Daly, M., & Wilson, M. (1994). Evolutionary Psychology in Male Violence. In J. Archer (Ed.), *Male Violence* (pp.253 – 288). London: Routledge.
- Darwin, C. (1996). The Origin of the Species. In G. Beer (Ed.), *The Origin of the Species*. Oxford: Oxford University Press.
- Darwin, C. (1998). The Expression of Emotions in Man and Animals. In P. Ekman (Ed.), *The Expression of Emotions in Man and Animals*. Oxford: Oxford University Press.
- Dawkins, R. (1989). *The Selfish Gene*. Oxford: Oxford University Press.
- De Wilde, J., Mertens, C., Medericson, K., Keptner, H., & Peterson, J. (1985). Citalopram versus mianserin. A controlled, double-blind trial in depressed patients. *Acta Psychiatrica Scandinavica*, 72, 89-96.
- Dutton, D.G., van Ginkel, C., & Starzomski, A. (1995). The Role of Shame and Guilt in the Intergenerational Transmission of Abusiveness. *Violence and Victims*, 10, 121-131.
- Eckhardt, C.I., & Deffenbacher, J.L. (1995). Diagnosis of anger disorders. In H. Kassonov (Ed.), *Anger disorders: definitions, diagnosis, and treatment* (pp.27-48). Washington, D.C: Taylor and Francis
- Egeland, B., Sroufe, A., Erickson, M. (1983). The developmental consequence of different patterns of maltreatment. *Child Abuse and Neglect*, 7, 459-469.
- Ekman, P. (1992). An argument for basic emotions. *Cognition and Emotion*, 6, 169-200.
- Evan, J., Williams, J.M.G., O'Loughlin, S., & Howells, K. (1992). Autobiographical Memory and Problem Solving Strategies of Parasuicide Patients. *Psychological Medicine*, 22, 399-405.
- Favazza, A.R. (1992). Repetitive Self-Mutilation. *Psychiatirc Annals*, 22, 60-63.

- Favazza, A.R. (1996). *Bodies Under Siege: Self-Mutilation and Body Modification in Culture and Psychiatry*. Baltimore: John Hopkins University Press.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J.B.W. (1997). *Structured Clinical Interview for DSM-IV Personality Disorders, (SCID-II)*. Washington, D.C: American Psychiatric Press, Inc.
- Gilbert, P. (1992). *Depression: The Evolution of Powerlessness*. Hove: Lawrence Erlbaum.
- Gilbert, P. (1997). The evolution of social attractiveness and its role in shame, humiliation, guilt and therapy. *British Journal of Medical Psychology*, 70, 113-147.
- Gilbert, P. (1998). What Is Shame? Same Core Issues and Controversies. In P. Gilbert & B. Andrews (Eds.), *Shame: Interpersonal Behavior, Psychotherapy and Culture*. Oxford: Oxford University Press.
- Gilbert, P. (2000a). The Relationship of Shame, Social Anxiety and Depression: The Role of the Evolution of Social Rank. *Clinical Psychology and Psychotherapy*, 7, 174-189.
- Gilbert, P. (2000b). Shame and Humiliation Workshop. St Pancras Hospital, October 2000.
- Gilbert, P., & Allan, S. (1994). Assertiveness, submissive behaviour and social comparison. *British Journal of Clinical Psychology*, 33, 295-306.
- Gilbert, P., & Allan, S. (1998). The role of defeat and entrapment (arrested flight) in depression: an exploration of an evolutionary view. *Psychological Medicine*, 28, 585-598.
- Gilbert, P., Allan, S., Ball, L., & Bradshaw, Z. (1996). Overconfidence and personal evaluations of social rank. *British Journal of Medical Psychology*, 69, 59-68.

- Gilbert, P., Allan, S., & Goss, K. (1996). Parental Representations, Shame, Interpersonal Problems, and Vulnerability to Psychopathology. *Clinical Psychology and Psychotherapy*, 3, 23-34.
- Gilbert, P., Allan, S., & Trent, D. (1995). Involuntary subordination or dependency as key dimensions of depressive vulnerability. *Journal of Clinical Psychology*, 51, 740-752.
- Gilbert, P., & Gerlsma, C. (1999). Recall of Shame and favouritism in relation to psychopathology. *British Journal of Clinical Psychology*, 38, 357-373.
- Gilbert, P., & Miles, J.N.V. (2000). Sensitivity to Social Put-Downs: it's relationship to perceptions of social rank, shame, social anxiety, depression, anger and self-other blame. *Personality and Individual Differences*, 29, 757-774.
- Gilbert, P., Price, J., & Allan, S. (1995). Social Comparison, Social Attractiveness and Evolution: How might they be related? *New Ideas in Psychology*, 13, 149-165.
- Gilligan, J. (1996). *Violence: reflections on a national epidemic*. New York: Vintage Books.
- Goodman, L.A., Salyers, M.P., Mueser, K.T., Rosenberg, S.D., Swartz, M., Essock, S.M., Osher, F.C., Butterfield, M.I., & Swanson, J. Recent Victimization in Women and Men with Severe Mental Illness: prevalence and correlates. *Journal of Traumatic Stress*, 14, 615 – 632.
- Goss, K., Gilbert, P., & Allan, S. (1994). An exploration of shame measure-I: The Other As Shamer scale. *Personality and Individual Differences*, 17, 713-717.
- Greenspan, G.S., & Samuel, S.E. (1989). Self-cutting after rape. *American Journal of Psychiatry*, 146, 789-790.
- Grunebaum, H.U., & Klerman, G.L. (1967). Wrist slashing. *American Journal of Psychiatry*, 124, 527-534.

- Hanson, R.K., & Tangney, J.P. (1995). *The Test of Self-Conscious Affect – Socially Deviant Populations (TOSCA-SD)*. Corrections research, department of the Solicitor General of Canada, Ottawa.
- Harder, D.W. (1995). Shame and guilt assessment, and relationships of shame-and-guilt-proneness to psychopathology. In J.P. Tangney & K.W. Fischer (Eds.), *Self-conscious emotions: The Psychology of shame, guilt, embarrassment and pride* (pp.368-392). New York: Guilford Press.
- Hirsch, S.R., Walsh, C., & Draper, R. (1982). Parasuicide: A Review of Treatment Interventions. *Journal of Affective Disorders*, 4, 299-311.
- HM Chief Inspector of Prisons for England and Wales. (1984). *Home Office Review: Suicide in Prisons*. London: HMSO.
- HM Chief Inspector of Prisons for England and Wales. (2001). *Internal Review: Prevention of Suicide and Self-harm in the Prison Service*. London: HMSO.
- HM Prison Service Safer Custody Group (2002). *Reported Self-harm Incidents 1998-2001*. Personal Communication.
- Hodes, M. (1990). Overdosing as communication: A cultural perspective. *British Journal of Medical Psychology*, 63, 319-333.
- Hoglund, C.L., & Nicholas, K.B. (1995). Shame, Guilt and Anger in College Students Exposed to Abusive Family Environments. *Journal of Family Violence*, 10, 141-157.
- Home Office Research and Development Statistics. (2002). *Crime: Counting Rules*. <http://www.homeoffice.gov.uk/rds/counting/index.html>.
- Hughes, T., & Owens, D. (1995). Can attempted suicide (deliberate self-harm) be anticipated or prevented? *Current Opinion in Psychiatry*, 8, 76-79.
- Inch, H., Rowlands, P., & Soliman, A. (1995). Deliberate self-harm in a young offenders' institution. *Journal of Forensic Psychiatry*, 6, 161-171.

- Ireland, J.L. (1999). Bullying Behaviors Among Male and Female Prisoners: A Study of Adult and Young Offenders. *Aggressive Behavior*, 25, 161-178.
- Ireland, J.L. (2000). 'Bullying' Among Prisoners: A Review of Research. *Aggression and Violent Behavior*, 5, 201-215.
- James, D., & Hawton, K. (1985). Overdoses: Explanations and Attitudes in Self-Poisoners and Significant Others. *British Journal of Psychiatry*, 146, 481-485.
- Jones, A. (1986). Self-mutilation in prison: a comparison of mutilators and non-mutilators. *Criminal Justice and Behaviour*, 13, 286-296.
- Kerkhof, J.F.M., & Bernasco, W. (1990). Suicidal behavior in jails and prisons in the Netherlands: incidence, characteristic, and prevention. *Suicide and Life-Threatening Behavior*, 20, 123-137.
- Kernberg, O. (1987). A psychodynamic approach. *Journal of Personality Disorders*, 1, 344-346.
- Kessler, B.L., & Bieschke, K.J. (1999). A Retrospective Analysis of Shame, Dissociation, and Adult Victimization in Survivors of Childhood Sexual Abuse. *Journal of Counselling Psychology*, 46, 335-341.
- Konicki, P.E., & Schultz, S.C. (1989). Rationale for clinical trials of opiate antagonists in treating patients with personality disorders and self-injurious behaviour. *Psychopharmacology Bulletin*, 25, 556-563.
- Kreitman, N. (1977). *Parasuicide*. Chichester: Wiley.
- Lester, D. (1991). Physical abuse and physical punishment as precursors of suicidal behaviour. *Stress Medicine*, 7, 255-256.
- Levenkron, S. (1998). *Cutting: Understanding and Overcoming Self-Mutilation*. New York: W.W. Norton.

- Lewis, H.B. (1971). *Shame and Guilt in Neurosis*. New York: International Universities Press.
- Liebling, A. (1991). *Suicide in Prisons*. Unpublished PhD thesis: University of Cambridge.
- Liebling, A. (1995). Vulnerability and Prison Suicide. *British Journal of Criminology*, 35, 173-187.
- Liebling, H., Chipchase, H., & Velangi, R. (1997). Why do women self-harm at Ashworth Maximum Security Hospital? *Issues in Criminological and Legal Psychology*, 27, 10-22.
- Liebling, A., & Krarup, H. (1993). *Suicide attempts & self-injury in male prisons*. Cambridge: Institute of Criminology, Cambridge University.
- Linehan, M. M. (1993). *Cognitive-Behavioral Treatment of Borderline Personality Disorder*. London: Guilford Press.
- Linehan, M.M., Camper, P., Chiles, J.A., Strohsal, K., & Shearin, E.N. (1987). Interpersonal problem solving and parasuicide. *Cognitive Therapy and Research*, 11, 1-12.
- Linehan, M.M., Goodstein, J.L., Neilson, S.L., & Chiles, J.A. (1983). Reasons for Staying Alive when You Are Thinking of Killing Yourself: the Reasons for Living Inventory. *Journal of Consulting and Clinical Psychology*, 51, 276-286.
- Livingston, M. (1997). A review of the literature on self-injurious behaviour amongst prisoners. *Issues in Criminological and Legal Psychology*, 28, 21-35.
- Livingston, M., & Beck, G. (1997). A Cognitive Behavioural model of self-injury and bullying among imprisoned young offenders. *Issues in Criminological and Legal Psychology*, 28, 45-49.

- Livingston, M.S. (1994). *Self-injurious behaviour in prisons*. Unpublished PhD thesis: University of Leeds.
- MacLeod, A.K., Rose, G., & Williams, J.M.G. (1993). Components of Helplessness about the Future in Parasuicide. *Cognitive Therapy and Research*, 17, 441-455.
- MacLeod, A.K., Williams, J.M.G., Linehan, M.M. (1992). New Developments in the Understanding and Treatment of Suicidal Behaviour. *Behavioural Psychotherapy*, 20, 193-218.
- Markovitz, P.J., Calabrese, J.R., Schultz, S.C., & Meltzer, H.Y. (1991). Fluoxetine in the treatment of borderline and schizotypal disorders. *American Journal of Psychiatry*, 148, 1064-1067.
- McGaughey, J., Long, A., & Harrison, S. (1995). Suicide and parasuicide: a selected review of the literature. *Journal of Psychiatric and Mental Health Nursing*, 2, 199-206.
- Miller, S. (1985). *The shame experience*. Hillsdale, NJ: Lawrence Erlbaum.
- Montgomery, S.A., McAuley, R., Roni, S.J., Roy, D., & Montgomery, D.B. (1981). A double blind comparison of zimelidine and amitriptyline in endogenous depression. *Acta Psychiatrica Scandinavica*, 63, 314-327.
- Nathanson, D.L. (1994). Shame, Compassion, and the 'Borderline' Personality. *Psychiatric Clinics of North America*, 17, 785-810.
- Nelson, S., & Grunebaum, H. (1971). A follow-up study of wrist-slathers. *American Journal of Psychiatry*, 127, 1345-1349.
- Novaco, R.W. (1979). The cognitive regulation of anger and stress. In P.C. Kendall & S.D. Hollon (Eds.), *Cognitive behavioral interventions: Theory, research and procedures* (pp.177-206). New York: Academic Press.

- Novaco, R.B. (1994). Anger as a risk factor for violence among the mentally disordered. In J. Monahan & H.J. Steadman (Eds.), *Violence and Mental Disorder: Developments in risk assessment* (pp.21-59). Chicago: University of Chicago Press.
- Novaco, R.W. (1998). Aggression. In H.S. Friedman (Ed.), *Encyclopedia of Mental Health*. San Diego: Academic Press.
- O'Donnell, I., Farmer, R., & Catalan, J. (1996). Explaining Suicide: The views of survivors of serious suicide attempts. *British Journal of Psychiatry*, 168, 780-786.
- Office for National Statistics. (1998). *Psychiatric morbidity among prisoners in England and Wales*. London: Office for National Statistics.
- Office for National Statistics. (2002). *Death rates from suicide by gender and age, 1974-2000*. London: Office for National Statistics.
- Oxford Monitoring System for Attempted Suicide. (2002). *Deliberate Self-Harm Rates in Oxford City, 1976-2000*. <http://www.cebmh.warne.ox.ac.uk/csr/statistics.html>.
- Pao, P.E. (1969). The syndrome of delicate self-cutting. *British Journal of Medical Psychology*, 42, 195-206.
- Parker, G., Tupling, H., & Brown, L.B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1-10.
- Parkin, J.R., & Eagles, J.M. (1993). Blood-letting in bulimia nervosa. *British Journal of Psychiatry*, 162, 246-248.
- Pattison, E.M., & Kahan, J. (1983). The Deliberate Self-Harm Syndrome. *American Journal of Psychiatry*, 140, 867-872.
- Perris, C., Jacobsson, L., Lindstrom, H., von Knorring, L., & Perris, H. (1980). Development of a new inventory for assessing memories of parental rearing behaviour. *Acta Psychiatrica Scandinavica*, 61, 265-274.

- Phillips, M. (1986). *A study of suicide and attempted suicide at HMP Brixton*. Department of Psychological Services Report, Series I, 24.
- Powell, K.F. (2000). *An investigation of Self-Injurious Behaviors and the Relationship between Traumatic Experiences and Self-Injurious Behavior in Prison*. Unpublished Dissertation: Walden University.
- Power, K.G., & Spencer, A.P. (1987). Parasuicidal behaviour of detained Scottish young offenders. *International Journal of Offender Therapy and Comparative Criminology*, 31, 227-235.
- Power, M., & Dalgleish, T. (1997). *Cognition and Emotion: From Order to Disorder*. Hove: Psychology Press.
- Price, J.S., & Sloman, L. (1987). Depression as yielding behavior: An animal model based on Schjelderup-Ebbe's pecking order. *Ethology and Sociobiology*, 8, 85-98.
- Scher, C.D., Stein, M.B., Asmundson, G.J.G., McCreary, D.R., & Forde, D.R. (2001). The Childhood Trauma Questionnaire in a Community Sample: Psychometric Properties and Normative Data. *Journal of Traumatic Stress*, 14, 843-857.
- Scott, R.I., & Day, H.D. (1996). Association of Abuse-Related Symptoms and Style of Anger Expression for Female Survivors of Childhood Incest. *Journal of Interpersonal Violence*, 11, 208-220.
- Sloman, L. (2000). The Syndrome of Rejection Sensitivity: An evolutionary perspective. In P. Gilbert & K.G. Bailey (Eds.), *Genes on the Couch: Explorations of evolutionary psychology* (pp.257-275). Hove: Brunner-Routledge.
- Smith, G., Cox, D., & Saradjian, J. (1998). *Women and Self-Harm*. London: The Women's Press.

- Smyth, N.J., Ivanoff, A., & Jong, S.J. (1994). *Criminal Justice and Behavior*, 21, 357-365.
- Snell, W.E., McDonald, K., & Koch, W.R. (1991). Anger provoking experiences: A multidimensional scaling analysis. *Personality and Individual Differences*, 12, 1095-1104.
- Soni Raleigh, V., & Balarajan, R. (1992). Suicide and self-burning among Indians and West Indians in England and Wales. *British Journal of Psychiatry*, 161, 365-368.
- Spielberger, C. (1988). *State-Trait Anger Expression Inventory*. Professional Manual. Odessa, Florida: Psychological Assessment Resources.
- Spielberger, C.D., & Sydeman, S.J. (1994). State-Trait Anxiety Inventory and State-Trait Anger Expression Inventory. In M.E. Maruish (Ed.), *The Use of Psychological Testing for Treatment Planning and Outcome Assessment* (pp.292-321). New Jersey: Lawrence Erlbaum.
- Spitzer, R., & Endicott, J. (1978). *Schedule for Affective Disorders and Schizophrenia*. New York: New York State Psychiatric Institute.
- Stokes, N. (2001). Executive function and theory of mind in Borderline Personality Disorder. Unpublished PhD thesis: University College London.
- Stone, M.H. (1987). A psychodynamic approach: some thoughts on the dynamics and therapy of self-mutilating borderline patients. *Journal of Personality Disorders*, 1, 347-349.
- Tabachnik, B.G., & Fidell, L.S. (1996). *Using multivariate statistics*. New York: Longman.
- Tangney, J.P. (1995). Recent advances in the Empirical Study of Shame and Guilt. *American Behavioral Scientist*, 38, 1132-1145.

- Tangney, J.P. (2002). *Test of Self Conscious Affect – Socially Deviant*. Personal Communication.
- Tangney, J.P., Wagner, P., Fletcher, C., & Gramzow, R. (1992). Shamed into Anger? The Relation of Shame and Guilt to Anger and Self-Reported Aggression. *Journal of Personality and Social Psychology*, 62, 669-675.
- Tangney, J.P., Wagner, P., & Gramzow, R. (1992). Proneness to shame, proneness to guilt and psychopathology. *Journal of Abnormal Psychology*, 103, 469-478.
- Tangney, J.P., Wagner, P.E., Hill-Barlow, D., Marschall, D.E., & Gramzow, R. (1996). Relation of Shame and Guilt to Constructive Versus Destructive Responses to Anger Across the Lifespan. *Journal of Personality and Social Psychology*, 70, 797-809.
- Tantum, D., & Whittaker, J. (1993). Self-wounding and personality disorder. In P. Tyrer & G. Stein (Eds.), *Personality Disorder Reviewed* (pp.191-218). London: Royal College of Psychiatrists.
- Tescher, B., Conger, J.C., Edmondson, C.B., & Conger, A.J. (1999). Behaviour, attitudes, and cognitions of anger-prone individuals. *Journal of Psychopathology and Behavioural Assessment*, 21, 117-139.
- Toch, H. (1975). *Men in Crisis: Human Breakdowns in Prison*. Chicago: Aldine.
- Walsh, B.W., & Rosen, P.M. (1988). *Self-Mutilation: Theory, Research and Treatment*. London: Guilford Press.
- White, J., Leggett, J., & Beech, A. (1999). The incidence of self-harming behaviour in the male population of a medium-secure psychiatric hospital. *The Journal of Forensic Psychiatry*, 10, 59-68.
- Williams, M. (1997). *Cry of Pain: Understanding Suicide and Self-Harm*. London: Penguin Books.

- Williams, J.M.G., & Broadbent, K. (1986). Autobiographical Memory in Attempted Suicide Patients. *Journal of Abnormal Psychology*, 95, 144-149.
- Wool, R.J., & Dooley, E. (1987). A study of attempted suicides in prisons. *Medical Science and the Law*, 27, 297-301.
- Wright, K.N. (1991). The violent and victimized in the male prison. *Journal of Offender Rehabilitation*, 16, 1-25.
- Young, J., & Brown, G. (1999). *Young Schema Questionnaire – Long Form*.
<http://www.schematherapy.com.html>.
- Yudofsky, S.C., Silver, J.M., Jackson, W., Endicott, J., & Williams, D. (1986). The Overt Aggression Scale for the Objective Rating of Verbal and Physical Aggression. *American Journal of Psychiatry*, 143, 35-39.

APPENDIX 1

Ethics Approval Letter

The Joint UCL/UCLH Committees on the Ethics of
Human Research: Committee Alpha

Chairman:
Professor André McLean

Dr J Feigenbaum
Lecturer
Sub-Department of Clinical Health Psychology
UCL
Gower Street

Please address all correspondence to:

Iwona Nowicka
Research & Development Directorate
UCLH NHS Trust
1st floor, Vezey Strong Wing
112 Hampstead Road, LONDON NW1 2LT
Tel. 020 7380 9579 Fax 020 7380 9937
e-mail: iwona.nowicka@uclh.org

10 June 2002

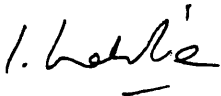
Dear Dr Fegenbaum

Study No: 01/0064 (*Please quote in any correspondence*)
Title: Self harm in male prisoners: the role of psychological factors

I am writing to confirm that the above was approved by the Joint UCL/UCLH Committees on the Ethics of Human Research: Committee Alpha on April 6th, 2001.

Please note that it is important that you notify the Committee of any adverse events or changes (name of investigator etc) relating to this project. You should also notify the Committee on completion of the project, or indeed if the project is abandoned. **Please remember to quote the above number in any correspondence.**

Yours sincerely



Iwona Nowicka
Administrator, UCL/UCLH Ethics Review Committees

APPENDIX 2

Information Sheet



Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

Dr Janet Feigenbaum: 0207 679 5964

Dr Robert Halsey: 0207 679 1907

A STUDY OF BEHAVIOUR IN PRISON CONFIDENTIAL INFORMATION SHEET

Introduction

We are psychologists conducting some research as part of a training programme at University College London. We are asking lots of people to be involved in this study and you were suggested to us as a possible participant. It is entirely up to you whether you would like to be involved and this information is to help you decide.

Ethics

All proposals for research with human participants are reviewed by an ethics committee before they can go ahead. This proposal was reviewed by the University College London ethics committee.

What the study is about

The study focuses on understanding intentional self-injury in prison. By intentional self-injury we mean when somebody injures themselves on purpose, for example, by biting, cutting, or burning themselves. In particular, we are interested in the kinds of experiences, feelings and views that might be related to intentional self-injury. In this study we will be interviewing many people, some of these people will have self-injured and others will not. We will then look to see if there are any differences in the experiences, feelings, and views of those who have self-injured and those who have not. This may then help us to understand self-injury better.

What the study involves

As a part of this study we will ask you some questions about your experiences, how you tend to view situations, and how you tend to deal with things. We will also ask you to fill out some detailed questionnaires and we will give you as much help with this as you would like. You will not have to answer anything you don't want to. In order to do this, we would need to meet with you for 2 hours in the morning and 2 hours in the afternoon. You would have a break of about 2 hours in between for lunch and we will provide refreshments during our meeting.

If you need support after the study

If you feel upset or troubled after taking part in this study then there are a number of people you can contact for support:

- 1) Listeners, a Samaritan helpline run by trained volunteers who are also inmates.
- 2) The officers on your wing
- 3) The psychology service, by making an appointment with your doctor and asking for a referral to psychology.

Confidentiality

All the information that we collect would remain entirely confidential and your name would not be attached to any of the questionnaires or interview forms that we complete. It is important to remember that we are interested in differences between groups of people and not any individual's particular responses. Prison Officers on your wing will be aware that you are participating in the study but will not be informed about what is discussed in our meeting. The only time we will have to **break confidentiality** is if you volunteer information relating to definite plans to cause serious physical injury to yourself, definite plans to cause physical injury to another person, or information relating to a possible breach of prison security. If this were to happen, we would have no choice but to disclose this information to prison staff.

Pulling out of the study

If you agree to join the study, you will be free to pull out whenever you like and you will not have to explain why. If you decide not to take part, this will **not** in any way affect your stay in prison.

Questions

There will now be an opportunity for you to ask any questions that you may have about the study. Then, if you agree to take part in the study, please feel free to ask questions at any point.

Dr Janet Feigenbaum, Clinical Psychologist, University College London

Luke Endersby, Trainee Clinical Psychologist, University College London

Lynda Todd, Trainee Clinical Psychologist, University College London

Dr Robert Halsey, Clinical Psychologist, University College London

APPENDIX 3

Consent Form



Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

Dr Janet Feigenbaum: 0207 679 5964

Dr Robert Halsey: 0207 679 1907

CONFIDENTIAL CONSENT FORM

I have received the information sheet provided for this research. YES / NO

I have read the information sheet provided. YES / NO

I have had the opportunity to ask questions about the information provided. YES / NO

I received satisfactory answers to all my questions YES / NO

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and that this will not affect my stay in prison YES / NO

I understand that Prison Officers on my wing will be alerted to my participation in this research but that the content of my answers will not be provided YES / NO

I agree to take part in the above study. YES / NO

[BLOCK CAPITAL LETTERS]
(Name of Client)

(Signature of Client)

(Date)

[BLOCK CAPITAL LETTERS]
(Name of Person taking Consent)

(Signature of Person taking Consent)

(Date)

APPENDIX 4

Prisoner Reports of Childhood Sexual Abuse

**Proportion of Self-harming and Control Prisoners who report
Childhood Sexual Abuse**

Group	n	Percentage who had experienced sexual abuse
Self-Harm	61	37
Control	80	6

(Liebling and Krarup, 1993)

APPENDIX 5

Demographic Interview Questions

DEMOGRAPHIC QUESTIONS

1. How old are you?

2. How would you describe your ethnic origin?

a)	Afro-Caribbean
b)	Asian
c)	White U.K.
d)	Other non-white
e)	Other white

3. Are you a) on remand
 b) convicted but not sentenced (JR)
 c) sentenced

4. What was your offence(s) / alleged offence(s)?

.....
.....
.....

5. What qualifications have you obtained?

- a) No formal qualifications
- b) CSEs
- c) O levels / GCSEs
- d) A level /
- e) BTEC / City and Guilds / Vocational
- f) HNC / HND
- g) Degres
- h) Postgrad
- i) Other

APPENDIX 6

Self-Injury Interview Questions

ISI Questions

	Have you injured yourself on purpose by....	How often during your current detention in prison?	Intent of Attempt
1	Hitting yourself		
2	Biting yourself		
3	Scratching yourself		
4	Repeatedly banging you head against the wall		
5	Repeatedly hitting your fists against the wall		
6	Cutting yourself Serious / Superficial		
7	Bruising yourself Serious / Superficial		
8	Burning yourself Serious / Superficial		
9	Hanging		
10	Strangling		
11	Tying a ligature around a part of your body		
12	Swallowing a harmful substance		
13	Inserting an object under your skin		
14	Taking an overdose		
15	Blood-letting		
16	Breaking a bone		

Have you injured yourself in any other way?

17			
18			

Suicide: Intent of attempt.

Select the most appropriate number based on the seriousness of suicidal intent to kill self as judged by overall circumstances, including:

- a) likelihood of being rescued
- b) precautions taken against discovery
- c) action to gain help during or after the attempt
- d) degree of planning
- e) the apparent purpose of the attempt.

0	Obviously no intent, purely a manipulative gesture
1	Not sure or only minimal intent
2	Definite but ambivalent
3	Serious
4	Very serious
5	Extreme every expectation of death

APPENDIX 7

Test Of Self-Conscious Affect – Socially Deviant Populations

TOSCA-SD

Below are some situations, followed by some common reactions to these situations. As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described. Please rate all responses since people may feel or react more than one way to the same situation, or they may react different ways at different times.

For example:

A. You wake up early one Saturday morning. It is cold and rainy outside.

a) You would telephone a friend to catch up on news.

①-2-3-4-5
not likely very likely

b) You would take the extra time to read the paper.

1-2-3-4-⑤
not likely very likely

c) You would feel disappointed that it's raining.

1-2-③-4-5
not likely very likely

d) You would wonder why you woke up so early.

1-2-3-④-5
not likely very likely

In the above example, I've rated ALL of the answers by circling a number. I circled a "1" for answer (a) because I wouldn't want to wake up a friend very early on a Saturday morning – so it's not at all likely that I would do that. I circled a "5" for answer (b) because I almost always read the paper if I have time in the morning (very likely). I circled a "3" for answer (c) because for me it's about half and half. Sometimes I would be disappointed about the rain and sometimes I wouldn't – it would depend on what I had planned. And I circled a "4" for answer (d) because I would probably wonder why I had awakened so early.

Please do not skip any items -- rate all responses.

You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood him up.

- | | not likely | very likely |
|--|---------------|-------------|
| a) You would think: "I'm inconsiderate." | 1--2--3--4--5 | |
| b) You would think: "Well, he'll understand." | 1--2--3--4--5 | |
| c) You would try to make it up to him as soon as possible. | 1--2--3--4--5 | |
| d) You would think: "My boss distracted me just before lunch." | 1--2--3--4--5 | |

You break something at work and then hide it.

- | | not likely | very likely |
|--|---------------|-------------|
| a) You would think: "This is making me anxious. I need to either fix it or talk to the manager." | 1--2--3--4--5 | |
| b) You would leave as quickly as you can. | 1--2--3--4--5 | |
| c) You would think: "A lot of things aren't made very well these days." | 1--2--3--4--5 | |
| d) You would think: "It was only an accident." | 1--2--3--4--5 | |

You make a mistake at work and find out a co-worker is blamed for the error.

- | | not likely | very likely |
|---|---------------|-------------|
| a) You would think the company did not like the co-worker. | 1--2--3--4--5 | |
| b) You would think: "Too bad, life is not fair". | 1--2--3--4--5 | |
| c) You would keep quiet and avoid the co-worker. | 1--2--3--4--5 | |
| d) You would feel unhappy and eager to correct the situation. | 1--2--3--4--5 | |

While playing around, you throw a ball, and it hits your friend in the face.

- | | not likely | very likely |
|---|---------------|-------------|
| a) You would feel inadequate that you can't even throw a ball. | 1--2--3--4--5 | |
| b) You would think maybe your friend needs more practice at catching. | 1--2--3--4--5 | |
| c) You would think: "It was just an accident". | 1--2--3--4--5 | |
| d) You would apologize and make sure your friend feels better. | 1--2--3--4--5 | |

5. You are driving down the road and hit a small animal.

not likely very likely

- a) You would think the animal shouldn't have been on the road. 1--2--3--4--5
- b) You would think: "I'm terrible". 1--2--3--4--5
- c) You would feel: "Well, it was an accident". 1--2--3--4--5
- d) You would probably think it over several times wondering if you could have avoided it. 1--2--3--4--5

6. You make a big mistake on an important project at work. People were depending on you and your boss criticizes you.

not likely very likely

- a) You would think your boss should have been more clear about what was expected of you. 1--2--3--4--5
- b) You would feel like you wanted to hide. 1--2--3--4--5
- c) You would think: "I should have recognized the problem and done a better job." 1--2--3--4--5
- d) You would think: "Well, nobody's perfect". 1--2--3--4--5

7. You borrow your friend's car and accidentally scratch it.

not likely very likely

- a) You think that they sure make cars cheaply these days. 1--2--3--4--5
- b) You would think: "No big deal, his insurance will cover it". 1--2--3--4--5
- c) You would apologize and offer to repair it. 1--2--3--4--5
- d) You would never ask to borrow anything again. 1--2--3--4--5

8. You go out on a date with a woman/man and have sex. Afterwards she/he says that she/he felt forced into it.

not likely very likely

- a) You would think: "She/he will soon get over it". 1--2--3--4--5
- b) You would think: "I am a disgusting person". 1--2--3--4--5
- c) You would try to understand what you did to hurt him or her. 1--2--3--4--5
- d) You would think that she/he really enjoyed it and is just trying to get back at you. 1--2--3--4--5

9. You are working with several other people on a rush job. You don't do your part and the job is late.

not likely very likely

- | | |
|--|---------------|
| a) You would think that the job wasn't that important anyhow. | 1--2--3--4--5 |
| b) You would think that the others should have done more to help. | 1--2--3--4--5 |
| c) You would be afraid of being criticized so you phone in sick. | 1--2--3--4--5 |
| d) You would go to your boss and take responsibility for the job being late. | 1--2--3--4--5 |

10. A woman asks you for directions. After you have given her the directions, she hurries off. You then realize the directions were wrong.

not likely very likely

- | | |
|--|---------------|
| a) You think that she will find her way anyway. | 1--2--3--4--5 |
| b) You would feel badly for having misled her. | 1--2--3--4--5 |
| c) You leave before she has a chance to realize that your directions were wrong. | 1--2--3--4--5 |
| d) You think that since she hurried off so fast, it is no wonder she gets lost. | 1--2--3--4--5 |

11. You want to buy some exercise equipment from your friend and he offers to let you pay next month. Once you get the equipment, you realize you will not be able to pay until next year.

not likely very likely

- | | |
|--|---------------|
| a) You explain your situation and offer to return the equipment. | 1--2--3--4--5 |
| b) You keep the equipment, but feel so badly that you don't use it. | 1--2--3--4--5 |
| c) You think that it is your boss's fault for not giving you a raise. | 1--2--3--4--5 |
| d) You would figure that he probably doesn't need the money, otherwise he would not have given you the equipment in the first place. | 1--2--3--4--5 |

12. You are telling loud jokes at a party and say something that hurts one of your friend's feelings.

- | | not likely | very likely |
|--|---------------|-------------|
| a) You feel badly about offending your friend and think about how to avoid it in the future. | 1--2--3--4--5 | |
| b) You immediately become silent and leave at the first opportunity. | 1--2--3--4--5 | |
| c) You would think it was only a joke and he will get over it. | 1--2--3--4--5 | |
| d) You would think: "These guys have no sense of humor". | 1--2--3--4--5 | |

13. You leave out rat poison that accidentally kills your neighbor's cat.

- | | not likely | very likely |
|--|---------------|-------------|
| a) You think that the cat was pretty stupid to eat rat poison. | 1--2--3--4--5 | |
| b) You go to your neighbor and apologize. | 1--2--3--4--5 | |
| c) You would feel small...like an idiot. | 1--2--3--4--5 | |
| d) You would think: "He can always get another cat". | 1--2--3--4--5 | |

APPENDIX 8

Other As Shamer Scale

OAS SCALE

We are interested in how people think others see them. Below is a list of statements describing feelings or experiences about how you may feel other people see you.

Read each statement carefully and circle the number to the right of the item that indicates the frequency with which you find yourself feeling or experiencing what is described in the statement. Use the scale below.

0 = NEVER 1 = SELDOM 2=SOMETIMES 3 = FREQUENTLY 4 = ALMOST ALWAYS

- | | | | | | |
|--|---|---|---|---|---|
| 1. I feel other people see me as not good enough. | 0 | 1 | 2 | 3 | 4 |
| 2. I think other people look down on me. | 0 | 1 | 2 | 3 | 4 |
| 3. Other people put me down a lot. | 0 | 1 | 2 | 3 | 4 |
| 4. I feel insecure about others opinions of me. | 0 | 1 | 2 | 3 | 4 |
| 5. Other people see me as not measuring up to them. | 0 | 1 | 2 | 3 | 4 |
| 6. Other people see me as small and insignificant. | 0 | 1 | 2 | 3 | 4 |
| 7. Other people see me as somehow defective as a person. | 0 | 1 | 2 | 3 | 4 |
| 8. People see me as unimportant compared to others. | 0 | 1 | 2 | 3 | 4 |
| 9. Other people look for my faults. | 0 | 1 | 2 | 3 | 4 |
| 10. People see me as striving for perfection but being unable to reach my own standards. | 0 | 1 | 2 | 3 | 4 |
| 11. I think others are able to see my defects. | 0 | 1 | 2 | 3 | 4 |
| 12. Others are critical or punishing when I make a mistake. | 0 | 1 | 2 | 3 | 4 |
| 13. People distance themselves from me when I make mistakes. | 0 | 1 | 2 | 3 | 4 |
| 14. Other people always remember my mistakes. | 0 | 1 | 2 | 3 | 4 |
| 15. Others see me as fragile. | 0 | 1 | 2 | 3 | 4 |
| 16. Others see me empty and unfulfilled. | 0 | 1 | 2 | 3 | 4 |
| 17. Others think there is something missing in me. | 0 | 1 | 2 | 3 | 4 |
| 18. Other people think I have lost control over my body and feelings. | 0 | 1 | 2 | 3 | 4 |

APPENDIX 9

Social Comparison Rating Scale

SOCIAL COMPARISON RATING SCALE

Please place a mark on each line at a point which best describes the way in which you see yourself in comparison to others.

Example:

Short 1 2 3 4 5 6 7 8 9 10 Tall

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

If you understand the above instructions please proceed. Circle one number on each line according to how you see yourself in relationship to others.

***In relationship to others I feel:**

Inferior	1 2 3 4 5 6 7 8 9 10	Superior
Incompetent	1 2 3 4 5 6 7 8 9 10	More competent
Unlikeable	1 2 3 4 5 6 7 8 9 10	More likeable
Left out	1 2 3 4 5 6 7 8 9 10	Accepted
Different	1 2 3 4 5 6 7 8 9 10	Same
Untalented	1 2 3 4 5 6 7 8 9 10	More talented
Weaker	1 2 3 4 5 6 7 8 9 10	Stronger
Unconfident	1 2 3 4 5 6 7 8 9 10	More confident
Undesirable	1 2 3 4 5 6 7 8 9 10	More desirable
Unattractive	1 2 3 4 5 6 7 8 9 10	More attractive
An outsider	1 2 3 4 5 6 7 8 9 10	An insider

APPENDIX 10

Submissive Behaviour Scale

THE SUB BEHAVIOUR SCALE

Below are a series of statements which describe how people act and feel about social situations. Circle the number to the right of the statements which best describes the degree to which a statement is True for you.

Please use the following scale:

0 = NEVER

1 = RARELY

2=SOMETIMES

3 = MOSTLY

4 = ALWAYS

- | | | | | | |
|--|---|---|---|---|---|
| 1. I agree that I am wrong even though I know I'm not. | 0 | 1 | 2 | 3 | 4 |
| 2. I do things because other people are doing them, rather than because I want to. | 0 | 1 | 2 | 3 | 4 |
| 3. I would walk out of a shop without questioning, knowing that I had been short changed. | 0 | 1 | 2 | 3 | 4 |
| 4. I let others criticise me or put me down without defending myself. | 0 | 1 | 2 | 3 | 4 |
| 5. I do what is expected of me even when I don't want to. | 0 | 1 | 2 | 3 | 4 |
| 6. If I try to speak and others continue, I shut up. | 0 | 1 | 2 | 3 | 4 |
| 7. I continue to apologise for minor mistakes. | 0 | 1 | 2 | 3 | 4 |
| 8. I listen quietly if people in authority say unpleasant things about me. | 0 | 1 | 2 | 3 | 4 |
| 9. I am not able to tell my friends when I am angry with them. | 0 | 1 | 2 | 3 | 4 |
| 10. At meetings and gatherings, I let others monopolise the conversation. | 0 | 1 | 2 | 3 | 4 |
| 11. I don't like people to look straight at me when they are talking. | 0 | 1 | 2 | 3 | 4 |
| 12. I say 'thank you' enthusiastically and repeatedly when someone does a small favour for me. | 0 | 1 | 2 | 3 | 4 |
| 13. I avoid direct eye contact. | 0 | 1 | 2 | 3 | 4 |
| 14. I avoid starting conversations at social gatherings. | 0 | 1 | 2 | 3 | 4 |
| 15. I blush when people stare at me. | 0 | 1 | 2 | 3 | 4 |
| 16. I pretend I am ill when declining an invitation. | 0 | 1 | 2 | 3 | 4 |

APPENDIX 11

Definitions of Childhood Abuse and Neglect

According to Bernstein and Fink (1998):

'Emotional abuse refers to verbal assaults on a child's sense of worth or well-being, or any humiliating, demeaning, or threatening behavior directed toward a child by an older person. *Physical abuse* refers to bodily assaults on a child by an older person that pose a risk of, or result in, injury. *Sexual abuse* refers to sexual contact or conduct between a child and older person; explicit coercion is a frequent but not essential feature of these experiences. *Emotional neglect* refers to the failure of caretakers to provide a child's basic psychological and emotional needs, such as love, encouragement, belonging, and support. *Physical neglect* refers to the failure of caregivers to provide a child's basic physical needs including food, shelter, safety and supervision, and health' (pp.2).