

Childhood experiences of bullying, trauma symptoms and attributions: their relation to violent offending

By

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Table of Contents

	Page
Acknowledgements	i
Abstract	ii
1. Introduction	1
1.1 Why is it important to study bullying and its effects ?	2
1.2 What do we mean by bullying ?	4
1.3 The effects of bullying on victims	8
1.31 Posttraumatic symptoms	11
1.32 Depression	13
1.33 Other effects	13
1.34 Interpersonal effects	15
1.4 Why do children bully ?	16
1.41 Intergenerational transmission of violence	16
1.42 The cycle of violence: Victim to victimiser	17
1.43 Social and peer status	18
1.44 Social information processing	19
1.45 Hostile attributional bias	20
1.5 Defining features of Post Traumatic Stress Disorder (PTSD)	22
1.51 Posttraumatic stress in children	24
1.52 Bullying as a traumatic event	26
1.53 Cognitive appraisal and attribution in PTSD	27
1.6 Trauma linked to violence	28
1.7 Gaps in the current research	30
2.0 Method	32
2.1 Ethical approval	32
2.2 Study One – Preliminary pilot study	32
2.21 Participants	32
2.22 Aims	32
2.23 Procedure	33
2.3 Study Two - Main study	34
2.31 Participants	34
2.32 Procedure	35
2.4 Description and selection of measures	36
2.41 Review of measures of bullying	36
2.42 Review of measures of trauma	39
2.43 Review of measures of attributional style	45
2.44 Demographic questionnaire	46

	Page
3.0 Results	48
3.1 Description of sample	48
3.2 The relationship between bullying and psychological trauma	49
3.3 The effect of post childhood factors	49
3.4 Comparison of violent and non violent offenders on measures of psychological trauma	53
3.5 Comparison of violent and non violent offenders on measures of bullying	53
3.6 Comparison of violent and non violent offenders on measures of attributional style	53
3.7 The relationship between bullying and attributional style	54
4.0 Discussion	55
4.1 Summary of results	55
4.2 Methodological recommendations for future studies	57
4.3 Implications of the study	63
5.0 References	66

List of Tables

	Page
1.1 Reasons why prevention and intervention in bullying are important	2
1.3 Summary of the effects of bullying on victims	10
3.2a Spearman's rho correlations between measures of psychological trauma and bullying	49
3.3a Differences between assaulted and non assaulted groups on measures of psychological trauma	50
3.3b Differences between participants involved in an MVA and those not involved in an MVA on measures of psychological trauma	51
3.3c Differences between participants who had experienced other traumas and those who had not on measures of psychological trauma	51
3.3d Differences between head injured and non head injured groups on measures of psychological trauma	52
3.7a Spearman's rho correlations between IPSAQ sub scales and bullying	54

Appendices

	Page
Appendix 1 – University of Leicester ethical approval form	80
Appendix 2 – List of offences and their violent / non violent classification	82
Appendix 3 – Letter of invitation to participants	83
Appendix 4 – Instructions to participants	84
Appendix 5 – Demographic questionnaire	85
Appendix 6 – Davidson Trauma Scale (DTS)	86
Appendix 7 – Direct and Indirect Bullying behaviour Checklist (DIBC)	87
Appendix 8 – Internal, Personal and Situational Attributions Questionnaire (IPSAQ)	93
Appendix 9 – Order of questionnaire administration	100
Appendix 10 – Debrief sheet	101
Appendix 11 – DTS bullying correlations table	102
Appendix 12 – IPSAQ bullying correlations table	103

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Abstract

The primary aim of this study was to see whether there is a relationship between the experience of being bullied and violent offending in later life. It was proposed that someone being bullied could be traumatised by the experience and display symptoms akin to PTSD, including hypervigilance and heightened threat perception, which may influence the likelihood of their involvement in violence. The study considers the relationship between the experience of being bullied, trauma symptoms and violent offending. Attributional style in relation to all of these variables is also considered as hostile attributional bias was proposed as a possible outcome of being bullied and a factor in increasing the likelihood of violent offending. Research concerned with childhood bullying, its effects, offending, and trauma is reviewed. The study and results are discussed in the context of literature to date. A relationship between the level of bullying experienced and the level of trauma symptoms currently experienced was found. There were no differences found between violent and non violent offenders on any of the measures used but there was a relationship between violent offending and a tendency to make negative attributions about their own actions relating to events. A similar relationship was also found for participants who had experienced bullying but not for those who had bullied others. Possibilities for future research and the implications for intervention and bullying prevention programmes are discussed in light of the findings.

1.0 Introduction

This study is concerned with the long term effects of bullying on victims, particularly in relation to trauma symptoms and relation to violent offending in adulthood. The impetus for the research arose from clinical cases where the experience of victimisation at the hands of bullies seemed to be an important factor in the individual's psychopathology. From a clinical perspective therefore it seemed important to learn more about the impact of such an experience and the first starting point was obviously the clinical and academic research literature. However, at that time there were no published papers which dealt with such a topic and this led to the genesis of this research and a more detailed examination of the literature.

The following literature review attempts to bring together research and theory from strands of clinical and academic psychology which hitherto have developed rather disparately. Research about bullying, both about the perpetrators of such incidents and the victims, has fallen into the domain of educational and child psychologists. Delinquency has been the specialism of forensic psychologists and Guerra (1998, p.399) comments that although there is a large literature on problem behaviour in children and adolescents, "the developmental literature and the criminal justice literature have evolved in two separate strands that have only minimally informed each other."

In this review, literature from both of these areas and literature pertaining to adult violent behaviour is brought together alongside literature about trauma and the possibility that the experience of being a victim of bullying may constitute a trauma is explored. Sharp (1995, p.87) concludes one of her papers with the statement that "the notion that bullying is 'character building' or that 'a bit of bullying never harms anyone' are myths." This section begins with a review of some of the relevant bullying research, this is then linked to research on trauma and the potential links with violent offending are elucidated. This introduction concludes by identifying gaps in the current research and states the hypotheses which these gaps suggest need consideration, which are investigated in the current study.

1.1 *Why is it important to study bullying and its effects ?*

Bullying is known to have an impact both at an individual level and a more global impact at a systemic level. Beane (1998, p.209) in a review of the literature, comments that from research to date we are aware that bullying is associated with a “variety of educational, personal and social problems that impact families, schools, communities and society.” Other authors concur with this view and state that violence of any form, including bullying is a “major, global mental health concern” (Pynoos (1993) cited in Glodich (1998) p. 321).

The most obvious impact of bullying is on the individual victim, the research on which is explored in more depth later in this introduction. The harm victims suffer is another reason why bullying constitutes an important research issue (Gagnon, 1991). Beane (1998) summarises, in table 1.1 below, some of the effects of bullying on victims and highlights why prevention and intervention, and the research to support these strategies, is vital.

Table 1.1 – Reasons why prevention and intervention in bullying are important

Children have the right to protection
A lack of peer and teacher acceptance causes discipline problems
Bullying impacts on the physical and emotional health of children (and adults)
Bullying impacts on a child’s sense of personal worth and self confidence
Bullying causes loneliness
Bullying may cause children to commit suicide
Bullying robs children of important social skills
Bullying may encourage children to use drugs
Bullying may encourage children to join gangs and develop gangs
Bullying may encourage children to join hate groups
Bullying may encourage teen pregnancies
Bullying may encourage use of weapons
Bullying may encourage poor school attendance and drop out
Bullying may encourage cynicism towards authority
Bullying encourages inappropriate behaviour
Bullying has long lasting effects and creates societal problems

As Gagnon (1991, p.450) comments “the suffering is great for the victims and the prognosis of the bullies is grim.” Bernstein and Watson (1997, citing Farrington, 1991) take the view that peer aggression is linked to immediate harm to the victims and bully and is also highly predictive of poor life outcomes such as domestic violence, criminality and substance abuse.

There are now legal requirements for the protection of children (Children Act, 1989), most often thought of in terms of child protection by social services departments where children are being abused in the family. However, the child’s right to protection extends to their school and social lives. The United Nations Convention on the Rights of the Child (United Nations, 1991) considers protection from abuse to be an important prerequisite for the quality of life that children have a right to expect (Smith and Brain, 2000). It is now a legal requirement for schools in England to have some anti bullying policy or action framework (Smith, 2001) and research is needed to inform such policies. Hence we have a legal and moral responsibility to try and protect children from peer abuse and understand its causes and maintenance.

There is already an established link in the research literature between being a perpetrator of bullying in childhood and later criminal behaviour, and this research attempts to consider any relationship between victimisation and later offending. Researchers, such as Farrington (1991, 2001) and Olweus (1991, 1993) have therefore called for interventions for bullying to be targeted as a means of crime prevention. On logical and humanistic grounds Farrington (2001, p.182) suggests that “it must be better to prevent offending early in life than to wait until someone has committed many offences and then intervene.” He points to the number of victims who might be spared by such an approach, and indeed there is the cost of prosecuting and jailing offenders.

This assumes of course, that there are intervention strategies which could fulfil such a preventive role. Olweus (1992) has conducted a large amount of research in Scandinavia on bullying and he asserts that it is definitely possible to substantially reduce bully victim problems in schools. Intervention strategies in schools and with families have been suggested as interventions for both bullying and delinquency. For such intervention

strategies to be effective it is important for us to understand the cognitive, affective and behavioural motives of the perpetrators involved in bullying (Roberts and Morotti, 2000).

Despite the large amount of research on bullying and victimisation to date, it is still considered a relatively new area of investigation (Craig, 1998). Thus there are still large gaps in our knowledge base, the largest of which appears to be the long term impact of victimisation on victims of bullying. In 1993, Olweus commented that “almost nothing is known about the long term development of children who have been victimized” and more recently Duncan (1999) states that there are few studies which consider whether the psychological difficulties experienced by bully victims continue into adulthood.

1.2 What do we mean by bullying ?

Arora (1996) begins his paper about the definitions of bullying with an entry from the Oxford English Dictionary which defines ‘to bully’ as “persecute, oppress, tease, physically or morally, frighten into or out of.” Although this definition encompasses aspects of bullying behaviour, for research or clinical purposes it does not sufficiently operationalise the phenomenon.

Most definitions in the literature are derived from the work of Olweus, a Scandinavian researcher who pioneered work on bullying in schools. His definitions involve a child being repeatedly victimised over time, being exposed to ‘negative actions’ from an individual or group, and an asymmetric power relationship between bully (ies) and victim. Negative actions are suggested to be “physical contact, words, making faces or dirty gestures, and intentional exclusion from a group” (Olweus, 1995, p.197).

Pellegrini (1998) makes this definition more concise saying “Bullying is defined as instances of negative actions being directed at a specific youngster or group of youngsters repeatedly and over time.” Beane (1998; 1999) simply states that the key issue is that “all forms of bullying involve children hurting children.” There is a consensus amongst researchers that bullying is a negative experience which causes harm to children who are victimised.

In terms of research methodology and measurement of the behaviours involved, many researchers have focussed on overt forms of bullying, that is aggressive and violent acts of victimisation. For example, Beane (1998, p.207) bases his definition on Olweus (1993) and states "Bullying can be defined as when one or more individuals engages in overt, aggressive, hostile, violent, hurtful and persistent behaviour that is intentional and designed to injure and create fear and distress in one or more persons who seem unable to defend themselves and this gives the bully some degree of satisfaction."

Bullying can be conceptualised as a subset of aggressive behaviour (Ireland, 1999d; Livingston and Beck, 1997). Smith and Brain (2000) simply state that bullying is "aggressive behaviour normally characterized by repetition and imbalance of power". Livingston and Beck (1997) refine this definition and suggest that bullying is a sub set of aggressive behaviours where "actions are persistent, intended to cause fear, harm, and distress, are unprovoked and involve some kind of power imbalance."

The legal position on bullying also focusses on actions, or direct forms of bullying, and was only relatively recently formalised. Heald (1994, cited in Arora, 1996) was the judge in the only case about bullying which had, to that date, come before an English court. For legal purposes it was decided that the definition needed to include intent and observable actions. The definition settled on was as follows: "Bullying is long standing violence, physical or psychological, conducted by an individual or group and directed against an individual who is not able to defend himself in the actual situation with a conscious desire to hurt, threaten or frighten that individual or put him under stress" (cited in Arora, 1996, p.321). Roberts and Morotti (2000) point out that "bullying may meet the statutory definition of a criminal act dependent on nature of the specific act involved in the incident."

However, these definitions seem to exclude indirect forms of bullying which may be difficult to see as 'aggressive behaviour'. Connell and Farrington (1996, p.75) clarify this issue by adding specificity to the behaviours included in their definition; "Bullying includes physical violence, threatening and teasing, extortion, stealing or destruction of possessions, ridiculing, name-calling and social exclusion. Hence, bullying overlaps with aggression but is not identical to it."

The inclusion of more indirect and non physical forms of bullying seems important in this definition and other researchers have included these in wider definitions of bullying. Much of the literature about the impact of peer aggression focuses specifically on physical harm, rather than psychological bullying which children often find more distressing than physical attack (Sharp, 1995; Frude, 1993). Both Arora (1996) and Beane (1998) include the possibility of bullying being physical, verbal or nonverbal, as do Whitney and Smith (1993, cited in Arora, 1996) who conducted the large scale Sheffield anti-bullying project.

The following definition was used to precede their questionnaire enquiring about the incidence of bullying in Sheffield schools in conjunction with the Department of Education. "We say a young person is being bullied, or picked on, when another child or young person, or a group of young people, say nasty and unpleasant things to him or her. It is also bullying when a young person is hit, kicked, or threatened, locked inside a room, sent nasty notes, when no-one ever talks to them and things like that. These things can happen frequently and it is difficult for the young person being bullied to defend himself or herself. It is also bullying when a young person is teased repeatedly in a nasty way. But it is not bullying when two young people of about the same strength have the odd fight or quarrel."

The social relationships in bullying are often absent from definitions, but obviously bullying can only occur when there is some form of relationship, at a minimum between the victim and the bully. At its simplest, bullying represents aggression "in which the aggressor interacts directly with the victim" (Ireland and Ireland, 2000, p.214). Lane (1992, p.138) takes this further stating that "bullying is a complex process involving victims, perpetrators, relationships and the attitudes of adults and schools." Other peers in the school are often also involved. Its social nature is emphasised by Ireland (1999b, p.51) who indicates that bullying often occurs in social groups "where the victim has little opportunity to avoid the bully, and where the bully often receives support from other group members."

The roles of people in this social group can be indistinct, rather than being an obvious dichotomy of bully and victim. Bowker (1980, cited in Ireland and Ireland, 2000, p.214) described the bully-victim relationship as "a macabre version of the game of musical chairs in which today's aggressor (bully) may become tomorrow's victim."

Despite the clarity in most of the definitions of bullying, there is still room for subjective interpretation of an individual's experience. An adult's view of the experience of a child may define something as harmless, whereas the child may experience the act as distressing and bullying. For example, one teenage girl said "Bullying is slow and painful torture" (Beane, 1998, p.206). Indirect bullying, rather than physical aggression is often neglected in research on bullying and is also often not perceived by the participants of the research as bullying behaviour (Ireland and Bannister, 1997, p.3). It is not only during research that such subjective perception takes place but also during the bullying incident. Ireland and Ireland (2000, p.214) state that "interpretations of what constitutes bullying can be subjective as can the perceptions of the individuals involved in bullying with regard to how they view the bullying incident." The definition of bullying may also change according to the context in which the behaviour occurs. The view of what constitutes bullying in, for example, a prison environment, may differ from what schoolchildren would consider to be bullying (Ireland and Ireland, 2000).

Definitions of bullying can be extremely broad or very specific according to the context in which the definition is to be used. For example, in their paper, Livingston and Beck (1997, p.45) defined bullying in a broad sense saying that bullying encompasses "any aggressive behaviour where an imbalance of power is apparent." Another general definition is from Carter (1989, cited in Beane, 1998, p.206) who calls bullying behaviour 'invalidation' by which he means "one person injuring, or trying to injure another"

Ireland and Bannister (1997) however, provide a very specific operationalisation of bullying. They state that bullying can be either an 'overt' or 'covert' behaviour, meaning either direct or indirect bullying. They define direct bullying as an 'overt' form of behaviour in which the victim is fully aware of whom the aggressor is. It includes psychological and verbal abuse, sexual abuse, physical and theft-related abuse. 'Indirect' bullying is a much more subtle form of behaviour in which the bully does not interact directly with the victim. They further exemplify the behaviours under discussion saying "the most well known forms of indirect bullying includes behaviours such as ostracising and gossiping. However, other activities such as playing a practical joke on the victim, turning others against them and deliberately lying about them also represents indirect bullying."

To summarise, these definitions ranging from the very broad, to the exact operationalisation of specific behaviours seems difficult given the wealth of literature considering the issue of what constitutes bullying. However, Ireland, Jarvis, Beck and Osiowy (1999) use Farrington's (1994) definition which contains five key elements upon which most researchers agree. These are that bullying contains a physical, verbal, or psychological attack, involves an imbalance of power, is unprovoked, is repeated and is intended to cause fear or harm to the victim.

Despite the amount of time and thought which has been given to considering what constitutes bullying, the range of research does not seem to have progressed much beyond considering bullying between children and most of the definitions focus on the child bully and victim. There is an awareness that bullying occurs in contexts other than schools, such as prison establishments and in the workplace but this literature is much less well developed.

From the work to date, it seems important that any study of bullying includes both direct and indirect forms of bullying in any definition, as, as the next section will demonstrate, the impact on victims is great regardless of the type of bullying. Given the possibility that 'bullying' can mean different things to different people, and that an individual's perception can change over time, the exact operationalisation of bullying behaviours also seems important. For this reason, the definitions suggested in the work of Ireland (such as Ireland et al, 1999) are accepted for this research, as bullying behaviours are 'spelt out' and there is little room for subjective interpretation on the part of the participants of the study.

1.3 The Effects of Bullying on Victims

Research into the effects of bullying on children have found a variety of relationships between the experience and poor outcomes in education, psychopathology and general well being in victims. Smith and Brain (2000, p.3) recently commented that bullying can be regarded as "pernicious and highly damaging" and that there is "ample evidence that many forms of victimisation can have profound effects of the mental and

physical health of their victims.” Many other researchers reviewing the literature concur with this view (Connell and Farrington, 1996; Kupersmidt, 1993; Glodich, 1998; Hodges and Perry, 1999). This evidence comes from research using a variety of methodologies, such as anecdotal and clinical case study evidence to large scale surveys (Jenkins and Bell, 1997 cited in Glodich, 1998).

The length of the duration of the impact of bullying on victims is less clear from current research. Connell and Farrington (1996) take the view that bullying causes both immediate and long term harm for both bullies and victims. Rubin, Bream and Rose-Krasnor (1991, p.219) also take the view that aggressive children are at “high risk for the development of antisocial and other adjustment problems in adolescence and adulthood.” However, there seems to be little empirical support for this view as few studies have linked childhood experience with outcomes beyond a short term follow up period and only one study found in this literature review considered outcomes in adulthood. This appears to be a gap in our knowledge and may be an important area for future research to begin to understand the longer term impacts of bullying.

We also know little about the differentiation between different types of bullying and different lengths of duration of victimization. Sharp et al (2000) suggest that long term, high frequency bullying is likely to be more damaging in comparison to victimization episodes of shorter duration. They further comment that this difference has not been specifically investigated but wonder whether the therapeutic implications may also be different depending on the duration of bullying experienced.

Despite these gaps in research, there is a wealth of research considering the immediate impact of bullying on children. Most reviewers of the research list several mental health and educational outcomes for victimised children. These are summarised in table 1.3 below. These effects range from what seems a relatively mild impact through to serious mental health consequences and suicide.

Table 1.3 – Summary of the Effects of Bullying on Victims supported by Research

Effect	Research Papers
Anxiety	Hodges and Perry, 1999; Craig, 1998; Glodich, 1998 Boney-McCoy and Finkelhor, 1996
Depression	Hodges and Perry, 1999; Olweus, 1993; Boney-McCoy and Finkelhor, 1996; Glodich, 1998; Craig, 1998; Sharp et al, 2000
Loneliness	Hodges and Perry, 1999
Physical illness	Smith and Shu, 2000; Elliott, 1992 (cited in Borg, 1998)
Low self esteem	Hodges and Perry, 1999; Egan and Perry, 1998; Smith and Shu, 2000; Sharp et al, 2000
School avoidance	Hodges and Perry, 1999; Glodich, 1998; Elliott, 1992 (cited in Borg, 1998)
Poor academic performance	Hodges and Perry, 1999; Sharp, 1995; Smith and Shu, 2000; Sharp et al, 2000; Boney McCoy and Finkelhor, 1996; Duncan, 1999; Glodich, 1998
Rejection by peers	Hodges and Perry, 1999
Lack of friends / poor social relationships	Hodges and Perry, 1999; Gilmartin, 1987
Post Traumatic Stress Disorder (PTSD)	Glodich, 1998; Duncan, 1999; Sharp, 1995; Boney McCoy and Finkelhor, 1996
Substance abuse	Glodich, 1998
Self harm	Glodich, 1998
Aggression	Glodich, 1998
Delinquency	Glodich, 1998
Suicide	Glodich, 1998; Elliott, 1992 (cited in Borg, 1998); Smith and Brain, 2000
Personality disorder	Farrington, 1992

Whether children are currently being victimised or not, Silverman et al (1995) found that personal harm (i.e. personal harm or attack by others) was the most frequent and intense worry of children in their sample (cited in Craig, 1998).

Children find the experience of being bullied stressful, and this stressfulness varied according to the type of bullying to which they were subjected. Borg (1998) conducted a study on how children feel after an incident of bullying. He found that there was a range of reactions from victims, with the most common reactions being self pity, helplessness, anger and vengefulness. Boys were more likely than girls to feel vengeful and harbour the desire to retaliate in some way.

Sharp's (1995) study asked children about their experiences of bullying and the impact of these experiences. Children reported that having rumours spread about them was the most stressful bullying experience for both boys and girls regardless of age. Being called names, physically hurt, being deliberately left out or ignored and being threatened were also considered highly stressful. Frude (1993) citing LaFontaine (1991) also reports that children are more likely to be distressed by rejection and name calling than by physical assault.

1.31 Post traumatic Symptoms

This distress can become quite extreme in children, to the extent of constituting post traumatic symptomatology. In Sharp's (1995) study in which 723 secondary aged students in the UK were included in a questionnaire survey, 11% of children who had been bullied found it extremely stressful and a third of her sample continued to feel panicky and nervous. 32% of the children experienced recurring memories of the events, a primary symptom of post traumatic stress disorder (PTSD). These recurring memories of the bullying can be to the extent that the child's school concentration is impaired (Sharp, 1995; Duncan, 1999). Duncan (1999, p.45) also found that children who had experienced a severe assault by a peer showed "levels of PTSD similar to that of sexually assaulted children." Participants in Duncan's (1999) study who had experienced both physical abuse and bully victimisation in childhood reported significantly higher levels of PTSD, overall psychological distress and higher symptom severity than any of the other participants.

Post traumatic symptoms have also been associated with bully victimisation in several other studies. Gore-Felton, Gill, Koopman and Spiegel (1999) state that empirical evidence indicates that acute stress reactions can follow exposure to violence, although

they do not consider other forms of bullying apart from violence. They cite further evidence that these acute stress reactions can lead to PTSD. Other studies have also found that children suffer post traumatic symptoms, both acute and chronic (Boney-McCoy and Finkelhor, 1996). These symptoms can include startle responses, recurrent distressing thoughts and anxiety (Gore-Felton, Gill, Koopman and Spiegel, 1999; Glodich, 1998).

The relationship between bullying and post traumatic stress disorder is complicated by criterion A of DSM-IV, the requirement that the event experienced involved “actual or threatened death or serious injury, or a threat to the physical integrity of self or others” (American Psychiatric Association, 1994). It seems possible therefore, that physical bullying could meet this criteria but the situation with regard to emotional or verbal bullying is less clear. Weaver (2000) considers this issue with regard to repeated emotional bullying. He comments that because of the requirement for the event to be life threatening, such trauma would probably not meet diagnostic criteria for PTSD. They did not consider the direct relationship between emotional bullying and post traumatic symptoms however. This study does consider the correlation between post traumatic symptoms and experience of victimisation at the hands of bullies. Trauma symptoms, and PTSD in both adults and children are explored in more detail in a later section of this introduction.

Anxiety alone, as well as anxiety associated with post traumatic symptoms, has been connected with victimisation in children. Craig (1998) found that for children involved in bullying and victimization, either as the bully or as the victim, anxiety was predicted from indirect and verbal aggression, as well as from physical, verbal and indirect victimization. Sharp et al (2000) also had similar findings as did Boney-McCoy and Finkelhor (1996) and Gore-Felton et al (1999). Thus, anxiety associated with bully victimisation seems to be a fairly consistent finding in the literature.

1.32 Depression

Depression is also a recognised sequela of bullying in children. Duncan (1999) found that children who are being bullied have a higher level of psychological distress than others even if the bullying does not involve physical attacks. Egan and Perry (1998, cited in Hodges and Perry, 1999) in a longitudinal study of the impact of victimization found that poor self concept results from (as well as contributes to) victimisation. This may contribute to the feelings of depression which children experience.

Sharp et al (2000) found that physical victimisation and ‘psychological subordination’ correlated with depression and feelings of low self worth. Craig (1998) cites studies finding that depression was particularly associated with being the recipient of overt physical aggression both in boys and girls (Olweus, 1991; Neary and Joseph, 1994; Slee, 1995) all cited in Craig, 1998) despite the gender differences which have been found in the type of bullying perpetrated. Boney McCoy and Finkelhor (1996) also associate physical assaults by peers with depression, as do Gore-Felton et al (1999).

A longitudinal study, the only one found in this review, by Olweus (1993) finds a relationship between bullying and depression in victims of bullying in their early adulthood. Boy victims of bullying were found to have higher levels of depression and a more negative self view at age 23 than non victimised controls. The results did not seem better accounted for by subsequent victimisation or other competing hypotheses. By way of thorough statistical analysis of the data, Olweus (1993, p.333) concluded that the “major causal influence is from victimization to depression related variables and not the other way round.”

1.33 Other Effects

Moving away from mental health outcomes of bullying, there appear to be other factors linked to being a victim of bullying and it is often unclear in which direction causality lies. Bernstein and Watson (1997) comment that some of the qualities associated with victimisation “exist before the children are victimised; others may result from continued victimisation and then exacerbate the problem.”

There are a number of additional difficulties which have been associated with bullying, although with less empirical support than for depression, anxiety and post traumatic symptoms. Children have been thought to suffer from physical health symptoms (Smith and Shu, 2000; Elliott, 1992 cited in Borg, 1998), difficulties with school work (Smith and Shu, 2000; Boney-McCoy and Finkelhor, 1996; Elliott, 1992 cited in Borg, 1998) and impaired school performance and truancy (Smith and Shu, 2000; Glodich, 1998). Suicide has also been linked with being bullied, both through research (Glodich, 1998; Elliott, 1992 cited in Borg, 1998) and in cases reported in the media.

In addition to self harming behaviours, more expressive behaviours have also been reported. Increased violence, aggression, risk taking, anger and delinquency (Gore-Felton et al, 1999; Glodich, 1998) are all suggested to follow bullying in some cases. Farrington (1992) reports severe personality disorder as a result of bullying. Such behaviours and difficulties are likely to impact on the social relationships of such children and some investigators have considered the issue of social skills to assess whether a social skills deficit is causal in making victims of bullying vulnerable to such abuse.

The effects of bullying in relation to later delinquency has been considered in some of the research literature (Rigby and Cox, 1996; Farrington, 1993) although this has generally focussed on the bullies rather than the victims of bullying. A longitudinal study of boys identified as bullies whilst at school in England reported these boys to be more likely to engage in violent behaviour more frequently than their peers after leaving school (Farrington, 1993). This trend was confirmed in an Australian cohort in a study by Rigby and Cox (1996, p.611) who found that “students who act on a generally antisocial and aggressive manner at school are likely to be predisposed to act aggressively or anti socially in a wider context.”

This result has been replicated in several studies over a period of years, using longitudinal, retrospective, self report and peer nomination methods. The key factor in some studies which predicted a greater number of arrests was a failure to get along with peers in childhood, rather than bullying behaviours *per se* (Janes, 1979 cited in Kupersmidt et al, 1993). However, many studies deal with aggressive behaviour in children rather than peer rejection. These studies have been consistent in showing a relationship between

antisocial and aggressive behaviour in childhood, and later delinquency and criminal activity (Olweus, 1991, 1993; Serbin, 1992; Hamalainen and Pulkkinen, 1995; Pulkkinen, 1983 cited in Tolan and Gorman-Smith, 1998). These relationships are demonstrable over periods from 12 to 22 years (Huesmann, Eron, Lefkowitz and Walder, 1984 cited in Farrington, 1991; Janes et al, 1979 cited in Kupersmidt et al, 1993).

1.34 Interpersonal Effects

One aspect of victim patterns found in the literature, which may relate to peer difficulties, is social skills. Frude (1993) suggests that rejection may inhibit the development of social skills, a situation which may in turn mean that the victimised child has a smaller repertoire of responses to bullies. Sharp (1995) found that many children being bullied did not know what to do in response and a small number of children used inappropriate responses. Slee (1993) extends this finding to both victims and bullies stating that both groups of children have “fewer options in terms of responding to aggressive behaviour than do other children” (p.55). He cites a paper by Richard and Dodge (1982) in support of this hypothesis who found that aggressive children generate fewer solutions to hypothetical social problems, a finding reflective of the adult forensic literature about offenders.

Loeber (1990) describes the cycle by which victimisation can become a self fulfilling prophecy for some children, adding to their peer difficulties and aggressive behaviour. “The combination of aggression, poor social skills and cognitive peculiarities predisposes such a child to poor peer relationships and peer rejection.” Pettit (1997, p.293) concurs with this adding that peer rejection in itself can exacerbate aggressive behaviour and he muses that this may be a response to “heightened frustration and feelings of social incompetence.”

Olweus (1993) considered the impact of bullying in young adults who had been bullied during their childhood. It appeared that their social relationships were ‘normal’ in adulthood which suggests that the victims of bullying were not lacking in social skills or if they were deficient in their time at school, “the problems were not serious enough to prevent normal development in the area of social interaction in adulthood” (p. 337).

However, this finding is not consistent as Gilmartin (1987, cited in Sharp et al, 2000) found that those who had been bullied extensively when they were young had severe difficulties with social relationships in adulthood.

It seems, however, despite some of the conflicting research findings that there is a great deal of evidence to support the idea that victimisation through bullying in childhood is associated with some forms of psychological difficulty in children and perhaps “the long perseverative shadow cast by childhood trauma” (Renn, 2000) extends the impact of bullying into adulthood. However, there is little research which considers the chronic effects of bullying, and most studies have been a ‘snapshot’ in time, rather than considering the longer term effects.

Given the scale of the problem of bullying in schools and the impact of bullying on victims, it seems important to attempt to understand why children bully, the research on which is considered in the next section.

1.4 Why do children bully ?

There are several proposed hypotheses about the reasons why children bully which will be explored in this section: these are intergenerational transmission of violent behaviour, the cycle of violence, aggressive reactions to threats to self esteem and cognitive and information processing models .

1.41 Intergenerational Transmission of Violence

One simple hypothesis is that exposure to violence leads to the expression of violence. Glodich (1998) cites clinical evidence to support this idea and Dodge, Bates and Pettit (1990) point to research which found that for children, being physically abused by an adult is a risk marker for interpersonal violent behaviour in adulthood. Other researchers support this idea, but develop the hypothesis with suggestions about the mechanism by which this happens.

There is also some evidence that behaviour in families, of parents towards their children, can result in the intergenerational transmission of aggressive behaviour patterns. One mechanism for this transmission could be emotional dysregulation resulting from abuse at the hands of parents which leads to a dual pattern of aggressive behaviour towards, and victimization by, peers (Schwartz et al, 1997). A similar proposal is put forward by Mulvey et al (1993) who base their ideas on the social cognition of aggressive children and the patterns of logic in chronically violent adults. They suggest that the development of perspective taking, social attribution about threat and social problem solving are important for social adjustment and can be disrupted by abusive experiences and socialization.

Dodge (1991, cited in Schwartz et al, 1997, p.667) has also hypothesised that abuse and rejection by parents could lead a child to develop a hostile attributional bias which in turn could lead them to display a “characteristic angry and hypervigilant style of personal interaction”, the impact of which is likely to be aggressive behaviour toward peers and also victimization by peers.” Dodge, Bates and Pettit (1990) researched this hypothesis and concluded that ‘harmed’ children are likely to develop biased and deficient patterns of social information processing. This deficient style makes them likely to fail to attend to relevant cues in their social environment, display a bias to attribute hostile intentions to others and lack competent behavioural strategies to solve interpersonal problems.

1.42 The Cycle of Violence: Victim to Victimiser

Studies of the characteristics of bullies and victims have found that there are few children who are either bullies or victims only. In a large scale project Olweus (1993, p.319) identified two kinds of children: “the aggressive, tough, dominating, and impulsive bully who systematically and repeatedly attacks and bothers other children, and the passive victim, the target of other children’s, in particular the bullies’, aggression and harassment.”

However, Lane (1992) views this simple dichotomy as undermined by other research such as Farrington (1998) who found that more than half of the bullies in their sample were also victimised and 66 per cent of all victims also bullied. Schwartz et al (1997) commented that although many chronically bullied children have a pervasively

submissive behavioural style, they identified a sub group of children who have a more aggressive style of social interaction. Pellegrini (1998) also described a group of children who display this hostile interactional style who react to bullying with an aggressive response.

Ireland (1997) suggests that bully/victims may represent individuals who react to their own victimisation by bullying others. She suggests that bully/victims may be best considered a victim group who are experiencing difficulty in coping with their victimisation in an appropriate way. Pellegrini (1998) also describes children who react to their own victimization with an aggressive response. He points to a hostile world view where the likelihood of aggressive behaviour in response to threat is heightened. This concept of 'hostile attributional bias' is considered in more detail later.

Another theory as to why bullying behaviours develop, is that victims of bullying somehow 're-enact' their experience, either through becoming passive, recreating their victim role, or by assuming the role of the aggressor (Glodich, 1998, citing Pfefferbaum and Allen, 1998). It is suggested that these re-enactments represent an anticipatory bias and an attempt to avoid the original feelings of helplessness experienced during victimisation, through action (Glodich, 1998 citing Pynoos, 1993).

1.43 Social and Peer Status

Eron and Huesmann (1990, cited in Baldry and Farrington, 1998) state clearly that children bully because of their "need for power and for peer status." Mynard and Joseph (1997) assert that their data helps us to understand the behaviour of the bully/victim group who are characterised by low social acceptance. They refer to children who are both bullies and victims, and suggest that these children are first victims and then see aggression against their peers modelled by their bullies as a way of gaining social power. Mynard and Joseph (1997, p.54) conclude from their data that those who are most strongly influenced by model effects are those "who do not have a natural status among their peers and who would like to assert themselves." Pellegrini (1998) states that victims will often imitate their bullies and attempt to use similar tactics with less dominant peers.

A linked hypothesis is that children respond to a threat to their status or self esteem with aggressive behaviour, not only physical in nature but also verbal or emotional aggression. Pettit (1997) suggests that this is a more likely response among older children. He states that derogations such as teasing, tattling and put downs are likely act as triggers to a hostile aggressive response. Both of these hypotheses allow us to see how victims could eventually become bullies in response to their victimization.

1.44 Social Information Processing

There has been a great deal of attention focussed on social information processing and hostile attributional bias by aggressive children. Nasby, Hayden and DePaulo (1980) explain this bias as a tendency to infer hostility whenever they confront interpersonal situations which affects their interpretation of both positive and negative interpersonal situations. Much of the experimental research has used a design where children are presented with an ambiguous social situation and the reactions of non aggressive and aggressive children are compared. The findings from such studies are fairly consistent, finding that children who behave aggressively erroneously attribute hostility to social stimuli to a far greater extent than less aggressive children (Nasby, Hayden and DePaulo, 1980; Ledingham, 1991; Cairns and Cairns, 1991; Dodge, 1980). Dodge, Price, Bachorowski and Newman (1990) state clearly that aggressive children are up to 50% more likely than average children to attribute hostile intent to a hypothetical peer after an ambiguous provocation by the peer. This finding is also supported by Smith (1991) who also suggests that such children are also more likely to select an aggressive response to the situation.

Lane (1992) states that the intention of the aggressor and the belief of the victim about the interaction are considered key aspects by some researchers, and indeed a child could be both aggressor and victim in a given interaction, or series of interactions. Roberts and Morotti (2000) also talk about the 'decoding' of messages in interactions with peers and they believe that the way a child interprets a situation will determine whether or not a 'tease' comes to be considered intimidation. This interpretation may depend on the 'internal working models' which a child applies to situations. Renn (2000, citing Peterfreund, 1983) suggests that different working models are applicable in different

situations and during different activities making prediction and appropriate adaptive behaviour possible. However, if the attributional bias already discussed is in operation it is easy to see how such adaptive behaviours could become maladaptive to the social situation.

Other authors suggest that cognitive change can go beyond a simple attributional bias however, and assert that traumatised children go through a process of internal cognitive changes. These changes may apply to their views about life, about the future and about the trustworthiness of people (DeZulueta, 1993). If a child no longer believes that people are trustworthy, and also displays a hostile attributional bias, it is likely to have a grave impact on their social and interpersonal interactions, both immediately and in their future life into adulthood.

1.45 Hostile Attributional Bias

The role of attributional bias in the development of violent behaviour is considered in more detail later, but these researchers clearly state that “the experience of physical harm leads a child to conceptualise the world in deviant ways that later perpetuate the cycle of violence” (p.1682). They also suggest that in addition to inappropriate attention to cues and the attribution of hostile intent, children may also become hypervigilant to hostile cues. This pattern of attributional bias is similar to that sometimes seen in people suffering post traumatic stress disorder, particularly after sexual or physical assault, which is considered in more detail later in the section on PTSD.

Other researchers have found support for the view that children who bully and who are victimised display the altered and biased information processing with regard to social cues investigated by Dodge, Bates and Pettit (1990). The circumstances surrounding an interaction with a peer are either ignored or discounted, and have no impact on the attribution of hostile intent to the peer involved (Pettit, 1997) and the child would react aggressively to others provocative social behaviour (Pellegrini, 1998). For example, a child with such a bias would typically attribute hostile and aggressive intent to a peer bumping into them (Pellegrini, 1998).

This interpretation of hostile intent increases the child's tendency to be hostile in return (DeZulueta, 1993) which in turn increases the likelihood of reciprocated hostility and aggression (Pettit, 1997). Loeber (1990) also cites poor social skills and cognitive/attributional problems combined with heightened threat perception in the social environment as a pathway to aggressive behaviour and poor peer relationships. This theory goes some way to explaining how some children attain their joint 'bully/victim' status.

It has further been found that aggressive children have less behavioural flexibility than their peers in dealing with interpersonal situations. Aggressive children have been found to generate fewer solutions to hypothetical social problems in experimental research (Richard and Dodge, 1982 cited in Slee, 1993) and supported by 'real life' evidence showing that both bullies and victims have fewer options for responding, particularly to aggressive behaviour (Slee, 1993; Rubin, Bream and Rose-Krasnor, 1991).

The combination of a hostile attributional bias, which involves the sense that others have malevolent intent, and a diminished repertoire of social behaviour makes aggressive or violent behaviour in response to social stimuli more likely (Nasby, Hayden and DePaulo, 1980). Dodge (1980) states that when we perceive the intention of another as negative, a person's modal response is aggression and this finding holds true for both adults and children. Hostile attributional bias has been investigated with regard to offending behaviour and was found to relate to offending, although not to nonviolent offences (Dodge, Price, Bachorowski and Newman, 1990).

Many papers assume that hostile attributional bias is an unfounded bias, an error in the individual's thinking. However, some authors have considered the possibility that this bias may not be an error at all, but based in the individual's experience. Cairns and Cairns (1991) suggest that the bias may be rooted in a person's experience in similar situations. Changes in cognitive patterns may result from peer rejection and victimisation (Dodge and Feldman, 1993) resulting in the attribution of hostility to peers, which may indeed have an element of truth to it. This can create a cycle of behaviour which serves to create a negative view of the individual in their peer group (Dodge and Feldman, 1993) and confirm the general image of peers as hostile, increasing the likelihood of the individual interpreting future behaviour by the peer as hostile (Dodge, 1980).

1.5 Defining Features of Post Traumatic Stress Disorder (PTSD)

This section will describe current conceptualisations of post traumatic stress disorder and apply these ideas to the experience of peer victimisation and bullying.

The two main psychiatric diagnostic tools in current clinical use are the International Classification of Diseases 10 (ICD 10) and the Diagnostic and Statistical Manual IV (DSM-IV). ICD 10 (WHO, 1992) describes post traumatic stress disorder (PTSD) simply as “a delayed or protracted response to a stressful event or situation of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost everyone.” It is conceivable, within this description that bullying, particularly that which is physical in nature, could be considered a stressful event and threatening, and most children state that they would find bullying highly stressful (Sharp, 1995).

DSM-IV (APA, 1994) has multiple requirements for a diagnosis to be made. The person has to have been exposed to an event where they “experienced, witnessed or were confronted with an event or events that involve actual or threatened death or serious injury, or a threat to the physical integrity of oneself or others” (criterion A). In addition the person’s response must have “involved intense fear, helplessness, or horror.” A child being bullied could indeed suffer threats of death and be confronted with serious injury or the threat of it. In line with the definitions of bullying presented in this paper, the victim would be helpless to defend themselves and feel intense fear at what may happen to them.

In addition, DSM-IV requires that the traumatic event is persistently re-experienced and lists ways in which this may happen. Persistent avoidance of stimuli associated with the trauma and “numbing of general responsiveness” is also expected alongside persistent symptoms of increased arousal such as sleep difficulties, irritability or outbursts of anger and hypervigilance.

Researchers have found other associations with post traumatic symptoms. These include a change in cognitive appraisal of events and a heightened threat perception explored in greater detail later, violence and antisocial behaviour (Rundell et al, 1989) and substance abuse. However, studies have often been focussed on war veterans (particularly Vietnam veterans) which biases the sample and thus the findings have been inconclusive.

However, we still have much to learn and differing clinical presentations seem to be associated with different traumatic experiences, and indeed pre-existing experiences and levels of functioning. It has been argued that a separate category of subthreshold PTSD should be established “to encompass the complex symptomatology shown by people who have been incarcerated or otherwise suffered repeated traumatisation” (Yule, 1998, p.220).

Other suggestions as to what constitutes trauma have also been offered by clinicians and researchers, although their key elements are similar albeit not as prescriptive as the diagnostic schedules. Green’s (1985, p.136) conceptualisation of trauma includes actual or threatened physical or psychological assault which may create a ‘traumatic neurosis’. He claims that this situation “results in ego disorganisation, narcissistic injury, and a painful affective state, which, in turn, activate primitive defence mechanisms and a compulsion to repeat the trauma.” DeZulueta (1996, p.181) offers a perspective more attuned to attachment theory suggesting that psychological trauma is defined as “the sudden uncontrollable disruption of affiliative bonds.”

Koss et al (1995, p.111) offer a simpler explanation than DSM-IV of what constitutes a trauma by saying a traumatised person has “memories of negative personal experiences - that is life events that are new, unexpected and potentially threatening.” Pynoos and Eth’s (1985) definition involves the individual’s exposure to an overwhelming event which renders them helpless. They include the concept of “intolerable” danger, anxiety or arousal. In these definitions, bullying would certainly meet the criteria for a traumatic event.

We know from the literature on trauma that PTSD tends to be more severe and persistent after events caused by humans rather than by nature (McGuire, 1990; Frederick, 1980 cited in Pynoos and Eth, 1985). Benedek (1985) considers that the victims of human induced violence experience losses of a personal nature such as self esteem, loss of their sense of personal worth and body integrity. These impacts are becoming more recognised and DeZulueta (1996) states that the long term effects of psychological trauma and post traumatic stress are no longer denied.

Chronic PTSD is certainly recognised and there is recognition that post traumatic reactions can be “pervasive, chronic, emotionally painful and life altering” (Foa and Rothbaum, 1992, p.156). However, it is not only the nature of the trauma which plays an important role in the development of symptoms although a positive correlation between the degree of trauma and the development of PTSD has been shown (Rundell et al, 1989). Bowman (1999, p.22) explicates the logic of this stating that if the ‘dose’ of trauma is a causal factor in eliciting PTSD then “events that are directly experienced, prolonged and damaging” should show the highest incidence of PTSD. He does not explain, however, the meaning of ‘damaging’, which leaves open the possibility that the damage could be psychological or psychological, and open to subjective interpretation of the person experiencing the trauma. Physical assault as part of bullying, or indeed other forms of harassment could be considered traumas of human creation (Weaver, 2000).

Simon (1999) states that a variety of traumatic events can precipitate chronic PTSD although assaultive violence and physical injury are likely to produce a disorder of longer duration, rather than an acute trauma reaction alone. In reviewing research on people with chronic PTSD he states that on average they suffer significantly more (and more severe) symptoms than people suffering acute PTSD alone. There is a call however, for more research to advance our knowledge of trauma and personality variables which are likely to produce chronic PTSD (Foa and Rothbaum, 1992).

As this study is concerned with the impact of trauma (bullying) on children, it is important to consider, not only PTSD in adults but also the expected presentation in children

1.51 Post traumatic stress in Children

The first question in addressing post traumatic stress in children is of course whether they experience trauma psychologically, and if so in what way is this the same or different from the ways in which adults do. Benedek (1985, p.4) states that there has been a “long tradition of denying the psychological and psychiatric sequelae in the child victim of trauma” but that children do indeed suffer from traumatic effects. Pynoos and Eth (1985) are clear that children are as likely as adults to suffer from startle reactions, and avoidant

behaviours in response to reminders of trauma. Children are also likely to suffer from more severe and longer lasting post traumatic stress when the stressor is of human design, as is the case with adults (Frederick, 1980 cited in Pynoos and Eth, 1985).

However, we have to recognise that children are likely to respond to trauma according to their developmental stage and therefore their reaction to trauma may manifest itself and be experienced in a different way to that of adults. Yule (1998) comments that the manifestation of PTSD in children often differs from how adults respond to trauma and many children show many but insufficient symptoms to meet full DSM-IV criteria. There needs to be some recognition that children are biologically, developmentally and temperamentally different from adults (Benedek, 1985).

Terr (1979 and 1981, cited in Benedek, 1985) reports some symptoms which children may display when traumatised. They may be frightened of death, separation from key attachment figures and be concerned about further trauma, and may misidentify the perpetrators of the traumatic event if it was at the hands of humans. Children may engage in traumatic play, re-enactment, and/or display personality change or chronic anxiety (Terr, 1983 cited in Benedek, 1985). Events with human causation can also alter a child's sense of safety and their view of the security of future human relationships profoundly (Pynoos and Eth, 1985).

Trauma can be seen as a temporary reaction in children yet their reactions to major stressors can last for many years and be quite disabling (Yule, 1998). Yule (1998) also points to the paucity of longitudinal research into trauma in children which traces its course into adulthood. As a general rule of thumb, "the more threatened a child feels during a traumatic event, the greater the risk of PTSD" (Yule, 1998, p.237). However, in his quite comprehensive review of studies of children and PTSD he refers to none considering bullying as a trauma which seems to be a gap in the literature.

One aspect of PTSD which seems to be important in the course of disorder and recovery, in both adults and children, seems to cognitive appraisal and attributions about threat in the physical and social environment. This has attracted much research interest from psychologists and has relevance to this study, given the suggestion that victims of

bullying also display a seemingly similar style of thinking. The following section explores cognitive mechanisms in PTSD.

1.52 Bullying as a Traumatic Event

Despite the contention about whether bullying can constitute a stressor of sufficient magnitude to precipitate the total syndrome of PTSD, there is a wealth of evidence that children find bullying stressful and traumatic as explained in the earlier section on the effects of bullying. There are additional factors to be taken into consideration when considering the traumatic impact of bullying on children such as the results of the disruption of social relationships on children.

DeZulueta (1993) discusses the role of interpersonal relationships developed by the victims as a means of social support. She claims these are important factors in determining the impact of the trauma on physical and psychological health. In children who have been bullied, as we have seen from the literature reviewed so far, their social skills may be impaired and part of the experience of being bullied may be isolation. In this case, their interpersonal relationships are likely to be poor and thus their supportive networks limited. Rose and Bisson (1998) also support this view. This being the case, the impact of their trauma is likely to be heightened.

This extends not only to the avoidance of trauma symptoms, but also to normal social relationships and development. Adolescents need a peer group with whom to identify in order to make their transition to adulthood (DeZulueta, 1993). Lane (1992) cites the multiple disadvantages experienced by children who are victimised which includes social disadvantage and isolation.

There is more direct evidence of the link between physical bullying and trauma in those studies which consider the effect of physical assault on people's psychological well being. PTSD is considered a common consequence of assault (Dunmore, Clark and Ehlers, 1997; Glodich, 1998). This finding is true not only for adults, but also for children who have experienced violence (Glodich, 1998; Boney-McCoy and Finklehor, 1996).

However, as we saw in the review of bullying, children are affected detrimentally not only by physical attack, but also by other indirect forms of bullying. Craig (1998) found that anxiety and traumatic symptoms may result as a function of repeated exposure to bullying, whether that bullying is physical or psychological in nature. Ireland and Bannister (1997) assert that indirect bullying is certainly not less traumatic than physical assault for the victim. They state that there is emerging evidence that, on the contrary, indirect bullying is more damaging to the victim than direct forms of abuse by peers.

1.53 Cognitive appraisal and attribution in PTSD

Theoretical papers about PTSD and the mechanisms in play point to cognitive appraisals having the primary role in the behavioural manifestations of the disorder. The aspects of cognition which have been considered in the research are selective attention to threat, attributional errors about arousal and threat, and negative beliefs about people and the future (including hostile attributional bias).

It has been hypothesised that people suffering from post traumatic symptoms have a selective attentional bias towards fear relevant cues (Resick, 1992) even when this cue is actually ambiguous. Incoming information is interpreted in such a way that selective attention is given to 'fear relevant' cues even if they are not pertinent to the current behaviour in which the person is engaged (Litz and Keane, 1989). Such attentional bias at a cognitive level could contribute to PTSD and recovery by generating a sense of ongoing threat (Dunmore, Clark and Ehlers, 1999).

A further model is proposed where information is interpreted and stored to facilitate rapid responding. They explain "the fear structure includes information about emotions (e.g. anger, dread, panic), plans for action or sequences of behaviour (e.g. fight, flee) and associated images and memories of past threatening experience (e.g. being pinned down, wounded etc.)" (Litz and Keane, 1989, p.246). These cognitions are likely to trigger emotional and physiological arousal.

People make errors in reasoning about the causes and meanings of emotional arousal (Bowman, 1999). The appraisal of traumatic events and their sequelae may be important

in determining the persistence trauma symptoms which a person experiences (Dunmore, Clark and Ehlers (1997). The “individual subjective meaning and vulnerability also play an important role in the production of symptoms” (Rundell et al, 1989), so rather than examining solely the objective events the person suffered it could be important to explore the meaning of them to the individual.

Dunmore, Clark and Ehlers (1997) have considered the meanings people attribute to their traumatic experiences. They found that assault victims may hold global negative beliefs about themselves, their world, and their future following the experience. There has been considerable discussion of the role of shattering and confirmation of pre-existing beliefs in the development of PTSD. Core assumptions such as the ‘world is benevolent’, the ‘world is meaningful’, and seeing oneself as worthy may be shattered or a traumatic event may confirm and reinforce pre-existing negative beliefs about the safety of the world and the worthiness of the self.

Such beliefs, are related to poorer psychological outcomes following trauma, particularly when the individual has internal causal attributions or self blame regarding the victimisation experience (Wenninger and Ehlers, 1998). This finding was supported by Dunmore, Clark and Ehlers (1997) who found that participants in their study with persistent PTSD were more likely to indicate that the assault they experienced had generated global negative beliefs about themselves, other people and/or their future.

1.6 Trauma linked to Violence

There are several proposed ways in which trauma could be associated with violent behaviour. These proposals have not always been clearly elucidated in the literature, and the relationship between PTSD in particular and violence is not clear. Rundell et al (1989) state clearly that studies of violence and other antisocial behaviour occurring after trauma are inconclusive yet DeZulueta (1993, p.183) writes that “childhood psychological trauma does exist and that it is an aetiological factor in a number of psychiatric disorders both in children and adults as well as being a powerful cause of human violence.”

Simon (1999) states that man-made traumatic events can elicit anger, irritability and hostility. Carroll et al (1985 cited in McGuire's 1990 review of PTSD) reported feelings of hostility and a propensity to physical aggression in clients suffering from PTSD. Renn (2000) in a recent paper emphasises the connection between childhood trauma and subsequent violent offending.

It is also possible that victims of bullying replicate the behaviour of their bullies in order to gain social power and a sense of control lacking through their own victimisation (DeZulueta, 1996). Children may also learn to be aggressive through their own victimisation and see it as a useful strategy, or simply use aggression and violence reactively as an expression of emotion (Schwartz et al, 1997; Beane, 1998).

As discussed earlier, it has been theorised that bullied children have a hostile world view which increases the likelihood that they will respond aggressively to social cues. This has parallels with the PTSD literature which has developed primarily cognitive models to explain and understand the symptomatology. Resick (1992) explains that when someone with PTSD perceives even an ambiguous threat, they are biased to perceive the threat and react according to their established pattern of responding to threat, which, in a person who has been victimised, may be to behave violently.

There is perhaps an indirect relationship between trauma and violence through substance abuse. Card (1987, cited in McGuire, 1990) found that trauma was correlated with substance abuse and frequent arrests although these could not be reported as primary symptoms of PTSD. Simon (1999) also supports this finding and states that PTSD often precedes other affective or substance abuse disorders. Similarly Rundell et al (1989) report substance abuse and antisocial behaviour to be associated with PTSD. Much of the forensic literature reports that substance abuse is often related to violent offending (Swanson, 1994).

Additionally, the physiological arousal which is a common feature of post traumatic symptomatology (McGuire, 1990) may also contribute to violent behaviour. By activating the 'fight or flight' response through this heightened arousal, the person is already primed for an aggressive response in the face of threat (Bowman, 1999), which as we have already seen, they may be selectively attending to.

1.7 *Gaps in the Current Research*

Although the literature to date does not attempt to draw together the themes and commonalities of the research on trauma, bullying and violence, several authors recommend future research avenues which would attempt to synthesise these themes or enhance our knowledge. In particular, investigation of the longer term effects of bullying on children and the impact of victimisation in childhood on people in their adult lives is recommended. This is an issue this study considers in terms of trauma symptoms and violent offending.

Craig (1998) highlights gaps in our knowledge about children's coping styles in bullying interactions. Hodges and Perry (1999, p.678) point out that there has been "no prior theoretical or empirical work that has examined whether victimized children's interpersonal relationships are affected by the experience of being victimized." They predict that interpersonal, or peer related difficulties would likely result from victimization.

Our lack of knowledge about the "long term psychosocial and physical effects of experiencing this type of stress and physical abuse" is also apparent (Craig, 1998, p.129). Duncan (1999, p.46) also recommends that research is conducted to "examine whether the psychological difficulties experienced by bully victims continue into adulthood." Again, this study considers the longer term effects of bullying in terms of trauma symptoms, and interpersonal relationships through considering whether there are correlations between certain types of attributional style and the experience of bully victimisation.

Duncan (1999) points to the lack of clarity about whether "milder forms of aggression", such as bullying, would have a similar impact on mental health to the experience of severe assault. In this review, only one paper was found, albeit a case study, considering the issue of whether bullying is traumatic. Duncan (1999) suggests that this may be an area for future investigation. The relationship between bullying and trauma symptoms is considered in this study.

There is a lack of clarity in the research about the relationship between trauma and violent behaviour. Reviews of PTSD and aggressive behaviour have found mixed results

in the studies considered, some finding a relationship between the variables, others showing no relationship. This study looks at whether there is a difference between the level of trauma symptoms violent and non violent offenders display.

The research on bullying clearly shows a relationship between being a perpetrator of bullying and involvement in criminal behaviour, delinquency and convictions in adulthood. This research is mainly based on the dichotomous categorisation of bullies and victims. However, later research casting doubts on this simple classification also means the straightforward relationship between bullying and offending is questionable, as there are a further group of children seen as 'bully/victims'. We know little about this group in terms of offending and most children involved in bullying fall into this dual category. This study uses a measure of bullying which includes items relating to both receiving and perpetrating bullying behaviours and thus avoids the dichotomous classification.

This study addresses some of the gaps in the current research by considering the following issues:-

- Is there a relationship between bullying and psychological trauma ?
- Is there a difference between violent and non violent offenders on measures of psychological trauma ?
- Is there a difference between violent and non violent offenders on measures of bullying ?
- Is there a difference between violent and non violent offenders on measures of attributional style ?
- What is the relationship between bullying and attributional style ?

The following method section describes the means by which these questions were investigated.

2.0 Method

The study consisted of study one and study two – a small pilot study and the main study. Prior to either phase beginning ethical approval was sought, as was indemnity cover for the author to carry out the research.

2.1 *Ethical approval*

Ethical approval was sought and received prior to the implementation of the project from the Clinical Section of the Centre of Applied Psychology, University of Leicester, the University of Leicester School of Psychology, Leicestershire and Rutland Healthcare NHS Trust Research and Development Office, and the Psychology Department of HM Prison Service Headquarters.

2.2 *Study One – Preliminary pilot study*

Prior to the main study being carried out, a small pilot study was run in a probation hostel in Lincolnshire.

2.21 *Participants*

The probation hostel was selected for the pilot study as the people resident there had previously been incarcerated for offending behaviour and were not considered to have a mental health problem. The residents there (all male) were essentially comparable to the prison population who would be part of the main sample for the study (N=9, age range 17 – 36, serving from 0 to 60 month sentences). However, because the probation hostel was in a different area from the prisons planned for the main study, there was unlikely to be any crossover between the pilot group and the participants in the main study.

2.22 *Aims*

The pilot study was run to check the feasibility of the group questionnaire administration format planned for the main study. It was important to check whether

participants were likely to work at a similar pace through the set of measures and if not, whether this was a manageable aspect of the questionnaire administration.

The pilot study was also useful in establishing the readability of the questionnaires and instructions to participants used. The instructions to participants and the debriefing sheet had previously been scored for reading level using the Flesch reading ease calculation (Flesch, 1948). This calculation computes readability based on the average number of syllables per word and the average number of words per sentence. The higher the score, the greater the number of people who can readily understand the document, the average writing score being 60 to 70. The instructions to participants document scored 67. The debriefing sheet scored 65.7.

The style and content of verbal instruction given to participants could also be checked by using a pilot group. Any ambiguities in the written and verbal instructions could be modified before the main data collection for the study. The pilot study questionnaires were also used to test out the coding protocol for the questionnaires.

2.23 Procedure

Participation in the pilot study was voluntary. Residents of the hostel were invited, by letter, to attend a group on a specified date and time. The letters were distributed by a member of staff at the hostel, but the independence of the study was emphasised both in the letter of invitation, and verbally upon meeting the residents.

Confidentiality and anonymity were ensured and this was explained both in the written and verbal instructions to participants. It was explained that the study was being conducted as part of the author's doctoral degree in Clinical Psychology and that their questionnaires would not be individually identifiable. Their set of questionnaires were matched together with a participant number but this was not traceable back to any individual.

Nine people participated in the pilot group. It ran as a small group and the four questionnaires were administered. Throughout the group, any comments about the

questionnaires, instructions or the process were noted. Following the group questionnaire administration, the residents of the hostel who participated were offered the opportunity to comment on the questionnaires and the group procedure. The residents indicated which parts of the questionnaires were ambiguous or difficult to understand. This informed some minor changes to the measures prior to their use in the main study.

The participants suggested that some typographical changes were made to make completion of the questionnaires easier. They commented that the IPSAQ was rather long and they were unable to generate a cause for each of the items and found it frustrating to attempt to do so. As the sub scales of the questionnaire do not require the participant to have given a cause, participants in the main study were asked to circle a, b, or c only and not complete a cause for each item. The group questionnaire administration worked well and was used in the main study.

A letter of thanks was sent to the probation hostel, to be displayed on notice boards, both immediately following the pilot study and after completion of the main data collection block.

2.3 Study Two - Main Study

2.3.1 Participants

The participants required for the study were adult male inmates incarcerated in HM Prison Service establishments for offences of which they had been convicted (N= 104, mean age 30.3, mean sentence length 54.6 months). Therefore, in organising the project 10 prison establishments were approached for their help and support with the project. The establishments were selected on a geographical basis with all of the prisons in the Trent region being approached. Four establishments were unable to accommodate the project but two agreed to help with the research. Unfortunately one of these was later unable to offer the resources required for the research data collection. The remaining one prison was therefore the source of all of the participants for the study.

The study was carried out in a category C (medium security) male adult (age 18+) training prison in Nottinghamshire. The prison houses inmates convicted of a variety of offences (for a list of offences of which participants had been convicted see appendix 2), and varying sentence lengths. The prison does not take remand prisoners or young offenders, hence these categories were excluded from the study.

2.32 *Procedure*

Participants were recruited on a volunteer basis. Letters of invitation were distributed to inmates in the prison wings selected for the study (see appendix 3) explaining the purpose of the study and what participation would involve. These letters were distributed prior to the researcher attending at the prison at allow time for potential participants to consider whether they would like to participate. For security reasons a list of names of volunteers was collected to allow staff at the prison to locate them when the study was taking place.

When the researcher visited the prison to carry out data collection small group sessions were held to complete the set of questionnaires. One hour was allowed for each session although the groups often took less time.

At the beginning of the group session each participant was provided with

- Instructions to participants (see appendix 4)
- Demographic questionnaire (see appendix 5)
- Davidson Trauma Scale (DTS, Davidson, 1996; see appendix 6)
- Direct and Indirect Bullying behaviour Questionnaire (DIBC, see appendix 7)
- Internal, Personal and Social Attributions Questionnaire (IPSAQ, Kinderman and Bentall, 1996; see appendix 8)

The order of questionnaire administration was varied over the course of the study to avoid fatigue and boredom effects across the sample (see appendix 9). The questionnaires were set out in the order of completion. Participants' seating was positioned to ensure that their answers could not be seen by their fellow participants in the group.

The participants were requested to read the instructions to participants but a verbal introduction was also given going through the points outlined on the instructions and assuring people of their confidentiality and anonymity. Before beginning the instructions to the questionnaires, the researcher asked if anyone struggled with reading and writing, and also offered help with any aspects of the questionnaires which people did not understand or which were not clear. If anyone appeared to be struggling with questionnaire completion during the group they were offered help to complete the questionnaires.

Before beginning each questionnaire the group were given a verbal explanation of how to complete the questionnaire in addition to the written explanation which appeared on the front sheet of each questionnaire.

The questionnaires used are described in more detail below.

2.4 Description and Selection of measures

2.4.1 Review of Measures of Bullying

There are numerous measures of bullying available in the literature. Some studies which look at the phenomenon of bullying in schools use peer and teacher ratings to identify both bullies and bullying behaviours, either instead of or as well as self report (Connell and Farrington, 1996). This has the advantage of either confirming one set of data with the other (i.e. comparing the self report to that of the external rater), or avoids the difficulties of self report data altogether. This seems to be a useful methodology for contemporaneous studies, however for this study such an approach was not viable due to the retrospective nature of the data required.

Most of the questionnaire measures designed to consider bullying are for use with children, often for a designated age range (Arora and Thompson, 1987 ; Ahmad and Smith, 1990; Connell and Farrington, 1996; Smith and Sharp, 1994). They are context specific, designed for use in schools and as such were considered inappropriate for use in this study where the participants are adults out of the school context.

Other questionnaires have been developed for use with adult victims of bullying in the workplace (Hoel, Rayner and Cooper, 1999; Smith, 1997; Rayner, 1997). This involves quite different behaviours from those which school bullies engage in, and the power relationships also appear rather different to that between peers in school. Thus, although these questionnaires may be designed for an adult population, the behaviours they seem designed to measure are a different set of behaviours to those under consideration in this study.

The measures considered so far have disadvantages in terms of the population, context and behaviours being measured. They are also all designed for use which is contemporaneous with the victimisation experience. This presents a further difficulty in a retrospective study of this type. The term bullying is also often used in the measures themselves, which allows participant's interpretation of what they consider to be bullying which may not match with the researchers definition (Livingston and Beck, 1997; Ireland and Ireland, 2000). This may be important in a retrospective study as events which we consider bullying as a child, and are experienced as such, may be seen as less serious when we are in our adulthood. It has also been shown that use of the term 'bully' tends to result in an underestimate of the problem (Ireland, 1997).

Finally, many measures of bullying ask only about victimisation and do not enquire about any bullying perpetrated by the respondent. Given the question marks over the straight dichotomy between bully and victim, it seems important, particularly with a prison population who may have long histories of offending, to find out about both being bullied and bullying.

Bullying in prisons and young offender institutions has been studied and measures have been derived in order to do so. It was from this pool of work which the questionnaire selected for this study was taken. However, there were still some difficulties with using measures designed for use in prisons, although they had been designed for a similar population which is why the measure finally selected was subject to modification as explained below.

The questionnaire was based on the Direct and Indirect Prisoner behaviour Checklist (DIPC) (Ireland, 1998). This questionnaire was selected as the basis for the final version used primarily due to its behavioural focus, which avoids some of the difficulties of the participant needing to define their own concept of ‘bullying’ when such a word is used in a questionnaire. In the DIPC the behaviours are operationalised and participants asked to put a tick by the behaviours which *they have done* in the first section, and by those which have *been done to them* in the second section. The distinction between bullying behaviours perpetrated by the participant and the second about bullying perpetrated on the participant is an important distinction. Rather than focussing purely on victimisation it is also important to consider perpetration given the literature indicating that many victims of bullying are also at some stage a ‘bully-victim’ and engage in bullying behaviours themselves (Olweus, 1993).

The questionnaire includes both direct and indirect forms of bullying behaviour. Direct forms of bullying may include physical assault, theft related bullying, psychological or verbal abuse, and sexual abuse or bullying. Indirect forms of bullying may include playing practical jokes, gossiping or spreading rumours (Ireland, 1998).

The questionnaire was originally designed to be a measure of bullying occurring in prisons. This gave the measure the advantage of already having been used with a forensic population similar to that which were included in this study. However, given that this study was focussed on experiences of being bullied in childhood the measure required modification.

There were a number of items which were specific to behaviours and systems which could only occur in the prison regime. An example of this is “I was forced to sing out of my window” or “I have been on adjudication”. These are behaviours which could only occur within the prison establishment. These items were either excluded from the questionnaire when they did not have an equivalent outside of the prison system, or modified to a school based equivalent. To give an example, “I have been on adjudication” was rephrased to read “I have been disciplined at school”.

There were several references to 'prisoner' and 'officer' throughout the original DIPC questionnaire which were not appropriate for the current study. These were changed to 'pupil' to replace prisoner, and 'teacher' where appropriate to replace 'officer'.

The final version used in the study consisted of 38 items about bullying perpetrated and 50 items about bullying received and this comprised the Direct and Indirect Bullying behaviour Checklist (DIBC). This questionnaire is contained in appendix 7.

2.42 *Review of Measures of Trauma*

There are many measures of trauma related to victimisation in childhood, some designed specifically to assess Post Traumatic Stress Disorder as defined in DSM-IV, others which consider symptoms, more general psychological well being and mental health questionnaires which include some aspects of trauma amongst other psychopathology. These are considered in this review with the reasons for the final selection of the measure used in this study.

Many measures of victimisation in childhood are designed for use with children (Fletcher, 1996; Briere, 1996b; Allen, Huntoon and Evans, 1999), and focus on the effects of trauma on the child (Miller and Veltkamp, 1995). None of the measures have been validated for bullying as a trauma, partly because it has not been considered a traumatic experience in the literature to date. Bullying, as already discussed, does not meet criterion A of the DSM-IV criteria for PTSD. Measures designed for use with children were not considered appropriate for use with this group of participants as they are adults, despite the fact that they are being asked about childhood experiences.

Briere and Elliott (1997) review the psychological assessment of interpersonal victimisation in their useful paper which includes the impact on both adults and children. They comment that clinical awareness of the effects of victimisation is relatively new and thus previously developed generic psychological measures do not address posttraumatic symptomatology well. It is suggested that such measures are prone to underestimating or distorting trauma effects (Briere and Elliott, 1997). Due to the complex presentation of the

effects of childhood trauma, some measures of psychological distress may mislabel the interpersonal difficulties and affect avoidance strategies in trauma victims, as personality disorder (Briere and Elliott, 1997). Thus the more recently developed trauma specific measures seem more appropriate to the current study.

Trauma specific measures fall into two categories, interview schedules and questionnaires. Interview schedules such as the Clinician Administered PTSD Scale (CAPS, Blake et al, 1995) tend to be used for clinical purposes but can also be used for research. However, there are some drawbacks to their use in a study of this type. A clinical interview of this type is likely to take longer than a self report measure and in the context of a research design with multiple measures in use, this is an important consideration. For example, the CAPS takes 30 to 60 minutes to complete (Carlson, 1997) as compared to 10 to 15 minutes for the Davidson Trauma Scale (the measure eventually selected for use in this study).

A further issue in using clinical interview procedures in a study on this scale in a prison setting is the level of distress such an interview might elicit. As it takes place over a longer time scale than the completion of a questionnaire and enquires in more detail about experiences, the potential for a participant to experience distress may be higher. Without the support available to contain such distress it seems unethical to select such a method where potentially less distressing alternatives are available and would yield sufficient information.

A methodological concern in using interview techniques in a study with such large numbers of participants is the consistency of presentation of the researcher between interviews. The information elicited may be influenced by the interpersonal characteristics of the interviewer at the time of the interview. Although this could apply to giving instructions for questionnaire completion, the effect may be minimised by the written guidance.

There are also some problems with the generalisability of some of the interview schedules due to the populations upon which they were validated. For example the CAPS was validated on combat veterans and people who had suffered motor vehicle accidents (Carlson, 1997). This limits the validity with which the measure may be used with other

populations. This is also true of some of the questionnaire self report measures of trauma described below. These are considered in more detail, as self report measures of trauma symptoms were considered to be the most appropriate method of data collection for this study.

Impact of Events Scale - Revised (IES-R)

The Impact of Events Scale and its revised version (Weiss and Marmar, 1996) are the oldest and most widely used measure of responses to traumatic stressors (Carlson, 1997). The measure consists of 22 items and takes 5 to 10 minutes to complete. As such it is brief and easy to administer with a rating scale of 'not at all' (numbered 0) to 'extremely' (numbered 4). The scale when scored yields subscale scores for intrusion, avoidance and hyperarousal. It has been validated with a number of different populations and has been used both for clinical and research purposes.

However, this scale has not been validated with male victims of sexual assault, there is no consideration of the impact of property loss, and there are no community norms available for this measure. The sub scales yield only measures of the clients' distress and not the frequency of experience as well.

Posttraumatic Stress Diagnostic Scale (PDS)

The PDS (Foa, 1996) assesses the presence of PTSD and is specifically designed to look at the DSM-IV diagnostic criteria which apply. It looks at exposure to potentially traumatic events, characteristics of the most traumatic event, 17 symptoms corresponding to DSM-IV criteria for PTSD, and the extent of symptom interference with the individual's daily life (Briere and Elliott, 1997; Carlson, 1997). It has been used in both clinical and research settings and has been validated on a number of traumatised samples (Carlson, 1997) although not on the general population (Briere and Elliott, 1997).

For this study it has the disadvantage of being directly related to DSM-IV criteria for PTSD, and as explored earlier, bullying is unlikely to reach the threshold for criterion A. It is also a fairly long measure (49 items) and has a mixed frequency and severity response scale (Carlson, 1997). Neither has the PDS been validated for use with male

clients with trauma histories of any type (Briere and Elliott, 1997) which, given the entire sample for this study is male, makes this scale's use inadvisable for this research.

Modified PTSD Symptom Scale: Self Report Version (MPSS- SR)

This scale consists of 17 items and takes approximately 10 to 15 minutes to complete (Carlson, 1997; Falsetti et al, 1993). It can be used in both clinical and research settings and yields scores for both the frequency and severity of a clients current experience of trauma symptoms. It is particularly useful for clients with multiple traumatic events in their history or whose trauma history is unknown (Carlson, 1997).

In terms of validation, it has been validated on a community sample, but the traumatised population were all psychiatric patients who had experienced a variety of traumatic events. Thus the scale is not validated for specific types of traumatic experiences.

Penn Inventory for Posttraumatic Stress Disorder

The Penn Inventory for Posttraumatic Stress Disorder is recommended for use in both clinical and research settings to screen for PTSD. It can be used where there have been multiple traumas experienced and uses a format similar to the Beck Depression Inventory where the client endorses a statement which best describes their feelings (Hammarberg, 1992; Carlson, 1997). This format makes its use disadvantageous for use in this study as it requires a considerable amount of reading and in a prison population levels of literacy are likely to be low.

The measure may not discriminate PTSD clients from non PTSD sufferers and it has the added problem of only being validated on very specific populations (combat veterans, Vietnam era veterans and oil rig disaster survivors (Carlson, 1997)). This measure was therefore not considered to be suitable for use in this study.

Screen for Posttraumatic Stress Symptoms (SPTSS)

This measure contains 17 items and as such has the advantage of being brief and easy for clients to understand due to its first person wording (Carlson, 1997). It can be used in clinical or research settings and is useful when clients have a history of multiple traumas or an unknown trauma history. However, it has only been validated with a psychiatric inpatient population and has not been published (Carlson, 1997).

Trauma Symptom Inventory (TSI)

This measure (Briere, 1996) contains 100 items and measures acute and chronic posttraumatic symptomatology, including the lasting sequelae of childhood abuse (Briere and Elliott, 1997). It has applications in both research and clinical settings and measures variety of trauma related symptoms (Carlson, 1997). It is not intended to generate a DSM-IV diagnosis. It has been validated widely with a range of populations (general population, psychiatric in and out patients, university students and Navy recruits (Carlson, 1997)).

However, it is a fairly lengthy questionnaire which as noted before is a disadvantage when the questionnaire is to be used as one of a set of measures. It also contains a complex sub scale structure from which complicated statistical analysis is likely to ensue in research with a large sample. This also yields more information than is strictly necessary to answer the research hypotheses. Neither has the TSI been validated with victims of crime or any form of interpersonal victimisation specifically.

Davidson Trauma Scale (DTS)

The Davidson Trauma Scale is a 17 item self rated questionnaire. The items reflect the symptoms diagnostic of post traumatic stress disorder (PTSD) as defined in DSMIV (Davidson, 1996). The respondent is required to rate each item on a four point scale indicating frequency of occurrence of the symptom and the severity. Frequency ranges from 'not at all' (rated 0), to 'every day' (rated 4). Severity ranges from 'not at all distressing' (rated 0) to 'extremely distressing' (rated 4). Thus a score for frequency of

symptomatology and a score for severity of symptomatology can be derived in addition to a total score.

Studies examining the DTS have demonstrated that the scale is sensitive to variation in the severity of symptomatology and is able to distinguish between individuals with a current diagnosis of PTSD and those without such a diagnosis (Davidson, 1996).

It displays convergent validity with other scales claiming to measure trauma such as the Impact of Events Scale (IES), Trauma Symptom Checklist, Clinician Administered PTSD Scale (CAPS) and the Symptom Check List 90 (SCL-90). The correlation with these measures is significant at the $p > 0.0001$ level.

However, the usefulness of this measure in this study is in its symptom based focus. Different aspects of traumatic symptomatology can be examined, rather than PTSD as a whole syndrome. The measure was developed to cover all types of trauma, not just those fulfilling criterion A (the requirement that the person have experienced an event which was “that involve actual or threatened death, or serious injury, or a threat to the physical integrity of oneself or others” of the DSMIV definition of PTSD (American Psychiatric Association, 1994). The author of the measure tells us it was designed to cover the following traumatic experiences: Accident, combat, sexual assault, criminal assault, natural disaster, torture, burns, loss of property, near death experiences and bereavement.

Given the focus of this study on the traumatic sequelae of bullying, the presence of sexual and criminal assault, loss of property and torture in those traumas which can legitimately be covered by the DTS is important as such behaviours could fall within the experience of being bullied.

Finally, the questionnaire is designed to be comprehensible to literate individuals at ‘eighth grade’ level of education, the UK equivalent of which is children in school aged 13 and 14. It is also fairly brief, with an estimated administration time of 10 to 15 minutes (Carlson, 1997).

2.43 *Review of Measures of Attributional Style*

The most widely used measure of attributional style reported in the research literature (Kinderman and Bentall, 1997) is the Attributional Style Questionnaire (ASQ, Peterson et al, 1982). However, several studies have criticised aspects of the questionnaire. The reliabilities of the subscales have been found to be poor (Reivich, 1995) in particular with regard to the internality subscales (Kinderman and Bentall, 1996).

Arntz et al (1985) comment in their study that there is weak evidence for the presumed dimensions measured by the ASQ. Bagby et al (1990) also argue that the ASQ does not measure the three attributional dimensions suggested. In addition to these criticisms the questionnaire has been found to have poor cross situational consistency (Cutrona et al, 1984; Bagby et al, 1990). Attributional style scores as measured by the ASQ were also found to be poor predictors of actual causal attributions (Cutrona et al, 1984).

Kinderman and Bentall (1996) comment that these important limitations of the ASQ have impeded researchers and they therefore developed a further attributions questionnaire. The Internal, Personal and Situational Attributions Questionnaire (IPSAQ) was developed to address some of the criticisms levelled at the ASQ. It has good psychometric properties (Kinderman and Bentall, 1997) and appears to have superior levels of reliability to the internality sub scales of the ASQ (Kinderman and Bentall, 1996). The IPSAQ was selected for use in this study and is described in greater detail below.

Internal, Personal and Situational Attributions Questionnaire (IPSAQ)

The IPSAQ consists of 32 items which present positive and negative hypothetical social situations (16 of each). For example, a positive item would be “A friend tells you that you are interesting” and a negative one would be “A friend said that he (she) had no respect for you.” The full questionnaire is contained in appendix 8. For each item, participants are required to write down a single most likely causal explanation for the situation described and then categorise the cause as internal, personal or situational.

However, in the pilot study the task of writing down a single cause for each item proved to be rather difficult for the participants and therefore only the categorisation of the item as caused by internal, personal or situational factors was retained for the main study. The sub scales and cognitive bias scales are based on these categorisations only and so the scale was still useable without the written explanations from participants. The authors of the measure indeed acknowledge that the measure may be too long and complex for some participants to complete (Kinderman, 2000)

The questionnaire allows the derivation of six subscales and two cognitive bias scales. The sub scales are personal positive attributions, personal negative attributions, internal positive attributions, internal negative attributions, situational positive attributions and situational negative attributions. The cognitive bias scales are externalising bias (EB) and personalizing bias (PB) (Kinderman and Bentall, 1996).

The measure was designed for research, rather than clinical use, which is appropriate for the sample for this study.

2.44 Demographic Questionnaire

This questionnaire was developed by the researcher to ask some basic personal information from participants. It is included in appendix 5. Information requested included offending history, both the current (index) offence for which the person was imprisoned and previous convictions. Information about current and previous sentences was obtained. This information allowed participants to be classified as violent or non violent offenders both on the basis of current offence and previous criminal history.

Information about participant's ethnic origin, age, educational level and psychiatric history was also gathered. They were also asked about any traumatic experiences they had encountered from the age of 16 onwards. This was to consider the effect of post childhood traumas which may be influencing the results of the trauma scale.

Once participants had completed the questionnaires (or as many of them as they wished as they were able to leave at any time) they were thanked individually for their help. They were also given a sheet thanking them for their help with the study and giving some information about bullying and help lines they could contact in the event of needing someone to talk to (see appendix 10). The organisations suggested had to be contactable by telephone given the constraints of access to services being imprisoned would impose.

3.0 Results

3.1 *Description of sample*

The participants in the sample ranged in age from 21 to 63 (mean age = 30.38, SD = 7.53). Most of the participants classified themselves as white in terms of ethnic origin (n = 91, 87.5%) with the others saying they were afro caribbean (n = 4, 3.8%), asian (n = 5, 4.8%) and mixed race (n = 4, 3.8%).

In terms of highest educational level 2.9% were educated to degree level (n = 3), 7.7% had completed A levels (n = 8), 31.7% of the sample had GCSE qualifications (n = 33) and 13.5% had NVQ qualifications. A large proportion of the sample had no qualifications (n = 46, 44.2%).

The participants were also classified as violent or non violent offenders, both on their current index offence and any previous offences. The researcher classified each offence listed by the participants as either violent or non violent. The offences were also classified as violent or non violent by a consultant forensic clinical psychologist, and lecturer in applied psychology. The agreement between these three raters was 82.6%. The classification of offences is contained in appendix 2. The classifications generated generally concur with the classifications suggested by Loeber and Farrington (1998).

Based on their current index offence 72.1% of the participants were classified as non violent (n= 75) and 27.9% classified as violent (n = 29). Based on previous offences the participants declared only, 46.2% were classified as non violent (n = 48), 37.5% had violent offences in their history (n = 39) and 16.3% (n = 17) said they had no previous offences apart from their current offence. Taking index offences and previous offending into account 45.6% of the sample can be classified as non violent offenders (n = 47) and 54.4% classified as violent offenders (n= 56).

The participants were serving a range of sentences from 2 months to 300 months, with a mean sentence of 54.6 months. The total length of time participants had served in prisons or young offender institutions over their lifetime ranged from 2 months to 324 months (mean = 57.31 months).

3.2 *The Relationship between bullying and psychological trauma*

Spearman’s rho correlations were run between measures of psychological trauma (the Davidson Trauma Scale (DTS) total scale and sub scale scores) and bullying experienced and perpetrated. These correlations are shown in table 3.2a below.

Table 3.2a – Spearman’s rho correlations between measures of psychological trauma and bullying

	Bullying experienced	Bullying perpetrated
DTS* Intrusion sub scale	.30**	.12
DTS Avoidance sub scale	.30**	.12
DTS Hyperarousal sub scale	.31**	.16
DTS Frequency sub scale	.30**	.16
DTS Severity sub scale	.32**	.13
DTS Total score	.31**	.15

* DTS = Davidson Trauma Scale (Davidson, 1996).

** p<0.01

All of the DTS sub scales were significantly correlated with the level of bullying experienced. However, having experienced bullying and being a perpetrator of bullying were inter correlated (r = 0.52, p<0.01).

3.3 *The effect of post childhood factors*

In this analysis it is important to consider the effect of other traumas which may better account for the psychological trauma scores found in the sample. Post childhood experiences such as being the victim of a serious assault, being in a motor vehicle accident,

being the victim of a rape, suffering a head injury and other experiences which the participant considered to have been traumatic were enquired about in the study.

Non parametric Mann Whitney U tests of difference were performed, as the data is not normally distributed, comparing the group saying they had been assaulted (n = 22, 21.4%) with the non assaulted group (n = 81, 78.6%) on each of the psychological trauma variables. There were no significant differences ($p<0.05$) between the two groups on any of the DTS sub scales or total score (see table 3.3a below).

Table 3.3a – Differences between assaulted and non assaulted groups on measures of psychological trauma

DTS* Scale	Mann whitney U test
DTS Intrusion	U = 812.00, p=0.518
DTS Avoidance	U = 833.50, p=0.642
DTS Hyperarousal	U = 845.00, p=0.709
DTS Frequency	U = 862.50, p=0.818
DTS Severity	U = 802.50, p=0.475
DTS Total	U = 856.50, p=0.781

* DTS = Davidson Trauma Scale (Davidson, 1996).

Non parametric Mann Whitney U tests of difference were performed comparing the group saying they had been in a motor vehicle accident (n = 23, 22.3%) with those who said they had not been (n = 80, 77.7%) on each of the psychological trauma variables. There were no significant differences between the two groups, except on the DTS hyperarousal sub scale ($p=0.04$, see table 3.3b below).

Table 3.3b – Differences between participants involved in an MVA and those not involved in an MVA on measures of psychological trauma

DTS* Scale	Mann whitney U test
DTS Intrusion	U = 834.00, p=0.489
DTS Avoidance	U = 699.50, p=0.079
DTS Hyperarousal	U = 667.50, p=0.044**
DTS Frequency	U = 734.50, p=0.141
DTS Severity	U = 687.50, p=0.065
DTS Total	U = 711.50, p= 0.098

* DTS = Davidson Trauma Scale (Davidson, 1996).

** p<0.05

Statistical tests could not be performed using rape as a variable as none of the sample said they had experienced that trauma.

Non parametric Mann Whitney U tests of difference were performed comparing the group saying they had experienced other traumas (n = 16, 15.5%) with those who said they had not been (n = 87, 84.5%) on each of the psychological trauma variables. There were no significant differences between the two groups, except on the DTS avoidance sub scale (p= 0.039, see table 3.3c).

Table 3.3c – Differences between participants who had experienced other traumas and those who had not on measures of psychological trauma

DTS* Scale	Mann whitney U test
DTS Intrusion	U = 567.50, p=0.235
DTS Avoidance	U = 470.50, p=0.039**
DTS Hyperarousal	U = 563.50, p=0.225
DTS Frequency	U = 568.00, p=0.243
DTS Severity	U = 496.00, p=0.068
DTS Total	U = 531.00, p=0.132

* DTS = Davidson Trauma Scale (Davidson, 1996).

** p<0.05

Non parametric Mann Whitney U tests of difference were performed comparing the group saying they had suffered a head injury (n = 30, 29.1%) with those who said they had not (n = 73, 70.9%) on each of the psychological trauma variables. All of the sub scales of the DTS and total score showed significant differences at the p<0.05 level with the exception of the intrusion sub scale. These results are shown in table 3.3d.

Table 3.3d – Differences between head injured and non head injured groups on measures of psychological trauma

DTS* Scale	Total sample (n = 103) <u>M</u> (SD)	Head injured (n = 30) <u>M</u> (SD)	Non head injured (n = 73) <u>M</u> (SD)	Mann whitney U test
DTS Intrusion	10.71 (11.35)	13.30 (11.98)	9.64 (10.99)	U = 875.00, ns
DTS Avoidance	14.79 (14.53)	18.23 (13.39)	13.38 (14.83)	U = 779.50, p<0.05
DTS Hyperarousal	12.80 (12.13)	16.53 (11.62)	11.26 (12.07)	U = 777.00, p<0.05
DTS Frequency	19.96 (17.65)	24.60 (17.16)	18.05 (17.60)	U = 813.00, p<0.05
DTS Severity	18.42 (17.68)	23.47 (17.32)	16.34 (17.53)	U = 787.50, p<0.05
DTS Total	38.12 (34.93)	47.73 (33.93)	34.17 (34.79)	U = 800.50, p<0.05

* DTS = Davidson Trauma Scale (Davidson, 1996).

3.4 Comparison of Violent and Non Violent Offenders on Measures of Psychological Trauma

As explained earlier, the participants were classified as violent or non violent offenders based on their current offence, their previous offences, and their full declared forensic history. A comparison was made between violent and non violent offenders based on their index offence on DTS sub scales. A non parametric Mann Whitney U test was used to compare the groups. There were no significant differences between the violent and non violent offender groups.

The test was repeated classifying offenders as violent or non violent according to all of the offences they declared. Again there were no significant differences.

3.5 Comparison of Violent and Non Violent Offenders on Measure of Bullying

Violent and non violent offenders (based on current offence) were compared on the number of items they had endorsed on the bullying questionnaire, both for bullying experienced and perpetrated, using a non parametric Mann Whitney U test. There were no significant differences between the two groups. The test was repeated to take into account all offences declared but again there were no significant differences between violent and non violent offender groups.

3.6 Comparison of Violent and Non Violent Offenders on Measure of Attributional Style

Non parametric Mann Whitney U tests were run comparing violent and non violent offenders, as classified by their current offence, on measures of attributional style as measured by the IPSAQ. There was a significant difference ($p < 0.05$) between the offender groups on negative internal attributions, but no significant differences on the other sub scales.

The test was repeated to take into account all offences declared and this showed significant differences between the groups on negative internal attributions and positive personal attributions ($p < 0.05$).

3.7 *The relationship between bullying and attributional style*

Spearman's rho correlations were run between bullying experienced and bullying perpetrated, and the IPSAQ sub scales. These are shown in table 3.7a below.

Table 3.7a – Spearman's rho correlations between IPSAQ sub scales and bullying

IPSAQ* subscale	Bullying experienced	Bullying perpetrated
IPSAQ internal positive sub scale	-0.13	-0.00
IPSAQ internal negative sub scale	0.21**	0.05
IPSAQ personal positive sub scale	0.18	0.00
IPSAQ personal negative sub scale	-0.07	0.01
IPSAQ situational positive sub scale	-0.04	0.04
IPSAQ situational negative sub scale	-0.11	0.13
IPSAQ Externalising Bias	-0.25**	0.02
IPSAQ Personalising Bias	0.02	0.05

* IPSAQ = Internal, Personal and Situational Attributions Questionnaire (Kinderman and Bentall, 1996).

** $p < 0.05$

The amount of 'bullying experienced' items endorsed correlated significantly with internal negative attributions, that is the extent to which people attribute negative events to their own actions or characteristics. Bullying experienced was also significantly negatively correlated with externalising bias. This suggests that the group of participants who had experienced bullying were not displaying the tendency to blame themselves less for negative events than for positive ones. The level of bullying perpetrated did not show such a relationship despite the intercorrelation between the levels of bullying experienced and perpetrated. This suggests that the relationship between bullying experienced and trauma is specific to victimisation, and not just associated with bullying generally. This is further explained in the following discussion section.

4.0 Discussion

4.1 Summary of Results

Relationship between bullying and the variables in the study

This study has shown that the experience of being bullied is related to trauma symptoms. There was an association between all of the sub scales of the Davidson Trauma Scale and the level of bullying experienced. The level of bullying perpetrated did not show such a relationship despite the intercorrelation between the levels of bullying experienced and perpetrated. This suggests that the relationship between bullying experienced and trauma is specific to victimisation, and not just associated with bullying generally. This supports Weaver's (2000) proposal that bullying can precipitate trauma symptoms, and indeed PTSD.

This finding is also supportive of the research with children which suggests that the experience of being bullied is detrimental to children's mental health (Sharp, 1995; Beane, 1998; Gagnon, 1991). This finding is interesting as it applies only to people who have been victimised and does not correlate with perpetration of bullying. Research to date has indicated poor life outcomes for bullies but has not fully considered the longer term outcomes for victims (Farrington, 1991, 2001). As few participants in the study fell into the sole category of either bully or victim, this finding also suggests that individuals who are both victim and perpetrator are at even higher risk of poorer outcomes (Gagnon, 1991; Bernstein and Watson, 1997). This further highlights the need for early intervention to prevent bullying.

Other traumas which participants may have suffered were enquired about in the study as participants could have suffered traumas since childhood which may have accounted for the levels of trauma found. However, the intervening traumas which participants declared did not show the same relationships with measures of trauma as the experience of bullying did. The other traumas showed relationships with specific subscales of the trauma measure, but not the overall correlations with all of the sub scales and total score of the DTS found with the level of bullying experienced. This implies that the finding of a link between the experience of bullying and trauma is more robust.

However, the trauma scores of the participants declaring a head injury were significantly different from those of the non head injured group, with the head injured participants scoring higher on all measures except the intrusion sub scale. This is an interesting finding which is consistent with the idea that PTSD can be precipitated by threats to life and that the more serious the injury, the more likely the person is to perceive such a threat.

The finding that intrusions were not significantly different between the head injured and non head injured groups could be explained by a loss of consciousness at the time of the head injury meaning there were fewer images for the person to re-experience. This is conjecture however, as we have no detail in this study as to the nature, seriousness or circumstances of the injuries which people claim to have suffered. This would be an interesting avenue for future research.

It would also be interesting to examine the relationship between head injury, trauma and violence. This is not possible to do with the current data due to the way in which the data was collected but given what we know about the impact of frontal lobe damage in particular and disinhibition and aggression it may be interesting to consider the combined effect of trauma and such an injury on behaviour, in particular violence. Future studies could perhaps include a neuropsychological component to their investigation.

In terms of attributional style, being a perpetrator of bullying had no relationships with any particular style as measured by the IPSAQ. The level of bullying experienced however, correlates with the number of internal negative attributions made and is negatively correlated with externalising bias. This suggests that individuals who have experienced victimisation have a tendency to consider that negative events are their fault (Kinderman and Bentall, 1997). This is contrary to the findings of previous research that aggressive children have a hostile world view (Dodge, 1980; Dodge et al, 1990) and indicates that the opposite is true, that people who have been victimised blame themselves for negative events in their lives.

Violent offending was not related to either level of trauma, or level of bullying experienced. However, neither was violent offending related to the level of bullying perpetrated. This is again contrary to previous research showing that bullies are often offenders in later life (Farrington, 1991; Loeber, 1990). It could be that their offending is not exclusively violent in nature, and related simply to number of convictions for any offence. The relationship between these variables seems complex and future research could be directed at disentangling this relationship.

In terms of attributional style there were differences between violent and non violent offenders in their level of internal negative attributions (using current offence and all offences declared to classify offenders) and personal positive attributions (using all offences declared). The participants classified as violent offenders endorsed more of the internal negative attributions than non violent offenders, and endorsed fewer of the personal positive attributions. This is consistent with the findings for the participants who had experienced bullying indicating that both violent offenders and individuals who have experienced bullying have a tendency to attribute negative events to their own actions.

Violent offenders perhaps view the world in a hostile manner interpreting negative situations as somehow caused by them and they attribute fewer positive situations to the actions of other people. It is possible that this could arise from the experience of peer victimisation as a child experiencing bullying could believe that they somehow brought it on themselves. This view could have been reinforced by other people such as the bullies explaining their behaviour as related to some characteristic of the victim, and by adults suggesting that the child 'stick up for themselves' perhaps insinuating that the child should have been able to prevent their own victimisation.

4.2 Methodological Recommendations for Future Studies

Being the first study to consider this particular aspect of bullying and trauma in this population, some of the methodological criticisms which could be levelled at the study, whilst valid were unavoidable both due to the availability of resources and the constraints of carrying out research within the limitations of conducting a study for the requirements

of a Doctorate in Clinical Psychology. The criticisms are set out below along with some suggestions for improvements for future research designs.

The selection of a self report questionnaire design was chosen primarily on pragmatic grounds, as the issues under consideration required the completion of multiple measures and the data would have been extremely difficult to gather using any other methodology. Connell and Farrington (1996, p.76) concede that the popularity of the self report method "is partly attributable to its ease of use and efficiency in data collection." However, despite the criticisms levelled at questionnaire designs, they may allow participants to respond in a less socially desirable manner than an individual interview may, particularly if anonymity and confidentiality are assured, as they were in this study. Ahmad and Smith (1990, cited in Connell and Farrington, 1996) argued that self report questionnaires were a more valid method of data collection than individual interviews, or teacher and peer nominations when enquiring about bullying.

There are some questions however, about the conducting questionnaire administration in groups. This is of course an efficient way of collecting data, but may threaten participants sense of anonymity and confidentiality and thus affect their responding. Connell and Farrington (1996) conducted two pilot studies and concluded that the anonymous, group administered, self completed questionnaire design has problems and recommended individual interviews as a way of obtaining more complete and valid data.

The generalisability of the findings of this study could be questioned due to the inclusion of only one prison in the research. Originally ten institutions were approached for inclusion in the study but some declined or felt they did not have the resources to support the study being conducted in their establishment. In order to improve the generalisability of the findings, the research sample would need to include participants incarcerated in several different institutions. This would allow inclusion of inmates held in differing levels of security and who had committed a greater variety of offences. The sample included 27.9 per cent who were classified as violent offenders. This proportion may be increased in the sample were a prison included in the study which housed inmates requiring higher levels of security, as violent offenders are more likely to be deemed to need such conditions.

Despite the assurances given to participants about their anonymity and confidentiality, there are power relationships at play when conducting a study in a prison setting. During the groups which were run for data collection, the researcher was accompanied by a member of prison staff for security reasons. There is always the possibility therefore that although participants were requested to complete the questionnaires as truthfully as possible the honesty of responding could be questionable in some cases (Ireland and Ireland, 2000).

There are also problems inherent in employing a retrospective design, the most obvious of which is the questionable nature of people's recollections. As Marshall (1996) comments, there has been much debate about the general reliability and validity of retrospective studies. However, Brewin et al (1993, cited in Marshall, 1996) reviewed the literature and concluded that adults' recollections of salient details of their childhoods are generally accurate. Indeed some authors have concluded that retrospective designs can be advantageous when dealing with sensitive issues and produce more accurate results than contemporaneous studies as children are unlikely to disclose current abuse (Bifulco et al, 1993 cited in Marshall, 1996).

There is also the possibility with retrospective studies, that the participants' perception of events as an adult may differ from how they experienced events as a child. They may no longer classify their experience as bullying as their intervening experience may overshadow the bullying in seriousness and be seen as minor despite being experienced as bullying at the time. The measure selected to measure bullying was chosen in order to try and minimise this effect as much as possible as the checklist format of the questionnaire avoids the participant having to decide on what they consider to be bullying by operationalising behaviours for participants to endorse. Ireland (1999a) suggests that behavioural checklists may be the most reliable and valid measure of bullying, and this may be particularly true in a retrospective study such as this due to the compounded problem of intervening time since the events.

Intervening traumas are an important consideration in any study which attempts to look at the traumatic impact of past events. This is particularly the case in this study as the experiences which are under consideration as potential traumatic stressors would have occurred in childhood (Briere and Elliott, 1997). Obviously, the participants have many

years of intervening experiences some of which may also have been traumatic. Briere and Elliott (1997, p.354) point out this problem stating that the “central problem in the psychological measurement of victimized individuals is that of connecting a specific symptom pattern to a specific event, given that many victims have experienced multiple traumas.” This is particularly pertinent given our knowledge that victimisation is often a risk marker for future victimisation (Briere and Elliott, 1997).

Under and over representation of symptoms may also occur when participants are reporting traumatic symptoms (Briere and Elliott, 1997). Under reporting may occur because they do not wish to present themselves as ‘mental’ or struggling in any way psychologically. Denial and other cognitive avoidance strategies may be at play in the individual also leading to under reports (Briere and Elliott, 1997). The opposite may be true where inmates over report symptoms in order to gain a transfer to the hospital wing, or out of prison to hospital. However, false reports of victimisation related symptoms are relatively rare where there is no claim for compensation pending (Briere and Elliott, 1997).

With a participant group of prison inmates, issues are further complicated by several factors. There is evidence that the commission of crimes can in themselves be traumatic (Pollock, 2000; Spitzer et al, 2001). Perpetrators of murder and those involved in, or witnessing violent crimes have been found to report posttraumatic symptoms (Spitzer et al, 2001; Pollock, 2000). The levels of post traumatic stress disorder in criminal offenders has been said to exceed the estimated levels in the general population (Spitzer et al, 2001) and a substantial proportion of offenders experience severe traumatization and develop PTSD (Spitzer et al, 2001).

Offenders who participated in this study reported several different types of traumatic experience such as involvement in motor vehicle accidents, suffering head injuries, witnessing violence, murder and deaths by other means. Some reported aspects of their offences as traumatic and others considered receiving their sentence, or their subsequent incarceration traumatic, as was the enforced separation from children and loved ones. Bullying in prisons (Ireland, 1999a, 1999e, 2000) and other experiences in custody also cannot be ruled out as potentially traumatising experiences. For these reasons, the conclusions drawn from the data in this study have to be qualified as any relationship

between experience of bullying and trauma symptoms cannot be assumed to be causal, or direct due to the potential intervening factors.

There are some potential flaws with the use of the measures in this study. The measure of trauma symptoms used, although the most appropriate questionnaire for use in this study due to its validation with clients who had suffered sexual and physical assault, has not been validated for use with victims of bullying. If further support is gained for the idea that bullying is traumatic, a useful development would be to validate a trauma measure on victims of bullying.

It is also possible that trauma measures are not sensitive enough, and do not deal with a long enough time scale to assess trauma symptoms which are related to experiences many years in the past. The Trauma Symptom Inventory claims to be able to assess for past events and multiple traumas, but was not used in this study as it had not been validated with assault victims. A further development in the research may be to compare measures on their sensitivity when inquiring about historical traumatic events.

The Internal, Personal and Situational Attributions Questionnaire also presented some problems in its use with this population. The questionnaire had previously been used with paranoid and depressed patients (Kinderman and Bentall, 1997) suggesting that it would be comprehensible for prison inmates who were not suffering any mental illness. The questionnaire has not been previously used in any studies with prison inmates in the sample. It therefore does not have any norms for this population. Future research may usefully extend the range of populations with which this questionnaire is validated for use.

The pilot study described earlier was run in order to eliminate as many problems as possible prior to the main study but this took place in a probation hostel where the residents were living in the community, although with a degree of supervision. The participants of the study in the prison found some of the items in the IPSAQ difficult to answer given their incarceration. To give an example, one item reads "A friend gives you a lift home" and participants commented that this was outside their current range of experience as unless they were escaping they were unlikely to be offered a lift anywhere. Some participants seemed to struggle to imagine events happening if they had not directly experienced them.

Another comment made about the negative items on the questionnaire relates to the phrasing of the items. All items of the IPSAQ begin "A friend...". Participants reading negative items often commented that the person would not be their friend if they did that, or that their friends wouldn't do that in the first place. Again participants seemed to struggle at times with the hypothetical nature of the items in the questionnaire.

The questionnaire from which the bullying measure in this study was derived, was developed from a questionnaire used in prison service establishments. Checklists of its type are considered to be valid and reliable indicators of bullying (Ireland, 1999e). The Direct and Indirect Prisoner behaviour Checklist (DIPC) has face and content validity (Ireland, 2000b), qualities which are likely to extend to the revised version used in this study. The measure also produces similar findings across different populations with regard to the nature and extent of bullying (Ireland, 2000b). However, these psychometric properties have not been tested in the revised version produced for this study (Direct and Indirect Bullying behaviour Checklist (DIBC)). A study of the psychometric properties of the DIBC would be a useful development. The test-retest validity could be considered. A longitudinal study could also be considered which would test the validity of the measure and would also address some of the criticisms of a retrospective study design.

This is also true of the whole study design. The only truly satisfactory means of studying the effect of childhood factors into adulthood is through the use of a longitudinal design (Bowman, 1999) despite the expense and time consuming nature of such studies. Hodges and Perry (1999) claim that currently the absence of such studies seriously limits the conclusions which can be drawn from current research. They found only three published studies which examined longitudinally the consequences of peer victimisation.

Boney-McCoy and Finklehor (1996, p.1407) support the use of a longitudinal prospective design which they claim could evaluate the "independent contribution of child victimisation to subsequent symptoms without confounding reports of prior symptoms and family functioning." More recently, Farrington (2001) also calls for prospective surveys to identify early risk factors for offending, one of which may be peer victimisation.

4.3 *Implications of the Study*

Although the findings of the study are qualified by the methodological concerns outlined above, there are still implications for clinical practice and interventive programmes to reduce some of the potential impacts of experiencing bullying. With the advent of Youth Offending Teams and the recent government focus on prevention of youth crime, the opportunities for intervention are greater than they have been previously.

This study shows a clear relationship between the level of bullying experienced and symptoms of trauma displayed in adulthood. Although we cannot infer causality from this result, the relationship suggests that there is something about the experience of victimisation which relates to that psychopathology. This has implications for our approach to trauma symptoms both in terms of assessment, treatment and prevention. It is possible that detecting early symptoms which may be indicators of chronic psychopathology, such as perhaps the experience of bullying may enable mental health providers to detect and intervene with individuals who may be at risk of developing PTSD or experiencing chronic symptoms (Gore-Felton, Gill, Koopman and Spiegel, 1999).

Those working with both children and adults should consider the impact of bullying when assessing their mental health and well being. Currently, asking about bullying does not constitute a routine enquiry in most clinician's assessments. However, as the experience of bullying is associated with aggressive behaviour, questions about children's experience of bullying should be included in the assessment process when children present with offending or aggressive behaviours. The same is true when children are refusing to attend school, and trauma symptoms should also be considered as part of this process as they may be contributing to a child's increased sense of threat and anxiety.

Considering bullying to be a traumatic event would also be a shift in thinking about what constitutes trauma and could contribute to the development of mental health difficulties. There is case study (Weaver, 2000) and anecdotal evidence that bullying can relate to trauma symptoms and other forms of psychopathology (such as delusions) but the research so far has not considered this possibility. It may be useful for future research to further consider the longer term and mental health effects of the experience of bullying given the preliminary findings of this study. Boney-McCoy and Finkelhor (1996, p.1416)

comment that because victimization appears to have an impact on children “it should be a target of prevention and intervention efforts aimed at maintaining and improving the mental health of youths.”

A focus of prevention could of course be to attempt to stop the bullying in childhood and hence prevent the experience and thus the distress of victims. Olweus (1993, p.338), one of the only researchers to consider the longer term effects of bullying on victims states the urgency of prevention and intervention “not only to stop current suffering of the victims but also because of the long term sequelae for these individuals.” His finding of long term effects of bullying is supported by the results of this study.

These intervention and prevention efforts would need to be directed not only at victims however as any therapeutic efforts and intervention programmes have been in the past (such as social skills training for victims). As Roberts and Morotti (2000) point out, there are at least two people involved in a bullying interaction and therefore both sides of this dyad need to be addressed. This is a particularly the case when we consider the research on intergenerational transmission of bullying. Baldry and Farrington (1998) found that boys who were bullies at 14 years of age tended to have children who were also bullies. Thus intervention to prevent bullying which attempts to look at both the victims and the bullies is likely to prevent distress not only to the children currently involved but also for potential future bullies and victims. It certainly seems possible to offer intervention to schools to prevent bullying with effective results (Lane, 1992; Smith and Brain, 2000; Olweus, 1992).

Given the results of this study finding that most of the offenders who had been victims of bullying has also been perpetrators of bullying, prevention efforts may also address some of the other behaviours which have been associated with being a bully in childhood, such as juvenile delinquency and criminal behaviour. Early prevention makes logical and economic sense. Connell and Farrington (1996, p.78) summarise this view saying that “school bullying is potentially more controllable than offending in the community” and that it is “easier to implement and evaluate bullying prevention programmes in schools than more general crime prevention programmes in the community.” Again there is evidence of the efficacy of such early intervention. Loeber and Farrington (1998, p.xxii)

state in their review that “early intervention in childhood and early adolescence can reduce the likelihood of young at-risk juveniles becoming serious and violent juvenile offenders”

It would seem that if psychologists and other professionals have the expertise and knowledge to do so, early intervention to prevent current bullying, current and future distress and offending is the ethically responsible thing to do. However, more research would be needed to establish a sound evidence base for the long term effects of bullying on victims mental health and life outcomes such as offending and violence.

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List of Appendices

- 1 - University of Leicester Ethical approval form
- 2 - List of offences and their violent / non violent categorisation
- 3 - Letter of invitation to participants
- 4 - Instructions to participants
- 5 - Demographic questionnaire
- 6 – Davidson Trauma Scale (DTS, Davidson 1996)
- 7 – Direct and Indirect Bullying behaviour Checklist (DIBC) Questionnaire
- 8 – Internal, Personal and Situational Attributions Questionnaire (IPSAQ, Kinderman and Bentall, 1996)
- 9 - Order of questionnaire administration
- 10 - Debrief sheet
- 11 - DTS bullying correlations table
- 12 - IPSAQ bullying correlations table

Ethics Monitoring Form

All research and practical exercises undertaken by staff and students of the Department of Psychology must be routinely monitored for their ethical acceptability. This will be done with reference to the Code of Conduct and Ethical principles of the British Psychological Society.

1. Proposer: LEAH REISALE
2. Status (Staff) or Year/Course and Address (Student): SECOND YEAR, D CLIN PSY
C/O CENTRE FOR APPLIED PSYCHOLOGY (CLINICAL SECTION)
3. Name of Supervisor (if appropriate): DR JC LEWIS
4. Title of Proposed Project: CAUTIONED EXPERIENCES OF BULLYING: THEIR TRAUMATIC IMPACT AND REACTION TO THE VIOLENT OFFENDING
5. Brief Summary of Experiment (Please use the space below to describe the project, refer to the nature of the subjects and the focus and method of research. Indicate ways in which ethical objections will be met, if relevant, and indicate the room(s)/premises in which the research will be conducted); please use an additional sheet if necessary.
SEE ATTACHED RESUME

6. Has this project received prior approval by another Ethics Monitoring body? If so, which?:

NO BUT SUBMITTED TO - HPL REASON SERVICES PSYCHOLOGICAL
- CLINICAL SECTION RESEARCH SUB COMMITTEE
- LEICESTERSHIRE + RUTLAND NHS TRUST R&D FOR RESEARCH AND CURE

7. Key areas of Ethical Concern

Please circle the relevant response. If a circle appears in the right hand column provide an explanatory note in Section 5, together with any special precautions that are proposed, permissions obtained, etc.

Will the research involve any of the following populations?

Animals

Yes

Persons under the age of 16 years

Yes

Persons with Special Needs

Yes

Persons with mental disorders

Yes

Persons disadvantaged in any way

Yes

Detained persons

Yes

Will some sort of deception be practised?

No

Yes

Most psychological studies involve a mild form of deception, inasmuch as subjects are usually unaware of the hypothesis being tested. Deception becomes unethical if it is such that participants may feel upset, angry or humiliated when the deception is revealed to them.

Will a full debriefing be given to subjects, if requested, subsequent to the work being completed?

Yes

No

Will subjects be informed of their right to withdraw from the study at any point?

Yes

No

Will research records remain confidential to the researcher concerned?

Yes

No

Will research involve invasive procedures or the ingestion of drugs or chemical substances?

No

Yes

Are there any other matters which might arouse ethical concern to which the Committee's attention should be drawn?

No

Yes

Have you read the Ethical Principles document issued by the British Psychological Society?

Yes

No

When working with persons under 16 years of age it is essential that experimenters are accompanied. You must ensure that schools obtain parental consent before working with their children.

Signature of experimenter: *Paula H. Evans*

Date:

Comments/precautions required by the Departmental Ethics Committee:

Confidentiality of questionnaire will be safeguarded (pursuant to ethical clearance)

Approval given to this project by:

Date:

[Signature]
21/10/15

2 – List of offences of participants in this study and their violent/non violent categorisation

Index offences of participants in this study

Offence	
Driving whilst disqualified	Non violent
Murder	Violent
Possession of class A drugs	Non violent
Supplying class A drugs	Non violent
Grievous bodily harm (GBH)	Violent
Fraud	Non violent
Theft	Non violent
Robbery	Violent
Wounding	Violent
Commercial burglary	Non violent
Burglary (dwelling)	Non violent
Carrying an offensive weapon	Non violent
Handling stolen goods	Non violent
Assault	Violent
Actual bodily harm (ABH)	Violent
Criminal damage	Non violent
Armed robbery	Violent
Kidnapping	Violent
Arson	Violent
Manslaughter	Violent
Perverting the course of justice	Non violent
Taking a motor vehicle without consent (TWOC)	Non violent
Aggravated TWOC	Violent

3 – Letter of invitation to Participants

Dear Inmate,

I am a Trainee Clinical Psychologist at the University of Leicester. I am studying for a doctorate degree and for this degree I am carrying out a research project.

I am writing to ask you for your help with this project. Your participation would take about an hour and I will be asking you to complete some questionnaires.

The research is completely separate from the prison service. Your answers will be **anonymous** and **confidential**. They will only be seen by myself and you will meet me on the day you complete the questionnaires.

I would be grateful for your help but if you decide not to participate this will not have any implications for you.

I hope you will feel able to participate and I look forward to meeting you later in the month.

Yours sincerely,

Luan Pessall
Trainee Clinical Psychologist

4 – Instructions to Participants

Dear Participant,

Many thanks for agreeing to participate in this study which I am conducting for my doctorate degree in Clinical Psychology. Your help is very much appreciated. *Please read this letter carefully* as it contains some important information for you.

- By taking part in this study, you will be helping me to find out about trauma, bullying and offending.
- Your participation in this study is **voluntary**. You are not obliged to take part.
- You may decide not to continue at any time.
- The questions are not a test. I am interested in what you have to say.
- **There are no right or wrong answers.**
- Your answers are **confidential**. I will not show them to anybody in this Prison.
- Your answers are **anonymous**. There is a number on the top of all your questionnaires. This number does not identify you, it just allows me to match your questionnaires together.
- This study is for my degree at University. This is **separate from the Prison Service** and your participation has no effect on your sentencing, parole or treatment whilst in prison.
- **Please ask** if there is anything you do not understand, either in the group, or later individually.
- After you have completed the study you will be given a sheet of information which you may find helpful.

Thanks again for your help

Luan Pessall
Trainee Clinical Psychologist

PLEASE ANSWER THE FOLLOWING QUESTIONS:

How long are you serving?

Please estimate the TOTAL length of time you have spent, throughout your lifetime, in a HM Prison/YOI (including the length of time you have served for your present sentence)
.....

How old are you?

What offence are you serving for (main offence)?
.....

What other offences have you been convicted of?
.....

What is your ethnic origin (please circle):

White West Indian/Afro-Caribbean Asian Mixed

Other (please specify):

What is your highest level of education ? (Please circle)

NVQ GCSEs A levels No qualifications

Degree Postgraduate qualifications

Other (please specify):

Have you ever been treated for any psychiatric problems ? (Please circle)

YES NO Decline to answer

Are you currently being treated for any psychiatric problems ? (Please circle)

YES NO Decline to answer

Have you suffered any of the following since the age of 16 ? (Please circle)

Been the victim of serious assault Been involved in a serious road accident

Suffered a head injury Been the victim of a rape

Other incident you consider to be traumatic (Please specify)

6 – Davidson Trauma Scale (DTS)

DAVIDSON TRAUMA SCALE

by Jonathan R.T. Davidson, M.D.

Name: _____

Age: _____

Sex: ☐ Male ☐ Female

Date: _____/_____/_____

Please identify the trauma that is most disturbing to you.

Each of the following questions asks you about a specific symptom. For each question, consider how often in the last week the symptom troubled you and how severe it was. In the two boxes beside each question, write a number from 0 - 4 to indicate the frequency and severity of the symptom.

FREQUENCY

0 = Not At All

1 = Once Only

2 = 2-3 Times

3 = 4-6 Times

4 = Every Day

SEVERITY

0 = Not At All Distressing

1 = Minimally Distressing

2 = Moderately Distressing

3 = Markedly Distressing

4 = Extremely Distressing

1. Have you ever had painful images, memories, or thoughts of the event?

2. Have you ever had distressing dreams of the event?

3. Have you felt as though the event was recurring? Was it as if you were reliving it?

4. Have you been upset by something that reminded you of the event?

5. Have you been physically upset by reminders of the event? (This includes sweating, trembling, racing heart, shortness of breath, nausea, or diarrhea.)

6. Have you been avoiding any thoughts or feelings about the event?

7. Have you been avoiding doing things or going into situations that remind you of the event?

8. Have you found yourself unable to recall important parts of the event?

9. Have you had difficulty enjoying things?

10. Have you felt distant or cut off from other people?

11. Have you been unable to have sad or loving feelings?

12. Have you found it hard to imagine having a long life span and fulfilling your goals?

13. Have you had trouble falling asleep or staying asleep?

14. Have you been irritable or had outbursts of anger?

15. Have you had difficulty concentrating?

16. Have you felt on edge, been easily distracted, or had to stay "on guard"?

17. Have you been jumpy or easily startled?

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Page 86

The following questionnaire is split into 2 sections:

- The first asks you about things that have happened to you in your youth.
- The second section asks about things that you have done in your youth.

The questionnaire is completely anonymous – your name or number will not be recorded on the form. There is a participant number to allow me to match this questionnaire with the others you fill in, but you cannot be identified from this. Please answer **all** the questions as honestly as possible. No-one will come back to ask you about the things you have written. I will be the only one to see your responses.

If you have any difficulties in reading/writing please don't hesitate to ask for help.

Thank you for your assistance in completing this questionnaire.

This form asks you about two things ...

- and
1. things that have happened to you in your youth
 2. you have done in your youth

Please answer all questions as honestly as possible – you will not be identified on the form. All replies are completely anonymous.

1. Think back over your youth and put a tick in the box against the things that have happened to you.

1. ☐ I was told I did well at something.
2. ☐ I was shouted at by another pupil.
3. ☐ I was asked to bring drugs into the school.
4. ☐ I was hit or kicked by another pupil.
5. ☐ A pupil physically threatened me with violence.
6. ☐ I was called names about my race or colour.
7. ☐ I was called names about something else.
8. ☐ I have been gossiped about.
9. ☐ I have had my property deliberately damaged.
10. ☐ Someone started a fight with me.
11. ☐ I stopped someone from bullying me.
12. ☐ I have been deliberately ignored.
13. ☐ A teacher talked to me about my bullying behaviour.
14. ☐ I had some food stolen.
15. ☐ I had any property stolen by another pupil.
16. ☐ I was offered drugs.
17. ☐ I was sold drugs.
18. ☐ I was protected by another pupil.

- 19 ☐ I made friends with another pupil.
- 20 ☐ I have been helped with problems by a teacher.
- 21 ☐ I was deliberately frightened by another pupil.
- 22 ☐ I have been sexually abused/assaulted.
- 23 ☐ Someone has forced me to take drugs.
- 24 ☐ I have been intimidated.
- 25 ☐ I have had rumours spread about me.
- 26 ☐ A pupil abused my family.
- 27 ☐ Someone has deliberately lied about me.
- 28 ☐ I have been made fun of.
- 29 ☐ I have been disciplined at school.
- 30 ☐ I have been forced to lie for someone.
- 31 ☐ Someone has tried to turn other pupils against me.
- 32 ☐ Someone has deliberately insulted me.
- 33 ☐ I have had a practical joke played on me.
- 34 ☐ I have been verbally threatened by a pupil.
- 35 ☐ I have been sexually harassed.
- 36 ☐ Another pupil has forced me to swap some of my property with them.
- 37 ☐ I borrowed from others and must pay them back with 'interest'.
- 38 ☐ I have been forced to buy food for someone.

2. Think back over your youth and put a tick in the box against the things that you have done.

1. ☐ I have been to work or education.
2. ☐ I have attended a course.
3. ☐ I have refused an order from a member of staff at school.
4. ☐ I have taxed another pupil.
5. ☐ I deliberately damaged someone else's property.
6. ☐ I have called someone names about their colour or race.
7. ☐ I have called someone any other names.
8. ☐ I have forced someone to take drugs.
9. ☐ I have forced someone to lie for me.
10. ☐ I have abused another pupil's family.
11. ☐ I have hit or kicked another pupil.
12. ☐ I have physically threatened another pupil with violence.
13. ☐ I have broken up a fight.
14. ☐ I have intimidated someone.
15. ☐ I helped a new pupil in school.
16. ☐ I bought or sold any drugs.
17. ☐ I smoked cannabis.
18. ☐ I have taken any drugs other than cannabis.
19. ☐ I have injected any drugs.
20. ☐ I have spread rumours about someone.
21. ☐ I have cut myself.
22. ☐ I have deliberately ignored someone.
23. ☐ I have threatened to harm myself.
24. ☐ I have cried.
- ☐

25. I have stolen another pupil's food/cigarettes.
- 26 ☐ I have stolen any other property from another pupil.
- 27 ☐ I have deliberately lied about someone.
- 28 ☐ I have picked on another pupil with my friends.
- 29 ☐ I have been abusive to a member of staff at school.
- 30 ☐ I have hit or kicked someone after they have called me names.
- 31 ☐ I have sexually abused/assaulted someone.
- 32 ☐ I have tried to help someone with their problems.
- 33 ☐ I have forced another pupil to swap some of their property with me.
- 34 ☐ I have tried to frighten another pupil.
- 35 ☐ I have gossiped about another pupil.
- 36 ☐ I have told a teacher that I am being bullied.
- 37 ☐ I have tried to get moved to another school/class.
- 38 ☐ I have defended myself against another pupil.
- 39 ☐ I have stayed in my classroom when I could be out.
- 40 ☐ I have started a fight.
- 41 ☐ I have verbally threatened another pupil.
- 42 ☐ I have made fun of another pupil.
- 43 ☐ I made new friends.
- 44 ☐ I have encouraged others to turn against another pupil.
- 45 ☐ I have deliberately insulted someone.
- 46 ☐ I have played a practical joke on someone.
- 47 ☐ I have sexually harassed someone.
- 48 ☐ I have told another pupil that I was being bullied.
- 49 ☐ I have given items to others and asked them to pay me back with 'interest'.

50 ☐

I have forced someone to buy me food.

If you have any comments which you would like to add, or anything which you believe that this questionnaire has missed, please feel free to write them below in the space provided.

I.P.S.A.Q.

INSTRUCTIONS

Please read the statements on the following pages. For each statement please try to vividly imagine that event happening to you. Circle the appropriate letter (a,b or c) according to whether the cause is :

- a) Something about you
- b) Something about another person (or a group of people)
- c) Something about the situation (circumstances or chance)

It might be quite difficult to decide which of these options is exactly right. In this case, please pick **one option**, the option which **best** represents your opinion. Please pick **only one** letter in each case.

Thank you for your time and co-operation.

1. A friend gave you a lift home.

What caused your friend to give you a lift home?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

2. A friend talked about you behind your back.

What caused your friend to talk about you behind your back?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

3. A friend said that he(she) has no respect for you.

What caused your friend to say that he(she) has no respect for you ?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

- 4. A friend helped you with the gardening.**
What caused your friend to help you with the gardening?
- Is this :
- a. Something about you ?
 - b. Something about the other person or other people ?
 - c. Something about the situation (circumstances or chance) ?
- 5. A friend thinks you are trustworthy.**
What caused your friend to think you are trustworthy?
- Is this :
- a. Something about you ?
 - b. Something about the other person or other people ?
 - c. Something about the situation (circumstances or chance) ?
- 6. A friend refused to talk to you.**
What caused your friend to refuse to talk to you?
- Is this :
- a. Something about you ?
 - b. Something about the other person or other people ?
 - c. Something about the situation (circumstances or chance) ?
- 7. A friend thinks you are interesting.**
What caused your friend to think you are interesting?
- Is this :
- a. Something about you ?
 - b. Something about the other person or other people ?
 - c. Something about the situation (circumstances or chance) ?
- 8. A friend sent you a postcard.**
What caused your friend to send you a postcard?
- Is this :
- a. Something about you ?
 - b. Something about the other person or other people ?
 - c. Something about the situation (circumstances or chance) ?

9. A friend thinks you are unfriendly.

What caused your friend to think that you are unfriendly?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

10. A friend made an insulting remark to you.

What caused your friend to insult you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

11. A friend bought you a present.

What caused your friend to buy you a present .

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

12. A friend picked a fight with you.

What caused your friend to fight with you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

13. A friend thinks you are dishonest.

What caused your friend to think you are dishonest?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

14. A friend spent some time talking to you.
What caused your friend to spend time talking with you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

15. A friend thinks you are clever.
What caused your friend to think you are clever?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

16. A friend refused to help you with a job.
What caused your friend to refuse to help you with the job?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

17. A friend thinks you are sensible.
What caused your friend to think that you were sensible?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

18. A friend thinks you are unfair.
What caused your friend to think that you are unfair?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

19. A friend said that he(she) dislikes you.

What caused your friend to say they dislike you ?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

20. A friend rang to enquire about you.

What caused your friend to ring to enquire about you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

21. A friend ignored you

What caused your friend to ignore you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

22. A friend said that she(he) admires you.

What caused your friend to say that she(he) admired you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

23. A friend said that he(she) finds you boring.

What caused your friend to say that he(she) finds you boring?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

24. A friend said that she(he) resents you.
What caused your friend to say that she(he) resents you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

25. A friend visited you for a friendly chat.
What caused your friend to visit you for a chat?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

26. A friend believes that you are honest
What caused your friend to believe that you are honest?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

27. A friend betrayed the trust you had in her.
What caused your friend to betray your trust?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

28. A friend ordered you to leave.
What caused your friend to order you to leave?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

29. A friend said that she(he) respects you.

What caused your friend to say that she(he) respects you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

30. A friend thinks you are stupid.

What caused your friend to think that you are stupid?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

31. A friend said that he(she) liked you.

What caused your friend to say that he(she) liked you?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

32. A neighbour invited you in for a drink.

What caused your friend to invite you in for a drink?

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

Thanks again for completing this questionnaire

9 – Order of questionnaire administration

Day	First	Second	Third	Fourth
One	Demographic	IPSAQ	DIBC	DTS
Two	DIBC	IPSAQ	DTS	Demographic
Three	IPSAQ	DIBC	Demographic	DTS
Four	DTS	Demographic	IPSAQ	DIBC
Five	Demographic	IPSAQ	DTS	DIBC

Dear Participants,

Thank you very much for participating in this study. Taking part in this study will help us understand more about the effects of bullying and find ways of helping victims. Below is some information about bullying. I have included telephone numbers that you could use if you wanted to talk to someone about the way you feel.

Bullying is a common problem. It is estimated that about 1 in 8 school children report being bullied or witnessed bullying. Other children suffer in silence.

Emotional effects of bullying include a range of negative emotions and reactions, experienced at different times of one's life. Some people feel sad, angry, scared, guilty or ashamed. Some think "It's not fair", some say "I can't believe it happened to me", some believe that they deserved it. Others blame themselves or see themselves as "weak". Some people fight back, hurt others, or become bullies themselves.

However, not everybody who has been bullied suffers long lasting psychological problems. Some people who suffer learn to cope with it and lead happy lives. If you feel the need to talk to somebody, here are some organisations which may be helpful....

Childline 0800 11 11 Freepost 11 11, London N1 0BR
24 hour helpline

Anti bullying campaign 0171 378 1446

Victim Support 0845 30 30 900
For victims of any type of crime.

Healthpoint 0800 66 55 44 (Freephone)
For information about any physical or mental health difficulties.

The Samaritans 0345 90 90 90 (Local call rate)
Available 24 hours to listen to anyone in distress, no matter what their worries.

Thanks you again for your help.

Luan Pessall
Trainee Clinical Psychologist

Table A11 – Correlations between Davidson Trauma Scale sub scales and measures of bullying received and perpetrated

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) DTS Intrusion sub scale	1.00							
(2) DTS Avoidance sub scale	.77**	1.00						
(3) DTS Hyperarousal sub scale	.73**	.80**	1.00					
(4) DTS Frequency sub scale	.87**	.93**	.91**	1.00				
(5) DTS Severity sub scale	.89**	.93**	.89**	.95**	1.00			
(6) DTS Total score	.89**	.94**	.92**	.99**	.98**	1.00		
(7) DIBC bullying experienced	.30**	.30**	.31**	.30**	.32**	.31**		
(8) DIBC bullying perpetrated	.12	.12	.16	.16	.13	.15		

** p<0.01

Table A12 – Correlations between Internal, Personal and Situational Attributions Questionnaire (IPSAQ) sub scales and measures of bullying received and perpetrated (Direct and Indirect Bullying behaviour Checklist (DIBC) scores)

	(1)	(2)	(3)	(4)	(5)
(1) DIBC*** bullying experienced	1.00				
(2) DIBC bullying perpetrated	.52**	1.00			
(3) IPSAQ**** Internal Positive sub scale	.13	.00	1.00		
(4) IPSAQ Internal negative sub scale	.21**	.05	.07	1.00	
(5) IPSAQ Personal positive sub scale	.18	-.01	-.57**	-.05	1.00
(6) IPSAQ Personal negative sub scale	-.07	.01	-.05	.42**	.35**
(7) IPSAQ Situational positive sub scale	-.04	.04	-.47**	-.03	-.21*
(8) IPSAQ Situational negative sub scale	-.11	.13	.05	-.45**	-.18
(9) IPSAQ Externalising Bias	-.25*	.02	.61**	.69**	-.35
(10) IPSAQ Personalising Bias	.02	.05	.01	-.09	.33**

* p<0.05
 ** p<0.01
 *** DIBC = Direct and Indirect Bullying behaviour Checklist
 **** IPSAQ = Internal, Personal and Situational Attributions Questionnaire