THE RELATIONSHIP BETWEEN BULLYING AND TRAUMA AMONG ADOLESCENT MALE LEARNERS

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Submitted in partial fulfilment of the requirements for the degree of Master of Social Science (Health Promotion)

November 2009

DECLARATION

Submitted in partial fulfilment of the requirements for the degree of Master of Social Science (Health Promotion), in the Graduate Programme in Psychology, University of KwaZulu-Natal, Durban, South Africa.

I declare that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. I confirm that an external editor was not used. It is being submitted for the degree of Master of Social Science (Health Promotion) in the Faculty of Humanities, Development and Social Science, University of KwaZulu-Natal, Durban, South Africa. None of the present work has been submitted previously for any degree or examination in any other University.

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Date

DEDICATION

This dissertation is dedicated to my family. Without my husband Mark, I would not be where I am today. It is difficult to put into words the countless ways he influences my life: he inspires me through his actions; he motivates me to be the best that I can be; he believes in me; and most importantly he loves me for who I am. My children, Nicholas and Megan, are the inspiration for this study, and they keep me real. Thank you all for your love, support and patience. I am blessed to have such a remarkable family.

ACKNOWLEDGEMENTS

During this year, I have been surrounded and supported by many truly remarkable people who have inspired and motivated me. I would like to express my sincerest thanks and appreciation to the following people:

Anil and René Bhagwanjee:
Thank you for understanding me Anil. You allowed me to express my opinions and needs throughout the year, without judgement. You have been the most remarkable supervisor who has always given me the time and guidance that I needed. I know that your efforts have taken time away from your family, so I'd like to thank René for her patience.

Kaymarlin Govender:
Thank you for your valued input and the time you gave me this year. I appreciate your support and encouragement. You taught me to focus on the details.

Gloria Ledoaba:
Thank you for caring for my family as if it were your own. You are truly a remarkable woman who could have achieved so much if you had only been given the opportunity. We are lucky to have you in our lives.

ABSTRACT

Aim: This study investigated the nature and extent of the relationship between bullying and trauma among male adolescent learners. Trauma was operationalised through the constructs of posttraumatic stress, anxiety, depression, dissociation and anger. In addition the study aimed to determine the prevalence and forms of bullying with reference to the different bullying roles (the bully, the victim, the bully-victim and the bystander).

Method: In this quantitative study, two objective measures were administered (viz., the Olweus Bullying/Victimisation Scale and the Trauma Symptom Checklist for children) to a saturation sample of male adolescent learners between the ages of 12 and 17, from a purposively selected South African male-only high school (N=509).

Findings and Conclusions: Statistical analysis (correlational analyis, MANOVA, and Binary-Logistic Regression analysis) produced evidence to suggest that there is a statistically significant relationship between bullying and trauma, and this was strongest for the victim role. The relationship between bullying and trauma was dependent on the frequency of bullying; as the frequency of being bullied increased so too did the mean scores of all the five trauma subscales. Depression demonstrated the highest correlation with the victim role, followed by Posttraumatic stress. In addition, 22.4% of learners could be clinically and sub-clinically diagnosed with posttraumatic stress and 21.0% with dissociation. The study suggests that each learner has a subjective experience of bullying, and accordingly displays different symptom profiles. Overall, the findings corroborate the argument that repetitive stressful events (such as bullying) are predictive of symptom-clusters of ongoing trauma.

The subjective experience of bullying was also evident in the prevalence rates of bullying; as these were evidently dependent on how it was defined and understood by learners. While only 32.1% of learners admitted to being bullied; 60.2% of this same sample admitted experiencing at least one form of bullying listed in the questionnaire; and similarly, while only 29.8% of learners admitted to bullying other learners; 49.0% admitted participating in at least one form of bullying listed in the questionnaire. Chronic bullying demonstrated greater levels of trauma for all 5 subscales; 19.7% of learners had experienced weekly (or chronic) bullying and 12.3% had participated in chronic bullying. A range of policy, school-specific and research recommendations are offered based on the findings of the study.

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CHAPTER 1: Introduction

Both locally and internationally all forms of school violence are becoming more visible and problematic. School shootings continue to make headline news with the latest shooting occurring on 11 March 2009 in Winnenden, Germany ("*Time Line of Worldwide School Shootings*," 2009). There have been 57 major shootings that have occurred around the world in the USA, Canada, Germany, Finland, Scotland, Bosnia Herzegovina, Sweden and Finland, indicating that school violence has taken on an extreme form internationally ("*Time Line of Worldwide School Shootings*," 2009). Bullying was identified as a serious social problem in Japan, after sixteen students committed suicide in 1984 and 1985 as a result of bullying (Yoneyama & Naito, 2003). Two thirds of the perpetrators of school violence felt persecuted, bullied, victimized or injured by others prior to their attacks (Anderson, 2007), with school shootings being linked to prior exposure to bullying (Kay, 2005; Lyons, 2006).

As a result, school violence has become topical on most schools' agenda's around the world (Akiba, 2002; E. Smit, 2007) and South Africa is no exception. The South African Schools Act 84 of 1996 (Republic of South Africa, 1996b) identifies school violence as a problem and has acknowledged the need to create safe school environments. In addition, Chapter Two of the Bill of Rights states that everyone is entitled to both freedom and safety of the person and has the right to be "free from all forms of violence" and "not be to treated or punished in a cruel, inhuman or degrading way" (The Constitution of the Republic of South Africa, No. 108 of 1996, Republic of South Africa, 1996a). According to de Wet (2006), bullying is one of the most underestimated problems in South African schools, and influences the safety of learners at school.

Bullying affects the physical and psychological safety of learners at school. Bullying is associated with many psychosocial disorders (Felix & McMahon, 2006) and influences the developmental trajectories of learners (D. Pepler, Craig, Jiang, & Connolly, 2008). de Wet (2007) argues that schools should provide a safe environment to assist with children's development and transition into adulthood. It is in schools that children learn to negotiate relationships with others and to learn interpersonal skills. Schools assist learners to develop a self-image and sense of independence as well as helping them to discover their strengths and to deal with their weaknesses (de Wet, 2007). It is during adolescence that the role of peers becomes more important and parents take a secondary role (de Wet, 2007). Curcio & First

(1993, in de Wet, 2007) found that at both home and school, children who progressively experience a sense of loneliness and separation perpetrate the cruel victimisation of other learners.

Varying conceptualisations of bullying (i.e. locating bullying within violence, risk behaviours or trauma) impacts on the definition of bullying, how it is operationalised within studies, and the terminology used to describe bullying. Bullying has evolved over time from a colloquial understanding of behaviours (primarily between children and adolescents) to a group of behaviours which has adverse effects and results in various psychosocial symptoms (Kay, 2005). Professionals across many disciplines (such as psychology, education and medicine) have focussed on bullying, but each with differing cognate positions and objectives (de Wet, 2007; Gini & Pozzoli, 2009; Ivarsson, Broberg, Arvidsson, & Gillberg, 2005). In addition, bullying was initially understood as comprising of primarily physical bullying behaviours such as kicking and pushing, but has been expanded over the years to include more subtle psychological assaults such as social exclusion and verbal bullying (Burrill, 2005). The term 'bullying' has also been challenged, with some preferring to label these behaviours 'victimisation'. A further conundrum is that the primary stakeholders in bullying, viz., learners (victims and bullies), teachers, parents, and health professionals demonstrate at least subtle differences in their understandings of bullying behaviour. Thus, these individual interpretations of bullying compromise attempts at objectively reducing this complex set of behaviours and demonstrate relationships with specific trauma symptoms. Thus, despite a growing body of research into bullying, differing understandings, definitions and typologies of bullying bedevil valid and robust empirical comparisons (of prevalence rates for example), with the leap to studying bullying as a form of trauma becoming even more challenging.

Both the local and international literature is replete with studies into bullying at schools. The majority of studies in South Africa have focussed on bullying as a form of violence or risk behaviour. The conception of bullying as a trauma has received very little attention, especially in South Africa. The recognition of bullying as a form of trauma would necessitate challenging the current definition of trauma as specified in the DSM-IV-TR (DSM-IV-TR: American Psychiatric Association, 2000) and the IDC-10 (World Health Organization, 2007); and would require that researchers look at alternative explanations of trauma that take cognisance of the repetitive nature of bullying at a stressor, compared to once off stressors that are specified for a clinical diagnosis of PTSD.

Herman (2001) and Terr (1995) both give explanations for chronic ongoing trauma, but do not specify bullying as one of the types of stressors that can lead to trauma, although they allude to it generically in the form of all repetitive interpersonal interactions which are traumatic in nature. There is continuing recognition that current conceptualisations of trauma do not explain all symptoms experienced by children and adolescents; and van der Kolk (2005) has more recently proposed the new psychiatric classification of Developmental Trauma Disorder which specifically addresses the developmental influences of ongoing or repetitive traumatic experiences on children and adolescents. Research evidence is therefore needed to investigate whether repetitive acts of interpersonal conflict, as pertains in bullying, can lead to the sense of powerlessness and hopelessness characteristic of chronic ongoing trauma.

Within the context of the above considerations, the central objective of this study was to investigate the relationship between bullying and trauma in a sample of school-going boys between the ages of 12 and 17 years old (N=509). There is a limited number of studies in this area and none that have been conducted within South Africa. In addition to generating empirical evidence on the forms, frequency and prevalence of bullying, this study addresses the question of whether bullying legitimately constitutes a form of repetitive trauma worthy of formal psychiatric classification. To this end the study assessed the degree of trauma experienced by learners (operationalised through the constructs of posttraumatic stress, anxiety, depression, dissociation and anger) and ensured the specific and robust measurement of incidences of the various forms of bullying. The study accordingly offers a predictive model of specific trauma classifications based on specific dimensions of bullying and relevant demographic characteristics.

Furthermore the study was designed to establish the prevalence rates and forms of bullying with reference to the different bullying roles. There is scant research covering prevalence rates across the various bullying roles in South Africa, and these studies tend to group bullying into dichotomous categories of whether learners have been involved in bullying or not, without examining the frequencies of having being bullied. This study aimed to show different prevalence rates based on separate understandings of bullying, and different frequencies of bullying that delineate the types of bullying experiences (such as chronic bullying).

CHAPTER 2: Literature Review and Theoretical Framework

2.1. School violence and bullying

School violence is an international problem (de Wet, 2007) and the dynamics of bullying and victimisation are equally common occurrences in most schools throughout the world (Akiba, 2002) as evidenced by the large number of research papers on the subjects. It is important to distinguish between school violence and bullying as the focus of most studies in South Africa have located bullying within the context of school violence (de Wet, 2007; Liang, Flisher, & Lombard, 2007; Maree, 2005; E. Smit, 2007) or risk behaviour (Reddy et al., 2003). In addition South Africa's high levels of violence that all citizens are exposed to need to be taken into account throughout this study.

The World Health Organisation (WHO) (1998) defines violence as the "intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation" (in Neser, 2005, p. 63). de Wet (2007) states that bullying is a form of violence, while Kay (2005) distinguishes between violence and bullying and believes that violence is less common and refers to more severe forms of violence such as school shootings. Olweus (1993) views bullying as a subset of aggressive behaviour, while other authors view violence as a subcategory of aggression (Anderson, 2007; Smith, Cowie, Olafsson, & Liefooghe, 2002). This study focuses on bullying and victimisation as a form of physical or psychological violence and aggression, as defined by the WHO (1998).

While studies show that most school bullying occurs on the playground and at school (Beaty & Alexeyev, 2008), bullying impacts beyond the individual within his/her defined school environment. Bronfenbrenner's ecological model (Shaffer, 1989) explains the reciprocal nature of bullying as comprising of reciprocal interactions between a continually changing individual and a continually altering environment. Bronfenbrenner's model helps to explain the interactions between bullying and all other levels: the meso level (family, school, church and peer group), the exo level (media representation, Life Orientation curriculum and community crime) and the macro level (policy and legislation such as the Safe Schools Act, cultural factors such as a normative acceptance of violence). In effect, learners are affected by

bullying and in turn this influences their peers, their family and the school community and vice-versa.

2.2. Defining bullying

Most of the ground-breaking work in the field of bullying was done by Olweus who first identified bullying as a problem when three victims of bullying committed suicide in Norway in 1982 (Beaty & Alexeyev, 2008; Yoneyama & Naito, 2003). Over time there have been many definitions of bullying and victimisation. Heinemann, a Norwegian, first used the term "mobbing" in 1973 (Smith et al., 2002). This referred to group violence against individuals. Olweus initially used this term but changed the definition to include learner-on-learner attacks of one child against another (Smith et al., 2002). The focus in earlier work was on physical or direct bullying and only later was indirect bullying such as gossiping and spreading of rumours included in the definition (Smith et al., 2002).

The definition of bullying has changed over time to reflect the historical and social context. The term "bullying" has also been questioned and as a result some authors use "victimisation" instead (Felix & McMahon, 2006). The word "bullying" has meant different things at different times and this reflects what is happening in society (Smith et al., 2002). The meaning of the word 'bullying' also varies between countries (Akiba, 2002; Smith et al., 2002) and between learners and teachers (Naylor, Cowie, Cossin, de Bettencourt, & Lemme, 2006). Smith et al. (2002) note that subtle changes have taken place in the past years with more indirect and relational forms of bullying being included into the current definition. In exploring the definition of bullying across countries, social exclusion has more recently emerged as a central concept (Smith et al., 2002). In summary, it is evident that the notion of 'bullying' has evolved as a social construct.

Olweus' definition was the first to include both the physical and mental mechanism of bullying (McLaughlin, Laux, & Pescara-Kovach, 2006). Olweus's definition of bullying includes physical, verbal and indirect or relational bullying (Smith et al., 2002; Solberg & Olweus, 2003). Solberg & Olweus (2003) state that bullying is characterized by the following 3 criteria:

1. firstly aggressive behaviour or "the intention to harm the victim";
2. secondly "the repetitive nature of bullying" which is carried out over time; and

3. lastly an interpersonal relationship characterised by an "imbalance of power between the victim and the perpetrator".

These 3 criteria of bullying are central to differentiating bullying from what many people describe as normal adolescent teasing and conflict. Along with the repetition of the act, in bullying there is an imbalance of power that is not normally seen in friendships and this enables bullying to take place (Burrill, 2005; Flisher et al., 2006; Naylor et al., 2006; D. J. Pepler et al., 2006; Smith et al., 2002; Veenstra, Lindenberg, De Winter, Zijlstra, & Verhulst, 2007). Power and aggression are central to bullying (D. J. Pepler et al., 2006). It cannot be described as bullying when adolescents of a similar age and power argue or fight (O'Moore & Minton, 2004, in, Anderson, 2007; Solberg & Olweus, 2003). The Olweus Bully Victimisation Measure (OBVS) distinguishes between intentional bullying and friendly conflict (Solberg & Olweus, 2003). Bullying is intentionally carried out to harm another person and has therefore been defined as an aggressive behaviour (Anderson, 2007; Smith et al., 2002). The belief that bullying is normal needs to be challenged when it is occurs repeatedly over time and causes intentional harm.

The importance of working with a consistent definition of bullying in order to determine prevalence of bullying is highlighted by a number of authors (Naylor et al., 2006; Smith et al., 2002; Solberg & Olweus, 2003). There has been consensus on the repetitive nature of bullying, the concept of power in the bullying victim relationship as well as the different forms of bullying that exist (Burrill, 2005). There have also been some differences in opinion for example, some authors have argued for single victims and perpetrators and other for multiple perpetrators (Burrill, 2005). Olweus's definition of bullying and the three defining characteristics of bullying have been used in this study. Olweus's definition is clear, concise and includes all forms of bullying (including sexual harassment). It appears to be the most widely recognised and popularly used definition of bullying.

2.3. Forms of bullying

A number of general forms of bullying have been identified in the literature and these have also evolved over time in conjunction with the shifting definition of bullying. Bullying is seen to encompass many behaviours ranging from physical violence to more subtle forms such as name calling and social exclusion. A number of authors divide bullying into two broad areas: direct and indirect bullying (Smith et al., 2002). Direct includes physical threats or attacks on

another person while indirect is more subtle and difficult to define and could include taking someone else's possessions or manipulating friendships (Anderson, 2007).

Beaty & Alexeyev (2008, p. 1) summarised the types of bullying emerging from the literature as follows:

a) "Direct bullying: Behaviours such as teasing, taunting, threatening, hitting, and stealing that are initiated by one or more bullies against a victim;
b) Verbal bullying [Indirect bullying]: Taunting, teasing, name calling, spreading rumours; [which does not include physical pain but rather psychological harm]
c) Physical bullying: Hitting, kicking, destroying property, enlisting a friend to assault someone for you;
d) Relational or Social Bullying (Non-physical): Threatening or obscene gestures, excluding others from a group [social exclusion], manipulating friendships, sending threatening e-mails [or sms's]; or
e) Sexual harassment: A form of bullying in which intent to demean, embarrass, humiliate, or control another person on the basis of gender or sexual orientation".

2.4. Bully roles and antecedents

Bullying occurs to both children and adults (Field, 2001; Mikkelsen & Einarsen, 2002) and is a subjective experience (Veenstra et al., 2007). Bullying is an interpersonal trauma that takes place between individuals or groups of individuals. There are four main roles in bullying, namely (Anderson, 2007; McLaughlin et al., 2006):

- The victim, who is bullied;
- The person who bullies others, known as the bully; and
- People who observe the bullying taking place, known as bystanders or witnesses.
- Some people are both victims and bullies and they are described as bully/victims.

The bully

Bullies deliberately victimise other learners in order to induce fear (Anderson, 2007) and to exert power and status over weaker learners whom they easily identify (Veenstra et al., 2007). The main reasons for bullying appeared to be related to bullies' perceptions of their victims. They felt that these learners did not fit in based on their physical appearance, their friends, clothes, weight or academic achievements (Beaty & Alexeyev, 2008). Bullies are more likely

to be males operating either in groups or as individuals (Beaty & Alexeyev, 2008; Veenstra et al., 2007) and tend to be peers of the victim. Bullies are either in the same class or grade and as a result bullies victimise learners with whom they spend time (Beaty & Alexeyev, 2008). Olweus (1993) states that bullies are more aggressive than their peers, and have a more positive attitude toward violence.

The victim

It has been found that victims have fewer friends and are less popular with their peers (Burrill, 2005; Sentse, Scholte, Salmivalli, & Voeten, 2007; West & Salmon, 2000). Victims are also quieter and more sensitive and cautious around other learners (West & Salmon, 2000) which makes them vulnerable to more dominant peers. Veenstra (2007) comments that bullies can identify vulnerable children (2007). Victims typically try to avoid harm by identifying bullies, but in doing so they draw attention to themselves (Veenstra et al., 2007). As a result, victims once bullied are likely to become re-victimised. Victims therefore tend to be more anxious and insecure (Burrill, 2005) and consequently tend to be lonely and unhappy (West & Salmon, 2000). It has also been found that learners with learning disabilities and children who repeat grades have been found to have higher levels of victimisation (Beaty & Alexeyev, 2008).

The bully-victim

A learner can be both a victim and a bully. Learners who have bullied others and been bullied themselves are called bully-victims. The bully-victim experiences a feeling of powerlessness and helplessness from being bullied by others and can react by bullying others (Anderson, 2007). These learners face the problems and symptoms associated with being bullied and those with bullying others, and subsequently tend to experience the greatest number of problems.

The bystanders

Adolescents are exposed to violence and bullying as bystanders (Hagan & Foster, 2001). But bystanders are also involved in bullying either through what they do or what they do not do (Anderson, 2007). Bystanders can feel anxious and helpless as they are concerned that they may also be targeted one day, and hence they do nothing (McLaughlin et al., 2006). By doing nothing, bystanders can feel guilty and as a result can be traumatised as well. The helplessness experienced by victims would also be experienced by bystanders (Herman, 2001)

watching bullying. Witnessing violence has been linked to anxiety disorders such as PTSD (Olweus, Limber & Mihlic, 1998, in McLaughlin et al., 2006).

Gender differences

More males and groups of boys tend to bully compared to girls or groups of girls (Neser, Ovens et al., 2004). The method and reasons for bullying differ with boys and girls, with boys using more physical forms of victimisation and girls using more relational or social forms of bullying that are aimed at hurting the victim's relationships. The bullying that boys express is part of boys developing power-based social relationships (Lane, 1989, in McLaughlin et al., 2006). Mills (2001) argues that violence of males against males serves to enforce and normalise specific constructs of masculinity and tests power relations.

2.5. Prevalence of bullying

Solberg and Olweus (2003) caution researchers to be aware of research criteria which influence the recorded prevalence rates or frequencies of bullying. These criteria make it difficult to compare prevalence of bullying as one is not comparing like with like. Solberg and Olweus (2003) specify six factors which need to be considered as they impact on data provided. These include the source of data (learners, teachers, peers); whether a definition of bullying is provided or not; whether a time frame for bullying is specified or not; the types of scale used and how the score is calculated; and whether a distinction is made between victims and non-victims and between bullies and non-bullies (Solberg & Olweus, 2003).

International Prevalence

Research on bullying initially focussed on the prevalence of bullying (Burrill, 2005), with bullying being found in all schools but prevalence differing significantly between schools. Frequencies also varied considerably between countries, across studies and over time. Burrill (2005) states that research is extremely contradictory across researchers and studies, and as a result it is difficult to compare studies (Solberg & Olweus, 2003). Bullying has increased over the last 20 years in both Scandinavian countries and in the United States (Burrill, 2005). In the 1980's a Scandinavian study indicated that 15% of learners (aged 8-16) were involved in bullying; with 9% as victims, 6-7% as bullies and a small percentage as bully/victims. A study by Witney & Smith (1993, in Burrill, 2005) indicated that 20% of learners in the United states were victims of bullying; while another study by Hoover et al. (1992, in Burrill, 2005) indicated a far higher level, with 75% of learners being victims at least once during the year.

South African Prevalence

Very little research has been conducted on bullying and victimisation in South Africa and research on school violence is also lacking (de Wet, 2007). For the most part, studies have adopted quantitative methodologies and have focussed on bullying as a component of 'risk behaviour' or bullying as part of violence in a school context (de Wet, 2007; Flisher et al., 2006; E. Smit, 2007). South African research confirms the international trend showing variable results based on the type of study, time frame of bullying and definition of bullying. A number of different measures have been used and definitions of bullying are seldom given, thereby making comparisons of the prevalence of bullying difficult, for reasons similar to that advanced by Solberg & Olweus (2003). Bearing this caveat in mind, the findings of South African research are discussed below.

Victims

National prevalence data on bullying in South African schools derive from a single study, the Youth Risk Behaviour Survey conducted in 2002 (Reddy et al., 2003). This research relies on a single question to determine the prevalence of bullying and no definition of bullying is offered. The study population included learners from grade 8 to 12 across all nine provinces, with the sample including approximately 1200 learners per province (n=10405). The number of students being bullied was higher (41.0%) than reported internationally, including 42.3% of females and 39.5% of males in the sample, with the range of frequencies varying from 35% to 50%. Provincially, the Northern Cape showed the highest prevalence of bullying (56.7%) and Kwa-Zulu Natal had the lowest prevalence of bullying (35.6%). Nationally males experienced less bullying (39.5%) than females (42.3%), but in Kwa-Zulu Natal more males (36.5%) were bullied than females (34.8%). Nationally grade 9 (44.5%) and age 15 (44.0%) returned the highest prevalence of bullying.

In contrast, research conducted by Flisher et al. (2006) in the cities of Cape Town, Durban, Port Elizabeth, Umtata, Queenstown and Mankweng, with a large sample of 10669 learners, indicated that the prevalence of bullying in South Africa varies considerably. The sample comprised of 2399 learners from Durban, with 1025 of them being male. Prevalence rates indicated that bullying, during the 30 days preceding the survey, showed the highest prevalence in Mankweng Grade 8 male learners (44.5%) and the lowest in Durban Grade 11 females (14.7%). Durban grade 8 boys showed a 35.6% prevalence and Grade 11 boys showed a 21.0% prevalence of being bullied. Grade 8's were more likely to be bullied and to

bully than grade 11's. No significant differences in bullying rates were evident across urban and rural areas, which is consistent with international findings (Flisher et al., 2006).

In a study located in the city of Tshwane South (n=1873), Neser (2005) asked learners about the school violence that they had ever experienced. The sample comprised of learners from grades 6 to 11. While no composite score across all forms of bullying was calculated, very high levels of bullying were reported, : 54.3% had been teased; 62.5% had been called names; 33.8% had been threatened; 43.4% had physically victimised; and 27.1% had experienced social bullying (Neser, 2005).

Based on the same sample of Tshwane South learners (n=1873), the frequency of learners being bullied by other learners across grades showed that learners in lower grades had a higher prevalence of being bullied (Neser, Ladikos, & Prinsloo, 2004). Prevalence was as follows: Grade 8 (56.6%); Grade 9 (51.3%); Grade 10 (41.1%) and Grade 11 (30.2%). The average frequency across all grades was 58.2% for males and 48.1% for females. The frequency of being bullied also varied across race as follows: Asian, 61%; Coloured, 56.6%; Black, 49.4%; and White 38.6% (Neser, Ladikos et al., 2004). The average frequency of personally being bullied for the study was 53.1% (Neser, Ladikos et al., 2004), indicating very high levels of bullying in this sample.

Bullying others and bully/victims

Few studies include the frequency of learners admitting to bullying others. In the study by Flisher et al. (2006) the frequency of bullying others was lower than for being bullied. The frequency of bullying others was the highest in Mankweng for Grade 8 boys at 33.0% and the lowest in Queenstown for Grade 11 girls at 6.4%. Among Durban boys the frequency of Grade 8 learners bullying others was 17.8% and in Grade 11 it had increased to 21.0%. Liang, Flisher, & Lombard (2007) (n= 5074) indicated that 36.3% of learners were involved in some form of bullying behaviour and that 8.2% were bullies and 8.7% were bully/victims.

Witnessing bullying

Two South African studies indicate a high prevalence of witnessing bullying occurring at schools. In a study of Gauteng learners (n=207), (Neser, Ovens, van der Merwe, Morodi, & Ladikos, 2003) reported that 82.1% had witnessed bullying (34.8% daily, 33.8% weekly and

13.5% monthly), while 8.7% of learners said that they thought that learners were never bullied at their school.

Tshwane South learners' (n=1873) observations of types of bullying (school violence) indicate a high prevalence of all types of bullying (Neser, 2005, p. 71). Frequencies (including daily, weekly and monthly observations) indicate that 83.0% had observed learners being teased; 88.0% had observed learners being called names; 57.1% had observed learners being threatened; 64.2% had observed learners being physically victimised; and 66.7% had observed learners being left out.

It needs to be highlighted that teachers are witnesses and victims of bullying themselves. In a study by de Wet (2007) in the Free State, 801 educators participated in a study on school violence. This study validates the high levels of bullying observed by educators. 76.23% of educators had seen learners in their school threatening other learners and 68.01% had seen learners in their school attacked or assault other learners. It is often said that educators are unaware of the bullying that occurs at schools, but the high frequency of observations of threats and attacks by learners on learners is similar to the high frequency of witnessing of bullying by learners.

2.6. Defining trauma

Definitions of trauma vary considerably and appear to be discipline-specific. In colloquial use, trauma refers to a "deeply distressing experience" while bio-medically it is referred to as "physical injury' and psychologically it is conceptualised as "emotional shock following a stressful event" (AskOxford.com, 2009). Other definitions of psychological trauma refer to damage to the psyche that occurs due to a traumatic event or events (Herman, 2001). When a person is completely overwhelmed, the victim cannot integrate the experience and symptoms can be seen immediately or at a later stage (Davidson, 1991), with victims reacting differently to similar events. Carney (2008) refers to psychological trauma as an emotionally distressing or shocking experience that can have a lasting impact on individuals involved. Herman (2001) describes psychological trauma as an "affliction of the powerless" with "intense fear, helplessness, loss of control, and threat of annihilation" (Herman, 2001, p. 33).

In psychiatric terms, traumatic outcomes are categorised in the Diagnostic and Statistical Manual for Mental Disorders (DSM-IV-TR) as Post Traumatic Stress Disorder (PTSD) and

Acute Stress Disorder, which are both classified as Anxiety Disorders. The International Classification of Diseases (ICD-10) classifies traumas as "Reaction to severe stress and adjustment disorders" and these are classified into three subcategories; "Acute stress reaction"; "Post-traumatic stress disorder" and "Adjustment disorders" (World Health Organization, 2007). Post-traumatic stress disorder was not listed in the ICD-9.

2.7. The evolving nature of trauma and PTSD criteria

As with many disorders, the diagnosis of PTSD is open to subjective meaning (Herman, 2001) and hence debate. The diagnosis of PTSD acknowledges external causal stressor/s but due to the connection with psychiatry there is a medicalisation of trauma seen in the discourse of symptoms which makes it difficult to apply to other instances of trauma. The diagnosis of the disorder is dependent on the degree to which the individual fits into the pre-determined symptomology specified in the DSM. Eagle (2002) believes that there has been an uncritical adoption of the language of PTSD. In doing this we are adopting a lens with which to identify trauma, and in the process we are not 'seeing' other trauma that occurs daily.

The history of trauma and PTSD shows that there is a cyclical pattern of professional and social denial of a type of trauma which is sometimes followed by acknowledgement, especially when the issues become political (Eagle, 2002). For example the inclusion of PTSD in the DSM only occurred because of pressure by Vietnam anti-war veterans (Herman, 2001). During World War 1, prior to understanding PTSD, victims were accused of being cowards, thus eliciting strategies of shame, threats and punishment (Herman, 2001). Child incest and sexual abuse is an example of trauma historically ignored or not seen (Eagle, 2002; Herman, 2001). Trauma has therefore evolved over time to give voice to the disempowered (Herman, 2001). It is believed that many people suffer from trauma without it being acknowledged as such, and they are similarly written off and blamed for their suffering (Herman, 2001). It is purported that childhood trauma and specifically bullying could be considered such an issue.

2.8. DSM-IV-TR definition of PTSD

PTSD is listed under Anxiety Disorders in the DSM-IV-TR (DSM-IV-TR: American Psychiatric Association, 2000). It was first included in the third version of the DSM in 1980 and has changed with each new edition (Herman, 2001; Turnbull, 1998). This historical construction of PTSD indicates that the American Psychiatric Association (APA)

acknowledges that the diagnostic category of PTSD needs to change to reflect prevailing social conditions and knowledge.

The Criteria for being diagnosed with PTSD are as follows:

- Criteria A specifies the subjective experiences which are applicable to PTSD.
- The definition for Criteria A:1 of PTSD was changed from the DSM-III-R definition which read "an event outside the range of human experience" (Turnbull, 1998, p. 22). The DSM-IV-TR now specifies a traumatic event/s where "the person experienced, witnessed, or was confronted with threatened death or serious injury, or threat to the physical integrity of self or others" (Turnbull, 1998, p. 25).
- The definition for Criteria A:2 now states that "the person's response involved intense fear, helplessness, or horror"; whereas the DSM-III-R previously specified experiences that were "outside the range of normal experience" (Kay, 2005, p. 10)
- Criteria B specifies the ways in which the "traumatic event is persistently re-experienced" (Turnbull, 1998, p. 25)
- Criteria C specifies the "Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness" (Turnbull, 1998, p. 25)
- Criteria D specifies " Persistent symptoms of increased arousal" (Turnbull, 1998, p. 25)
- Criteria E specifies that the "disturbances cause clinically significant distress or impairment in social occupation, or other important areas of functioning" (Turnbull, 1998, p. 25)

The DSM-IV-TR also includes Acute Stress Disorder (ASD) (DSM-IV-TR: American Psychiatric Association, 2000). This has similar diagnostic features to PTSD but the traumatic symptoms are experienced for a maximum of 4 weeks.

In recognising that PTSD is a psychological illness precipitated by external stressor/s, PTSD is the only disorder which requires an external causal stressor/s for diagnosis. Arguments about what constitutes a stressor has consequently become central to shifting understandings and consequent changes in the definition of PTSD (Herman, 2001), which in turn has de-stigmatised the effects of trauma on individuals, for example returning soldiers, childhood incest and rape survivors (Herman, 2001).

Criticisms of the current DSM-IV-TR diagnosis of PTSD:

The history of trauma shows that a diagnosis of trauma has always had gaps and uncertainties where certain stressors or symptoms have not been recognised and included (Eagle, 2002). There is ongoing debate over the stressor provoking PTSD (Criteria A in the DSM-IV-TR) and this has been changed in the latest DSM and is still being challenged, especially for children (Herman, 2001; Terr, 1995; van der Kolk, 2005). There has also been debate on where to locate it within the DSM; under anxiety, within dissociative or other disorders or as a new diagnostic category (Davidson, 1991).

2.9. Symptoms of trauma based on PTSD

PTSD occurs when a state of helplessness and powerlessness is experienced in response to exposure to external stressor/s (Herman, 2001), where no specific adaptive reaction can be identified. As a result, the normal ingrained system of reaction of the body and mind becomes pathological and fragmented (Herman, 2001). It is argued that a state of helplessness can evolve slowly over a period of time as one negative event after another accumulate and the victim begins to experience life as something that happens to them, rather than they having control over it; a state of helplessness (Herman, 2001; Terr, 1995). Being overwhelmed by helplessness and sometimes terror, the individual develops PTSD symptoms (Herman, 2001).

The DSM-IV-TR identifies 3 clusters of symptoms that are experienced in reaction to trauma (Herman, 2001). The first cluster is the re-experiencing of the event or intrusion through flashbacks or dreams (Herman, 2001). This can occur at any time and is particularly common in children when daydreaming. Children re-enact the trauma and this could explain the experience of the bully / victim who repeats what has happened to him. Learners may also attempt to avoid intrusive symptoms through destructive behaviours such as drinking alcohol and using drugs.

The second cluster is avoidance or constriction where the victim experiences powerlessness and dissociation (Herman, 2001). Psychological trauma is equated with a sense of powerlessness (Herman, 2001). The victim's escape from the traumatic event/s is impossible, so the response system becomes disorganised and fragmented. This dissociation, where the experience is broken into fragments that do not form a coherent form or story, is one the most common experiences of trauma (Herman, 2001). As a result it may be difficult for victims to recall a traumatic event (Herman, 2001). In chronic trauma the anticipation of a traumatic

event from which the victim cannot escape, such as bullying at school, can result in this sense of powerlessness and subsequent fragmentation of the experience.

The third cluster relates to increased arousal where the victim is permanently alert to renewed threats. As a result the victim will often suffer sleep difficulties, be irritable and unable to concentrate, thereby affecting school work (Townsend, Flisher, Chikobvu, Lombard, & King, 2008) and will have exaggerated responses to any cues that provoke recall of the trauma. This for example could result in the learner avoiding situations where bullying takes place and even skipping school (Townsend et al., 2008).

In trauma there is dialectic between intrusion and constriction which oscillates from one to the other. With chronic trauma there is often no drama in the victims' lives, just a plodding to exist (Herman, 2001). This dialectic often hides the symptoms of trauma so that they are not recognised, but blamed on underlying character problems such as being lazy (Terr, 1995). In addition it is difficult to get close to people who experience trauma as they see-saw from having no needs or being almost blank and disconnected to being overwhelmed by their lives (Herman, 2001). Victims of chronic trauma feel as though part of them has died, contributing to their sense of helplessness and worthlessness (Herman, 2001). This dialectic compounds their ongoing victimisation.

The language used and the discourse of trauma structures the understanding thereof. When the words do not exist to describe an event, or when the victims do not recognise their abuse, they cannot stop it from occurring as they cannot identify it (Eagle, 2002). For instance, it was only when a social movement highlighted the plight of children that incest and child abuse was identified and condemned (Herman, 2001), as prior to this the victim of trauma was often blamed (Herman, 2001). Thus, the majority of people affected by traumatic events are often powerless to act and talk out. Miller (2001) cautions us to listen to what victims say and let them tell their stories and believe them. This means that if bullying is not identified as such, victims cannot identify what is happening to them other than it being part of growing up and perpetuates a cycle of silent victimology.

Symptoms of trauma differ across cultures and between different types of stressors (acute versus chronic) (Herman, 2001). Victims of trauma who have experienced multiple events and those who have experienced interpersonal traumas have the worse outcomes (Green et al.,

2000). Several alternative theories have been proffered in response to the different types of traumas experienced and the different symptoms that are seen.

2.10. Theoretical conceptualisations of trauma and PTSD

In order to meet Criteria A for PTSD (using earlier versions of the DSM) the victim must have experienced, witnessed, or have been confronted with threatened death or serious injury, or threat to the physical integrity of self or others. Implicit in this stressor is a significant event which can be defined or specified; such as a murder, rape or assault. Brown (1995) states that the new definition of a stressor in the DSM-IV-TR is more inclusive and could now be extended to include everyday experiences. She argues that the definition of stressors needs to be reassessed to include conditions or traumas which are currently excluded. But it is not always possible to describe and quantify certain ongoing stressors which have a direct impact on individuals.

Because the definition of trauma has evolved over time (Herman, 2001), arguments have again been made to either change the DSM definition for stressors in Criteria A (Brown, 1995); and/or to search for alternative explanations of trauma (Herman, 2001; Terr, 1995). Both Terr (1995) and Herman (2001) discuss the concept of repetitive trauma where a victim is exposed to repeated traumatic experiences over a period of time as opposed to a once-off event. Herman (2001) refers to this as Complex Trauma while Terr (1995) refers to it as Type 2 trauma. The cumulative effect of the repetition of events causes the victims to be overwhelmed by what is being experienced or witnessed, resulting in the triggering of various psychological defence mechanisms.

Herman (2001) discusses Complex PTSD which acknowledges different symptoms suffered by victims of repetitive trauma such as prisoners, hostages and religious cults where victims experience helplessness and powerlessness. Trauma includes sexual abuse, child abuse, physical abuse, emotional abuse, domestic violence, torture and violation of personal boundaries (Herman, 2001). Prolonged and pervasive chronic trauma has a profound impact on victims who are effectively re-victimised. Psychological fragmentation and a sense of loss of safety and trust in the world occur (Herman, 2001). Victims' self-worth is undermined and they do not have a coherent sense of self. Herman (2001) believes that a different diagnostic category is needed, as symptoms are wider and more complex when resulting from chronic repetitive stressors. Herman (2001) cautions that the long term changes to personality due to

chronic trauma can last years and survive into adulthood. In terms of Complex PTSD, these symptoms include alterations in affect regulation; consciousness; self-perception; perception of the perpetrator, relations with others and in systems of meaning (Herman, 2001, p. 121). Prolonged trauma can lead to personality changes in children which are often mistakenly diagnosed as other disorders later in life (Herman, 2001).

Focussing on children, Terr (1995) states that childhood traumas cover a wide range of events, and that broadening the stressor criteria in PTSD would not include all potential stressor possibilities. Terr (1995) states that childhood traumas that originate externally can be placed in two categories based on the nature of the stressor that was experienced. A single event is described as Type 1 where the trauma is the "result of one sudden blow" or acute trauma (Terr, 1995, p. 303). The second is described as Type 2 where the trauma is the result of "long standing repeated ordeals" or chronic trauma (Terr, 1995, p. 303). In Type 2 trauma there is a cumulative effect and the "child experiences aggregate sequelae with each incident leaving the child increasingly vulnerable " (Cook-Cottone, 2004, p. 128). Such might indeed be the case in the instance of a child who is subjected to repetitive insult through bullying.

The main features of Type 2 trauma is the anticipation between traumatic events (Terr, 1995). In these situations the psyche tries to protect itself and according to Terr (1995), defence mechanisms such as dissociation and denial are used. Terr (1995) highlights the helplessness that childhood traumas cause and argue that these rupture normal coping mechanisms. Both Type 1 and Type 2 trauma have four common characteristics, viz.: visualised or otherwise repeatedly perceived memories; "repetitive behaviours (which can become distinct personality traits); trauma-specific fears (avoidance); and changed attitudes about people, life and the future" (Terr, 1995). Symptoms specifically associated with Type 2 trauma include denial and psychic numbing; self-hypnosis and dissociation, depressive symptoms, learned helplessness, poor coping strategies, and rage or anger (Cook-Cottone, 2004; Terr, 1995).

Herman (2001) and Terr (1995) both argue that PTSD needs to be reconceptualised to reflect the social, economic, political and environmental changes that directly impact on the lives of people. Neither Herman nor Terr however, consider the impact of trauma on children and adolescents from a developmental theoretical approach. As noted by many authors, children are particularly vulnerable to trauma (Carney, 2008; Herman, 2001; Miller, 2001).

In line with the evolving nature of trauma diagnosis, Developmental Trauma Disorder is a new classification for Childhood Traumas that has been recommended for inclusion in the DSM-V to be published in 2011 (van der Kolk, 2005). This diagnosis is suggested for children with histories of complex trauma (or repetitive traumas) that do not fit the criteria for PTSD in the DSM-IV-TR.

Building on Herman's concept of Complex PTSD, the term Complex Trauma has been used to describe multiple prolonged traumatic events (van der Kolk, 2005). The pervasive effects of trauma on the development of the brain are highlighted along with different symptom patterns (van der Kolk, 2005). These have a far greater complexity and are often currently addressed in isolation rather than as a comprehensive disorder. It is because of this unique impact of trauma on children that a diagnosis of Developmental Trauma Disorder is being considered. It is proposed that the disorder be conceptualised as the result of repetitive interpersonal trauma that causes either under- or over-response to trauma cues. The trauma also alters the way the person feels about him/herself and others, including the potential for re-victimisation. Lastly the functional impairment across all areas (educational, familial, peer group, legal and vocational) is highlighted (van der Kolk, 2005). The complexity of childhood trauma and presenting problems needs to be emphasised. van der Kolk's (2005) focus is however on children more than adolescents and he states that field trials for the DSM-V indicate that the most significant impact is during the first 10 years of a child's life, after which symptoms become more similar to those of PTSD.

The argument for a Developmental Trauma Disorder highlights the limitations of the current PTSD classification of trauma. In children who experience repeated trauma it is sometimes difficult to specify a stressor, as necessitated by Criteria A of PTSD. Symptoms that developmentally sensitive children exhibit in cases of trauma, specifically from repeated interpersonal trauma, are not taken into account in PTSD. Further, the impact of interpersonal trauma on adolescents who are between 12 and 20 years of age needs to be considered. In proposing this new category, van der Kolk (2005) questions the developmental considerations that need to be taken into account in children and adolescents. According to Erickson, adolescents at this stage are faced with the challenge of identity development as they negotiate the competing demands of childhood and adulthood (Shaffer, 1989). Identity development occurs primarily in their interaction with peers of the same age, so traumatic interpersonal interactions with these same peers could severely impact on the development of

a learner's identify. It is therefore possible that adolescents would display a unique set of trauma symptoms based on their level of development, and care needs to be taken to ensure that these symptoms are addressed holistically within their developmental context.

2.11. Adolescence: The peer group and developmental changes

Puberty is a period of drastic change in individual development. These changes incorporate physical, cognitive and emotional dimensions. In terms of cognitive change, Piaget explains that adolescents start to develop abstract reasoning and so begin to think of the world in terms of possibilities, compared to children who have concrete thought (Hoffman, Paris, & Hall, 1994). Adolescents start to consider the perspective of others and in doing so become focussed on what others are thinking about them, and hence develop a kind of egocentrism (Hoffman et al., 1994). As adolescents become more concerned with the opinions of peers, conflict with their peers takes on increased significance in their lives. Thus, for adolescents between the ages of 8 and 15 peer victimisation is a greater threat than discrimination, racism, or violence (Juvonen, 2001, in Felix & McMahon, 2006).

Bullying is a form of interpersonal aggression and occurs within the context of relationships between peers. When peers are caught up in various types of aggression, either as the aggressor or victim, it has been shown to be related to psychosocial and educational adjustment problems (Craig, 1998 in Felix & McMahon, 2006). Peer victimisation challenges the foundations of support needed by the peer group. A South African study (Maree, 2005) highlights how interpersonal and intrapersonal relationships are negatively affected by bullying. As a result, bullying may exert a profound influence on adolescent development, especially considering the formative influence of trauma in the development of emotional, cognitive, arousal, and interpersonal systems (Pynoos, Steinber, & Piacentini, 1999, in Cook-Cottone, 2004). Puberty also influences the nature of bullying. Bjorkqvist et al. (1992, in D. J. Pepler et al., 2006) show that bullying as a form of aggression is linked to adolescent language and cognitive development and as a result Pepler et al. (2006) argue that the form and nature of bullying also changes during puberty when other developmental changes occur.

12. Bullying - A traumatic experience

There is a tendency to disregard bullying as normative and to play down the impact of bullying (Anderson, 2007). The power differential between bully and victim is often not obvious or appreciated by adults who confuse bullying with normal peer conflict. Myths

include “It’s part of life”; “It happens in all schools, so it’s nothing to worry about”; “Sticks and stones may break your bones, but words will never harm you”; and “It’ll toughen you up / let you know what life’s about” (O'Moore & Minton, 2004, in Anderson, 2007, p. 39). Ideologically, these bullying myths serve to entrench institutionalised violence. Miller (2001) highlights how “poisonous pedagogy” is used by adults (both parents and teachers) to ensure that children conform to social norms and structures. By ignoring bullying, parents and teachers are normalising what was done to them and perpetuating such behaviour across generations. Bullying can no longer be dismissed as inoffensive teasing or undamaging play (Anderson, 2007).

A person who is repeatedly bullied experiences helplessness and powerlessness in a similar way to a victim of trauma, and it is therefore proposed that the dynamics of bullying are experienced as repetitive trauma. Herman’s Complex PTSD and Terr’s Type 2 trauma identifies chronic stressors as different from acute stressors. The characteristics of bullying can be explained when looking at repetitive acts of trauma as explained by Complex PTSD and Type 2 trauma.

The three criteria which characterise bullying as defined by Olweus (Olweus, 1993) correspond with the experience of chronic trauma. Firstly in bullying there is an intention to harm the victim which is either experienced directly (as the victim) or witnessed (by the bystander). This bullying can either be direct or indirect, causing physical and / or psychological harm (although the act of bullying is not specified as a stressor in PTSD). Secondly the repetitive nature of unremitting bullying which is carried out over a period of time is consonant with Terr’s (1995) conceptualisation of Type 2 trauma and Herman’s notion of Complex PTSD. The cumulative effect of being exposed to bullying undermines the learner’s sense of self and has both long term and short term psychological affects. Lastly there is an imbalance of power in bullying between victim and bully. This imbalance of power must lead to a sense of helplessness and powerlessness in the victim, which is a central tenet described in all forms of trauma.

2.13. Understanding bullying as trauma

An increasing number of authors have made a case for the connection between PTSD and various childhood traumas (Britton, 2005; Cook-Cottone, 2004; Meiser-Stedman, Smith, Glucksman, Yule, & Dalgleish, 2007; Pollio, 2003) and a number of authors argue that

bullying and victimisation can result in symptoms of trauma or PTSD, both in adults and children (Burrill, 2005; Carney, 2008; Field, 2001; Guy & Guy, 2007; Kay, 2005; Kinchin, 2005; McLaughlin et al., 2006; Mikkelsen & Einarsen, 2002; Tehrani, 2004). Unfortunately, there is a paucity of published research into the association of bullying and trauma in South Africa.

Studies on workplace bullying show a strong connection between bullying and PTSD symptoms, even though all criteria are not always met (Guy & Guy, 2007; Mikkelsen & Einarsen, 2002; Tehrani, 2004). Field (2001) highlights the link between workplace bullying and the associated symptoms of PTSD. Guy & Guy (2007) indicate that bullying and victimisation, together with other stressful incidents, can lead to traumatic stress in the workplace. They note that some people who may not fit the criteria for PTSD may still be suffering from trauma.

Kay (2005) bemoans the lack of systematic investigation into the traumatic impact of bullying, or the possible occurrence of psychosocial problems such as the development of PTSD, and calls for an expansion of the variety of events that can be considered traumatic in the lives of children. Given that the DSM-IV-TR recognises that PTSD can develop in children and affect their day to day functioning, Kay (2205) makes a case for the inclusion of school bullying as a legitimate stressor precipitating PTSD, especially given those learners who are victimised often experience helplessness and trauma.

It is of concern that bullying has commonly been viewed as being a normative developmental experience; the connection between bullying and PTSD and other stress symptoms indicates that bullying is in fact a trauma (Kay, 2005). This is supported by the views of health professionals, i.e. that children exposed to severe stress may have an increased likelihood of subsequently developing symptoms of mental illness, including symptoms of PTSD (Britton, 2005).

McLaughlin, Laux & Pescara-Kovach (2006) state that bullying is often a continuous trauma rather than a momentary stressor for many children. Burrill (2005) has identified a connection between bullying and PTSD symptoms, even though it is not specified as a stressor in the DSM-IV-TR.

2.14. Symptoms of trauma

Trauma is multifaceted and complex, and can result in a wide range of symptoms which have been researched and recorded over time. These vary between short term symptoms such as Acute Stress Disorder (ASD) and long terms symptoms such as PTSD. Symptoms also vary between types of trauma experienced, for example repetitive interpersonal sexual trauma or a single witnessing of a violent crime. Symptoms differ considerably between adults, adolescents and children, with younger victims more likely to display somatic complaints. Trauma differs by gender, with males exhibiting more externalising behaviours such as violence and aggression, and females exhibiting more internalising symptoms such as anxiety.

PTSD (DSM-IV-TR), Complex PTSD (Herman, 2001) and Type 2 trauma (Terr, 1995) each address trauma in a different ways thereby making comparisons between symptoms difficult (Summarised in Annexure 1). PTSD symptoms are categorised according to the three main categories namely re-experiencing, avoidance and arousal. In PTSD the main characteristics include recurrent and intrusive images or thoughts, avoidance or numbing, hyper-arousal, flashbacks or re-living and amnesia (Turnbull, 1998). The central theme of PTSD concerns symptoms associated with memories of the traumatic event.

In comparison Complex PTSD symptoms are classified according to alterations in regulation, consciousness, perception of the perpetrator, relations with others and systems of meaning. There is less focus on the memories or on experiencing the event, but rather a focus on how the trauma altered the victim across many spheres. The focus of Complex PTSD is an altered sense of self which differentiates it from PTSD (Whealin & Slone, 2009). Lastly Type 2 trauma is classified into symptoms experienced in childhood trauma and those only experienced in repetitive Type 2 trauma (Appendix 1, Table 13). What differentiates Type 2 (chronic) trauma from Type 1 (acute trauma) is a focus on defences and coping mechanisms and the activation of emotions.

It is anticipated that approximately 30% of those children and adolescents who are exposed to trauma will develop clinical PTSD (Perry 1999, in Cook-Cottone, 2004). Co-morbidity of depression with other disorders such as anxiety, posttraumatic stress disorder (PTSD), dissociative states, and trauma-related hallucinations, are common in children and adolescents (Dopheide, 2006).

2.15. Consequences of bullying

Bullying and victimisation influence not only the victims, but also bullies and witnesses. Bullying has an influence on families, friends, the learning environment, the school and the community. It can have both short and long term effects on individuals. Learners can experience multiple forms of bullying / victimisation (Felix & McMahon, 2006). It should be noted there are multiple trajectories for victimisation, as the different forms of bullying do not have the same effects and are not all equally harmful (Felix & McMahon, 2006). Research indicates that bullying can result in a complex array of outcomes similar to the diversity of symptoms experienced in trauma. The negative effects of bullying are significant, resulting in psychosocial adjustment problems (Felix & McMahon, 2006) including greater risk of criminal behaviour, delinquency, dropping out of school, health problems, drug use, and sexual harassment (Kay, 2005; Britton, 2005; Nofziger & Stein, 2006). Bullies and victims may both demonstrate academic problems (Felix & McMahon, 2006; Gini & Pozzoli, 2009)

While physical and verbal bullying has been shown to be related to psychosocial adjustment problems in both the victim and bully, relational victimisation does not show consistent findings of adjustment or psychosocial problems (Felix & McMahon, 2006). Sexual harassment, physical victimisation and verbal victimisation were strongly related to behavioural problems (Felix & McMahon, 2006).

Consequences for the Victim

Learners find peer victimisation stressful (Felix & McMahon, 2006) and victims are likely to suffer the most from bullying. As a result they show a wide range of symptoms, including anxiety, depression, low self-esteem, poor self image, loneliness, suicide, truancy, school refusal, mood changes, social withdrawal, eating disorders, school difficulties, suicidal thoughts, schizophrenia and poor sleep (Gini & Pozzoli, 2009; McLaughlin et al., 2006; West & Salmon, 2000).

Victims exhibit more internalising (withdrawal, somatic complaints, anxiety and depression) than externalising (delinquent and aggressive) behaviour problems (Felix & McMahon, 2006). It is common for victims to skip school (West & Salmon, 2000). In a meta-analysis of bullying research, health problems are seen across many sizeable surveys across the world where victims and bully/victims were shown to have significantly more psychosomatic complaints than uninvolved peers (Gini & Pozzoli, 2009). Victims have been known to

present with a variety of physical complaints including vomiting, limb pains, visual symptoms and hyperventilation (West & Salmon, 2000).

The victim's sense of self is often altered in various ways. The victim can suffer from low self esteem and have more negative views of themselves as they see themselves as failures because they allowed the victimisation to occur (West & Salmon, 2000). The psychological effects of bullying can be seen in aggression towards oneself (such as suicide) and others (Kay, 2005). Victims were more likely to have psychiatric symptoms and not function as well socially (Ivarsson et al., 2005), showing little emotional regulation and poor interactions with class mates (Gini & Pozzoli, 2009). Victims tend to be more anxious and insecure showing signs of crying, withdrawal and avoidance (Burrill, 2005). Victims showed signs of anger and vengeance, experienced as self pity, which can evolve into depression, physical illness and suicide (Borg, 1998, in Burrill, 2005).

One of the most common reactions by victims of bullying is depression (Anderson, 2007), with the resulting lack of control and sense of powerlessness when stigmatised further entrenching this depression (Anderson, 2007). The rate of depression among victims is high, with significant direct correlations between depression and the frequency of being bullied being reported (Fleming & Joacobsen, 2009; West & Salmon, 2000). After being bullied Tshwane South learners felt "mostly sad and unhappy" (41.9% in males) and "worse about myself" (28.6% in males) (Neser, Ovens et al., 2004, p. 40).

The victim of bullying often withdraws from school and society (M. E. Smit, 2003). Learners wanted to distance themselves from their old schools (Maree, 2005), as a means of avoiding any association with his bullying experience. Similarly, 11.6% of Tshwane South learners had stayed away from school because of bullying and 17.3% had thought of doing it (Neser, Ovens et al., 2004). These internalising reactions to bullying often make victims more susceptible to victimisation (West & Salmon, 2000).

Externalising reactions by victims of bullying include anger and violence expressed in the victimisation of another learner (Lyons, 2006), thereby perpetuating the cycle of bullying. Anger is a common reaction to bullying and after being bullied 50.8% of learners "felt almost angry about it" (Neser, Ovens et al., 2004, p. 40). Being sexually harassed by a male learner

resulted in significant internalising psychosocial problems for female learners (Felix & McMahon, 2006).

Consequences for the bully and Bully-Victim

A meta analysis of the literature shows that bullies had the fewest adjustment problems (Gini & Pozzoli, 2009). Bullies have more externalising problems such as inadequate school adjustment along with drug and alcohol use (Gini & Pozzoli, 2009) and delinquency and aggression (Ivarsson et al., 2005). Those who are bully-victims have both externalising and internalising symptoms coupled with high levels of suicidality (Ivarsson et al., 2005). Bully-victims do not adjust well socially and tend to be cut off, anxious, hyperactive and have troubled personalities (Gini & Pozzoli, 2009). Bullies were found to manifest more psychosomatic problems than uninvolved peers, although this was lower than that experienced by victims and bully/victims (Gini & Pozzoli, 2009). Bully-victims' most common form of victimisation was sexual harassment (Felix & McMahon, 2006). Learners who bully are likely to experience peer rejection, behaviour problems, anxiety, and academic difficulties and they also tend to engage in rule-breaking behaviour (Anderson, 2007; Maschi, 2006).

Social Cohesion: Re-victimisation

More female than male victims are willing to discuss bullying with parents, teachers, friends or siblings but this decreases as learners get older (Neser, Ovens et al., 2004). In addition parents are often unable to help and teachers are often unsupportive of victims (Maree, 2005; Neser, Ovens et al., 2004) because bullying is perceived by many as normative. Only 54.% of learners' said that things improved after reporting their experience of being bullied (Neser, Ovens et al., 2004). Being bullied can therefore lead to re-victimisation by parents and teachers who do not take bullying seriously or who do not have the means to bring about change. This serves to reinforce the sense of helplessness commonly experienced by victims of trauma and confirms their powerlessness to change their situation (Herman, 2001).

Miller (2001) highlights the importance of children having someone to talk to in order to express their true feelings. When the feelings of children or adolescents are disregarded and/or not taken seriously, especially when those children have been physically hurt and humiliated and where they feel helpless and angry, they are forced to deny their emotions and stunt self-expression. The consequence is often difficulty in identifying and empathising with

others, because they have lost touch with their own feelings (Miller, 2001). As a result, bullying that is not adequately addressed, can lead to long term mental health problems (West & Salmon, 2000).

Bullying and Structural Social Violence

Bullying is entrenched in school culture (Lyons, 2006) and bullying behaviour does not just end at school but extends into the community, into adulthood and into the workplace (Kay, 2005; M. E. Smit, 2003). Pepler et al. (2006) contend that the use of power and aggression used in bullying are essential components of sexual harassment, dating aggression, workplace harassment, marital aggression and senior abuse (D. J. Pepler et al., 2006). They go on to argue that there is an enduring continuity in bullying behaviour manifesting in a range of other aggressive behaviours also characterised by the exercise of power and aggression.

Within the South African context, the dialectic between bullying in schools and violence within a broader community context needs to be considered. There is concern that bullying is a form of behaviour where adolescents learn to use aggression to establish power in a relationship (D. J. Pepler et al., 2006). Sensoi (2003, in Maree, 2005) warns that many South African learners have become accustomed to violent acts as a result of the society that learners are brought up in and as a result see violence and bullying as an appropriate means of conflict resolution. Maree (2005) highlights how school bullying "runs through the hierarchy of … violent deeds [violent school offences] like a golden thread" (p. 17). Maree (2005) contends that there is a link between corporal punishment and bullying in schools and the advent of criminal behaviour at a societal level, a contention that is supported by evidence of the link between bullying and legal and criminal problems in adults (Kay, 2005; M. E. Smit, 2003). Englander (2007) states that bullying behaviours are comparable to hate crimes where differences between people based on factors such as race, gender or physical features are targeted or "othered".

2.16. Bullying and trauma

There has been scant research focussing on bullying and symptoms of trauma. Those identified had all been published within the last 8 years and most within the last 5 years. Three studies were found on workplace bullying (Guy & Guy, 2007; Mikkelsen & Einarsen, 2002; Tehrani, 2004) and three were found on school victimisation and trauma (Burrill, 2005; Carney, 2008; Kay, 2005). According to Burrill (2005) depression, anxiety and anger are the

psychiatric symptoms most frequently researched in connection with bullying. Trauma has not been addressed and it could be argued that it is due to the difficulty in meeting Criteria A, where incidents of bullying do not result in threatened death or serious injury, or threat to the physical integrity of self or others. Sample sizes in these studies are also small and are not always coupled with reliable and valid measures of bullying. No such studies were found from South Africa, which is one of the most violent societies in the world.

Bullying and children / adolescents

Bullying is a form of chronic repetitive abuse that has a traumatic impact on all parties involved, including the bully, the victim, the bully/victim and the bystander (Carney, 2008). Learners experienced greater levels of trauma as the frequency or exposure to bullying increased, with higher impact and avoidance being evident for female learners in response to physical bullying (Carney,2008).

Burrill's (2005) study using a sample of 147 learners between 9 and 12 years of age showed a significant correlation between bullying and trauma. Symptoms of posttraumatic stress and dissociation based on the Trauma Symptom Checklist for Children (TSCC-A) showed a positive correlation with victimisation. Symptoms of depression, anxiety and anger were also positively related to bullying behaviours and victimisation. No significant differences were evident with regard to the severity of bullying and between grades, age or gender. Academic performance merged as a significant predictor of trauma, with higher performing victims (n=69) exhibiting significantly lower levels of trauma and depressive symptoms than their lower performing peers (Burrill, 2005).

In a study on 373 British and 1007 American school children, Kay (2005) found that bullying can result in PTSD symptoms, with American males showing higher risks of PTSD symptoms than other groups. Clinical PTSD occurrence rates were however low. Sexual harassment resulted in the greatest rates of PTSD. In addition suicide and bomb-threats resulted in high sub-clinical PTSD symptoms in both countries. Observing violence resulted in high sub-clinical PTSD symptoms in the American sample but not the British sample. There were no differences by gender on the presence of PTSD. PTSD symptoms increased with increased exposure to worst experiences which corresponds with Terr's Type 2 chronic exposure to a stressor and is exacerbated by limited social support for victims (Kay, 2005).

In addition Kay (2005) identified types of victimisation that extended beyond the current categories and emphasised the social nature of bullying, including the role of the bystander. The study found that being teased, which has previously been subsumed under the category of verbal bullying, could more accurately be included in an interpersonal relational category and that this behaviour was identified as the most common negative bullying experience. This highlights that fact that teasing "is a more complex, loaded and damaging behaviour than previously thought" (Kay, 2005, p. 168). In this study, name-calling was identified as the most common form of bullying; and teasing and being embarrassed were the worst yet most frequent events. Name-calling was seen as different from teasing and being embarrassed. Kay (2005) states that it is these common events that are most stressful, yet they are not conceptualised as extreme traumatic events in terms of the current diagnosis of PTSD. Socially disruptive events were also identified as one of the worst experiences, highlighting the social nature of bullying, although school staff is more likely to intervene in physical bullying than social bullying.

2.17. Motivation for research

According to de Wet (2007) very little research on school violence has been conducted in South Africa. In addition very little has been completed on bullying, and Lyons (2006) states that bullying cannot be dealt with as the extent of bullying is not properly understood, and that in order to combat bullying the effects on the lives of children and adolescents needs to be understood**.**

Children and adolescents are unable to speak for themselves and it is argued that research documenting correlations between bullying and trauma is sorely needed to inform an appropriate conceptualisation and definition of PTSD. In addition, it is important that alternative stressors be included to qualify for PTSD, in line with current efforts to redefine the notion of PTSD in the DSM V (Herman, 2001).

CHAPTER 3: Methodology

3.1. Aim and objectives of the study

The broad aim of this research study was to understand the relationship between bullying and trauma in a sample of male adolescent learners within a South African school context.

The specific objectives of this study were to:

- establish the prevalence and forms of bullying with reference to the different bullying roles (the bully, the victim, the bully-victim and the bystander);
- assess the degree of trauma experienced by learners, operationalised through the constructs of posttraumatic stress, anxiety, depression, dissociation and anger; and
- determine the strength and direction of the relationship between the dimensions of bullying and symptoms of trauma experienced by learners, with particular reference to bullying and PTSD.

3.2. Research design

A cross-sectional survey design was used to investigate the primary variables of bullying and trauma in a sample of male adolescent learners in a South African school setting. Two objective measures were used to gather quantitative data reflecting learners' behaviours, attitudes, emotions and life experiences at a specific point in time, with reference to bullying and trauma. By using objective measures on a saturation sample of learners, it was anticipated that this study would provide statistically circumscribed findings in terms of the prevalence of bullying and associated symptoms of trauma within the defined study population.

Using a correlational design, this study analysed the relationships between several pertinent aspects of bullying (such as bullying roles, frequency of bullying, types of bullying) and trauma (measured by posttraumatic stress, dissociation, anxiety, depression and anger). A correlational research design was used because it enabled the researcher to statistically examine and describe the relationship between the variables in the study (Tredoux & Durrheim, 2002). Caution was exercised in interpreting these correlations, so as not to discount the impact of unknown factors, co-variants or antecedents on the variables measured and in not imputing a causal relationship between the variables (Tredoux & Durrheim, 2002). This delimits the outcomes of the study in that the use of a correlational research design precludes the determination of causal relationships and the identification and influence of

potential extraneous variables on the relationship between bullying and trauma. A correlational design was appropriate and valuable in the context of this study, however, in that it allowed for a statistical exploration of relationships between dimensions of bullying and trauma in an embryonic research area, thereby charting the way forward in terms of further research in this field.

3.3. Participants

3.3.1. Criteria for selection of target school

In light of resource constraints for this study, it was deemed cheaper, quicker and expedient to select a single school as the site for this study. This school was purposively selected based on a number of specific criteria, as follows:

- High school comprising of adolescent learners: adolescent learners were selected as bullying increases with the transition from primary school to high school (Pellegrini & Long, 2002). There is a paucity of South African research on bullying across all high school grades and research has produced conflicting prevalence rates within these grades across studies (Flisher et al., 2006; Neser, 2005; Neser et al., 2003; Reddy et al., 2003). Studies on South African high school learners indicate that learners from lower grades experience more bullying behaviour than learners from higher grades (Flisher et al., 2006) and that the prevalence of bullying is higher across all grades in comparison to international studies (Neser, Ladikos et al., 2004). In addition, developmental differences in the impact of bullying and trauma across all grades and ages need to be considered. The target population therefore included learners across all grades within this high school.
- A single sex boys' school: given the resource limitations of this study, gender was eliminated as an independent variable so as maximise the statistical power of the analysis. A single sex school was accordingly targeted. In addition, research indicates that boys are involved in more physical forms of violence than girls. Based on the current definition of PTSD Criteria A, which necessitates that "the person experienced, witnessed, or was confronted with threatened death or serious injury, or threat to the physical integrity of self or others" (Turnbull, 1998, p. 25) it was likely that male bullying would precipitate more obvious trauma symptoms and thereby meet the objectives of the study.
- South African demographics: in order to maximise the relevance of the findings for other schools in the province (even though the results are not statistically

generalisable), a school that reflected the KwaZulu-Natal population demographics (in terms of race and social class variables) was identified.

- Ownership of the study: the target school should demonstrate the fullest possible ownership of the study and its outcomes. This would ensure the school's complete support in the execution of the study and importantly, maximise the possibility of the results being meaningfully used to inform the school's anti-bullying/victimisation intervention strategies, including the Life Orientation Curriculum.
- Size of the learner population: a relatively large learner population was considered vital so as to maximise the statistical power of the analysis. Key considerations included the findings of prior research which indicates that between 17.8% and 39% of learners are bullied in KwaZulu-Natal (Flisher et al., 2006; Reddy et al., 2003) and further that the distribution of the four bully roles is uneven (Flisher et al., 2006; Liang et al., 2007; Neser et al., 2003). For these reasons, it was important to target a relatively large boys-only school with as large a learner population as possible (within the constraints imposed by the preceding three selection criteria), so as to maximise cell size for the purpose of statistical analysis.
- History of bullying: an ideal target school was one with a demonstrated history of bullying, as this would maximise the possibility of discerning relationships between bullying and trauma, in line with the study objectives.

3.3.2. Research setting and access

The above criteria were used to purposively identify an urban public boys' high school in the Durban Metropolitan region, which contains approximately 59 other high schools. The school principal was approached and his formal permission was obtained to conduct the research at the school. While the learner population comprised of 781 learners from grades 8 to 12, the research population comprised approximately 620 learners from grades 8 to 11 (excluding grade 12 learners). Grade 12 learners were not included in the study as they are 17 years and older which does not make them suitable for the Trauma Symptom Checklist for Children (TSCC-A), the measure which was used in this study. In addition, the school principal was not comfortable with including grade 12 learners in this study as the fieldwork was thought to be disruptive to preparations for their final examinations.

3.3.3. Population demographics

The school is a single sex, multi-racial school and comprises 83% black learners, 10% Indian or coloured learners and 7% white learners. The demographics of learners at this school thus closely reflect the demographics of the KwaZulu-Natal population, i.e. 85% Black, 2% Coloured, 8% Indian or Asian, and 5% White (Statistics South Africa, 2001). These learners emanate from a suburb where the majority of families are from middle and lower income socio-economic groups.

3.3.4. Sampling strategy

Saturation sampling was used to select a probability sample from the defined study population. This ensured that the findings are generalisable to the school population within tolerated and specified levels of statistical error. The inclusion of all learners from grades 8 to 11 was also considered essential so as to preclude perceptions of any form of discrimination against learners, and consequently any inclusion/exclusion bias which might contaminate the study findings. The inclusion of all grade 8 to 11 learners in the sample was also important in setting the platform for ownership and buy-in from learners for possible interventions arising from this study, which would take place in the 2010 academic year.

3.3.5. Sample size and demographics

Formal parental consent for participation was requested and no parents prevented their children from participating in the study. The questionnaires were administered to all students in grades 8 to 11 who were at school on the day that fieldwork was conducted with their class, and provided that they were willing and had volunteered to participate. The final sample for this research study accordingly comprised of 509 grade 8 to grade 11 boys, with thirteen questionnaires being excluded from analysis as they were inaccurately and/or incompletely answered.

The sample (n=509) consisted of 75.8% black, 9.6% white, 9.1% Indian, 4.1% coloured, 0.4% Asian, and 1.0% other learners. Learner cohorts were spread relatively equally across grades and academic streams (A to F&G). The age range of the sample was from 12 to 17 years, with grade 8 ranging from 12 to 16 years, grade 9 from 14 to 17 years and grades 10 & 11 ranging from 15 to 17 years. The mean age of study participants was 15.23 years (SD=1.21) and 24.5% of the learners had repeated a grade.

3.4. Research instruments

Two standardised measures were identified for use in the study; one to measure bullying/ victimisation and the other to measure trauma. Several factors informed the final selection of these two measures, in that they should:

- operationalise the respective constructs under investigation as closely as possible;
- be appropriate for use with the age groups under consideration;
- have demonstrably good psychometric properties as evidenced by previous research;
- be of sufficient scale-strength so as to enable inferential statistical analysis;
- should work well together as a unitary instrument from the learner's perspective ; and
- be completed within a single class period of 50 minutes so as not to disrupt the school curriculum.

Based on an extensive and intensive review of the literature, and with due consideration of the above criteria, the Revised Olweus Bully/Victimisation Scale (OBVS) and the Trauma Symptom Checklist for Children (TSCC-A), were selected for use in this study (see Appendix 2 for a review of instruments previously used to measure bullying and trauma).

3.4.1. Bullying Measure: Olweus Bully/ Victimisation Scale (OBVS)

The various measures used for bullying were identified and considered (Appendix 2) and the OBVS was selected (Appendix 3, Section A). The OBVS was developed by Olweus in 1978 and was revised by the author in 1996 (Solberg & Olweus, 2003). This measure was used to assess the prevalence, forms and frequency of bullying behaviour in the selected sample.

3.4.1.1. Response mode and timing

The OBVS is a 38 item self-completion questionnaire which explores key dimensions of bullying in schools. The first section comprises of items which investigate bullying as experienced by victims, while the second section includes items which explore the experiences of those who bully other learners. Based on a preliminary discussion with school staff, two new items were added to investigate whether bullying at this school took the form of taking food away from learners. These were included as question 8b and 28b. The questionnaire takes 15 to 20 minutes to complete.

The majority of items are answered on a Likert-type response scale which increase steadily in severity based on the frequency that the behaviour has occurred, while a few items (such as

location of bullying) are answered dichotomously. An example of a question from Section 1 is included in Figure 1. This is a form of verbal bullying and allows the victim to identify the frequency of bullying.

Figure 1
Sample question from the revised Olweus Bully/Victimisation Questionnaire (Olweus, 2003)

4. I was called mean names, made fun of, or teased in a hurtful way

It hasn't happened to me in the past couple of months
Only once or twice
2 or 3 times a month
About once a week
Several times a week

The OBVS measure covers a wide range of topics and areas of bullying. These include attitudes of learners towards their school; the different forms of bullying; being bullied and bullying others; frequency of bullying and bullying others; peer and teacher relations; peer and teacher reactions or counteracting of bullying; location of bullying, witnessing of bullying; and reporting of bullying incidents.

The instrument facilitates the categorisation of learners into four specific bullying roles as follows:

- The victim, who has been victimised or bullied by another learner;
- The bully, who has bullied other learners;
- The bully-victim, who has both bullied others and has been bullied himself / herself; and
- The bystander, who has witnessed other learners being bullied but has not been bullied himself / herself.

3.4.1.2. Psychometric properties

The OBVS measure has been extensively used and adjusted and improved over the years to produce very good psychometric properties. A Cronbach's alpha of 0.80 and higher has been reported for internal consistency of items, with good evidence of construct validity for the dimensions "bullying others" and 'being victimised'(Olweus, October 2000). The OBVS measure provides comprehensive insights into bullying behaviour among learner populations,

which can be used by participating schools to inform their intervention strategy, possibly using the Olweus's prevention programme (Olweus, 2005).

3.4.2. Trauma Measure: Trauma Symptom Checklist for Children (TSCC-A)

The various measures used for trauma were identified and considered (Appendix 2) and the TSCC-A was selected (Appendix 3, Section B). Developed by Briere (1996), the TSCC is a children's version of the Trauma Symptom Checklist for adults and assesses a broad range of traumas (Briere, 1996). In addition to acute or single event trauma, the TSCC measures chronic trauma and specifically victimisation by peers (Briere, 1996). It has been used effectively by Burrill (2005) in a school setting to investigate the relationship between bullying and trauma. The TSCC-A is a 44 item alternative version of the TSCC that excludes sexual trauma. The sexual trauma sub-scale was deliberately excluded from this study because it was considered too invasive ethically and because it would impose a time requirement which could not be met given that the school only allowed a single teaching period for questionnaire administration.

3.4.2.1. Response mode and timing

The TSCC-A has 5 clinical scales: Anxiety: Depression; Post-traumatic Stress; Dissociation and Anger. The TSCC-A is a self-completion questionnaire and is appropriate for children from 8-17 years of age, taking approximately 10 to 20 minutes to complete (Briere, 1996). Participants are asked to answer how often they experience certain events. For each item, participants record the frequency with which the statement is relevant to him / her. This is answered on a 4 point Likert-type response scale which ranges from 0 (never) to 3 (almost all of the time). Examples of the first three questions are provided in Figure 2. Item 1 and 3 are examples of the Post-traumatic stress sub-scale and item 2 is an example of the Anxiety sub-scale (Briere, 1996).

Figure 2
Sample questions from the trauma symptom checklist for children (Briere, 1996)

How often do each of these things happen to you?	**Never**	**Sometimes**	**Lots of times**	**Almost all of the time**
1. Bad dreams or nightmares.	0	1	2	3
2. Feeling afraid something bad might happen.	0	1	2	3
3. Scary ideas or pictures just pop into your head.	0	1	2	3

3.4.2.2. Subscales

The TSCC-A is not designed to produce a composite score for trauma across all items, but rather a score for each sub-scale, which are assessed individually (Briere, 1996). There are 44 items and three of the items are used in 2 scales each. These sub-scales are described below (Briere, 1996, p. 2):

- Anxiety consists of 9 items. This scale measures "generalised anxiety, hyper-arousal, and worry; specific fears (e.g. of the dark); episodes of free-floating anxiety; and a sense of impending danger".
- Depression consists of 9 items. This scale measures "feelings of sadness, unhappiness, and loneliness; episodes of tearfulness; depressive cognitions such as guilt and self-denigration; and self-injuriousness and suicidality".
- Anger consists of 9 items. This scale measures "angry thoughts, feelings, and behaviours, including feeling mad, feeling mean, and hating others; having difficult de-escalating anger, wanting to yell at or hurt people; and arguing and fighting".
- Post-traumatic stress consists of 10 items. This scale measures "posttraumatic symptoms, including intrusive thoughts, sensations, and memories of painful past events; nightmares; fears; and cognitive avoidance of painful feelings".
- Dissociation consists of 10 items. This scale measures "dissocialize symptomology, including derealisation; one's mind going blank; emotional numbing; pretending to be someone else or somewhere else; day-dreaming; memory problems; and dissociative avoidance". This scale comprises two subscales measuring overt dissociation and fantasy.

3.4.2.3. Psychometric properties

The TSCC-A has two validity scales, Under-response (UND T) using 10 items and Hyper-response (HYP T) using 8 items. According to Briere (1996), these two validity scales screen for a child's tendency to either deny or to over-report a symptom respectively. Those learners who under-respond are likely to be defensive, avoidant or oppositional to test taking; while those who hyper-respond reflect an over-responsive style, want to appear distressed or it could be a 'cry for help'.

The TSCC was normed on 3008 children and has strong psychometric properties. Cronbach's alpha coefficients show good internal consistency for both the normative and clinical samples. For the normative sample, alpha scores ranged from .82 (for Depression) to .89 (for Anger). For the clinical samples, alpha scores ranged from .80 to .89 (Briere, 1996).

Briere (1996) reported that the TSCC returned good concurrent validity when it was measured against other relevant scales, with children's scores appropriately decreasing over time as they received treatment for their traumatic experiences (Briere, 1996).

3.4.2.4. Normative comparisons for a clinical diagnosis

The TSCC-A enables raw scores to be transformed into *T* Scores for normative comparison. *T* Scores between 60 and 65 indicate a sub-clinical diagnosis and scores above 65 are considered clinically significant (Briere, 1996).

3.5. Data collection and procedure

The Principal of the school was initially contacted to discuss the project, and all subsequent communication occurred with the Head of Life Orientation / Senior School Counsellor. Both parties felt that the study would benefit the school and its learners and were pleased at the prospect of using the findings to inform their anti-bullying interventions. The principal discussed the study with all staff, and preliminary approval was given for the research project (Appendix 4), pending ethical clearance from the UKZN Higher Degrees Committee. Once ethical clearance was obtained, the study moved forward to the fieldwork phase.

The school facilitated letters being sent to all parents via the learners informing them of the research, giving details of the researcher and supervisor and asking parents to return a tear-off slip should they not want their children to participate (Appendix 5). These letters were

distributed towards the end of the second term, giving parents sufficient time to discuss any issues and raise any concerns that they might have had.

During the last week of the second semester, the researcher briefed all the teachers and answered any questions that arose, prior to commencing fieldwork. Samples of the questionnaires that were going to be used were given to the teachers for discussion and edification.

The two measures were group-administered in the form of a single questionnaire (Appendix 3) to each class of learners, during their Life Orientation (LO) period at the beginning of the third term. The researcher was introduced to the school during assembly and spoke to the learners about the purpose of the study. At the start of each LO class, prior to the administration of the questionnaire, the purpose and scope of the research was explained to the learners again (Appendix 6). On both occasions, confidentiality and anonymity of participation was emphasised and the impartiality of the researcher was highlighted. Learners were assured that only the researcher would have access to the completed questionnaires and that under no circumstances would any teacher or other third party have sight of the completed forms. The learners were informed of their right to choose whether they wanted to participate and their right to withdraw at any time. The benefits that the research project would bring to the school and the learners were clearly communicated. Participants were asked to complete an informed consent form should they agree to participate (Appendix 7). Those choosing not to participate were reassured that they would not be prejudiced in any way and these learners were asked to continue with pre-assigned class work.

The learners were then briefed on what was expected of the class during the period and were given comprehensive instructions on how to fill out the form, including that it would occur under exam-like conditions, where talking or looking at one another's work was discouraged. The introductory section of the questionnaire was read out to the class before work on the questionnaire commenced. Once they had completed the questionnaire, participants placed their questionnaires in a box in the front of the class. At the end of the session, the box was opened by the researcher and all questionnaires were publicly sealed in a large envelope that was removed off-site by the researcher. Participants were debriefed at the end of the session, where any relevant questions, concerns or issues raised were addressed. Completed

questionnaires from all classes were immediately removed from the school and taken off-site by the researcher.

The measures took approximately 30 to 40 minutes to complete. Each period was 50 minutes long, which allowed sufficient time for learners to settle and for all questions to be answered at the end of the session. However, a few classes started late, with the result that some learners were unable to complete the questionnaires. These incomplete TSCC-A scales were subsequently excluded from the analysis.

3.6. Ethical considerations

The main ethical issues that were considered related to the age of the participants and the sensitive nature of the topic. Research on bullying could be sensitive, especially for those adolescents who have been bullied and who might have been traumatised. In this respect, participants were informed that they could call on the researcher and/or supervisor for assistance, either during the debriefing session or at any time thereafter, either directly or via their LO teacher. In addition the school had two counsellors who could be approached for assistance at the learner's own discretion. Arrangements were also made for referrals to the Counselling Clinic at the School of Psychology for trauma counselling as necessary, as it is was considered crucial to not perpetuate the re-victimisation of learners. No such referrals were deemed necessary in the four months that had elapsed since completion of data collection.

The use of a quantitative questionnaire which was completed anonymously under exam-like conditions was considered important in that it helped to mitigate the fear of self-disclosure that might be more evident in qualitative research, where face-to-face disclosure might exacerbate possible threat or distress arising from invasive questioning.

Letters were sent to parents informing them of the research that was set to take place. Informed consent letters, addressing the issue of autonomy, were provided and signed by all participants before the questionnaire was administered. Both learners and their parents had the choice of whether or not to participate, and it was made clear that they could withdraw from the study at any time. Non-malificence has been central to the design of the study. The method of data collection, a questionnaire, was chosen in order to reduce anxiety related to the topic of discussion. The measures used were chosen to reduce any risk associated with badly worded measures and the TSCC-A was selected as this excludes sexual concerns that

could be deemed too sensitive and invasive in a school setting. The school counsellors and life orientation teachers were available to offer support to learners with any problems or issues that they wanted to discuss subsequent to the research. The concept of equipotentiality was considered and it was believed that the benefit of the data obtained outweighed the possible risks to the learners.

The identity of the school, and of individual learners, will be kept confidential in all publications emanating from this research. All raw data and electronic data-bases connected with this study will be kept for 5 years by the researcher's supervisor in a safe location within the School of Psychology, after which it will be destroyed.

A key criterion for school selection was buy-in and ownership from the participating school. The advantage from an ethical standpoint is that the school would be receptive to receiving a report (written and oral) that would most likely be used to develop anti-bullying interventions. In addition the use of the OBVS scale is supported by an effective intervention programme which was made accessible to the school.

3.7. Data analysis

The data was analysed using the Statistical Package for Social Scientists (SPSS, version 15.0). The data was pre-coded for data-input into SPSS. Each questionnaire was numbered and the class and academic grading recorded from each class envelope. Each questionnaire was recorded separately. The data was first entered into Microsoft Excel as suggested by Tredoux & Durrheim (2002) and then prepared and checked for accuracy. After this the data was transferred into SPSS and all analysis was completed in SPSS.

The purpose of the analysis was to establish the prevalence and forms of bullying with reference to the different bullying roles; to assess the degree of trauma experienced by learners; and to determine the nature and direction of the relationship between the dimensions of bullying and symptoms of trauma experienced by learners.

3.7.1. Measures:

Once entered and audited, all data was assessed for validity as specified in the TSCC-A manual and by screening for missing data (Briere, 1996).

3.7.1.1. OBVS

This measure consisted of 38 items with the majority consisting of 5 point Likert-type scale items. Solberg & Olweus (2003) state that the optimal cut-off point to determine whether a learner is 'involved' or 'non-involved' in bullying is between "only once or twice" and "2 to 3 times a month" (p. 256). The distinction between bullies and victims is rendered by a consideration of those learners who admitted to being a bully or victim and those who have experienced or have participated in bullying or victimisation behaviour. It was important that all frequencies of bullying be recorded as the analysis necessitated that the trauma *T* Scores of the TSCC-A subscales be compared against the frequency of bullying. As a result there are multiple definitions of bullying (based on frequency) that are described in the analysis. Analysis focused on the various roles and frequency of bullying (bully, victim, bully/victim, and witness); the types of bullying; the locations of bullying; personal reactions to bullying and peer and teacher reactions.

3.7.1.2. TSCC-A

Each item was recorded on a 4 point Likert-scale ranging from 0 (never) to 3 (almost all the time) (Briere, 1996). Scale-scores for each of the 5 scales were calculated. The scores ranged from 0 to 27/30 (depending on the number of items in each scale) with higher scores reflecting greater symptomology. The 5 subscale raw TSCC-A scores were then converted into *T* Scores based on the age and sex of the child. These were then checked for accuracy. There were 486 questionnaires that could be accurately included according to the TSCC-A criteria. *T* Scores equal to or above 60 were considered sub-clinical and those above 65 were considered clinically significant (Briere, 1996).

The UND *T* and HYP *T* Scores were calculated and these scores were compared against the normative standards. A score of more than 70 for UND *T* is considered invalid for an individual clinical diagnosis, and those between 65 and 70 are viewed and interpreted with caution. HYP *T* scores greater than or equal to 90 are considered invalid, and those between 75 and 89 are viewed and interpreted with caution (Briere, 1996). There were 24 learners who were classified as UND and 11 learners who were classified as HYP. It was decided to include these learners in the analysis, as the above distinctions are relevant to clinical intervention and do not have a negative impact in terms of the research questions under investigation. If anything, learners with UND responses are certainly not exaggerating their levels of trauma and learners with HYP responses might indeed be crying for help rather than

exaggerating their traumatic experience. In any event, the inclusion of these learners did not impact significantly on the direction and trends of the analysis.

3.7.2. Descriptive statistics

Descriptive statistics (frequencies, means, percentages and standards deviations) were used to analyse the biographical information (age, grade, academic grading and race) and the bullying and trauma measures. These statistics include the prevalence rates of bullying according to the specified roles (bully, victim-bully, victim, bystander). Frequencies, mean values and standard deviations were used to facilitate a comparison between the various bullying roles and the TSCC-A subscales.

3.7.3. Inferential statistical analysis

Cronbach's Alpha scores were calculated to determine the reliability of the TSCC-A subscales. A correlation matrix was created between the forms of bullying and the five trauma scales. The Pearson product-moment correlation coefficient (r) was used to determine the degree of linear association between the variables, while coefficients of determination (R^2) were calculated to determine the size of the effect. This correlational analysis thus indicated the direction and strength or degree of relationship between the variables. Correlations were also run between the biographical variables and the trauma scales and no significant findings emerged.

MANOVA's which includes ANOVA's were used to test for differences between the mean scores where there were 2 or more groups of independent variables. To determine whether significant differences exist between variables, such as the frequencies of bullying experienced , a one-way multivariate analysis of variance (MANOVA) was conducted in order to assess the distribution of scores and determine how they differ from one another (Tredoux & Durrheim, 2002). Adequate cell and sample sizes are vital considerations in determining whether or not MANOVA is indicated. Post hoc tests (such as Levene's test) were conducted to ensure that this type of analysis was relevant, with all underlying assumptions being carefully assessed to determine fitness of purpose.

Lastly, a binary-logistic regression analysis was run to test the predictive impact of bullying variables on sub-clinical and clinical traumatic diagnoses. The model was constituted by a number of predictor variables connected with the bullying experience, such as length of

bullying, whether the learner had skipped school, whether he was afraid of being bullied and the various types of bullying experienced. These were examined to determine the contribution of each variable in the model and the extent to which it accounted for the variance in trauma diagnosis. Although regression is a technique based on correlation, it enables a more sophisticated multivariate exploration of the interrelationships amongst a set of variables than rendered by simple correlational analysis. Again, it needs to be highlighted that while this did not generate evidence of a causal relationship, it did indicate the variance in trauma diagnosis that can be explained by the predictor variables associated with bullying.

CHAPTER 4: Results

Using SPSS (Version 15.0), descriptive and inferential statistical analysis was carried out on the demographic data, the OBVS scale and the TSCC-A scale and the results are presented below. Where respondents failed to answer a question, this was recorded as "missing" data and is indicated where appropriate.

4.1. Descriptive statistics

Descriptive statistics in the form of frequencies, means and standard deviation (SD) scores are presented below.

4.1.1. Sample demographic statistics

The demographic characteristics of the sample reported in the previous chapter are summarised in Table 1. The sample is relatively evenly spread across the grades (8 to 11), academic streams (A to F&G) and ages (12 to 17). A quarter of the sample (123 learners or 24.5%) have repeated a grade. The vast majority of the sample was black (75.8%) with the remainder being white, Indian and coloured. Only 56.1% of the sample was cared for by both their mother and father, with 28.7% being taken care of by their mother only, 8.1% by a female guardian only, and 5.9% by their fathers only.

Table 1

Demographic characteristics of participants (N=509)

Characteristic	n	%
Grade		
8	171	33.6
9	122	24.0
10	110	21.6
11	106	20.8
Academic Stream		
A	92	18.1
B	91	17.9
C	69	13.5
D	79	15.5
E	86	16.9
F & G	92	18.1

(Table 1 Continues)

(Table 1 Continued)

Characteristic	n	%
Repeated a Grade		
Yes	123	24.5
No	379	75.5
Missing	7	
Age		
12	2	0.4
13	33	6.5
14	120	23.6
15	136	26.8
16	124	24.4
17	93	18.3
Missing	1	
Race		
Black	385	75.8
Indian	46	9.1
Coloured	21	4.1
White	49	9.6
Asian	2	0.4
Other	5	1.0
Missing	1	
Person who takes care of learner at home		
Father and Mother	284	56.1
Mother only	145	28.7
Father only	30	5.9
Female guardian / aunt / granny only	41	8.1
Divorced	6	1.2
Missing	3	

4.1.2. School contentment

Whether learners liked school; the number of friends that learners had at school; and whether they were afraid of being bullied at school, together give an indication of learners' contentment at school (Kristjansson, Sigfusdottir, Allgrante, & Helgason, 2009). Only 37.6% of the sample of learners liked school; 48.7% of the sample neither liked nor disliked school and 13.7% disliked school. The highest proportion of learners who liked school were in grade 9 (45.1% of grade 9 learners) and the lowest were in grade 11 (26.4% of grade 11 learners). Generally, learners in higher grades liked school less than their younger peers.

Forty four learners (8.0%) stated that they had no good friends at school whereas 204 (40.6%) had 6 or more good friends. In addition, 55.4% of the sample was 'never afraid' of being bullied at school, indicating that 44.6% of learners harboured some level of fear of being bullied at school. Grade 8 learners were the most afraid of being bullied at school (59.3%) and this declined with each successive grade. Seventy four percent of grade 11 learners were

never afraid of being bullied at school, whereas only 40.7% of grade 8 learners were never afraid of being bullied at school. A total of 23 learners admitted to sometimes skipping school because of being bullied.

4.1.3. Bullying statistics

The OBVS questionnaire was specific about both the time frame and definition of bullying that was used (found in the Questionnaire, Appendix 3). All learners were made aware of the instructions detailing both of these factors. The time frame for being bullied and / or victimised was confined to the 2009 academic year.

4.1.3.1. Prevalence of bullying

Table 2

Frequency and percentage of learners who admitted and experienced victim and bully roles

	Victim				Bully			
	Admitted		Experienced		Admitted		Participated in	
	n	(%)	n	(%)	n	(%)	n	(%)
N/A or Has not happened	345	(67.91)	202	(39.76)	353	(70.18)	258	(50.99)
All behaviour	163	(32.09)	306	(60.24)	150	(29.82)	248	(49.01)
Only happened once or twice	105	(20.67)	173	(34.06)	111	(22.07)	163	(32.21)
Behaviour that occurred more than only once or twice	58	(11.42)	133	(26.18)	39	(7.75)	85	(16.8)
2 or 3 times a month	23	(4.53)	33	(6.49)	20	(3.98)	23	(4.55)
About once a week	9	(1.77)	29	(5.71)	6	(1.19)	19	(3.75)
Several times a week	26	(5.12)	71	(13.98)	13	(2.58)	43	(8.5)
Weekly (Chronic) Behaviour	35	(6.89)	100	(19.69)	19	(3.78)	62	(12.25)
Total	508	(100)	508	(100)	503	(100)	506	(100)

Victims

While 32.1% of all participants admitted to being bullied, close to twice as many learners (60.2%) reportedly experienced at least one form of bullying or victimisation specified in the OBVS Questionnaire (Table 2). The frequency of admitting and experiencing bullying declined from a high in grade 8 (47.4% and 66.7% respectively) to 17.0% and 50.0%

respectively in grade 11 (Appendix 8, Table 14). Applying Solberg & Olweus's (2003) recommended cut-off point to determine whether a learner is 'involved' or 'non-involved' in bullying (i.e. bullying that occurs two or three times a month or more), 11.4% of learners admitted to being bullied and 26.2% experienced bullying. Learners who experienced bullying once a week or several times a week were defined as experiencing chronic bullying. Thirty five learners (6.9%) admitted that they had been chronically bullied, but when those who had experienced chronic bullying were considered, this increased to 100 learners (19.7%); and similar increases were evident across all grades. The greatest frequency of bullies came from learners in a higher grade (43.5%) followed by those learners in the same class (21.7%). The bullying was perpetrated most frequently by one learner (39.5%) followed by 2-3 learners (36.8%) and then by larger groups of 4-9 learners (12.4%). The duration of bullying was relatively short, with 55.1% of bullying lasting 1 to 2 weeks and 16.0% lasting for a month. Bullying that lasted for six months or longer accounted for 28.8% of reported bullying. The duration of bullying over a period of time and the number of incidents both have an impact the chronic nature of bullying.

Bullies

In Table 2 almost a third of the sample (150 learners or 29.8%) admitted to bullying other learners, but this increased to nearly half of the sample (248 learners or 49.03%) when looking at those who participated in bullying behaviour. Applying Solberg & Olweus's (2003) cut off point, 7.8% of learners admitted to bullying others and 16.8% of learners participated in bullying others two or three times a month or more. The majority of bullies (111 learners or 22.1% of the sample) admitted to bullying only once or twice and only 13 learners (2.6%) admitted to bullying several times a week. This is in contrast to the high number of learners (71 or 14%) who reportedly experienced daily or chronic bullying (Table 2). The number of learners who participated in chronic bullying (once a week or several times a week) (62 learners or 12.3%) is substantially higher than those who admitted to bullying (19 learners or 3.8%), with the highest prevalence of chronic bullies seen in grade 10 and 11 (Appendix 8, Table 15).

Bully-Victims

The number of learners who admitted to both bullying and victimisation was calculated. A total of 54 learners (10.6% of the sample) were identified as bully-victims (Appendix 8, Table

16). When identifying those learners who experienced and participated in bullying, the number of learners who are bully-victims more than triples to 173 learners (34.0%).

Bystanders (Observed Bullying)

The majority of learners (357 or 73.6%) have seen other learners their age being bullied. Grade 8 and 9 showed similar levels of observing bullying (71.2% and 68.8% respectively), while grade 10 and 11 learners observed more learners of the same age being bullied (76.5% and 73.6% respectively).

4.1.3.2. Types of bullying

The types of bullying experienced and participated in can be categorised into 4 broad areas, namely verbal bullying, physical bullying, social exclusion and theft or damage of possessions. The most common types of bullying appeared to revolve around verbal insults to others (52.6%). The highest prevalence within this category related to the use of mean names, being made fun of or being teased in a hurtful way, with 210 learners (41.3%) being bullied in this fashion. This was followed by141 learners (26.6%) who admitted to having lies or false rumours spread about them. The use of cell phone or internet bullying was one of the least frequent methods of bullying experienced (5.1%), although open ended questions did indicate that this type of bullying was associated with threatening messages or bullying of a racial or sexual nature. While bullying about race or colour was relatively high (110 learners or 21.7%), fewer learners (71 or 14.2%) admitted to bullying others in this way. Bullying with a sexual meaning was low in comparison to other types of bullying (64 learners or 12.6%).

The use of physical bullying or threats to the person was the second highest broad category of bullying experienced by learners. 103 learners (20.3%) stated that they have been physically bullied and 104 learners (20.5%) reported that they had been forced to do things that they did not want to do. In comparison, only 66 learners (13.1%) admitted to physically bullying others. Social exclusion was the third most commonly experienced form of bullying (94 learners or 18.6%), with a correspondingly large number of learners admitting to bullying others in this way (16.5%). The last category of bullying concerned theft and/or damage of other learners' possessions. Fewer learners admit to bullying others in this way (9.0%) than those who admit to having being bullied in this way (23.5%). Seventy eight learners (15.4%) had money or things taken from them or damaged; and 41 learners (8.1%) had food taken away from them and eaten.

4.1.3.3. Locations where learners are bullied

The 5 most common places where bullying occurred were: the playground or athletic field (15.7%); the halls and stairwells (12.8%); in the class with the teacher present (10.6%); in the class with the teacher absent (10.4%) and in the Physical Education (PE) class or change room (4.5%). Although not sizeable, it is noted that seven learners admitted to being bullied at the tuck-shop and four were reportedly bullied in the 'matric quads' (i.e. the paved area outside the grade 12 classrooms).

4.1.3.4. Reactions to bullying

Table 2 indicates the large discrepancy between those who admitted to having been bullied (32.1%) and those who had experienced a type of bullying behaviour (60.2%). This trend continued when the learners were asked whether they had told others about being bullied, in that the majority of the sample (70.1%) did not admit to having being bullied. Of those that did admit to being bullied (145 learners), only 73 learners (should be around 50.3%) had told someone that they were bullied. Within those learners who told someone that they were bullied, parents were informed most often (24.7%), followed by friends (23.3%); siblings (17.8%); class teachers (12.3%); and other adults at school (11.0%).

Learners felt that little was being done to stop bullying. Almost a third of the sample (30.5%) stated that adults at school 'almost never' try to stop bullying, with only 14.6% reporting that these adults tried to stop bullying 'almost always'. In addition, 46.8% felt that 'little or nothing' was done by the class teacher to counteract bullying. Although parents were turned to most frequently for support, only 12.1% of learners felt that an adult at home had tried to stop bullying.

Peer reluctance to intervene in bullying was also evident, with 43.8% of the sample indicating that they felt that other learners almost never tried to stop bullying. Although 77.2% of the sample felt sorry for the victims, only 22% indicated that they had tried to help in one way or another. The majority said that they didn't do anything but thought that they ought to help (27%) or that they just watched what went on (22%). Only a small number of learners indicated that they thought that bullying was OK (2%) and that they wanted to take part in the bullying (1%). In contrast, 25% of the sample indicated that they would join in bullying a learner whom they don't like and only 25% stated that they would definitely not do this.

4.1.4. TSCC-A statistics

Only questionnaires that were valid in terms of the scoring requirements of the TSCC-A were included in the study (N=486) (Briere, 1996). Incomplete questionnaires or those missing too many cells were not included. Table 3 contains the descriptive statistics of the TSCC-A subscales based on the *T* Scores calculated for the sample. The TSCC-A interprets the child's level of symptomatology against a *T S*core (Briere, 1996). The *T* Scores for all learners were calculated against the appropriate age groups using the Trauma Symptoms Checklist for Children: Professional Manual (Briere, 1996). Raw scores are transformed into *T* Scores to have a mean of 50 and a standard deviation of 10. A *T* Score of 65 would have a standard deviation of 1.5 and would therefore exceed the scores of 94% of the subjects. Scores above 65 are considered clinically significant and scores between 60 and 65 suggest difficulty and sub-clinical symptomology (Briere, 1996).

In Table 3, the posttraumatic stress (M=52.29) and Dissociation (M=51.72) subscales returned the highest mean *T* Scores while anger had the lowest mean score (M=45.93). With the exception of the anger subscale, the standard deviations were all above 10, with the depression subscale evidencing the highest deviation (SD=10.99). The anxiety subscale produced the largest range of *T* Scores (69) while anger returned the smallest range (45) and the lowest SD (8.24).

Table 3

TSCC-A descriptive statistics (Standardised *T* scores)

	N	Minimum	Maximum	Mean	SD
Anxiety - T score	486	39	108	51.68	10.80
Depression - T score	486	39	106	50.71	10.99
Anger - T score	486	36	81	45.93	8.24
Posttraumatic Stress - T score	486	37	91	52.29	10.17
Dissociation - T score	486	37	97	51.72	10.48

Prevalence of a clinical diagnosis of trauma using the TSCC-A subscales

The posttraumatic stress subscale accounted for the highest number of learners being clinically diagnosed (59 or 12.1%) and it also contained a high portion of sub-clinical *T* Scores (50 learners or 10.3%) (Table 4). The dissociation subscale had the second largest frequency of learners with *T* Scores which indicate a clinical diagnosis (52 or 10.7%) and sub-clinical diagnosis (50 or 10.3%). The anxiety subscale had the third largest frequency of

clinically relevant *T* Scores where 42 learners (8.6%) had a clinical diagnosis and 38 learners (7.8%) a sub-clinical diagnosis. A total of 73 learners (15.0%) could be classified as either sub-clinical or clinical for depression while the anger subscale had the smallest number of clinically relevant *T* Scores (37 learners or 7.6%).

Table 4

TSCC-A subscale scores indicating the prevalence of clinical and sub-clinical diagnoses

TSCCA Sub-Scales	No Diagnosis		Sub-Clinical & Clinical Diagnosis		Sub-Clinical		Clinical		Total
	n (%)		n (%)		n (%)		n (%)		n
Anxiety	406	(83.5)	80	(16.5)	38	(7.8)	42	(8.6)	486
Depression	413	(85.0)	73	(15.0)	31	(6.4)	42	(8.6)	486
Anger	449	(92.4)	37	(7.6)	27	(5.6)	10	(2.1)	486
PTS	377	(77.6)	109	(22.4)	50	(10.3)	59	(12.1)	486
Dissociation	384	(79.0)	102	(21.0)	50	(10.3)	52	(10.7)	486

Note: Sub-Clinical – *T* Score is between 60 and 65, Clinical – *T* Score is greater than 65. These clinical diagnoses include 11 learners who had a score of greater than 90 on the HYP *T* Score and 24 learners who had a score of greater than 70 on the UND *T* Score. According to Briere (1996) these responses would be considered invalid. It was however decided to include these learners, as the UND *T* Scores do not affect the means on the lower ends of the scales, but the hyper-response can be considered a "cry for help" and the researcher felt that they should be included for this reason.

4.2. Inferential statistics

Correlational analysis, a one-way MANOVA and logistic regressions were conducted to analyse the data. Correlations were used to examine the associations between the variables specifically focussing on the relationship between the four main roles in bullying (victim, bully, bully-victim, and bystander) and the subscales of the TSCC-A (anger, depression, anxiety, posttraumatic stress and dissociation). The one-way MANOVA was used to look at the effect of one IV (those learners who had experienced bullying at 5 levels of frequency) on the combined DV's (the TSCC-A subscales). The logistic regression was used to discriminate between a clinical and a non-clinical diagnosis (or DV) using a weighted model with IV's associated with the bullying experience (the length of bullying, whether the learner had skipped school, whether he was afraid of being bullied, whether he experienced chronic bullying, and the type of bullying experienced). The data analysis produced a number of significant findings which will be represented in the following sections. Significant

correlations were seen between the TSCC-A subscales and some of the demographic variables but the effect sizes were small (r < .2) (Pallant, 2007) so these were not included.

4.2.1. Reliability of TSCC-A subscales

Consistent with the reliability analysis conducted on the normative sample (Briere, 1996), all of the TSCC-A subscales in this study produced high Cronbach's Alpha scores, indicating high internal consistency and reliability (Table 5).

Table 5

Reliability statistics for the TSCC-A subscales

	Cronbach's Alpha	No. of Items	M	SD
Anxiety	0.799	9	5.09	4.244
Depression	0.829	9	4.80	4.449
Anger	0.843	9	5.79	5.005
Posttraumatic Stress	0.813	10	7.90	5.370
Dissociation	0.802	10	7.05	5.076

4.2.2. Correlations between bullying roles and TSCC-A subscales

All four bullying roles showed statistically significant correlations with the TSCC-A subscales (Table 6). All correlations are positive, indicating that an increase in the frequency of bullying is associated with an increase in TSCC-A subscale scores.

Using Pearson's product-moment correlations (*r*), it was found that victims of bullying obtained the highest correlations with the TSCC-A subscales, followed by the bully-victim, the bully and lastly the bystander. In terms of effect-size for the victim role, coefficients of determination (R^2) indicated that 23.1% of the variation in depression, 19.6% of the variation in posttraumatic stress, 19.4% of the variation in anxiety, 14.8% of the variation in dissociation, and 12.2% of the variation in anger can be accounted for by an increase in the frequency of experiencing bullying. Effect-size for the other three bullying roles are not particularly strong, in that increased frequency of experiencing each of the roles of bully-victim, bully and bystander were associated with a combined variance across the five trauma scales of 38.7%, 18.4% and 11.7% respectively.

Victim

When comparing the four roles in bullying, the strongest correlations with trauma were found with those learners who have experienced bullying. Trauma, as measured by the TSCC-A subscales, was significantly associated with learners experiencing victimisation for all the subscales. Pearson's r correlation scores in decreasing order of association were as follows: depression (r=.481), posttraumatic stress (r=.443), anxiety (r=.441), dissociation (r=.385) and anger (r=.349). All these correlations were statistically significant at p=.01.

Bully

Statistically significant correlations were found between the bully role and the TSCC-A subscales at p=.01, viz., anger (r=.292), dissociation (r=.188), depression (r=.175), anxiety (r=.136) and posttraumatic stress (r=.122). It is notable that whereas anger had the lowest correlation with the victim role, it had the highest correlation with the bully role. Finally, posttraumatic stress had the lowest correlation with the bully role.

Table 6

Pearson's product-moment correlations (r) and coefficients of determination (R^2) between bullying roles and TSCC-A subscales

		1	2	3	4	5	6	7	8	9
1. Victim		-	505	508	484	485	485	485	485	485
2. Bully	r	.176(**)	-	506	484	483	483	483	483	483
3. Bully-Victim	r	.434(**)	.519(**)	-	485	486	486	486	486	486
4. Bystander	r	.063	.157(**)	.104(*)	-	465	465	465	465	465
5. Anxiety	r	.441(**)	.136(**)	.234(**)	.172(**)	-	486	486	486	486
	R^2	19.4%	1.8%	5.5%	3.0%					
6. Depression	r	.481(**)	.175(**)	.296(**)	.158(**)	.712(**)	-	486	486	486
	R^2	23.1%	3.1%	8.8%	2.5%					
7. Anger	r	.349(**)	.292(**)	.342(**)	.165(**)	.519(**)	.635(**)	-	486	486
	R^2	12.2%	8.5%	11.7%	2.7%					
8. PTS	r	.443(**)	.122(**)	.258(**)	.144(**)	.787(**)	.706(**)	.546(**)	-	486
	R^2	19.6%	1.5%	6.7%	2.1%					
9. Dissociation	r	.385(**)	.188(**)	.246(**)	.117(*)	.660(**)	.734(**)	.664(**)	.716(**)	-
	R^2	14.8%	3.5%	6.0%	1.4%					

Notes:

- (**) Correlation is significant at p = 0.01 (2-tailed).
- (*) Correlation is significant at p = 0.05 (2-tailed).
- PTS = posttraumatic stress.
- Classification of Victim, Bully and Bully-Victim roles are all based on the learners experience or participation.
- TSCC-A subscales are based on the calculated *T* Scores.
- The number of participants (N) is found above the diagonal.
- Correlations (r) and coefficients of determination (R^2) are found below the diagonal.

Bully-Victim

The bully-victims are those learners who participated in bullying learners and also experienced being bullied by others. This variable is a dichotomous measure indicating whether learners were bully-victims or not. These learners represented 34% of the sample (Table 4) and came from both the bully and victim categories. There are therefore significant correlations between bully-victims and those who participated in bullying (r=.519; $p < .01$) and those who experienced victimisation (r=.434; $p < .01$). Trauma was significantly associated with the bully-victim role at p<.01 level for all five subscales, viz., anger (r=.342), depression (r=.296), posttraumatic stress (r=.258), dissociation (r=.246), and anxiety (r=.234).

Bystander

The bystanders are those learners who had witnessed other learners being bullied. The bystander measure is also dichotomous, indicating whether they have or have not witnessed bullying. Although the correlation coefficients between the bystander role and the trauma subscales are small relative to the other bullying roles, they are still statistically significant. The highest correlation was with anxiety (r=.172; $p < .01$) followed by anger (r=.165; $p < .01$), depression (r=.158; $p < .01$), posttraumatic stress (r=.144; $p < .01$) and lastly dissociation (r=.117; $p < .05$).

4.2.3. The influence of the frequency of bullying on the TSCC-A subscales

All TSCC-A subscale mean *T* Scores increase directly with an increase in the frequency of experiencing bullying, the only exception being the anger subscale which has a slight decline in the mean score at once a week. Although not consistent, standard deviations also show an incremental increase, indicating a progressive increase in the dispersion of mean *T* Scores with increased levels of exposure to bullying.

Table 7

Mean *T* scores and standard deviations for TSCC-A subscales by frequency of experiencing bullying

	Anxiety		Depression		Anger		PTS		Dissociation	
	SD	M	SD	M	SD	M	SD	M	SD	M
Experienced Bullying										
N/A / Have not been bullied	7.4	47.3	7.5	46.1	6.8	43.3	8.7	48.3	8.4	48.3
Only once or twice	7.8	51.4	7.8	50.1	6.6	45.5	7.9	51.8	9.0	51.1
2 to 3 times a month	14.4	53.4	12.2	52.9	11.4	49.6	10.9	54.8	11.9	53.3
Once a week	9.0	59.0	11.3	58.4	8.3	49.0	10.4	58.8	10.5	57.9
Several times week	15.6	61.0	15.7	61.3	10.2	51.5	11.8	61.2	12.9	59.8

When using a MANOVA, Pallant (2007) states that the dependent variables should relate to each other in some way or there should be a conceptual reason for bringing them together. All sub-scales of the TSCC-A relate to the concept of childhood trauma or bullying, yet the scales are independent of each other and do not consolidate into one trauma scale. By conducting a MANOVA, all the trauma sub-scales which measure the impact of bullying on learners can be measured in a single statistic. Although there are significant levels of correlation between the TSCC-A subscales, these are not too high (i.e. .8 or .9) so as to preclude the use of a MANOVA (Pallant, 2007).

A one-way multivariate analysis of variance was thus performed to investigate the impact of the frequency of being bullied on the TSCC-A subscales. The 5 TSCC-A subscales were used as dependent variables: anxiety, depression, anger, posttraumatic stress and anger. The independent variable was learners who had experienced bullying on 5 incremental levels: 1 = N/A or Have not been bullied; 2 = Only once or twice; 3 = 2 to 3 times a month; 4 = Once a week; and 5 = Several times a Week. Preliminary parametric testing assumptions such as normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multi-colinearity were checked. There were violations noted with covariance indicated in the Box's Test and for equality of error variances indicated by the Levene's Test. Tabachnick & Fidell (2007) suggest that a more conservative alpha level of .025 or .01 should be used when the assumption of equality of variance is not met. A more stringent alpha level of .01 was therefore applied.

Table 8

Multivariate and Univariate Analyses of Variance F Ratios for frequency of bullying by TSCC-A trauma subscales

		ANOVA				
	MANOVA	Anxiety	Depression	Anger	PTS	Dissociation
Variable	$F(5, 476)$	$F(4, 480)$	$F(4, 480)$	$F(4, 480)$	$F(4, 480)$	$F(4, 480)$
Experienced Bullying	7.94*	29.29*	36.20*	17.31*	29.33*	21.05*
Partial Eta adjusted	.076	0.196	0.232	0.126	0.196	0.149
Adjusted R Squared		0.189	0.225	0.119	0.190	0.142

Notes:
*P<.0001.
F ratios are Wilks' Lambda approximation of *F*s.
Effect sizes of Eta Squared: Small .01 or 1%; Medium .06 or 6%; large .138 or 13.8% (Pallant, 2007).

There was a statistically significant difference in impact across the 5 levels of experiencing bullying on the combined dependent variable of trauma: $F(5, 476) = 7.94$, $p = .001$; Wilks' Lambda =.73; partial eta squared =.076. This indicates that 7.6 % of the variance in trauma, as measured by the TSCC-A, is explained by the frequency of experiencing bullying. This is a moderate effect size (Pallant, 2007).

The results for the dependent variables were considered separately after the Bonferroni adjustment was applied. This set a higher significance level in order to reduce the chance of a Type 1 error (too easily rejecting the null hypothesis which asserts no difference between variables) (Pallant, 2007). The significance level of .01 was divided by the number of DV's (i.e. 5), giving a new alpha level of .002. Results are therefore significant if $p < .002$.

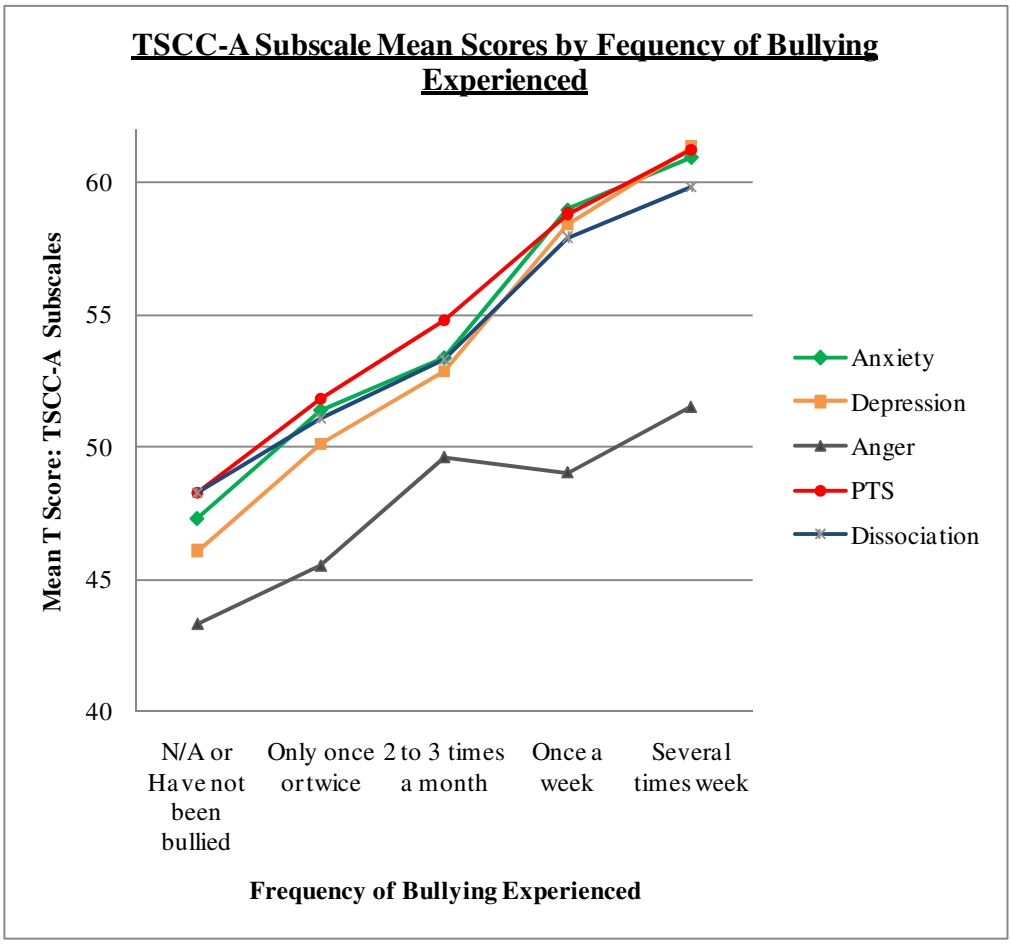
The results for the dependent variables were all highly significant at the .002 alpha level and most were greater than .14, indicating a large effect size (Pallant, 2007). Depression showed the highest *F* value: $F(4, 480) = 36.20$, $p <= .002$, partial eta adjusted =.232. Posttraumatic stress had the second highest *F* value: $F(4, 480) = 29.33$, $p < .002$, partial eta adjusted =.196. This is followed by anxiety: $F(4, 480) = 29.29$, $p < .002$, partial eta adjusted =.196. Dissociation came after anxiety: $F(4, 480) = 21.05$, $p <= .002$, partial eta adjusted =.149. Anger scored lowest of all the TSCC-A subscales: $F(4, 480) = 17.31$, $p < .002$, partial eta adjusted =.126

Using Tukey's Honesty Significance Difference (HSD) post hoc test, significant mean differences at the 0.01 level were seen between the frequency of experiencing bullying and

the TSCC-A subscales. All TSCC-A subscales differed significantly when the frequency of being bullied increased from 'never having been bullied' to 'being bullied once a week' and 'being bullied several times a week'. The means plots of the TSCC-A subscales against the frequency of being bullied indicate progressive increases in TSCC-A subscale scores as a function of frequency of bullying, with the exception of the anger subscale which declines at the frequency of once a week (See Figure 3). For those learners who had not experienced bullying, the mean scores of the anger subscale, at all levels of frequency, were lower than the other subscales; thereby indicating that learners were less prone to displaying anger, but were more prone to symptoms that indicated the internalisation of problems; namely posttraumatic stress, dissociation, anxiety and depression. In addition, all five trauma subscales displayed mean scores above zero for those learners who had not been bullied, indicating that learners had pre-existing levels of trauma, due to other antecedents not accounted for in the study.

Figure 3

The relationship between the mean scores of the TSCC-A subscales and the frequency of bullying experienced



Note: An increase in T-score indicates an increase in the level of trauma experienced.

4.2.4. Binary-logistic regression analysis

A binary-logistic regression was performed in order to assess the impact of a number of bullying factors on the likelihood of learners being sub-clinically or clinically diagnosed with posttraumatic stress, dissociation, anger, anxiety and depression. The model contained 14 independent variables that encompass the nature and effect that bullying has on a learner (the length of bullying, whether the learner had skipped school because he was afraid of being bullied, whether the learner was afraid of being bullied at school, whether the learner had experienced chronic bullying; and the 10 types of bullying).

Posttraumatic stress

The posttraumatic stress subscale showed the highest prevalence of a sub-clinical and clinical scale diagnosis on the TSCC-A (22.4% in Table 4). The full model containing all predictors was statistically significant, χ^2 (14, N=444) = 100.85, $p < .001$, indicating that the model was able to distinguish between learners who were sub-clinically or clinically diagnosed with posttraumatic stress. The model as a whole explained between 20.3% (Cox and Snell R square) and 31.2% (Nagelkerke R squared) of the variance in posttraumatic stress diagnosis and correctly classified 81.8% of the cases

As shown in Table 9, only 6 of the independent variables made a unique statistically significant contribution to the model (skipped school, afraid of being bullied, the victim of chronic bullying, social exclusion, having food taken away and eaten, and being threatened or forced to do things I didn't want to do). The strongest predictor of a posttraumatic stress diagnosis was 'whether the learner was exposed to chronic bullying', recording an odds ratio of 4.16. This indicates that learners who were diagnosed with posttraumatic stress were 4 times more likely to have experienced chronic bullying than those who were not diagnosed, controlling for all other factors in the model. Other significant indicators of posttraumatic stress included whether: the learner had skipped school because of being bullied ($p < .011$); was afraid of being bullied ($p < .019$); had experienced social exclusion ($p < .009$); had food taken from him ($p < .004$); and whether he had been threatened or forced to do things he didn't want to do ($p < .021$).

Table 9

Binary Logistic Regression predicting the likelihood of being sub-clinically or clinically diagnosed with posttraumatic stress

	B	S.E.	Wald	*df*	*p*	Odds Ratio	95.0% C.I. for Odds Ratio	
							Lower	Upper
A15Length	-0.05	0.14	0.11	1	0.746	0.96	0.73	1.26
A17Skipped	1.34	0.53	6.41	1	0.011	3.81	1.35	10.75
A37Afraid	0.24	0.10	5.53	1	0.019	1.27	1.04	1.54
VictimChronic(1)	1.42	0.57	6.33	1	0.012	4.16	1.37	12.60
A4	0.11	0.16	0.50	1	0.480	1.12	0.82	1.54
A5	0.53	0.21	6.81	1	0.009	1.71	1.14	2.55
A6	-0.28	0.20	1.97	1	0.161	0.75	0.51	1.12
A7	-0.33	0.20	2.82	1	0.093	0.72	0.48	1.06
A8a	0.17	0.26	0.39	1	0.531	1.18	0.70	1.98
A8b	-0.88	0.31	8.27	1	0.004	0.42	0.23	0.76
A9	0.52	0.23	5.33	1	0.021	1.68	1.08	2.62
A10	0.12	0.18	0.46	1	0.499	1.13	0.79	1.61
A11	0.23	0.27	0.73	1	0.393	1.26	0.74	2.13
A11a	-0.46	0.34	1.84	1	0.175	0.63	0.32	1.23
Constant	-3.42	0.66	27.19	1	0.000	0.03		

Note*:* Variable(s) entered on step 1: A15Length, A17Skipped, A37Afraid, Victim Chronic, A4, A5, A6, A7, A8a, A8b, A9, A10, A11, A11a.

- A15Length = How long the bullying lasted
- A17Skipped = Whether the learners skipped school because they were bullied
- A37Afraid = Whether the learner is afraid of being bullied at school
- VictimChronic(1) = Victims of chronic bullying. This includes those learners who have experienced bullying once a week or several times a week.
- A4 = I was called mean names, was made fun of, or teased in a hurtful way
- A5 = Other learners left me out of things on purpose, excluded me from their group of friends, or completely ignored me
- A6 = I was hit, kicked, pushed or shoved around, or locked indoors
- A7 = Other learners told lies or spread false rumours about me
- A8a = I had money or other things taken away from me or damaged
- A8b = I had food taken away from me and eaten
- A9 = I was threatened or forced to do things I didn't want to do
- A10 = I was bullied with mean names or comments about my race or colour
- A11 = I was bullied with mean names, comments or gestures with a sexual meaning
- A11a = I was bullied via the cell phone or internet

Dissociation

There were 102 (21.0%) of learners who could be sub-clinically and clinically diagnosed with dissociation (Table 4). The full model containing all predictors was statistically significant, χ^2 (14, N=444) = 70.54, $p < .001$, indicating that the model was able to distinguish between learners who were sub-clinically or clinically diagnosed with dissociation. The model as a whole explained between 14.7% (Cox and Snell R square) and 22.9% (Nagelkerke R squared) of the variance in dissociation diagnosis and correctly classified 82.4% of the cases. The strongest predictor of dissociation was whether the learner had skipped school, with an odds

ratio of 3.04. This ratio indicates that learners with dissociation were four times more likely to have skipped school than those not diagnosed, controlling for all other factors. Also significant were whether the leaner experienced chronic bullying ($p < .019$) and whether the learner experienced social exclusion ($p < .004$) (Appendix 8, Table 17).

Anxiety

Anxiety accounted for the third highest clinical and sub-clinical diagnosis (80 learners or 16.5%) (Table 4). The full model containing all predictors was statistically significant, χ^2 (14, N=444) = 73.96, $p < .001$, indicating that the model was able to distinguish between learners who were sub-clinically or clinically diagnosed with anxiety. The model as a whole explained between 15.3% (Cox and Snell R square) and 26.2% (Nagelkerke R squared) of the variance in anxiety diagnosis and correctly classified 86.7% of the cases. The strongest predictor of anxiety was also whether the learner had skipped school, with an odds ratio of 5.18. This ratio indicates that learners with anxiety were five times more likely to have skipped school than those not diagnosed, controlling for all other factors. Other significant indicators of anxiety include whether the leaner was afraid of being bullied ($p < .009$); whether the learner had experienced chronic bullying ($p < .034$); and whether the learner had had food taken away from him ($p < .027$) (Appendix 8, Table 18).

Depression

There were 73 learners (15.0%) who could be sub-clinically and clinically diagnosed with depression (Table 4). The full model containing all predictors was statistically significant, χ^2 (14, N=444) = 90.56, $p < .001$, indicating that the model was able to distinguish between learners who were sub-clinically or clinically diagnosed with depression. The model as a whole explained between 18.5% (Cox and Snell R square) and 32.3% (Nagelkerke R squared) of the variance in depression diagnosis and correctly classified 87.6% of the cases. Significant indicators of depression were the length of bullying ($p < .003$); whether the learners were afraid of being bullied ($p < .0003$); physical bullying where he was hit, kicked, pushed or shoved around, or locked indoors ($p < .009$); and whether the learner had food taken away from him ($p < .031$) (Appendix 8, Table 19).

Anger

There were only 37 learners (7.6%) who could be clinically and sub-clinically diagnosed with anger (Table 4). The full model containing all predictors was statistically significant, χ2 (14,

N=444) = 42.21, $p < .001$, indicating that the model was able to distinguish between learners who were sub-clinically or clinically diagnosed with anger. The model as a whole explained between 9.1% (Cox and Snell R square) and 20.8% (Nagelkerke R squared) of the variance in anger diagnosis and correctly classified 92.1% of the cases. Being called mean names, being made fun of, or being teased in a hurtful way was the only individual significant indicator of anger ($p < .042$) (Appendix 8, Table 20).

CHAPTER 5: Discussion

The findings of this study will be discussed in relation to the relevant literature and structured according to the three research aims presented in Chapter 4. The overall aim of this research study was to understand the relationship between bullying and trauma, in a sample of male adolescent learners within a South African high school context.

5.1. The prevalence and forms of bullying

5.1.1. Prevalence of bullying

By way of preamble, two considerations foreground the findings on the prevalence of bullying. In the first instance, conflicting empirical understandings and definitions of bullying have evolved over time, even to the extent of considering bullying to be a 'normal' part of a learner's everyday school experience, with little recognition of bullying as a potential trauma for learners (Burrill, 2005; Carney, 2008; Kay, 2005). This conceptual conundrum has spawned differing methodological and statistical approaches to investigating the prevalence of bullying, which compromises empirical comparisons across studies. It will become evident in the discussion that what constitutes bullying differs according to the intended understanding and use of bullying as a construct. As a result, it is spurious to attempt to infer a single prevalence rate from this research investigation, and caution must be exercised in comparing prevalence rates across studies. Notwithstanding this vexing problem, this study has subscribed to the widely-used Olweus definition of bullying, enabling comparisons with other research using this measure, as it is based on a consistent definition of bullying.

The second consideration relates to the conceptualisation of the threshold, intensity and chronic nature of the bullying suffered. In the first instance, Solberg & Olweus (2003) have suggested a cut-off point or threshold that distinguishes whether the bullying occurred or not (i.e. between 'it happened only once or twice' and '2 to 3 times a month'), and this study accordingly returns prevalence figures based on this threshold, in addition to other prevalence figures. However, given that the aim of this study was to understand the relationship between bullying and trauma, it was important also to measure the impact of the frequency and chronicity of bullying (as argued by Terr in describing Type 2 PTSD) and to determine its impact on trauma. The threshold of bullying is highly interrelated to the intensity of bullying,

and similarly the intensity of bullying also interrelated to the chronicity of bullying, so they are not mutually exclusive constructs; and all hinge on the frequency of bullying.

In this study it can be seen that many more learners experienced or participated in bullying compared to those who admitted to being bullied or to bullying, even though they were read Olweus's definition of bullying. This highlights the difficulty in comparing prevalence statistics across studies, even when a standard definition is being used. There continue to be multiple prevalence rates which appear contradictory, even within one study, as seen in Table 2 (Chapter 4, page 57). Chronic bullying prevalence rates were also calculated where the frequency of bullying was set at either 'weekly' or more frequently.

The study indicated very high levels of involvement in bullying and victimisation by learners at the school. 259 learners (51.0%) admitted to bullying other learners and/or being victimised and 306 learners (60.2%) had experienced or participated in bullying and/or victimisation of others, while nearly three quarters of all learners (72.6%) had seen bullying occur at the school. Although the frequency with which the bullying occurred differed by learner, these high levels indicate a widespread problem within the school that needs to be addressed. In comparison, a national South African study indicated that only 36.5% of learners were involved in bullying as bully, victim or bully-victim (Liang et al., 2007). The extent of bullying that is seen in this school is on par or higher than other South African studies, which is of concern.

Victim

The prevalence rates at the school reveal that there were more victims than bullies. Only 32.1% of learners admitted that they had been bullied, but 60.2% had experienced at least one form of bullying behaviour. While international prevalence rates vary considerably (between 2% to 75%), the findings from this study compare well with other South African studies. Similar prevalence rates are seen when comparing the 32.1% of learners who admitted to being bullied in this study with the 36.5% of male victims in Kwa-Zulu Natal reported in the 2002 Youth Risk Behaviour Survey (Reddy et al., 2003), but was however lower than the 41.0% national average returned in the same study. The prevalence rate of learners who admitted to having been bullied is also similar to that reported in the Flisher et al. (2006) study, where 35.6% of grade 8 boys and 21.0% of grade 11 boys admitted to being

bullied; while this study indicated that 47.4% of grade 8 learners and 17% of grade 11 learners admitted to having been the victims of bullying.

When using the Solberg and Olweus (2003) cut-off point, the prevalence rate drops to 11.4% of the sample who admitted to being bullied and 26.2% who have experienced bullying more than once or twice. Most other studies do not identify those victims who are bullied chronically (weekly). A large number of learners (19.7%) experienced bullying either weekly or more frequently, although only 6.9% admitted to being bullied chronically. This high frequency of consistent ongoing bullying is of concern when one considers the results of the study which indicate a strong positive correlation between the frequency of being bullied and symptoms of trauma.

Bully

The findings reveal that there were fewer bullies than victims. While 29.8% of the sample admitted to bullying others, nearly half of the sample (49.0%) had actually participated in bullying other learners, although a high percentage (32.21%) had only bullied others once or twice. When using the Solberg and Olweus cut-off point, the prevalence rates drop significantly to 7.8% who admitted to bullying others and 16.8% who had participated in bullying other learners. Only 3.8% of learners admitted to bullying others chronically, while 12.3% had participated in chronic bullying. It appears that learners do not want to admit that they are bullies. There are not many other South African studies against which to compare these bullying prevalence rates. The prevalence rates of bullying others in these studies (de Wet, 2006; Flisher et al., 2006; Liang et al., 2007; Neser, 2005; Neser, Ladikos et al., 2004; Reddy et al., 2003; E. Smit, 2007) range from 6.4% to 33.0%, indicating that this study has returned a relatively high prevalence rate.

Bully-Victim

A total of 54 learners (10.6%) admitted to being both a bully and a victim, whereas 173 learners (34.0%) experienced or participated in both bullying and victimisation. This is much higher than the 8.7% of learners who had experienced the bully-victim role reported in the South African national study conducted by Liang, Flisher & Lombard (2007).

Bystander

It is of concern that an exceptionally high number of learners (357 or 73.6%) had observed bullying incidents, indicating that bullying is endemic within the school. Table 6 shows significant correlations between bystanders and the trauma subscales, indicating that bystanders are not immune to trauma and can show various symptoms of trauma. There is also a tendency for learners to just watch what's going on (21.9%) and only one third of these learners (22.5%) tried to help other learners in one way or another. Further investigation is required to determine whether this reluctance to get involved is because learners see bullying as normal, hence acceptable, or because they are afraid of being targeted themselves if they get involved.

5.1.2. Forms of bullying

The most prominent form of bullying experienced by victims was verbal bullying, specifically the use of mean names, being made fun of, or being teased in a hurtful way (41.3%), which is corroborated by the 36.9% of learners who admitted to using this form of bullying. During the discussion that followed the administration of the questionnaires, learners spoke of "respect" in relation to how others spoke to or about them. It appears that although verbal insults can be minimised by adults or outsiders, they are a significant source of victimisation for learners (Kay, 2005) especially in an enclosed school environment where respect from others is so important. This is closely associated with other forms of verbal bullying, specifically the spreading of lies and false rumours, which was experienced by 26.8% of learners. 21.7% of the sample experienced victimisation regarding race or colour. Although verbal victimisation was encountered by many learners, fewer learners acknowledged that they had participated in this type of behaviour.

The demonstrated need to resort to verbal bullying calls into question the learners' sense of self during adolescence (Anderson, 2007) especially given that this behaviour appeared to have been associated with a need to command respect. Anderson (2007) states that in the bullying situation, the self could feel uncomfortable because of what was said or done, and that this causes discomfort to the self until some action is taken. As identity development occurs primarily in the interaction with same age peers (Cullingford & Morrison, 1997; Shaffer, 1989), traumatic interpersonal interactions could impact on the development of a learner's identity or sense of self, especially if this occurs frequently, as is the case with chronic bullying.

The high prevalence of verbal bullying also draws attention to the role and effectiveness of parents in their children's upbringing as relationships with parents (as well as peers and school personnel) may be connected with an increased risk of being involved in bullying (Bernstein & Watson, 1997, in Nation, Veino, Perkins, & Santinello, 2008). Parents are the primary means by which learners learn ways of relating to others, and these behavioural patterns are played out in bullying and victimisation (Nation et al., 2008). In this study, only 56.1% of the sample was taken care of by both parents, with a significant proportion being brought up by a female role model only (36.8%) and to a lesser degree, by a male role model only (5.9%).

The prevalence of learners who were threatened or forced to do things (20.5%) and who experienced physical bullying (20.3%) were relatively high, although low in comparison to verbal victimisation. Social exclusion was also relatively high, with 18.6% of learners experiencing this type of victimisation. Analysis indicates that learners who were diagnosed with posttraumatic stress were 1.68 times more likely to have been forced to do things that they did not want to do and 1.71 times more likely to have experienced social exclusion compared to those learners who were not diagnosed with posttraumatic stress.

The smallest category of bullying includes the theft and damage of learners' possessions. This type of bullying has not been researched within South Africa. While 15.4% of the sample had experienced having money or possessions being taken away from them or damaged, only 8.1% had had food taken from them and eaten. 4.6% of learners admitted to taking other people's money or possessions or damaging them, and 4.4% admitted to taking food from other learners and eating it. It should be noted that the category of taking food away from learners and eating it was included after a preliminary discussion with the teaching staff on bullying. This type of bullying was found to be statistically significant for posttraumatic stress, depression and anxiety, with the binary logistic regression model predicting the clinical diagnosis of learners based on this type of bullying. Further research is therefore indicated on the relationship of related demographic factors, such as poverty, on bullying behaviour and trauma.

5.2. The strength and direction of the relationship between bullying and trauma

The intensity (or frequency) of bullying experienced by learners influenced both the threshold of bullying (which delineated where bullying occurred or did not occur) and the chronic nature of bullying; so intensity was crucial in the analysis in order to determine the strength and direction of the relationship between bullying and trauma in this study. Without intensity the analysis would show only a dichotomous relationship, but the inclusion of intensity enabled a more subtle understanding of bullying and trauma to be realized.

The purpose of this study was to investigate the impact of bullying as a stressor for trauma; with a specific focus on chronic trauma or Type 2 PTSD (Terr, 1995) or Complex PTSD (Herman, 2001), in contrast to an acute or once-off trauma. The repetitive nature of a Type 2 trauma or Complex PTSD such as bullying, that occurs over time, results in the learners' sense of powerlessness and helplessness with symptoms which include depression, dissociation, anger and poor coping strategies (Cook-Cottone, 2004). This study produced evidence to support the notion that as the frequency of the bullying interaction increases, there is a concomitant increase in symptoms of trauma experienced by learners, but that the levels of trauma experienced varies across the four bullying roles (Figure 3, page 68).

This study assessed the relationship between bullying and trauma experienced by learners in relation to posttraumatic stress and dissociation, but it also looked at psychiatric symptoms of trauma, specifically depression, anxiety and anger which have not been previously researched, apart from a study by Burrill (2005). For all five of these trauma subscales, increases in the levels of trauma were significantly associated with increased experience of bullying for both the bully and victim, although the means were significantly higher for the victim role. In the dichotomous categories of bully-victims and bystanders, trauma mean scores also increased for all sub-scales when moving from non-involvement to involvement. This supports previous studies which indicated that all four roles are affected by bullying and not only the victim role (Felix & McMahon, 2006).

Pearson's product-moment correlation coefficients revealed highly significant statistical correlations between all bullying roles and the five trauma sub-scales, with the highest correlations seen with the victim role (Table 6, page 64). All correlations were positive, indicating that an increase in the frequency of the bullying role experienced by a learner coincides with an increase in the level of trauma, as measured by the five TSCC-A sub-scales.

The strength of the correlations with the victim role all indicate a medium effect size (Pallant, 2007) ranging from a high for posttraumatic stress (r=.443) to a low for anger (r=.349). The strength of the correlations with the bully role all indicate a small effect size (Pallant, 2007) ranging from a high for anger (r=.292) to a low for posttraumatic stress (r=.122). The size of these correlations is smaller than the correlations seen in the Burrill (2005) study, which had a smaller sample (n=147) with younger learners (ages 9 to 13). The study demonstrated correlations with the victim which ranged from a high for depression (r=.64) to a low for anxiety (r=.53); and for the bully which ranged from a high for anger (r=.55) to a low for anxiety (r=.19) (Burrill, 2005).

Coefficients of determination indicated that 23.1% of the variance in depression; 19.6% of the variance in posttraumatic stress; 19.4% of the variance in anxiety; 14.8% of the variance in dissociation and 12.2% of the variance in anger can be explained by an increase in the frequency of the victim's exposure to bullying.

Posttraumatic stress and dissociation are specific criteria which relate to the current diagnosis of PTSD (DSM-IV-TR: American Psychiatric Association, 2000). Posttraumatic stress was statistically significant ($p < .01$) and was positively correlated to all bullying roles: victim (r=.443); bully (r=.122); bully-victim (r=.258) and bystander (r=.144), with the victim role showing the highest correlation. Posttraumatic stress also showed a relatively high inter-correlation with anxiety (r=.787, $p < .01$). Dissociation demonstrated more moderate levels of correlation with the bullying roles, although all correlations were statistically significant. While significant ($p < .05$), the correlation between the bystander role and dissociation was weakest (r=.117). This indicated that direct involvement in bullying (as experienced by the bully, victim or bully-victim) is more closely associated with the manifestation of dissociative symptoms than a less direct involvement, as experienced by the bystander.

The three subscales (anxiety, depression and anger) which measure the psychiatric symptoms of trauma also demonstrated a highly significant relationship to bullying (Burrill, 2005; Dopheide, 2006). Depression illustrated relatively high correlations with the bullying roles and all were all highly significant ($p < .01$), viz.: victim (r=.481); bully (r= .175); bully-victim (r=.296) and bystander (r=.158). Of all the bully roles, anger returned the highest correlation with the bully-victim role (r=.342, $p < .01$), which could indicate the sense of helplessness that victims feel when bullied which can result in the learner bullying other learners

(Anderson, 2007). 11.7% of the variance in the anger subscale can be accounted for by the learner being both a bully and victim; which is similar to the 12.2% of the variance in the anger subscale that can be explained by a learner only being a victim. Anger returned lower mean scores at each frequency of bullying for both bully and victim, when compared to all other subscales (victim mean scores are displayed graphically in figure 3, on page 68). This indicates that bullies and victims showed lower levels of anger, which is an externalising behaviour, compared to the higher mean scores seen in posttraumatic stress, anxiety, dissociation and depression, which are internalising behaviours.

Because the victim role had the highest correlations and effect sizes, a one-way multivariate analysis of variance (MANOVA) was performed to investigate the impact of the frequency of being bullied on the TSCC-A subscales in one model. A statistically significant moderate effect size of 7.6% of variance in trauma could be explained by the frequency of being a victim of bullying. In comparison the individual trauma scales showed far higher Adjusted R Squared scores than the combined model (ranging from 11.9% for anger to 22.5% for depression) (Table 9, page 70). These higher Adjusted R squared scores indicated that more variance in the individual subscales could be accounted for than the combined model, supporting the argument that the five trauma subscales measure distinct phenomena rather than a single discrete construct (Briere, 1996). This discrepancy in scores (between the MANOVA and individual ANOVA'S) highlights one of the difficulties associated with the diagnosis of trauma or bullying. Trauma and bullying are subjective experiences (Veenstra et al., 2007) and are encountered by each learner individually and/or differently. As a result learners will react in different ways; some will become bully-victims (Anderson, 2007); some may become angry; while others may dissociate or experience posttraumatic stress; and others may experience depression or anxiety (Cook-Cottone, 2004); while others might exhibit a combination of symptoms. Learners will manifest different symptom patterns and these cannot be completely explained by a one size fits all model, as evidenced in the MANOVA result. Criticisms of the current model for the diagnosis of trauma (as detailed in Chapter 2), namely PTSD (which necessitates a stressor for diagnosis) and which details specific symptoms for diagnosis, are therefore vindicated by these findings. The evidence gleaned from this study therefore supports the need for a broader understanding of trauma, as not all learners (specifically children and adolescents) will experience the same symptoms or cluster of symptoms when they have been bullied (Eagle, 2002; Herman, 2001; Terr, 1995; van der Kolk, 2005).

5.3. The degree of trauma experienced by learners (sub-clinical and clinical diagnosis)

In the previous section the strength and direction of the relationship between bullying and trauma was discussed, and it was shown that the degree of trauma experienced by learners differs according to their bully role and the frequency of the bullying behaviour experienced. Mean scores of the trauma subscales increase as the frequency of the bullying behaviour increases. In order to understand the degree of trauma experienced by learners, two focal areas are salient, viz.: the extent of clinical diagnosis based on the TSCC-A subscales; and the impact of chronic or repetitive bullying on traumatic outcomes for learners.

5.3.1. Clinical diagnoses of learners based on the TSCC-A subscales

When comparing all the trauma subscales, the greatest number of learners who could be sub-clinically and clinically diagnosed was in the posttraumatic stress category (N=109; 22.4%). In addition, posttraumatic stress had the highest mean score (M= 52.29) indicating the highest level of trauma among the 5 trauma categories. Anger had the lowest mean score (M=45.93) and a standard deviation (SD=8.24) and these relatively lower statistics for anger were also found in the Burrill study (2005).

There was only one study that could be identified against which to compare the clinical diagnosis of the TSCC-A subscales (Burrill, 2005). In this study, there were 59 learners (12.1%) who could be clinically diagnosed with posttraumatic stress; 52 (10.7%) with dissociation; an equal number of 42 (8.6%) with depression and anxiety; and only 10 (2.1%) with anger. With the exception of anger, the number of learners who could be diagnosed according to the subscales was in line with or higher than those seen in the Burrill (2005) study. Her study showed that the prevalence of clinically significant subscales was as follows: 9% of learners with depression, 8% with posttraumatic stress, 6% with dissociation, 4% with anger and 3% with anxiety. In comparison with the Burrill (2005) study, this study suggested that posttraumatic stress and dissociation were more prevalent, possibly indicating that the sample presented with more direct symptoms of trauma based on the current criteria for diagnosis (DSM-IV-TR: American Psychiatric Association, 2000).

Burrill (2005) found that regular learners (for this study equivalent to C, D & E academic streams) and learners with special needs (for this study possibly the F&G academic stream) had more clinically significant scores than learners for all academic streams (A to F&G) and this was a focal area of her study. In comparison, this study found no statistically significant

findings between academic streams. The highest number of learners with no clinical diagnosis for posttraumatic stress (82.6% of the A stream) and dissociation (83.7% of the A stream) were found in the A stream; yet the highest number of learners with no clinical diagnosis for anger (94.9% of the E stream), depression (91.1% of the E stream) and anxiety (86.1% of the E stream) were found in the E stream. The F&G stream did show the highest number of learners who could be diagnosed with dissociation (17.4% of F&G stream) and depression (10.5% of F&G stream); but it was the C and D academic streams which showed the highest frequency of learners with clinical and sub-clinical diagnoses. The highest prevalence of clinical diagnosis was seen for posttraumatic stress (15.9% of C and of D stream); depression (13.0% of C and of D stream) and anxiety (13.04% of C stream). These erratic prevalence rates indicated that, in this study, academic stream was not related to trauma as was seen in the Burrill (2005) study.

Clinical diagnoses according to the bullying roles

The greatest number of learners with a clinical diagnosis of posttraumatic stress were found in the victim role (50 learners or 17.2% of victims), but the bully-victim role showed the highest prevalence of learners who could be diagnosed with posttraumatic stress (20.7% of bully-victims). Studies indicate that bully-victims experience the problems and symptoms of both the bully and victim and therefore tend to have the greatest number of problems (Anderson, 2007). This trend is also seen in this study. As a percentage of learners within each role, bully-victims had the highest prevalence of a clinical diagnosis across all the subscales viz.: anxiety (13.4%); depression (17.1%), anger (4.3%); posttraumatic stress (20.7%); and dissociation (17.7%) (Appendix 8, Table 21).

The victim role showed the highest number of clinically significant scores for all subscales, but the second highest prevalence rate (within each bullying role) with the exception of anger. As mentioned above, posttraumatic stress had the highest prevalence (50 learners or 17.2% of victims); followed by dissociation (44 learners or 15.2% of victims); depression (38 learners or 13.1% of victims); anxiety (37 learners or 12.8% of victims); and lastly anger (8 learners or 2.8% of victims) (Appendix 8, Table 21). The stronger correlations between the victim role and the trauma subscales, and the relatively higher clinical prevalence of trauma indicators (posttraumatic stress and dissociation), together demonstrate that the victim role is associated with more trauma than the other roles.

The bully role evidenced a moderately fewer number of learners who could be clinically diagnosed. Again, the largest number was found for posttraumatic stress (37 learners or 15.8% of bullies); followed closely by dissociation (33 learners or 14.1% of bullies); depression (29 learners or 12.4% of bullies); anxiety (25 learners or 10.7% of bullies); and lastly anger (8 learners or 3.42% of bullies). The bystander role showed the lowest prevalence of clinical diagnosis (when expressed as a percentage of the bystander role) (Appendix 8, Table 16).

5.3.2. Chronic bullying and the bullying experience

Herman (2001) and Terr's (1995) criticisms of the current diagnosis of trauma in the DSM IV-TR centre around the issue of ongoing repetitive trauma (Complex PTSD or Type 2 Trauma), with a specific focus on children and adolescents. A distinction is therefore made between a once off event or acute trauma, and ongoing victimisation which is defined as chronic trauma. Herman (2001) and Terr (1995) argue that although these do not have a single stressor, as necessitated by the current PTSD diagnosis, these incremental experiences are nevertheless traumatic. This study accordingly focused on the repetitive nature of bullying as a trauma. The increasing frequency of bullying interactions was central in analysis. Chronic bullying was therefore identified as bullying that occurs weekly or more frequently, as it was felt that this needs to be specifically addressed in the study. No studies were identified that expressly addressed chronic bullying, so no comparisons could be made.

There were 100 learners (19.7%) who experienced chronic bullying in the victim role; and 62 learners (12.25%) who participated in chronic bullying in the bully role, indicating relatively high levels of ongoing, repetitive bullying that occurs within the sample. Far fewer learners admitted to being victims of bullying (6.9%) and even fewer to bullying other learners (3.8%) (Table 2, page 57).

Binary logistic regressions were run for all the TSCC-A subscales predicting the likelihood of being sub-clinically diagnosed with one of the subscales. Chronic bullying was included as one of the variables in the model, as well as all types of bullying, and other more variables that relate to bullying. It was evident that chronic victimisation was a statistically significant variable in the diagnosis of learners with posttraumatic stress, dissociation and anxiety, but not for the diagnosis of depression and anger.

The binary logistic regression analysis (Table 9, page 70) indicated that learners who experienced chronic bullying were four times more likely to be diagnosed with posttraumatic stress and those who skipped school were 3.8 times more likely to be diagnosed with posttraumatic stress. Also significant, with regard to posttraumatic stress, was bullying by social exclusion, where a learner was 1.7 times more likely to be diagnosed; and being forced or threatened to do things he didn't want to do, where a learner was 1.68 times more likely to be diagnosed with posttraumatic stress. Being afraid of school (p<.019) and having food taken away from him and eaten (p<.004) were also significant. All these variables that are significantly associated with a diagnosis of posttraumatic stress collectively reflect the characteristics inherent in ongoing repetitive trauma as described by Herman (2001) and Terr (1995). These learners experienced frequent chronic bullying, which most likely resulted in them feeling afraid and powerless and helpless. They experienced social exclusion, so they were possibly ostracised and had no-one to talk to (Miller, 2001). These learners were forced to do things that they didn't want to do, and they had their food taken from them and eaten, indicating a lack of self efficacy over their lives. The full model was statistically significant $\{\chi^2 (14, N=444) = 100.85, p < .001\}$ in differentiating those learners who could be sub-clinically or clinically diagnosed with posttraumatic stress.

Dissociation is located in the second cluster of symptoms under avoidance or constriction, where the victims experience powerlessness and dissociation (Herman, 2001). Being a victim of chronic bullying was significant for a sub-clinical or clinical diagnosis of dissociation (p<.019). In addition, whether a learner had skipped school (p<.021) or was a victim of social exclusion (p<.004), was also significant (Appendix 8, Table 17). The model was statistically significant $\{\chi^2 (14, N=444) = 70.54, p < .001\}$. The model was also statistically significant for a sub-clinical or clinical diagnosis of anxiety $\{\chi^2 (14, N=444) = 73.96, p < .001\}$. Four variables that were identified as significant were: chronic bullying (p<.034); having food taken away and eaten (p<.027); having skipped school because of bullying (p<.0001); and being afraid of being bullied (p<.009). Anxiety is an internalising behaviour that is often seen in victims (Felix & McMahon, 2006). Although these models are not as significant as the posttraumatic stress model, similar conclusions can be drawn in that chronic victimisation is again central to diagnoses.

Depression is often found to be co-morbid with other disorders such as posttraumatic stress, dissociation and anxiety (Dopheide, 2006). The model was also significant for a clinical or

sub-clinical diagnosis of depression {χ^2 (14, N=444) = 90.56, $p < .001$}, although two variables which were statistically significant for depression did not apply to the previous subscales, viz.: how long the bullying had gone on for ($p<.003$); and physical bullying ($p<.004$), noting that 20.3% of the sample had experienced physical bullying. Being afraid of being bullied at school ($p<.003$) and having food taken away and eaten ($p<.031$) were also significant, similar to the posttraumatic stress, dissociation and anxiety models (Appendix 8, Table 19). When the most significant predictors were consolidated, they highlighted that the predictors for depression, controlling for all other factors, included bullying that occurs over a long period of time, where learners were physically bullied or had their food taken away from them and eaten, so that they were afraid of going to school because of being bullied.

Anger is an externalising behaviour (Lyons, 2006) and a common reaction to bullying (Neser et al., 2003). But anger had the lowest prevalence rates, with only 2.1% of the sample being clinically diagnosed. Being called mean names, being made fun of, or being teased in a hurtful way, were the only significant individual predictors of anger ($p < .042$) (Appendix 8, Table 20). Although this type of bullying (being called mean names, being made fun of, or being teased in a hurtful way) is most commonly experienced by learners (41.3%) it had a statistically significant impact on anger but not on the other four TSCC-A subscales.

CHAPTER 6: Conclusions, Limitations and Recommendations

6.1. Conclusions of the study

This study examined the relationship between bullying and trauma amongst school-going adolescent boys. In keeping with the literature (Burrill, 2005; Carney, 2008; Kay, 2005) it showed that bullying and trauma share a positive and statistically significant relationship. The study also revealed that specific characteristics of bullying are predictive of clinical and sub-clinical diagnoses of trauma (based on the five TSCC-A subscales).

Bullying was defined in this study as comprising of three specific elements, viz., it is characterized by an intention to harm the victim; there are repetitive interpersonal interactions that have a cumulative effect on the victim; and there is an imbalance of power which can lead to a sense of helplessness and powerlessness in the victim (Olweus, 2003). This research showed that these main criteria which define bullying can collectively act as a stressor for chronic PTSD. The repetitive nature of bullying describes the intensity of bullying that a victim experiences and it is precisely this intensity or repetitiveness of an act that differentiates chronic trauma from an acute trauma. Intensity; an intention to harm a person; and an imbalance of power, together impact on the threshold or cut-off point, where negative adolescent interpersonal interaction in the form of bullying becomes potentially traumatic for the victim. This study has shown that the passing of the threshold that distinguishes bullying from mild interpersonal conflict, combined with a high intensity or repetitiveness of a range of negative behaviours, is predictive of chronic trauma for the victim. It was also evident that there is no simple linear formula for predicting chronic trauma from 'bullying', given that the levels of intensity and thresholds of bullying will differ from learner to learner, based on variations in the form and subjective experience of bullying by victims.

It is the ongoing, repetitive and unremitting nature of negative personal interactions such as bullying that is predictive of chronic trauma. So the intensity of bullying experienced by learners emerged as a primary variable which was inextricably linked to both the threshold of bullying and the chronicity of bullying experienced, which were in turn directly related to the manifestation of clinical trauma. Intensity here refers to the frequency with which the victim experienced bullying, and not simply to the length of time over which the bullying lasted. Correlation analysis indicated that as the intensity of bullying experienced by learners increased so too did the mean scores of trauma on all five subscales. Statistically significant

positive correlations between the bullying roles and the trauma subscales were evident. In contrast, regression analyses indicated that the length of time that bullying was experienced by victims was not a predictor of sub-clinical and clinical diagnoses on the five subscales, with the exception of depression. The regression analyses indicated that chronicity was a significant predictor for the diagnoses of posttraumatic stress, dissociation and anxiety. This means that learners didn't have to be bullied for a long period of time (except for depression), but if bullied frequently (or chronically) enough, this was predictive of the diagnoses of posttraumatic stress, dissociation, and anxiety.

Methodologically, this study showed that the threshold criterion proposed by Solberg and Olweus (2003) to differentiate whether a learner has been bullied or not is not as clear cut or helpful or easy to apply as it might appear, even when employing a measure such as the OBVS which uses an exact definition of bullying. It is not surprising, therefore, that the many and often conflicting understandings of bullying used in the literature return differing and often incomparable prevalence rates. Indeed, within this study, multiple prevalence rates were returned, depending on whether the threshold criterion used related to learners' admission to being bullied or bullying others or their self-reported experiences of specific bullying behaviours as bully and/or victim. From a methodological standpoint, this suggests that researchers' attempts to elicit data based on a uniform definition of bullying might be frustrated because of learners' tendency to revert to their own subjective notions of what constitutes bullying, thus presenting an ongoing methodological conundrum for the research community.

The above caveat notwithstanding, the prevalence rates for school-based adolescent male bullying returned in this study were on par with or higher than those reported in other South African studies, indicating high levels of involvement in bullying at the school. Using a relatively high intensity cut-off point for chronic bullying (weekly or daily occurrence), it was evident that chronic bullying was a highly significant predictor of posttraumatic stress, dissociation and anxiety. These thresholds for the measurement of chronic bullying were identified as being appropriate for this study, but it is recognised that thresholds will be different between learners based on their subjective experiences; and that different thresholds may be necessary when measuring relationships between other variables and bullying.

Statistically significant correlations between all four bullying roles and all five trauma subscales were evident. This finding suggests that clinical trauma is not confined to the victim only, with the bully, bully-victim and bystander all manifesting clinically significant traumatic symptoms. In particular, the victim role returned the strongest correlations with all five trauma subscales, supporting the common-sense notion that the victim would manifest the highest levels of clinical trauma. Overall, therefore, these findings support the arguments made by Herman (2001) and Terr (1995) that an ongoing chronic stressor which results in feelings of helplessness and powerlessness, such as bullying, is directly related to symptoms of trauma, and can justifiably be defined as chronic trauma or Type 2 PTSD (Terr, 1995). Thus, the specification of a single stressor (Criteria A) as provided for in the DSM-IV-TR, does not make allowances for all types of trauma that people experience, as the current DSM-IV-TR diagnosis focuses on unexpected events that usually occur only once, rather than the everyday negative interpersonal interactions that build up over time, such as bullying, with potentially devastating clinical consequences. Finally, it is worth noting that the largest proportion of the sample that could be clinically and sub-clinically diagnosed was in the category of posttraumatic stress, the subscale that is directly be related to PTSD, thus strengthening the case for considering bullying as a precursor to chronic trauma or indeed Type 2 PTSD.

The significant positive correlations between bullying and trauma indicated that increases in the frequency of everyday interpersonal bullying interactions coincided with increases in the means scores of the five trauma subscales. As the intensity of bullying incidents increased, so too did the means scores on the trauma subscales; indicating that the highest trauma subscale mean scores were seen when learners were bullied more intensely or chronically. The ranges of *T* Scores for all 5 subscales also increased with increasing frequency of bullying. This showed that although higher levels of trauma were associated with a greater intensity of experiencing bullying, this was not so for all learners. Some learners experienced symptoms of trauma with lower intensities of bullying, demonstrating the subjective nature of bullying and reinforcing the need for methodological caution, rigour and precision in the determination of thresholds, the reporting of bullying prevalence rates and the imputing of relationships between 'bullying' and 'trauma' as global constructs. In addition, the mean score on the anger subscale was markedly lower than the four other subscales; indicating that bullying has a greater relationship with symptoms which result from the internalisation of the bullying

experience, through posttraumatic stress, dissociation, anxiety and depression, than an externalisation of symptoms through anger.

MANOVA analysis showed that higher levels of variance were accounted for with the individual subscales than the combined trauma model, confirming Briere's (1996) caution that the subscales of the TSCC-A could not be combined into a single discrete 'trauma' construct. This larger variance in the subscales indicates significant differences in the cluster of trauma symptoms that learners' experience, suggesting that composite measures of trauma might mask discrete and varying symptom profiles. Using different subscales enables the diversity of trauma symptoms to be identified, as this reflects the individual reaction of a learner to bullying. Thus, bullying presents as a subjective experience with subjective traumatic outcomes. Both conceptually and methodologically, therefore, the unique experiences of the learner should be privileged, notwithstanding whether he was bullied, whether he bullied others or he observed bullying occurring. Recognition of this complex and subjective relationship between bullying and trauma, would enable parents, teachers, psychologists, school counsellors and other learners to empathise and correctly address the effects that bullying has on learners rather than to downplay bullying as being normative.

In conclusion, this study employed two psychometrically proven and popularly used measures (the OBVS and TSCC-A) on a relatively large sample of male adolescent learners. Both measures returned high Cronbach's Alpha scores. In particular, the TSCC has previously been used successfully to establish relationships between recognised repetitive stressors of PTSD such as ongoing sexual abuse (Elliott & Briere, 1994; Nolan et al., 2002), giving credence to the findings of this study, which suggest that a different interpersonal stressor, bullying, is indeed a chronic stressor which predicts a range of clinically significant traumatic outcomes.

6.2. Recommendations

Three sets of recommendations are offered on the basis of the findings of this study. The first is concerned with recommendations that relate directly to the learners and school environment, the second focuses on policy considerations that implicate the Department of Education and/or Department of Health, while the third section offers specific recommendations for further empirical research.

6.2.1. Recommendations for the school

The study indicated that bullying is endemic within the school, and together with the relatively large number of learners who were clinically diagnosed on the five TSCC-A subscales, provides a compelling case for the introduction of a Bullying Prevention Programme at this school. This intervention would need to address the range of specific issues that came to light in the study, with core components/considerations of such a programme designed to address three levels: school-wide interventions (including for example the formation of a committee to coordinate bullying prevention and staff training; classroom-level interventions (for example classroom meetings about peer relations and bullying); and individual-level interventions (for example meetings with children who bully and meetings with the parents involved). This programme should focus on restructuring the school environment to reduce opportunities whereby learners can bully and are rewarded for bullying (Olweus, 2005). In order to maximise the impact of this programme and to assure sustainability, it is imperative that due consideration is given to addressing and initiating changes not merely at the intrapersonal (learner) level, but also at the interpersonal level (learners, parents, school staff and peers) and the organisational level (school policy, norms, practices and facilities).

In particular, a departure point in this Bullying Prevention Programme must be to focus on the discrepancy between the prevalence rates of those learners who admit to being bullied or bullying others and those learners who have experienced or participated in specific bullying behaviours. This difference suggests multiple understandings (and indeed a mis-understanding) in the sample of what constitutes bullying and undoubtedly lies at the heart of the normalisation of bullying behaviour and a minimisation of the potential negative consequences to all learners who are involved in bullying.

487 learners answered the question in the TSCC-A on wanting to kill themselves. Of these learners 17% had thought of killing themselves, and 5% had thought about it “almost all of the time”. In suicide, every call for help needs to be taken seriously, and it is strongly recommended that the school introduce a suicide prevention intervention supported by the provision of awareness and counselling services.

6.2.2. School policy recommendations (Department of Education)

Most national studies in South Africa (de Wet, 2007; Liang et al., 2007; Maree, 2005; Reddy et al., 2003; E. Smit, 2007) have located bullying within the context of a range of manifest acts of school violence or risk behaviour, thus effectively denuding a full consideration and understanding of this complex phenomenon. Further, the complex relationship between bullying and psychological trauma, and especially the long term developmental consequences of bullying, has not been previously studied in the local school context, thus depriving researchers, policy-makers and health and education practitioners of critical evidence to inform systemic policy interventions to redress this problem. Although the Department of Education has recognized the need for safe schools (Republic of South Africa, 1996b) this has focused largely on physical safety and to a lesser extent on psychological health and well-being.

As the findings of this study are not generalisable, it is recommended that the Department of Education use these findings to spearhead a national study on bullying and trauma, so that this can inform a comprehensive policy on school bullying, where bullying becomes part of the Life Orientation Curriculum and skills such as effective communication are taught. Educational policies need to address the potential negative long term impact of bullying on the development of children and adolescents. Education policies may need to be supported by facilities and skills, such as trauma counselling and general health services, requiring the involvement of the Department of Health.

6.2.3. Recommendations for further research

In light of the relevance of the findings and the potential understanding this offers people in both non-professional and professional capacities, further research on trauma and bullying is strongly recommended. The following specific recommendations are made for future research:

- Schools are part of the broader communities within which they are located and do not act in isolation of these communities. Thus, studies which are contextually located would have a broader application with regard to generating holistic interventions.
    - In order to locate bullying within a broader context, an examination of the predisposing demographic and developmental factors outside of schools, that have

resulted in learners becoming victims or perpetrators of bullying, could yield valuable insights;
    - Social capital or school bonding is a determinant of bullying (Natvig, Albrektsen, & Qvarnstrom, 1999). Further research could address the social capital of communities and how this relates to bullying.
    - A different methodology such as an action research study could focus on the development, monitoring and evaluation of anti-bullying programmes.
- There would also be an opportunity for longitudinal studies that could:
    - Track the developmental influence of bullying over time; and
    - Track the influence of bullying prevention programmes over time (from a health promotion perspective).
- Comparative studies could include:
    - Both male and females so that gender differences can be determined;
    - Both single sex schools and co-educational schools so that the impact of different types of interpersonal interactions can be examined;
- Compare learners across schools in different geographic regions and possibly relate levels of trauma to the communities within which they are located; and
- The definition of trauma that is used in clinical diagnosis has changed over time, and a new diagnosis for children and adolescents, Developmental Trauma Disorder, is proposed for inclusion in the DSM-V. This specifically addresses the developmental impact of trauma on an individual, and by using this understanding of trauma in future research, better insight may be obtained into the predictive factors for a diagnosis of trauma.
- A triangulated research study combining quantitative and qualitative approaches and utilising multiple data channels and sources would be useful in unravelling the essence of learners' lived experiences of bullying and trauma within defined contexts.

6.3. Limitations of the study

This study, while producing valuable findings, is delimited by several specific considerations. The main limitation of the study was that it is not generalisable to all learners who are bullied, as the study was based in one school in one geographic region. The study showed statistically significant findings but a larger study covering more schools, geographic regions and demographic profiles would be needed to be able to generalise the findings more broadly.

Secondly, there were a number of sampling limitations. The study was limited to male learners, and given previous evidence indicating gender differences in the forms, determinants, consequences, and subjective experiences of bullying (references), it is important not to generalise the findings of this study to learners of both genders. The study did not include the grade 12 learners who were preparing for their final exams. The exclusion of these learners does not make the findings generalisable to the whole school, but is delimited to grade 8 to grade 11, as different prevalence rates were found across grades, with higher grades having lower prevalence statistics.

Thirdly, the use of the TSCC-A meant that learners who had repeated grades, and were therefore 18 years and older had to be excluded from the study. During discussions, learners felt that these learners were often the source or object of bullying as they were 'different' from the rest of the class (difference being a driver of bullying in peer groups). It is therefore important to note that the exclusion of these learners, although small in number, could have compromised the depth of the findings.

Fourth, there were without doubt other demographic and developmental variables that might have impacted on learners' predisposition to be bullied or to bully, that occurred out of school (e.g. high levels of violence in South Africa, poverty and racial conflict), that were eliminated from the research design for this study, given its relatively limited scale and scope. This might again have constrained both the findings and explanations proffered.

Finally, a number of logistical limitations need to be noted. The school restricted access to a two week period so as to limit disruption to the school. The administration of questionnaires occurred during the Life Orientation classes, and some of these classes ran simultaneously, so the researcher was not able to administer all questionnaires, and some were administered by the Life Orientation teachers. These teachers were briefed and given careful instructions, but it did limit the researcher's interaction and discussion with learners to those classes where she administered the questionnaires.

6.4. Personal reflection

This dissertation has been the highlight of my masters year as I have thoroughly enjoyed the entire project. When finally deciding on the topic that I would be researching, I felt that it brought together many of the interests that I had developed over the last four years, including

a focus on adolescents, the developmental journey of individuals, the impact of social interactions being experienced by individuals, and finally my evolving understanding of psychological trauma. Even at the early stage of data-entry, I could see specific trends and patterns emerging. I was simultaneously delighted that I was on target with the topic that I had chosen, but also driven to tears when I saw the terrible trauma scores that some learners had obtained. The high numbers of children who had regularly thought about committing suicide (one of the items in the TSCC-A) was particularly worrying. During an interim discussion with the school, this feedback was given to the school counsellors to act on immediately, and it is highlighted as one of the recommendations for the school to address. Seeing this negative impact on learners has, at times, made me distracted from my dissertation as my focus was on wanting to share this with the school, so that they could bring about change, and not on what was required for my dissertation. This was the case also when I started writing up my results section.

The study has also brought about a new awareness of the role of social interactions in my life and in my children's lives. I do not feel that my studies are in a vacuum, but affect real people in real lives and this is where the choice of school originated from. Gloria Ledoaba, who has worked for me for the last 10 years, has a son who went to the school that was used in the study. He does not speak Zulu but Tswana, and was called 'the Nigerian' because of this. I saw first-hand the results that this bullying had on him, and although he would have received a better education at the school, it was decided to send him back to the rural school near Rustenburg where he came from, as the bullying was having a very negative impact on him. In all these studies that we do, especially quantitative studies, it is easy to be seduced by the numbers, but we need to remember that we are dealing with real lives and real futures and that we have a social responsibility to act on what we find, and not send our studies to "file 13".

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APPENDICES

Appendix 1: Summaries of trauma based on different theories

Appendix 2: Review of Trauma and Bullying Measurements

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Appendix 8: Data Analysis Tables

Appendix 1: Summaries of trauma based on different theories

Table 10
Features of PTSD researched (Davidson, 1991, p. 348)

Research area	Findings	Suggested kinship
Predominant affect	Fear	Anxiety
	Rage	Borderline personality
	Sadness	Depression
Behaviour adaptation	**Avoidance**	Anxiety
Personality features	Introversion	Anxiety
	Neuroticism	Anxiety
	Lability [changeable]	Borderline Personality
	Antisocial	Antisocial Personality
Comorbidity	Multiple disorders	Anxiety, depression or somatoform disorders
Symptoms	**Recurrent, intrusive images or thoughts**	Anxiety (obsessive-compulsive disorder, generalised anxiety disorder)
	Avoidance or numbing	Anxiety – Depression
	Hyperarousal	Anxiety
	Flashbacks or reliving	Dissociative disorder
	Amnesia	Dissociative disorder
Stressor	Necessary	Separate Category
Psychophysiology	Tonic hyperarousal	Generalised anxiety
	Phasic arousal	Situational anxiety

Table 11
Symptoms of trauma specified in PTSD (DSM-IV-TR) (Turnbull, 1998)

Response to the trauma	Fear, helplessness & horror
Response to the trauma	Disorganised, agitated behaviour
Re-Experience	Intrusive thoughts (may be seen through repetitive play)
Re-Experience	Distressing dreams
Re-Experience	Feeling as if the events is recurring
Re-Experience	Intense psychological distress at exposure to cues
Re-Experience	Physiological reactivity to cues
Avoidance	Feelings, thoughts and conversations
Avoidance	Activities, places, people
Avoidance	Inability to recall
Avoidance	Diminished interest in participation in activities
Avoidance	Feeling detached or estranged from others
Avoidance	Sense of fore shorted (no future)
Arousal	Sleep disturbances
Arousal	Irritability and outbursts of anger
Arousal	Concentration difficulties
Arousal	Hypervigilance
Arousal	Exaggerated startle response
Co-morbidity	Anxiety
Co-morbidity	Depressive disorders
Co-morbidity	Somatisation disorders

Table 12
Symptoms of trauma specified in Complex PTSD (Herman, 2001)

Alterations in Regulation	Irritability - Dysphoria
Alterations in Regulation	Depressed mood - Dysphoria
Alterations in Regulation	Anxiety - Dysphoria
Alterations in Regulation	Suicide
Alterations in Regulation	Self Injury
Alterations in Regulation	Anger (inhibited or explosive)
Alterations in Regulation	Sexuality (inhibited or explosive)
Alterations in Consciousness	Amnesia
Alterations in Consciousness	Dissociative episodes
Alterations in Consciousness	**Depersonalisation / derealisation**
Alterations in Consciousness	Re-experiencing (or ruminative preoccupation)
Alterations in Consciousness	**Helplessness or paralysis**
Alterations in Consciousness	**Shame, guilt, self-blame**
Alterations in Consciousness	**Sense of defilement or stigma**
Alterations in Consciousness	**Sense of different from others**
Alterations in Perception of perpetrator	Preoccupation with relationship
Alterations in Perception of perpetrator	Attribution of power to perpetrator
Alterations in Perception of perpetrator	Idealisation
Alterations in Perception of perpetrator	Sense of special relationship
Alterations in Relations with others	**Isolation and withdrawal**
Alterations in Relations with others	**Disruption in intimate relationships**
Alterations in Relations with others	**Distrust**
Alterations in Relations with others	**Re-victimisation (repeated failures of self-protection)**
Alterations in Systems of meaning	Loss of faith
Alterations in Systems of meaning	Hopelessness and despair

Table 13
Symptoms of trauma specified in Type 2 trauma (Terr, 1995)

Type 1 & 2 Symptoms	
Repeatedly perceived memories	Tactile, positional or small memories
Repeatedly perceived memories	Concentration at school - During leisure / bored in class
Repeatedly perceived memories	Sleep - before falling asleep
Repetitive Behaviour	Re-enactments
Repetitive Behaviour	Somatic experiences
Trauma-specific fears	Avoidance
Trauma-specific fears	Anxiety
Changed attitudes	About people - trust, intimacy
Changed attitudes	About life - live 1 day at a time
Changed attitudes	About the future - limitation of prospects
Type 2 Symptoms	
Defences & Coping operations	Denial
Defences & Coping operations	Repression
Defences & Coping operations	Dissociation
Defences & Coping operations	Self-anaesthesia
Defences & Coping operations	Self-hypnosis
Defences & Coping operations	Identification with the aggressor
Defences & Coping operations	Aggression turned against the self
Defences & Coping operations	Character changes
Emotions activated	Absence of feeling
Emotions activated	Sense of rage (under and over)
Emotions activated	Unremitting Sadness

Appendix 2: Review of Trauma and Bullying Measurements

Construct	Source / Journal	Name	Author	Details			Age	Level of measure	Psychometric Properties	Time taken to complete	Comments
Bullying	**Creason (development of a measure)**	*Olweus Bully / Victimisation Questionnaire (OBVQ)*	*Olweus (2001)*	40 items	Bully / Victim / Bully-Victim	**Emotional, Physical and Sexual Victimisation**	8 and older	Incident Data Likert Scale	Alpha = .80 and higher, reported construct validity, concurrent validity between victimisation self-report measure (correlation = .42)	20-30mins	Proved study with good prevention strategies - HAVE THE SCALE
					Forms of Bullying						
					Place of Bullying						
	Sentse (School bullying and social status)				If informed Social environment and reaction						
					Frequency of Bullying						
	Anil										
Bullying	**Burrill (Bullying Victimisation and PTSD)**	*Bully-Victimization Scale (BVS)*	**William Reynolds (2003)**	46 Items	Provides 2 indexes - a **bully index and victim index (23 items for each)**	**Physical, Emotional & Property Victimisation**	8-19	Likert Scale	Victimisation scale: alpha =.93 Test re-test reliability = .80	10 minutes (very nice short time to complete)	Used in a study similar to what I want to do and a short completion time - DO NOT HAVE THE SCALE, WOULD NEED TO BUY
	McLaughlin (Bullying & victimisation in schools)										
	Anil / Stacey										
Bullying	**Carney (bullying at schools)**	*School Bullying Survey (SBS)*	**Hazler et al. 1991**	**Demographics; definition of bullying; 4 items**				Likert scale / Categorical	No validity or reliability scores reported		Assumes knowledge of bullying - what it is
				Frequency of bullying exposure as a victim (item 1) or witness (item 2)	Frequency of bullying experience by the participants (**not bullied, once or twice, once a week, several times a week or almost every day**)	**Victim or witness -- > 5 frequencies for each = 10 blocks**					
					Frequency of seeing other students bullied (never, once or twice, once a week, several times a week or almost every day)						
				Types of bullying experienced (item 3) or observed (item 4)	**Verbal, Physical, Social Bullying**	**Victim or witness -- > 3 types of bullying for each = 6 blocks**					

Construct	Source / Journal	Name	Author	Details			Age	Level of measure	Psychometric Properties	Time taken to complete	Comments
Trauma - more violence	**de Wet (bullying in SA schools)**	***Violence and Trauma Questionnaire - de Wet describes bullying as a form of violence***	**Joshi and Kaschak (1998)**	Open ended - and closed questions, with the majority of Likert type scales	Section A: Demographics				Content validity - obtained by consulting the viewpoint of experts when compiling the instrument		Too general - does not look at bullying specifically
				Adapted to the South African Context	Section B: Possible victims and / or witnesses of learner's and educator violence and violence related behaviour	**Victim, victim/witness, witness --> 3 types of violence = 9 blocks**		Likert Scale	Reliability - Cronbach's alpha calculated with learner's violence related behaviour at .8562		
				e.g. How often have learners in your school … sold drugs; raped someone; threatened one or more of the learners in your school? Etc.	Section C: Open ended questions to obtain qualitative data on respondents' experiences and / or observations of school violence			Open ended			
Bullying	**Liang and Flisher (bullying in SA schools)**	***The South African Youth Risk Behaviour Survey (YRBS)***	**Medical Research Council (2003)**	2 items on bullying	"During the past 12 months have you bullied anybody at school?			Dichotomous			Too Simplistic - assumes that leaner's know what bullying is
					During the past 12 months have your ever been bullied at school?						
Bullying	**Creason (development of a measure)**	***Self-Report Inventory of Bullying and Victimisation***	**Gottheil & Dubow (2001)**	20 items	10 items on bullying, 10 items on victims	**Emotional and physical victimisation**	9 and older	Dichotomous (T/F)	Bully scale: alpha =.63 Victim scale: alpha = .89		
Bullying	**Creason (development of a measure)**	***Perceived Peer Perspective (PPP)***	**Gottheil & Dubow (1994)**	15 items	5 bully items, 10 victim items	**Emotional and physical victimisation**	10 and older	Dichotomous (T/F)	Bully scale: alpha = .69 Victim scale: alpha = .88		
Bullying	**Creason (development of a measure)**	***Peer Victimisation Scale (PVS)***	**Neary & Josephy, 1994**	6 items		**Emotional and Physical victimisation**	10 and older	Likert Scale	Alpha = .83, correlated with self-identification of being victimised for concurrent validity		

Construct	Source / Journal	Name	Author	Details			Level of measure	Reliability & Validity	Time taken to complete	% Research used (Elhai journal)	Comments
Trauma	**Burrill (Bullying Victimisation and PTSD)**	***Trauma Symptom Checklist for Children-A (TSCC-A).***	John Briere (1996)	44 Self report items designed to evaluate acute and chronic posttraumatic symptomology (TSCC-A excludes 10 issues measuring sexual concerns and issues)	Clinical Scales measuring **Anxiety, Depression, Anger, Posttraumatic Stress, Dissociation**	Psychological tests relevant to victimisation (Briere Article)	Likert Scale (4 point scale)	Internal consistency in the mid to high 80's & has convergent and predictive validity in samples of traumatised and nontraumatised children Validity - significant Interco relations with other checklists and inventory Normative data derived from large samples - different T scores for ages 8-12 and 13-16	15 - 20 minutes	Most common for children & adolescents 11%	HAVE THE ITEMS IN NAVY JOURNAL ARTICLE - This scale was used by Burrill in a similar study to what I want to do
Trauma	**Carney (perceptions of bullying and associated** **Guy (PTSD and workplace bullying and victimisation)**	***IES (Impact of Event Scale) IES-R (Revised scale in 1997)***	Horowitz et. Al. 1979	**15 items related to trauma reactions - summed into 2 subscales: Avoidance (8 items) and Intrusion (7 items) - which correspond with Criteria B and C of the PTSD diagnosis**	Not at all, rarely, sometimes, often	Psychological tests relevant to victimisation (Briere Article)	Likert scale	Reliability: Cronbach's alpha = .86 (.82 for avoidance and .78 for intrusion) Validity not shown	Short administration time		I like this scale - only 15 items, but excludes arousal
Trauma	**Tehrani (bullying as a source of PTSD)**	***IES-E (Post trauma symptoms)***	(IES-R - D.S. Weiss)	24 Items - Avoidance - 8 Items; Arousal - 7 items; Re-experience - 9 items			Likert Scale	Reliability - Cronbach's alpha was .97 for the avoidance cluster and .91 for the arousal and re-experience cluster in this study	Short administration time		Includes 24 items - like this scale - short and easy to complete - QUESTIONNAIRE IN THIS JOURNAL
PTSD	**Mikkelsen (Work bullying and trauma)**	***Post-traumatic Diagnostic Scale (PDS)*** ***(Most other instruments measure all criteria of PTSD)***	Foa (1995); Foa Cashman, Joycox, & Perry (1997)	**Modified to 37 items** (from 49) - 12 items deleted pertaining to the nature of the traumatic event		Psychological tests relevant to victimisation (Briere Article) -		Reliability: - Total Scale .94 - with the changes to the scale, this study still showed high Cronbach scores - .89 for re-experieiencing, .86 for avoidance, and .85 fro arousal (also seen in other studies)			This scale is more detailed (37 items used in the study) - looks at all criteria - not needed if the scale is used - I liked the changing of wording from traumatic event to bullying
				4 Items measuring stressor **criteria A1** (yes / no)	Physical injury to self / others or perceived threat to life		Dichotomous				
				2 Items assessing stressor **criteria A2** (yes / no)	Feeling helpless, scared, or terrified ruing the event	Defines PTSD symtom severity as 'mild' 'moderate' or 'severe'	Dichotomous				
				17 Items assessing the core symptoms of PTSD **(Criteria B,C, D)** - 4 point scales (0= not at all or only one time, 1= once a week or less / once in a	Re-experiencing - 5 items Avoidance - 7 items Arousal - 5 Items	PDS has not been normed on the gneral population The only test that yeilds a reliable and meaningful DSM-IV PTSD diagnosis (Briere	Likert Scale				
				2 Items assessing duration and onset **(Criteria E)**			Not indicated				
				9 items assessing impairment of functioning in various areas of life (**criterion F**)			Not indicated				
Trauma	**Kay (Bullying, Stressors and Symptoms)**	***Student Alienation and Trauma Scale - Revised (SATS-R)***		(Do not have the full dissertation)							NEED TO OBTAIN SO THAT WE CAN ASSESS
Trauma	**Britton (Student Alientation and Trauma)**	***Student Alienation and Trauma Scale - Revised to include maltreatment by peers (SATS)***		(Do not have the full dissertation)							NEED TO OBTAIN SO THAT WE CAN ASSESS
Trauma / Life events	**Maschi (Tauma and delinquency)**	***NSA Multivictimisation scale***		**20 items** used to measure lifetime exposure to violence for youths ages 12 to 17	Physical abuse, physical assault, sexual assault, witnessed violence		Dichotomous	Cochran chi-square was calculated - and was significant ($p<.01$) for both the differential and cumulative scale of exposure to violence			Looks at general trauma - and not specific to bullying
		NSA Stressful Life Events Module	Agnew, 1985	**14 stressful life events** reported equalled 1 point	Subdivide into 2 subgroups (1 - loss of positively related stimuli; and 2 - blockage of positively valued goals)		Dichotomous	Chronbach's chi-square statistic was significant for scale and sub-scale, but alpha value was not given			This may be in a quick interesting scale to include - as a number of studies have said that you cannot exclude other mediating stressors - this will give some measure of other stressors

Appendix 3: Questionnaire

UNIVERSITY OF KWAZULU-NATAL

Please note:

- The Questionnaire you are about to fill in is **anonymous**. Please do not write your name anywhere.
- This form is **confidential**. Once completed and given to the researcher, none of the teachers or learners at your school will have access to this form.
- The Questionnaires from your class will be **sealed** in an envelope by your teacher and given directly to the researcher who will remove it from your school.
- If you do not feel comfortable with participating in this study then you may withdraw at any point.
- There are no wrong or right answers; we are interested in **your** opinions/views/experiences.

Name of school:_____

Grade:_____ Date:_____

Please place an X in the box that tells us about you…

1. Age	☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19
2. Race/ Ethnicity	☐ Black ☐ Indian ☐ Coloured ☐ White ☐ Asian ☐ Other
3. Who takes care of you at home?	☐ Father and mother ☐ Mother only ☐ Father only ☐ Female guardian / aunt granny ☐ Male guardian
4. Are your parents…….	☐ Married and living together ☐ Married but not living together ☐ Unmarried living together ☐ Unmarried not living together ☐ Divorced ☐ Not alive
5. Have you repeated a grade at school?	☐ Yes ☐ No

Section A:
Questionnaire on bullying for learners

You will find questions in this booklet about your life in school. There are several answers next to each question. Answer the question by marking an **X** in the box next to the answer that best describes how you feel about school. If you really dislike school, mark an **X** in the box next to "I dislike school very much". If you really like school, mark an **X** in the box next to "I like school very much", and so on. Only mark **one of the boxes**. Try to keep the mark inside of the box.

Now put an X in the box next to the answer that best describes how you feel about school.

1.	How do you like school?	☐ I dislike school very much ☐ I dislike school ☐ I neither like nor dislike school ☐ I like school ☐ I like school very much

If you **mark the wrong box**, you can change your answer like this: Make the wrong box completely black: ■. Then put an **X** in the box where you want your answer to be .

Don't put your name on this booklet. No one will know how you have answered these questions. But it is important that you answer carefully and share how you really feel. Sometimes it is hard to decide what to answer; in this case mark the answer that comes closest to your view. If you have questions, raise your hand.

Most of the questions are about **your life in school this year, that is, the period from the start of school this year until now**. So when you answer, you should think of how it has been at school during this year and **not only how it is just now.**

2.	How many good friends do you have in your class(es) ?	☐ None ☐ I have 1 good friend in my class(es) ☐ I have 2 or 3 good friends ☐ I have 4 or 5 good friends ☐ I have 6 or more good friends in my class(es)

About being bullied by other learners

Here are some questions about being bullied by other learners. First we define or explain the word bullying. We say **a learner is being bullied when another learner, or several other learners**

- say mean and hurtful things or make fun of him or call him mean and hurtful names
- completely ignore or exclude him from their group of friends or leave him out of things on purpose
- hit, kick, push, shove around, or lock him inside a room
- tell lies or spread false rumours about him or send mean notes and try to make other learners dislike him
- and do other hurtful things like as described above.

When we talk about bullying, these things happen **repeatedly**, and it is **difficult for the learner being bullied to defend himself**. We also call it bullying, when a learner is teased repeatedly in a mean and hurtful way.

But we **don't call it bullying** when teasing is done in a friendly and playful way. Also, it is **not bullying** when two learners of about equal strength or power argue or fight.

3.	How often have you **been bullied at school in the past couple of months?**	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

Have you been bullied at school in the past couple of months in one or more of the following ways? Please answer all questions.

4.	I was called mean names, was made fun of, or teased in a hurtful way.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

5.	Other learners left me out of things on purpose, excluded me from their group of friends, or completely ignored me.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

6.	I was hit, kicked, pushed, shoved around, or locked indoors.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

7.	Other learners told lies or spread false rumours about me and tried to make others.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

8 a.	I had money or other things taken away from me or damaged.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

8 b.	I had food taken away from me and eaten.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

9.	I was threatened or forced to do things I didn't want to do.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

10.	I was bullied with mean names or comments about my race or colour.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

11.	I was bullied with mean names, comments, or gestures with a sexual meaning.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

11.a.	I was bullied with mean or hurtful messages, calls or pictures, or in other ways on my cell phone or over the Internet. (Please remember that it is not bullying when it is done in a friendly and playful way.)	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

11.b. In case you were bullied on your cell phone or over the Internet, how was it done?

- ☐ Only on the cell phone
- ☐ Only over the Internet
- ☐ In both Ways

Please describe in what way_____
_____

12. I was bullied in another way.

- ☐ I haven't been bullied at school in the past couple of months
- ☐ It has only happened once or twice
- ☐ 2 or 3 times a month
- ☐ About once a week
- ☐ Several times a week

Please describe in what way
_____

13. **In which grade(s)** is the learner or learners who bully you?

- ☐ I haven't been bullied at school in the past couple of months
- ☐ In my class
- ☐ In a different class but same grade (year)
- ☐ In a higher grade
- ☐ In a lower grade
- ☐ In different grades

14. **By how many learners** have you usually been bullied?

- ☐ I haven't been bullied at school in the past couple of months
- ☐ Mainly by 1 learner
- ☐ By a group of 2-3 learners
- ☐ By a group of 4-9 learners
- ☐ By a group of more than 9 learners
- ☐ By several different learners or groups of learners

15. How long has the bullying lasted?

- ☐ I haven't been bullied at school in the past couple of months
- ☐ It lasted one or two weeks
- ☐ It lasted about a month
- ☐ It lasted about 6 months
- ☐ It lasted about a year
- ☐ It has gone on for several years

16. **Where** have you been bullied?

☐ I haven't been bullied at school in the past couple of months

☐ I have been **bullied in one or more of the following places** in the past couple of months (**continue below**)

Please put an X if you have been bullied:

16 a.	On the playground/athletic field (during break times)	☐
16 b.	In the hallways/stairwells	☐
16 c.	In class (when the teacher was in the room)	☐
16 d.	In class (when the teacher was **not** in the room)	☐
16 e.	In the bathroom	☐
16 f.	In P.E. class or the change-room	☐
16 g.	On the way to and from school	☐
16 h.	At the bus stop/taxi rank	☐
16 i.	On the bus or taxi	☐
16 j.	Somewhere else in school	☐

In this case, please write where

_____

17. Over the last year have you skipped school because you were being bullied?

☐ I have never skipped school because I was bullied
☐ Once or twice this year
☐ 2 or 3 times a month

18. Have you **told anyone** that you have been bullied in the past couple of months?

☐ I haven't been bullied at school in the past couple of months
☐ I have been bullied, **but I have not told anyone**
☐ I have been bullied and **I have told somebody about it (continue)**

Please put an X if you have told:

18 a.	Your class teacher	☐
18 b.	Another adult at school (a different teacher, the principal/headmistress, a Life Orientation teacher/Guidance Counsellor, etc)	☐
18 c.	Your parent(s)/guardian(s)	☐
18 d.	Your brother(s) or sister(s)	☐
18 e.	Your friend(s)	☐
18 f.	A health professional (e.g. nurse, psychologist, social worker, doctor)	☐
17 g.	Somebody else	☐

In this case, please write who: _____

19.	How often do the **teachers or other adults at school** try to put a stop to it when a learner is being bullied at school?	☐ Almost never ☐ Once in a while ☐ Sometimes ☐ Often ☐ Almost always

20.	How often do **other learners** try to put a stop to it when a learner is being bullied at school?	☐ Almost never ☐ Once in a while ☐ Sometimes ☐ Often ☐ Almost always

21.	Has **any adult at home** contacted the school to try stop your being bullied at school in the past couple of months?	☐ I haven't been bullied at school in the past couple of months ☐ No, they haven't contacted the school ☐ Yes, they have contacted the school once ☐ Yes, they have contacted the school several times

22.	When you see a learner your age being bullied at school, what do you **feel or think**?	☐ That is probably what he deserves ☐ I don't feel much ☐ I feel a bit sorry for him ☐ I feel sorry for him and want to help him

About bullying other learners

23.	How often have you **taken part** in **bullying another learner(s)** at school in the past couple of months?	☐ I haven't bullied another learner (s) at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

Have you bullied another learner(s) at school in the past couple of months in one or more of the following ways? Please answer all questions.

24.	I called another learner(s) mean names, made fun of or teased in a hurtful way.	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

25.	I kept him out of things on purpose, excluded him from my group of friends or completely ignored him.	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week
26.	I hit, kicked, pushed and shoved him around or locked him indoors.	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week
27.	I spread false rumours about him and tried to make others dislike him.	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week
28 a.	I took money or other things from him or damaged him belongings.	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week
28 b.	I took food away from him and ate it.	☐ I haven't been bullied at school in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week
29.	I threatened or forced him **to do things he didn't want to do.**	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week
30.	I bullied him with mean names or comments about him **race or colour.**	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

31.	I bullied him with mean names, comments, or gestures with a **sexual meaning.**	☐ It hasn't happened in the past couple of ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

32 a.	I bullied him with mean or hurtful messages, calls or pictures, or in other ways on my cell phone or over the Internet.	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week
32 b.	In case you bullied another learner(s) on your cell phone or over the Internet, how was it done?	☐ Only on the cell phone ☐ Only over the Internet ☐ In both ways
32 c.	I bullied him in another way Please describe in what way: _____ _____	☐ It hasn't happened in the past couple of months ☐ It has only happened once or twice ☐ 2 or 3 times a month ☐ About once a week ☐ Several times a week

33.	Has your **class teacher or any other** teacher talked with you about your bullying other learners at school in the past couple of months?	☐ I haven't bullied another learner (s) at school in the past couple of months ☐ No, they haven't talked with me about it ☐ Yes, they have talked with me about it once ☐ Yes, they have talked with me about it several times

34.	Has **any adult at home** talked with you about your bullying other learner(s) at school in the past couple of months?	☐ I haven't bullied another learner (s) at school in the past couple of months ☐ No, they haven't talked with me about it ☐ Yes, they have talked with me about it once ☐ Yes, they have talked with me about it several times

35.	Do you think it likely that you could join in bullying a learner whom you didn't like?	☐ Yes ☐ Yes, maybe ☐ I don't know ☐ No, I don't think so ☐ No ☐ Definitely no

36.	How do you **usually react** if you see or understand that a learner your age is being bullied by other learners?	☐ I have never noticed that learners my age have been bullied ☐ I take part in the bullying ☐ I don't do anything, but I think that bullying is OK ☐ I just watch what goes on ☐ I don't do anything, but I think I ought to help the bullied learner ☐ I try to help the bullied learner in one way or another

37.	How often are you afraid of being bullied by other learners in your school?	☐ Never ☐ Seldom ☐ Sometimes ☐ Fairly often ☐ Often ☐ Very often

38.	Overall, how much do you think **your class teacher** has done to counteract bullying in the past couple of months?	☐ Little or nothing ☐ Fairly little ☐ Somewhat

Section B:

How often do each of these things happen to you? ***Circle the number***

How often do each of these things happen to you?	**Never**	**Sometimes**	**Lots of times**	**Almost all of the time**
1. Bad dreams or nightmares.	0	1	2	3
2. Feeling afraid something bad might happen.	0	1	2	3
3. Scary ideas or pictures just pop into your head.	0	1	2	3
4. Pretending you are someone else.	0	1	2	3
5. Arguing too much.	0	1	2	3
6. Feeling lonely.	0	1	2	3
7. Feeling sad or unhappy.	0	1	2	3
8. Remembering things that happened that you didn't like.	0	1	2	3
9. Going away in your mind, trying not to think.	0	1	2	3
10. Remembering scary things.	0	1	2	3
11. Wanting to yell and break things.	0	1	2	3
12. Crying.	0	1	2	3
13. Getting scared all of a sudden and don't know why.	0	1	2	3
14. Getting mad and can't calm down.	0	1	2	3
15. Feeling dizzy.	0	1	2	3
16. Wanting to yell at people.	0	1	2	3
17. Wanting to hurt yourself.	0	1	2	3

How often do each of these things happen to you?	**Never**	**Sometimes**	**Lots of times**	**Almost all of the time**
18. Wanting to hurt other people.	0	1	2	3
19. Feeling scared of men.	0	1	2	3
20. Feeling scared of women.	0	1	2	3
21. Washing yourself because you feel dirty inside.	0	1	2	3
22. Feeling stupid or bad.	0	1	2	3
23. Feeling like you did something wrong.	0	1	2	3
24. Feeling like things aren't real.	0	1	2	3
25. Forgetting things, can't remember things.	0	1	2	3
26. Feeling like you're not in your body.	0	1	2	3
27. Feeling nervous or jumpy inside.	0	1	2	3
28. Feeling afraid.	0	1	2	3
29. Can't stop thinking about something bad that happened to you.	0	1	2	3
30. Getting into fights.	0	1	2	3
31. Feeling mean.	0	1	2	3
32. Pretending you're somewhere else.	0	1	2	3
33. Being afraid of the dark.	0	1	2	3
34. Worrying about things.	0	1	2	3
35. Feeling like nobody likes you.	0	1	2	3

How often do each of these things happen to you?	**Never**	**Sometimes**	**Lots of times**	**Almost all of the time**
36. Remembering things you don't want to remember.	0	1	2	3
37. Your mind going empty or blank.	0	1	2	3
38. Feeling like you hate people.	0	1	2	3
39. Trying not to have any feelings.	0	1	2	3
40. Feeling mad.	0	1	2	3
41. Feeling afraid somebody will kill you.	0	1	2	3
42. Wishing bad things had never happened.	0	1	2	3
43. Wanting to kill yourself.	0	1	2	3
44. Daydreaming.	0	1	2	3

Please go back and check that you have answered all the questions giving only one answer per question.

The End: Thank You

Appendix 4: School approval letter

LETTER OF ACCEPTANCE

We at do hereby give permission to Sue Penning to conduct a research project regarding Bullying and its effects at our school from 20 July 2009 – 8 August 2009.

DHF Aitken
Acting Headmaster

D Claassens
Subject Head
Life Orientation

23 April 2009

Appendix 5: Ethical consent letters to parents

Mrs Susan Penning
Health Promotion
School of Psychology
University of KwaZulu-Natal
8 June 2009

Dear Parents of boys at ---------- Boys High School

Research on Bullying

I am a mother and also a Health Promotion Master's Student, in the School of Psychology, at the University of KwaZulu-Natal (Howard College). As part of the master's curriculum I am required to conduct a research study and have chosen the area of school bullying and its effects on adolescents. Bullying is something that affects all learners whether they are victims, bullies or bystanders. Although some levels of bullying are considered 'normal', if not dealt with bullying can have a pervasive impact on the school environment, the boys' learning and can lead to long term problems for learners. It is anticipated that this study will indicate the prevalence of bullying at ---------- Boys High School and may be used to inform anti-bullying programmes initiated by the school.

I have been given permission by Mr. --------- to conduct research at ---------- Boys High School at the beginning of the 3rd Term. The study will take place in the form of a self-administered survey. It has been agreed that the boys' will complete the questionnaires during their Life Orientation class. The boys' anonymity and confidentiality will be guaranteed (the benefit of having an outside party to conduct the study). The boys' will also be asked to sign informed consent forms. At no time will they be forced to participate and they can withdraw at any time without giving a reason. Should there be any sensitive issues that arise from the research either Mr. Claassens or any of the Life Orientation teachers can be spoken to. The services of our clinic at the School of Psychology will also be made available as necessary. In the case of any enquiries, please do not hesitate to contact Mr. Claassens directly or you can contact me or my supervisor Prof. Anil Bhagwanjee.

Contact Details:

Mrs. Susan Penning
073-7711473
suepenning@mweb.co.za

Mr. Anil Bhagwanjee
031 260-7973
bhagwanjeea@ukzn.ac.za

For those parents not wanting their child to participate, please complete the attached slip and give to Mr. Claassens by Monday 29th May 2008.

Your cooperation is appreciated.
Best Regards, Susan Penning

✂==========

Research on Bullying – For those who **do not wish** to participate
To be handed to Mr. Claassens

I …….. , parent of …….. **do not consent** to my son participating in the research project on bullying.

SIGNATURE OF PARENT DATE

……..…… ……..

Appendix 6:

Instructions and consent to be read to the participants:

- To be read to the participants at the start of the administration session:

I am completing my Masters in Health Promotion at the University of KwaZulu-Natal, here in Durban. The research that I'm doing today is part of this course. I am concerned about bullying among young people at schools so this is the focus of my research. Bullying occurs at all schools throughout the world but little research has been completed in South Africa. Bullying affects everyone: you learners, the bully, the victim, even those who see it happen, teachers and your learning environment. I'd like to find out how much bullying is taking place in your school and also see what effects it is having on you learners. The findings of this study will be used by the school to improve its anti-bullying programmes.

While I would truly appreciate your participation in the study, you are in no way forced to fill out the questionnaire. Your parents are aware of this study, and have been asked for their consent for your participation; if your parent has declined permission, you will not be completing the form. Even if your parent has agreed to your participation, you still have the right to decline. Also, should you wish to withdraw at any stage, you may do so without providing a reason. If you do not wish to participate, please continue with the work that the teacher has given you to do. You will not be punished in any way by me or the teacher if you decide not to participate.

For those of you who decide to participate, you will need to sign a consent form, and you can tear off the contact details at the bottom, should you wish to contact me, or should you need to talk to someone. You can also talk to any of the LO teachers or to Mr Claassens who is your school counsellor.

If you participate, your identity and answers to the questions will not be able to be identified in any way, because you will not put your name on the answer sheets. This means that the questionnaire is completely anonymous. It is also confidential - at the end of the class you will seal your questionnaire in the envelope provided and drop into the box that you see at the front of the class. I will remove this box from the school and no other person will have access to the completed questionnaires. The research and all analysis are being completed by me away from the school. I will be looking at trends across groups, by age or grade, and not you as an individual. When you have finished just turn your paper over and wait until the others have completed before dropping it into the box.

This questionnaire needs to be completed with exam conditions. By that I mean there must be no talking or communication and looking at each other's answers. But unlike an exam, you will get 100% if you answer honestly. There are no right or wrong answers only honest answers.

There are 2 parts to the questionnaire. **Section A** deals with bullying, and **Section B** asks questions about behaviours and feelings you may have experienced. You will need to mark the relevant answers by putting a cross over the chosen answer or circle the relevant answer. Please answer all questions and don't mark more than one answer per question. If you have any questions or if something is unclear, please just raise your arm and I will come to you and try and answer your question.

Now let's go through the first couple of questions…….

Appendix 7: Ethical consent forms for learners

Research on Bullying
Informed consent form:

I ……..……..…….. (full names of participant) hereby confirm that I understand the contents of what was read to me prior to completing the questionnaire and the nature of the research project, and I freely agree to participate in the research project.

I understand that I am at liberty to withdraw from the project at any time without giving a reason.

SIGNATURE OF PARTICIPANT DATE

……..……..

Please tear off these details in case you need to talk to someone

✂==========

Research on Bullying:

In the case of any enquiries, please do not hesitate to contact Mr. Claassens directly or you can contact me or my supervisor Mr. Anil Bhangwanjee.

Contact Details:

Mrs. Susan Penning
073-7711473
suepenning@mweb.co.za

Mr. Anil Bhagwanjee
031 260-7423
bhagwanjeea@ukzn.ac.za

Thank you for participating. Your cooperation is really appreciated.

UNIVERSITY OF KWAZULU-NATAL

Appendix 8: Results: Data Analysis Tables

Table 14

Victim: Frequency and percentage (within grade) of learners who admitted to having been bullied and those learners who have experienced bullying (N=508)

Grade	Admitted to being bullied				Experienced bullying					
	N/A or Have not been bullied		Bullied		N/A or Have not been bullied		Bullied		Total	
	n (%)		n (%)		n (%)		n (%)		n (%)	
8	90	(52.6)	81	(47.4)	57	(33.3)	114	(66.7)	171	(100)
9	79	(65.3)	42	(34.7)	49	(40.5)	72	(59.5)	121	(100)
10	88	(80.0)	22	(20.0)	43	(39.1)	67	(60.9)	110	(100)
11	88	(83.0)	18	(17.0)	53	(50.0)	53	(50.0)	106	(100)
Total	345	(67.9)	163	(32.1)	202	(39.8)	306	(60.2)	508	(100)

Note:
"Admitted to being bullied" includes to those learners who stated that they were bullied.
"Experienced bullying" includes those learners who had experienced at least one of the types of bullying specified in the questionnaire.

Table 15

Bully: Frequency and percentage (within grade) of learners who admitted to bullying others (N=503) and learners who have participated in bullying (N=506)

Grade	Admitted to bullying others						Participated in bullying					
	N/A or Have not bullied		Have bullied		Total		N/A or Have not bullied		Have bullied		Total	
	n (%)		n (%)		n (%)		n (%)		n (%)		n (%)	
8	132	(77.2)	39	(22.8)	171	(100)	88	(51.8)	82	(48.2)	170	(100)
9	97	(80.2)	24	(19.8)	121	(100)	81	(66.4)	41	(33.6)	122	(100)
10	62	(57.4)	46	(42.6)	108	(100)	44	(40.0)	66	(60)	110	(100)
11	62	(60.2)	41	(39.8)	103	(100)	45	(43.3)	59	(56.7)	104	(100)
Total	353	(70.2)	150	(29.8)	503	(100)	258	(51.0)	248	(49.0)	506	(100)

Table 16

Bully-Victim: Frequency and percentage (within grade) of learners who admit to both being bullied and bullying other learners; and those learners who both experience or participate in bullying other learners (N=509)

Grade	Admitted		Experienced / Participated in		Total
	Not admitted to bullying nor victimisation	Both bully and victim	Not admitted to bullying nor victimisation	Both bully and victim	
	n (%)	n (%)	n (%)	n (%)	n (%)
8	151 (88.3)	20 (11.7)	110 (64.3)	61 (35.7)	171 (100)
9	108 (88.5)	14 (11.5)	92 (75.4)	30 (24.6)	122 (100)
10	100 (90.9)	10 (9.1)	65 (59.1)	45 (40.9)	110 (100)
11	96 (90.6)	10 (9.4)	69 (65.1)	37 (34.9)	106 (100)
Total	455 (89.4)	54 (10.6)	336 (66.0)	173 (34.0)	509 (100)

Table 17

Binary Logistic Regression predicting the likelihood of being sub-clinically or clinically diagnosed with dissociation

	B	S.E.	Wald	df	p	Odds Ratio	95.0% C.I. for Odds Ratio	
							Lower	Upper
A15Length	0.10	0.13	0.63	1	0.429	1.11	0.86	1.44
A17Skipped	1.11	0.48	5.31	1	0.021	3.04	1.18	7.81
A37Afraid	0.08	0.10	0.54	1	0.462	1.08	0.88	1.32
VictimChronic(1)	-1.28	0.55	5.54	1	0.019	0.28	0.10	0.81
A4	-0.07	0.16	0.22	1	0.640	0.93	0.68	1.27
A5	0.57	0.20	8.43	1	0.004	1.78	1.21	2.62
A6	-0.31	0.20	2.35	1	0.125	0.73	0.49	1.09
A7	-0.01	0.19	0.00	1	0.949	0.99	0.69	1.42
A8a	0.08	0.25	0.12	1	0.732	1.09	0.67	1.76
A8b	-0.43	0.26	2.81	1	0.094	0.65	0.39	1.08
A9	-0.13	0.21	0.37	1	0.544	0.88	0.59	1.33
A10	-0.08	0.18	0.20	1	0.653	0.92	0.65	1.31
A11	0.44	0.25	3.07	1	0.080	1.56	0.95	2.55
A11a	0.23	0.28	0.69	1	0.406	1.26	0.73	2.19
Constant	-2.23	0.90	6.17	1	0.013	0.11		

Variable(s) entered on step 1: A15Length, A17Skipped, A37Afraid, VictimChronic, A4, A5, A6, A7, A8a, A8b, A9, A10, A11, A11a.

Table 18

Binary Logistic Regression predicting the likelihood of being sub-clinically or clinically diagnosed with anxiety

	B	S.E.	Wald	df	p	Odds Ratio	95.0% C.I. for Odds Ratio	
							Lower	Upper
A15Length	0.12	0.14	0.80	1	0.371	1.13	0.86	1.49
A17Skipped	1.64	0.50	10.63	1	0.001	5.18	1.93	13.91
A37Afraid	0.27	0.10	6.78	1	0.009	1.31	1.07	1.61
VictimChronic(1)	-1.25	0.59	4.48	1	0.034	0.29	0.09	0.91
A4	-0.20	0.18	1.34	1	0.247	0.82	0.58	1.15
A5	0.26	0.19	1.81	1	0.178	1.30	0.89	1.90
A6	-0.30	0.22	1.94	1	0.164	0.74	0.48	1.13
A7	0.01	0.20	0.00	1	0.947	1.01	0.69	1.49
A8a	0.30	0.26	1.29	1	0.256	1.35	0.80	2.27
A8b	-0.71	0.32	4.86	1	0.027	0.49	0.26	0.92
A9	0.38	0.22	3.00	1	0.083	1.47	0.95	2.27
A10	-0.13	0.19	0.50	1	0.479	0.87	0.60	1.27
A11	0.17	0.26	0.40	1	0.527	1.18	0.70	1.98
A11a	-0.08	0.33	0.05	1	0.815	0.93	0.48	1.78
Constant	-2.97	0.97	9.30	1	0.002	0.05		

Variable(s) entered on step 1: A15Length, A17Skipped, A37Afraid, VictimChronic, A4, A5, A6, A7, A8a, A8b, A9, A10, A11, A11a.

Table 19

Binary Logistic Regression predicting the likelihood of being sub-clinically or clinically diagnosed with depression

	B	S.E.	Wald	df	p	Odds Ratio	95.0% C.I. for Odds Ratio	
							Lower	Upper
A15Length	0.41	0.14	8.74	1	0.003	1.50	1.15	1.97
A17Skipped	0.19	0.50	0.15	1	0.700	1.21	0.45	3.23
A37Afraid	0.31	0.11	8.53	1	0.003	1.37	1.11	1.69
VictimChronic(1)	-0.60	0.61	0.97	1	0.324	0.55	0.17	1.80
A4	0.14	0.18	0.59	1	0.442	1.15	0.81	1.62
A5	0.30	0.20	2.26	1	0.133	1.35	0.91	2.01
A6	-0.69	0.24	8.12	1	0.004	0.50	0.31	0.81
A7	0.21	0.20	1.11	1	0.293	1.23	0.83	1.82
A8a	-0.10	0.27	0.14	1	0.711	0.91	0.54	1.53
A8b	-0.65	0.30	4.64	1	0.031	0.52	0.29	0.94
A9	-0.05	0.23	0.05	1	0.815	0.95	0.61	1.48
A10	0.19	0.19	0.95	1	0.329	1.21	0.83	1.76
A11	0.07	0.25	0.08	1	0.775	1.07	0.66	1.76
A11a	0.27	0.32	0.70	1	0.403	1.31	0.70	2.45
Constant	-2.85	1.02	7.81	1	0.005	0.06		

Variable(s) entered on step 1: A15Length, A17Skipped, A37Afraid, VictimChronic, A4, A5, A6, A7, A8a, A8b, A9, A10, A11, A11a.

Table 20

Binary Logistic Regression predicting the likelihood of being sub-clinically or clinically diagnosed with anger

	B	S.E.	Wald	df	p	Odds Ratio	95.0% C.I. for Odds Ratio	
							Lower	Upper
A15Length	-0.06	0.18	0.13	1	0.716	0.94	0.66	1.33
A17Skipped	0.84	0.43	3.76	1	0.053	2.32	0.99	5.45
A37Afraid	0.09	0.14	0.39	1	0.533	1.09	0.83	1.45
VictimChronic(1)	0.43	0.81	0.28	1	0.596	1.53	0.32	7.46
A4	0.49	0.24	4.14	1	0.042	1.63	1.02	2.62
A5	-0.08	0.22	0.13	1	0.714	0.92	0.59	1.43
A6	0.06	0.24	0.06	1	0.813	1.06	0.66	1.71
A7	0.23	0.23	1.01	1	0.315	1.26	0.80	1.99
A8a	-0.05	0.32	0.02	1	0.877	0.95	0.51	1.77
A8b	-0.38	0.36	1.10	1	0.295	0.68	0.34	1.39
A9	-0.01	0.28	0.00	1	0.984	0.99	0.57	1.73
A10	0.27	0.21	1.71	1	0.191	1.31	0.87	1.98
A11	0.11	0.25	0.20	1	0.654	1.12	0.68	1.83
A11a	-0.09	0.39	0.06	1	0.813	0.91	0.42	1.97
Constant	-5.16	1.23	17.70	1	0.000	0.01		

Variable(s) entered on step 1: A15Length, A17Skipped, A37Afraid, VictimChronic, A4, A5, A6, A7, A8a, A8b, A9, A10, A11, A11a.

Notes for Tables 17, 18, 19 and 20

Variable(s) entered on step 1: A15Length, A17Skipped, A37Afraid, Victim Chronic, A4, A5, A6, A7, A8a, A8b, A9, A10, A11, A11a.

- A15Length = How long the bullying lasted
- A17Skipped = Whether the learners skipped school because they were bullied
- A37Afraid = Whether the learner is afraid of being bullied at school
- VictimChronic(1) = Victims of chronic bullying. This includes those learners who have experienced bullying once a week or several times a week.
- A4 = I was called mean names, was made fun of, or teased in a hurtful way
- A5 = Other learners left me out of things on purpose, excluded me from their group of friends, or completely ignored me
- A6 = I was hit, kicked, pushed or shoved around, or locked indoors
- A7 = Other learners told lies or spread false rumours about me
- A8a = I had money or other things taken away from me or damaged
- A8b = I had food taken away from me and eaten
- A9 = I was threatened or forced to do things I didn't want to do
- A10 = I was bullied with mean names or comments about my race or colour
- A11 = I was bullied with mean names, comments or gestures with a sexual meaning

A11a = I was bullied via the cell phone or internet

Table 21

TSCC-A subscales indicating the prevalence of clinical and sub-clinical diagnoses based on the 4 bullying roles

		Victim (Experienced)				Bully (Participated in)				Bully-Victim Experienced				Bystander				Total
		No		Yes		No		Yes		No		Yes		No		Yes		
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Anxiety	No Diagnosis	182	93.33	224	77.24	215	86.35	188	80.34	281	87.27	125	76.22	110	91.67	277	80.29	406
	Sub-Clinical	9	4.62	29	10.00	17	6.83	21	8.97	21	6.52	17	10.37	4	3.33	33	9.57	38
	Clinical	4	2.05	37	12.76	17	6.83	25	10.68	20	6.21	22	13.41	6	5.00	35	10.14	42
Depression	No Diagnosis	188	96.41	225	77.59	225	90.36	185	79.06	295	91.61	118	71.95	109	90.83	284	82.32	413
	Sub-Clinical	3	1.54	27	9.31	11	4.42	20	8.55	13	4.04	18	10.98	6	5.00	25	7.25	73
	Clinical	4	2.05	38	13.10	13	5.22	29	12.39	14	4.35	28	17.07	5	4.17	36	10.43	31
Anger	No Diagnosis	189	96.92	259	89.31	238	95.58	208	88.89	308	95.65	141	85.98	115	95.83	314	91.01	449
	Sub-Clinical	4	2.05	23	7.93	9	3.61	18	7.69	11	3.42	16	9.76	4	3.33	22	6.38	37
	Clinical	2	1.03	8	2.76	2	0.80	8	3.42	3	0.93	7	4.27	1	0.83	9	2.61	27
Posttraumatic Stress	No Diagnosis	176	90.26	200	68.97	201	80.72	173	73.93	268	83.23	109	66.46	99	82.50	261	75.65	377
	Sub-Clinical	10	5.13	40	13.79	26	10.44	24	10.26	29	9.01	21	12.80	11	9.17	38	11.01	50
	Clinical	9	4.62	50	17.24	22	8.84	37	15.81	25	7.76	34	20.73	10	8.33	46	13.33	59
Dissociation	No Diagnosis	171	87.69	213	73.45	208	83.53	173	73.93	273	84.78	111	67.68	100	83.33	266	77.10	384
	Sub-Clinical	17	8.72	33	11.38	22	8.84	28	11.97	26	8.07	24	14.63	9	7.50	41	11.88	52
	Clinical	7	3.59	44	15.17	19	7.63	33	14.10	23	7.14	29	17.68	11	9.17	38	11.01	50