THE PREVALENCE AND IMPACT OF EXPOSURE TO CHRONIC VIOLENCE AMONG ADOLESCENTS IN MANENBERG

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ABSTRACT

The aim of the present study is to investigate the prevalence and impact of adolescents' exposure to violence in Manenberg; a poor coloured dormitory suburb on the periphery of Cape Town. Three categories of violence are focused upon, namely, community violence, family violence and sexual violence. In addition, the nature and prevalence of both school and gang violence are established. The study determines the point prevalence of possible posttraumatic stress disorder (PTSD), and investigates the presence of additional distress symptoms consequent to violence exposure. Furthermore, socio-demographic characteristics as protective/risk factors are identified in relation to PTSD scores, Distress scores and Violence scores.

Using a cross-sectional design, a self-report questionnaire was administered to all grade VIII pupils (N = 482) present at the three secondary schools in Manenberg, on three separate days, between 12-19 October 1999. The questionnaire consisted of the Harvard Trauma Questionnaire (HTQ), appropriately modified; trauma list and PTSD symptom list (Mollica, 1991), as well as an adaptation of the Checklist of Child Distress Symptoms (CCDS) (Martinez and Richters, 1993). A violence exposure list was devised to determine the source and nature of community, family and sexual violence experienced by subjects. Considering this was a pilot study, no second stage study was performed on screen-positives. Data were analysed using descriptive statistics as well as a multiple regression system named the Generalised Linear Model.

The prevalence of PTSD was estimated at 5.13% ($n = 24$, $\bar{x} = 1.55$, $s = 0.48$). Of the total sample, 93.4% ($n = 436$) reported the presence of one or more PTSD symptoms consequent to exposure to trauma. Elevated PTSD and CCDS scores had a significant association with: females ($p < 0.0071$ and $p < 0.0003$ respectively) having a non-parent as a primary caretaker ($p < 0.03$ and $p < 0.015$, respectively), having Xhosa as a home language ($p < 0.037$ and $p < 0.009$ respectively), and having lived in numerous homes ($p < 0.0082$ and $p < 0.004$, respectively). In addition, elevated CCDS distress scores were associated with those subjects aged ≥ 15 years ($p < 0.014$). PTSD scores were strongly associated with CCDS distress scores ($r = 0.70$), producing a coefficient of determination of 49.2%.

Regarding exposure to violence, the vast majority of subjects 93.3% (n = 439) reported having personally experienced either community, family or sexual violence. And 18.5% (n = 86) had a personal experience of sexual violence (12.6% of males and 24% of females). A further 79.7% (n = 367) of subjects reported having witnessed someone being shot or stabbed either in their home or in Manenberg and 20.9% have, themselves, been shot or stabbed. With CCDS distress symptoms, 31.38% (n = 134) feel that life is not worth living and they wish they were dead and a further 15.3% (n = 68) report having attempted suicide.

The results indicate that an alarmingly high percentage of adolescents in Manenberg are exposed to civilian violence and are experiencing severe distress as a result. This distress appears significantly exacerbated by a) experiences of loss and separation and b) having experienced sexual violence. The methodological and substantive implications of this study are discussed and are related particularly to chronic community violence and adverse living conditions in Manenberg.

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CCATC	Community Counselling and Training Centre (Manenberg), subsequent to October 1999, known as Selfhelp Manenberg.
CCDS	Checklist of Child Distress Symptoms (by Richters and Martinez, 1990)
DSM III-R	Diagnostic and Statistical Manual of Mental Disorders (Third Edition - Revised) American Psychiatric Association, 1987
DSM IV	Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition) American Psychiatric Association, 1994
FW	Familywise error rate
GLM	Generalised Linear Model
HTQ	Harvard Trauma Questionnaire
MRC - S.A.	Medical Research Council of South Africa
n	The number of responses in the affirmative
N	The total number of subjects who completed the item
NW	Nadya Wynchank
Pearsons' r	Pearsons' Product Moment Correlation Coefficient
PTSD	Posttraumatic stress disorder
SES	Socio-Economic Status
SRQ	Self Reporting Questionnaire
S.S.	Secondary School
UCT	University of Cape Town
WCED	Western Cape Education Department
WHO	World Health Organisation

LIST OF ABBREVIATIONS IN TABLES

α	Level of significance – probability of a Type 1 error
γ	Effect size (gamma)
df	Degrees of freedom
n	The number of affirmative responses to an item
N	The total number of subjects who completed the item
NA	Not Applicable
t	Student's *t* statistic
p	Symbol for probability
PTSD $\geq$ 2.5	score equal to or greater than 2.5, considered indicative of a diagnosis of PTSD
r	Pearson's correlation coefficient
s	Standard deviation
SS	Sum of squares
$\bar{x}$	Mean

CHAPTER ONE: INTRODUCTION

Chapter 1: INTRODUCTION

This dissertation investigates the nature, prevalence and repercussions of Manenberg adolescents' exposure to violence, in their homes, in their schools and in their community.

1.1. SYNOPSIS OF STUDY

Chapter 1 provides a socio-economic and historical context for this study. The function and effects of violence and gangsterism are discussed as well as specific reference to community, family and sexual violence. Reference is made to the Manenberg storm disaster and its impact on the community and this study. The literature is reviewed on the prevalence and psychological sequelae of adolescents' exposure to violence and trauma. Developmental considerations pertaining to adolescents are explored. A discussion follows on posttraumatic stress symptomatology and posttraumatic stress disorder comorbidity as responses to exposure to trauma and violence. This introduction and literature review is followed by the objectives of this study.

Chapter 2 presents the research methodology, taking into consideration issues related to sampling, response rate, research design, site and instruments. The validity and reliability of the Harvard Trauma Questionnaire (HTQ) is examined as well as the choice of other instruments. Ethical considerations related to conducting this research with minors are discussed, as well as issues pertaining to translation. The statistical methods of analysis and the issue of type 1 errors are examined.

Chapter 3 presents the results of the study. Firstly, the sample profile is presented regarding socio-demographic characteristics. The reported lifetime prevalence rates for community, gang, family and sexual violence are examined. In addition, the point prevalence and level of PTSD and CCDS distress symptomatology are presented. A multiple regression system named the Generalised Linear Model examines the relationships between one response variable (e.g. PTSD), and predictor variables (socio-demographic characteristics) that are characterised as both continuous and categorical.

Chapter 4 presents a summary and an analysis of the main results as well as an assessment of the limitations and weaknesses of both the instruments and the study. Finally, recommendations and implications for future research are presented.

1.2. LITERATURE REVIEW

Have no doubt it is fear in the land. For what can men do when so many have grown lawless? Who can enjoy the lovely land, who can enjoy seventy years, and the sun that pours down on the earth, when there is fear in the heart? Who can walk quietly in the shadow of the jacarandas, when their beauty is grown in danger? Who can lie peacefully abed, while the darkness holds some secret? What lovers can lie sweetly under the stars, when the menace grows with the measure of their seclusion? There are voices crying what must be done, a hundred, a thousand voices. But what do they help if one seeks counsel, for one cries this, and one cries that, and another cries something that is neither this nor that.

Alan Paton, "Cry The Beloved Country", 1949

This chapter will present a selective review of the literature and theory pertaining to the prevalence and psychological impact of adolescents' exposure to violence. In certain cases, phenomena will be addressed in brief summaries due to the limited capacity of this dissertation and the colossal and diverse body of literature that these subjects have generated. This study does not attempt to establish the socio-moral and attitudinal correlates of living under conditions of chronic violence, but rather attempts to establish a sense of the affective response to trauma. Posttraumatic stress disorder (PTSD) will be the focus of the literature review rather than depression, anxiety and other diagnostic categories associated with responses to trauma, as PTSD constitutes the research focus.

Regarding the issue of youth and trauma, there has been a focal shift in the international literature, *from* institutionalisation, war and natural disasters *to* civilian violence. In South African literature, a clear shift has taken place too, in the nature and subject of enquiry into youth and trauma in this country. During the 1980s up until the mid 1990s much emphasis was placed on the prevalence of political and state violence and its effect on youth (Carolissen, 1987; Chikane, 1986; Dawes, 1990; Dawes, Tredoux and Feinstein, 1989; Gibson 1986, 1987 and 1989; Liddell, Kemp and Moema, 1991; Rabinowitz, 1988; Straker, 1990; Straker and Moosa, 1994; Straker, Moosa, Becker and Nkwale, 1992; Swartz, Gibson and Swartz, 1990; Swartz and Levett, 1989). Studies have now focused more on community, domestic and even taxi violence and its impact on South African youth (Ensink, Robertson, Zissis, and Leger, 1997; Flisher and Chalton, 1998; Flisher, Ziervogel, Chalton, Leger and Robertson, 1993; Gibson, 1996; Peltzer, 1999; Robertson and Berger, 1994; Robertson, Ensink, Parry and Chalton, 1999; Rudenberg, Jansen and Fridjhon, 1998; Zissis, Ensink, and Robertson, in press).

1.2.1. CONTEXT OF STUDY

1.2.1.1 HISTORY AND SOCIO-ECONOMIC CONTEXT OF MANENBERG

'District Six is no longer safe either.'

'I suppose so, but over the years we have learned to know everyone and everyone has learned to know us. No-one would dream of harming any of the children here. We were all neighbours and we all enjoyed a spirit of neighbourliness. In Hanover Park, there is nothing like that and I feel there never will be. Each family lives for itself. We felt as if we had no roots, as if we were living in a transparent bowl suspended somewhere on the second floor of Azalea Court.'

Richard Rive, "'Buckingham Palace', District Six", 1986

Manenberg, much like Hanover Park described above, is located among the sandy dunes and flat wasteland of the Western Cape peninsula. It is one of a cluster of sub-economic dormitory suburbs originally designed to a) relocate coloured communities from their metropolitan neighbourhoods from which they were forcibly removed and b) to provide a home for a cheap labour force that lives in close proximity to industry.

There is a commonly held belief in South Africa that the coloured population has experienced discrimination and alienation, not only as a result of the apartheid system instituted by the ruling white minority, but also from the oppressed black majority. Research has found higher rates of psychiatric disorder in the coloured population when compared to other groups (Rumble, 1994). According to an article in the commercial press, in 1998 in Manenberg, 66% of potential wage earners were unemployed (Aranes, 1998). Some caution is needed when interpreting such statistics from the press, as the concept *potential wage earners* is not defined and the source of this statistic is not acknowledged. Although the reliability of this figure is disputable, unemployment in Manenberg has been reported to be very high. The 1996 Census, which recorded a population of 45 086 in Manenberg (46.8% male and 53.1% female), reported unemployment to be 5 185. This figure was created and distinct from unemployment where the person is a) not seeking work (n = 575), b) a homemaker (n = 3 985), c) a scholar/student (n = 2 850), d) a pensioner (n = 2 499), e) a disabled person (1266), f) under 15 years (n = 15303) or g) other (n = 1379). There is an unemployment rate

of 30.2%. This figure was attained by calculating the number of adults unemployed and seeking work, which excluded the categories listed above. Regarding earning power, there are twice as many men than women earning monthly salaries above R1 501. For children and adolescents up to age 19, there are double the number of fathers reported dead than mothers. Manenberg is predominantly Afrikaans speaking. Sixty two percent of Manenberg residents are affiliated to a church and the remaining 37% are affiliated to Islam.

1.2.1.2. Manenberg storm disaster of 29 August 1999

Six weeks prior to the administration of the questionnaires, a storm struck, moving through part of Manenberg and neighbouring Surrey Estate and Gugulethu. The storm passed through Manenberg at approximately 6am on 29/8/99, creating a pathway of destruction to buildings and property similar to that of a tornado, killing 5 people, injuring more than 180 and rendering 5000 homeless. Meteorologist Chris Reason said that the accounts of the incident and the resulting damage seemed to be consistent with what might be expected of a tornado (peak velocity of 80 knots {hurricane level} lasted only a few minutes). However, sufficiently detailed observations did not exist to confirm this (Bamford, 1999). The storm-damaged areas were declared an emergency area by the State President, Thabo Mbeki. Soon after the storm subsided, looters were seen removing valuables from the damaged homes and apartments. The impact of this disaster on the study and the interpretation of results will be discussed in chapters 2 and 4. See Appendix one for media photographs.

1.2.1.3. Violent crime in South Africa

Apartheid was a system that emerged from the colonial philosophy of control through oppression, underdevelopment and violence. South Africa has acquired a reputation for being one of the violence capitals in the world. Numerous references have been made to a "culture of violence" - where the society endorses violence as an acceptable and legitimate means of resolving problems and achieving goals. In the mid-70s, political violence killed on average 44 persons per month. By the mid-80s this figure had risen to 86, and by the early 90s it was 250 (South African Institute of Race Relations, 1993). Hamber (1999) purports that at precisely the point when the society was moving toward a democracy, political and criminal violence escalated. He believes that this was created largely by a vacuum in state authority and heightened competition amongst political parties.

Since the first democratic election in April 1994, levels of political violence have decreased in some areas. In South Africa today, political violence is overshadowed by the high levels of violent crime. The homicide rate for South Africa in 1997 was estimated at 57 per 100 000 inhabitants. This is compared to approximately 9 per 100 000 in the United States and 1 per 100 000 in the United Kingdom. Brazil, which has a more comparable history to South Africa, shows similar, yet less dramatic, trends in violent crime. Brazil witnesses on average 39 000 murders a year, compared to the approximate 25 000 in South Africa, a country with one third of the population of Brazil (Roelefse-Campbell and Campbell, 1996). Recent studies show that 188 out of every 100 000 South Africans were victims of armed robbery in 1998 (Cawthra and Kraak, 1999). It is important to interpret these findings with caution. High national statistics often erroneously lead to a perception that violent crime is uniform and pervasive across all communities, when this is not the case. It should be noted that murder rates, although still very high, have been declining since 1994. The murder rate was approximately 67, 65 and 61 per 100 000 in 1994, 1995 and 1996 respectively (ibid). These statistics, however, are likely to gravely underestimate the incidence of violence. In reality they reflect patterns of reporting.

There are numerous theories and hypotheses that attempt to explain this prevalence of violence in post-colonial, post-apartheid South Africa. Sartre and Fanon believed that eventually "Colonial aggression turns inward in a current of terror among the natives... If this suppressed fury fails to find an outlet, it turns in a vacuum and devastates the oppressed creatures themselves. In order to free themselves they even massacre each other. The different tribes fight between themselves since they cannot face the real enemy" (Jean-Paul Sartre, 1965). In post-apartheid South Africa the identity of the "enemy" is either unknown, obscure or identity-less. There has been occasional reference to a new enemy, namely crime (Nina, 1995). Sartre's comment above illustrates *one* perspective explaining the prevalence of violence in a colonised or decolonised country. Regarding children and adolescents in particular, the Human Sciences Research Council (HSRC) (1997) investigated violent crime targeted at children and adolescents over the course of 1 year (between 1/07/94 and 30/6/95). Of the sample of 4 606 cases reported to the Child Protection Units across the country, 83.5% of the perpetrators were known to the child and 35.3% of the crimes were committed in the child's home. Regarding gender distribution, 75.4% of the victims were female and 88.8% of the offenders were male. More recent statistics provided by the Child Protection Units in South Africa show an increase in reports of crimes against children.

According to The National Crime Survey (Whitaker and Bastian, 1991, referred to in Duncan, 1996), teenagers are two and a half times as likely to be victims of violent crimes than are adults in the United States of America. In addition, nearly 4 000 youths, 18 and younger, die in shootings each year, and a further 8 000 are injured annually. In The Child Health Policy Institute's report (1999), the leading cause of death in 5 – 14 year olds is injury. The most common cause of death in South African adolescent males is intentional or unintentional trauma.

There is increasing international evidence demonstrating that socio-economically deprived communities and groups bear most of the brunt of violence in society (Boyden and Holden, 1991; Cairns, 1996; Louw and Shaw, undated; Mercy, Rosenberg, Powell, Broome and Roper, 1993). Manenberg, a poverty stricken suburb with poor social and welfare infrastructures, has become notorious for its high levels of violence.

1.2.1.4. Violent crime in Manenberg

> *Among the reasons for the high incidence of gangsterism on the Cape Flats is the sheer misery of the environment into which families and whole communities were forcibly relocated from inner city areas during the apartheid era.*
>
> Irvin Kinnes, "The struggle for the Cape Flats", 1996

There are few crime statistics specific to Manenberg. Lerer, Matzopoulos and Phillips (1997) report that in 1994 in the Cape Metropole, homicide accounted for the greatest number of non-natural mortalities (n = 1789). The results from a City Victim Survey (Camerer, Louw, Shaw, Artz and Schärf, 1998) showed that coloured people were disproportionately victimised by violent crimes in terms of populations they represent. Kinnes (1995, 1996) reported that in the period of January to July 1995, a total of 2 026 gang fights in the area known as the "Cape Flats" and a further 89 murders and 157 attempted murders were recorded by police reports. In the period from 1/10/94 to 30/3/95 in Manenberg alone, 44 murders were committed, 28 (63%) of which were related to gang activity.

After the forced removals and fragmentation of families and communities during the 1970s and early 1980s, gangsterism represented an alternative economic activity and a means of survival in the barren and isolated peri-urban "Cape Flats" area where families were relocated. Coupled with this are the strong group morals, codes of conduct and disciplinary structures which characterise this phenomenon. In the 1970s in the absence of a clear police strategy, communities united under the banner of a vigilante movement named the 'Peacemakers' (Kinnes, 1995; Nina, 1995). This group started operating in Manenberg and became known for using violence as a means of punishment and retribution. However, in 1976 the "Riotous Assembly Act" decimated the energies of the 'Peacemakers', shattering the unity that had been built up in the community. In the mid-eighties the Anti-crime Forum was conceptualised in Manenberg and has subsequently grown to encompass 14 religious, political, educational, civic and community structures representing 30 communities across the Cape Peninsula and the Boland (Kinnes, 1995).

According to Nina (1995), the coloured community of Manenberg is probably the area most affected by gang violence and wars over territory. A public demonstration against gangsterism in March 1995, attended by more than 2 000 community members, complicated the "war on crime" notion as members of several (rival) gangs participated in the public demonstration. Members of the Hard Livings gang participated, bearing a placard declaring that there could be no peace without the release of their leaders who had been arrested. Nina (1995) claimed that in many Western Cape communities agreements have been reached between community members and gang members to bring peace. Although this may have been true to the spirit of the time, such communication appears to have been sporadic and inconsistent across history.

1.2.1.5. Violent crime against Adolescents in the Western Cape

Of the sample of 4 606 cases reported to the Child Protection Units across the country, 35% percent of the children were coloured even though coloured children only comprise 2.4% of the child population. In addition, a survey of fire-arm related injuries in the Western Cape showed that nearly 2 000 children and adolescents up to age 19 were injured with fire-arms in a five year period (1992-1996). One in four of these victims had a high blood alcohol content.

There were 1 787 adolescents between 14 and 19 years, who presented at Groote Schuur Hospital Trauma unit for treatment of injuries arising from assault in 1991 (personal communication quoted in Flisher, Ziervogel, Chalton, Leger and Robertson, 1993). In their study of secondary school adolescents in the Cape Peninsula, Flisher et al. found that 12.7%, 9.6% and 13.8% respectively had been physically injured by another person at school, at home and elsewhere, respectively. Ensink, Robertson, Zissis and Leger (1997) reported that in a sample of 60 children from Khayelitsha (10-16 years), all had been exposed to indirect violence, 45% had witnessed at least one killing and 55% had witnessed at least one stabbing, shooting or other violent fight or attack. In a further study on youth in Khayelitsha, by Zissis, Ensink and Robertson (in press), prevalence rates of exposure to violence were again high. Of the 504 subjects, with ages ranging from 9 to 20 years, 72%, 54% and 27% respectively reported having witnessed a stranger, acquaintance or family member being shot. One hundred (20%), 56 (11%) and 20 (4%) reported that a stranger, an acquaintance or a family member, respectively, had threatened to shoot or stab them.

1.2.2. EXPOSURE TO AND IMPACT OF VIOLENCE

In studying the effects of violence on adolescents, researchers have used the term "exposure to violence" to represent several different types of violence, such as television, media violence, domestic violence or sexual violence. (Fitpatrick and Boldizar, 1993; Gladstein Rusonis and Heald, 1992; Richters and Martinez, 1993). Given that the focus of this research is community, family and sexual violence, the following review is limited to those studies that have focused on these areas.

According to Freud (1953), in a traumatic situation, "external and internal, real and instinctual dangers converge". What are the implications of this when adolescents are subjected to pervasive and unrelenting violence and trauma? Are they, if we follow Freud, continuously having to attend to this convergence of realities? Or alternatively, do they develop a strategy either to defend against this frightening reality or attempt to integrate this experience?

Gibson (1989) created a framework for formulating an understanding of the impact of *political violence* on youth. She proposed five interactive factors, namely a) the nature of the event, b)

factors internal to the child that promote coping, c) the quality of family and social support systems, d) the nature of the political economy and finally e) the material and ideological structure of the society. Perhaps these interacting factors could also be used to appreciate the impact of *non-politically motivated violence* on youth. Additional factors could be 1) the relationship to the perpetrator of violence and 2) the onset, frequency, duration and nature of the violence.
The pivotal question is what actually happens to children and adolescents who live in conditions where violence is the norm. How are children and adolescents affected developmentally, emotionally and cognitively? Eth and Pynoos (1985) refer to four common coping mechanisms employed by children and adolescents in the face of trauma a) denial in fantasy: attempts to reverse the outcome of the incident, b) inhibition of spontaneous thought; the child works to avoid reminders of the event, c) fixation with the trauma, evidenced by incomplete, usually journalistic, recountings of the event, making the event more tolerable by means of reiteration. The fourth mechanism d) is to become preoccupied with fantasies of future harm. The child avoids directly addressing the actual trauma by supplanting the memories with new fears.

It is important not to adhere to a static view of victimisation. An individual can assume multiple roles over a period of time (victim, witness and perpetrator). Certain victims of past violence are at risk of becoming the perpetrators of retributive violence or displaced social and domestic violence (National Crime Prevention Strategy, 1996; Silva et al., 2000; Simpson, 1991). These trends have also been noted in children in South Africa. Dawes and Tredoux (1990) and Malepa (1990) have demonstrated how children exposed to violence will more readily become perpetrators of violence themselves. Despite its importance, it is beyond the scope of this study to review the relationship between victimisation and later perpetuation of violence.

1.2.2.1 *EXPERIENCE* VERSUS *WITNESS* OF VIOLENCE

Victims or survivors of violence are often mistakenly presumed to be only the person who has directly experienced trauma or violence. In reality, the traumatic experience of a direct survivor may *also* adversely affect many other individuals with whom the survivor has contact. This process has been termed *secondary traumatisation* (Figley, 1985). The traumatic nature of violence means that any contact with the traumatic material, through witnessing or hearing of the event, can have a contaminatory and deleterious effect.

Various factors distinguish between *personal experience* and *witnessing* violence (Eth and Pynoos, 1985). The experience of a child *witness* is determined by his/her sense of agency or conversely, passivity in having to witness the sight and sounds surrounding the violence and the physical mutilation that occurs. The child who personally *experiences* violence may focus more on the physical injury than the emotional trauma. Child witnesses differ from personal victims in that they have only observed the trauma. They have witnessed both the assailant and the victim, others present and their own response. They may then more easily than personal victims identify with or imagine themselves directly involved in the event in any of three roles: the perpetrator committing the violence, the victim being injured, and the third person intervening. A group of researchers found that children who had been both *targets* and *witnesses* of adult aggression and anger in the home reacted with heightened fear and sensitivity to simulated scenes of inter-adult anger in contrast to children who were *targets only* or control group children (Hennessey, Rabideau, Cicchetti and Cummings, 1994). Thus witnessing violence appears to exacerbate the impact of violence. McCloskey and Walker (2000) produced results consistent with Hennessy et al. (1994). They found that those who were solely *witnesses* of family violence developed PTSD 21% of the time, but those who were *targets* met the criteria 38% of the time. However, if a child was both a *witness* and a *target*, s/he met the PTSD symptom criteria 100% of the time.

The sections on family, community and sexual violence are presented in sections 1.2.2.2-4. Since they involve an enormous and diverse body of literature, a selective and specifically focused review will be given, with the purpose of creating a context for the data presented in Chapter 3.

1.2.2.2. FAMILY VIOLENCE

1.2.2.2.1. Prevalence of Family Violence:

A recent South African study, with municipal workers in the Eastern and Northern Cape and Mpumalanga as the sample, showed that nearly every second man interviewed in the study (N = 1394) admitted to having physically or sexually abused the woman he claimed to love in the past 10 years (Soal, 1999). Men commonly said that they hit their partners because she "sits on my head", she doesn't respect his authority, or answers him back. Domestic violence appeared to be sanctioned

by both men and women in this study. Eighty two percent of the sample (N = 1306) believed that women should obey their husbands/partners and almost half believed that a husband/partner had the right to punish his wife/partner (Soal, 1999). Domestic violence was estimated to cost the economy in the Eastern Cape, Northern Cape and Mpumalanga half a million work days per annum because of physical injuries. The cost to the health care systems in these three provinces was estimated at R 30 million per anum (Soal, 1999).

Warner and Weist (1996) have reviewed studies on the prevalence of exposure to family and domestic violence among urban youth in the United States. The prevalence rates of exposure to family and domestic violence have been around 20% of samples. In a sample of 20 consecutive outpatients evaluated at a public psychiatric clinic, 11 children and adolescents reported that they had witnessed domestic violence in their own family.

1.2.2.2.2. Psychological impact of Family Violence:

Findings from studies by McCloskey, Figuerdo and Koss (1995), Nolen-Hoeksema and Morrow (1991), and Qureshi and Maloney (1997) suggest that witnessing domestic violence may contribute to the development of PTSD. However, exposure to domestic violence was more strongly associated with the development of depression than with PTSD and Attention Deficit Hyperactivity Disorder (Qureshi and Maloney, 1997). This finding is consistent with the study conducted by McCloskey and Walker (2000) who noted that of a sample of 337 children, 54% were categorised as having been exposed to domestic violence. However, of these 337 subjects only 15% (52) met the criteria for PTSD, although two thirds of the sample reported at least 2 or 3 symptoms consistent with PTSD.

1.2.2.3. COMMUNITY VIOLENCE

1.2.2.3.1. Prevalence of Community Violence:

The increasing prevalence of exposure to community violence has been identified as a significant public health problem, internationally and in South Africa. Of particular concern are the findings indicating that children and adolescents are exposed to severe and chronic community violence (Bell and Jenkins, 1993; Cooley-Quille and Lorion, 1999; Cooley-Quille, Turner and Beidel, 1995 a and b; Horowitz, Weine and Jekel, 1995; Kliewer, Lepore, Oskin and Johnson, 1998; Martinez and

Richters, 1993; Osofsky, Wewers, Hann and Fick, 1993; Richters and Martinez, 1993). Compounding the problem, many parents consistently underestimate the frequency of their children's exposure to violence and these parents are considered less able to protect their children from further exposure (Richters and Martinez, 1993).

Camerer, Louw, Shaw, Artz and Schärf (1998) compiled a report on the nature of crime in Cape Town. They purport that coloureds are most likely to be murdered in the streets of residential areas, while Africans are most likely to be murdered in a place of entertainment and whites are most likely to be murdered at home. In addition, coloured people are more likely to be robbed or mugged in the streets of residential areas than the other two groups. Based on these findings, one could infer that homicide and robbery in coloured communities tend to be more public than homicide and mugging in black or white communities. In addition, one could surmise that coloured children and adolescents are thus more likely to witness homicide and mugging in the areas where they live than the other groups of children and adolescents.

1.2.2.3.2. Impact of exposure to Community Violence:

Barbarin and Richter (1999) assessed adversity and psychosocial competence of 6 year old South African children placed into three socio-economic-status categories. Tests on exposure to community violence revealed higher levels of social competence in children from *moderately* safe areas than those from violent and safe/secure areas: children in moderately safe areas were significantly more resilient and adaptive. Development in most areas of social competence (resilience, affability, maturity and school-readiness) proved significantly influenced by either community danger or by economic hardship. Barbarin and Richter (1999) believe that favourable social development occurs best under community conditions in which children are neither oblivious to, nor preoccupied with, issues of safety. Thus either extreme of exposure to community violence is considered deleterious to children's psychological functioning and development.

It appears that children's exposure to acute violent incidents (type I) seems to suggest that their impact is related to *internalising* problems (anxiety, depression, somatic symptoms), whereas the research on exposure to chronic (high frequency) community violence (type II) suggests a stronger relationship to *externalising* problems (conduct problems) (Bell and Jenkins, 1993; Benoit, 1993; Breslau, Davis, Andreski and Peterson, 1991; Cooley-Quille, Turner and Beidel, 1995a; Kliewer,

Lepore, Oskin and Johnson, 1998). {This distinction between types of trauma will be discussed in greater detail in section 1.2.2.5.}. Females aged 7 - 18 years reported more PTSD symptoms than males after witnessing or being victimised by community violence (Fitzpatrick and Boldizar, 1993). Scott's (1998) results on exposure to community violence revealed that increased exposure to cumulative violence is associated with depression and PTSD. There are conflicting findings on whether gender is a risk factor, but in general studies have indicated that females exhibit more symptoms than their male counterparts (McCloskey and Walker, 2000; Sheehan, DiCara, LeBaily and Christoffel, 1997; Yule, Bolton and Udwin, 1992). Several studies have shown that males experience more victimisation and witness more community violence than females (Cooley-Quille et al., 1995b; Mazza and Reynolds, 1999; Pfefferbaum, 1997; Schwab-Stone et al., 1995; Sheehan, DiCara, LeBaily, Kaufer Christoffel, 1997).

Numerous factors are associated with community violence. These include over-crowding, family disruption, weak social structures, high population concentrations, population transiency and social norms which encourage the use of violence to cope with difficulties (Garbarino, Dubrow, Kostelny and Pardo, 1992). However, this should not be used to assume that high levels of poverty always result in increased levels of violence and crime in communities.

Sexual violence shares the elements of pervasiveness of threat and chronicity of stress with community violence. The chronicity of stress and the likelihood of future traumatisation common to both sexual abuse and community violence may tap similar coping mechanisms such as seeking "safe" places or escape into daydreaming and fantasy (Putnam and Trickett, 1993). In both, the child/adolescent lives in a situation where s/he is continually socially exposed to current potential traumatisers with attendant stress and anxiety.

1.2.2.4. SEXUAL ABUSE/VIOLENCE

1.2.2.4.1. Prevalence of Sexual Abuse/Violence

In the USA retrospective studies have reported prevalence rates of sexual abuse and violence in excess of 25% (Finkelhor, Hotaling, Lewis and Smith, 1990; Russel, 1986 referred to in Putnam and Trickett, 1993). Virtually every study has found that females are sexually abused about 3 to 4 times

more than males. The peak incidence in girls is prior to puberty around 7 or 8 years of age, with a mean duration of about 2 years (Conte and Schuerman, 1987,1988; Finkelhor, 1979; Kendall-Tackett and Simon, 1988). Females are more likely to be abused by a family member. With males, the perpetrator is more often a stranger or non-relative. Males are more likely to be abused at earlier ages, for shorter duration. For both sexes, poverty is a risk factor. Females have additional risk factors a) the presence of a stepfather (Biersteker and Robinson, 2000), b) a sexually punitive mother, c) living separately from the mother and d) emotional distance from the mother (Finkelhor and Baron, 1986 referred to in Putnam and Trickett, 1993). The South African Police Services quarterly report on rape and attempted rape states that, between January and September 1997, 36 137 rapes and attempted rapes were reported to police nationally (Camerer et al., 1998). According to this study, 44% of sexual assault takes place in the victims' homes. Statistics from Rape Crisis between 1994-1997 show that during this four year period 31% of Rape Crisis clients were under the age of 18, and 75% were under the age of 25 (Camerer et al., 1998). The HSRC investigated violent crime targeted at children and adolescents over the course of 1 year (between 1/07/94 and 30/6/95). The study, based on 4 606 cases reported to the Child Protection Units in the country, revealed that 2 860 (62%) of the children were victims of crimes of a sexual nature. More recent statistics show that the number of reported rape cases involving child victims has been increasing steadily. In 1998, a total of 20 400 cases of sexual assault against children were handled by the Child Protection Unit, of which 15 732 were reports of rape. Forced child prostitution has become an additional concern for socio-economically disadvantaged children (Biersteker and Robinson, 2000).

1.2.2.4.2. Psychological impact of Sexual violence:

Contrary to early hypotheses that effects of child sexual abuse were relatively non-specific (Putnam and Trickett, 1993), studies in the last decade have demonstrated that there are indeed a number of adolescent and adult psychiatric outcomes that may be related to sexual abuse/violence, including a) borderline personality disorder, b) eating disorders, c) multiple personality disorder, d) somatisation disorder and e) substance abuse in females (Cloitre, 1997; Epstein, Saunders, Kilpatrick and Resnick, 1998; Putnam and Trickett, 1993; Rodriguez, Ryan, van de Kemp and Foy, 1997; Sandler and Sepel, 1990). Evading traumatisation associated with sexual abuse requires continual vigilance and active escape behaviours, which must necessarily take precedence over other activities and interests. Safety seeking is a constant cognitive, emotional and behavioural preoccupation for the sexually abused young person. Sandler and Sepel (1990) have referred to this as "The Child Sexual Abuse

Accommodation Syndrome". In situations where there is no possibility of physical escape, dissociation may serve as a psychological escape that detaches the young person from the horror of the experience (Putnam and Trickett, 1993).

The psychological sequelae of family, community and sexual violence may be viewed through an additional lens, namely the time frame (i.e. onset, duration and frequency of exposure to violence). Distinct effects have been identified between those exposed to a discrete incident of violence and those exposed to multiple, repeated violence.

1.2.2.5. DISCRETE VERSUS CHRONIC VIOLENCE

Terr (1991) differentiated two basic types of trauma: Type I, characterised by a single sudden exposure to overwhelming trauma; and type II, characterised by sustained exposure to repeated stressors as often occurs in physical/sexual abuse and community violence. Similarly, Straker and The Sanctuaries Counselling Team (1987) created the term *continuous traumatic stress syndrome* to describe the response to chronic trauma and violence in South Africa. The type I traumatic conditions of childhood follow from unanticipated single events, "single-blow traumas" described by Anna Freud in her work on childhood trauma in the late 1950s and early 1960s (Terr, 1991). The type I trauma is most typically manifest as PTSD, usually meeting the criteria of reexperiencing, avoidance and hyperalertness that represent the major divisions/criteria in the DSM-IV manual. Type II trauma, i.e. chronic (repeated, high frequency) exposure to violence, is believed to have a negative impact on various aspects of development and adaptive functioning.

She explains that associated with type II trauma are the defence mechanisms of massive denial, repression, numbing, dissociation, self-anaesthesia, self-hypnosis, identification with the aggressor, and aggression turned against the self. The first such event creates surprise, but the subsequent unfolding of horrors creates a sense of anticipation. Massive attempts to protect the psyche and to preserve the self are put into action. The persistent implementation of such mechanisms can lead to profound character changes in children and adolescents and personality problems may emerge as a result.

This distinction between types I and II trauma and their sequelae has been confirmed by Rossman, Bingham, and Emde (1997) in their comparison of the effects on youth of a dog attack (type I) and domestic violence (type II), as well as by Cooley-Quille, Turner and Beidel (1995a). However, some studies have shown that both type I and II trauma can result in PTSD (McCloskey and Walker, 2000). This finding seems to challenge Terr's (1991) dichotomy of repeated and single event trauma. However, the high comorbidity of PTSD with other childhood disorders is consistent with Terr's (1991) argument that ongoing stressors impose more enduring psychological costs on youth, resulting in high levels of general psychopathology. Some researchers and clinicians have argued for an additional grouping to be recognised – *disorders of extreme stress not otherwise specified* (DESNOS), which would incorporate Terr's type II trauma response (Herman, 1992). Pynoos and Nader (1988) concluded that the effects of repeated exposures to violence are additive, with each exposure tending to exacerbate or renew symptoms caused by earlier exposures.

1.2.2.5.1. Biological considerations

Allen, Heston, Durbin and Pruitt (1998) demonstrated that the neurophysiologic activation that occurs during acute stress is usually rapid and reversible. When the stressor is more prolonged, however, these changes may no longer be reversible. Heim and Nemeroff (1999) examined the impact of early adverse experiences on brain systems involved in the pathophysiology of anxiety and affective disorders. Their findings demonstrate that a genetic predisposition coupled with early stress in critical phases of development may result in a phenotype that is neurobiologically vulnerable to stress, and may lower an individual's threshold for developing depression and anxiety upon further stress exposure. Heim et al. (2000) found that women sexually or physically abused as children showed an exaggerated response to stress later in life. Several studies have focused on PTSD and found that higher CSF corticotropin concentration in patients with PTSD (as opposed to their control group) may reflect alterations in stress-related neurotransmitter systems (Bremmer et al., 1997; Gurvits et al., 2000). Teicher et al. (1997) have produced evidence that early abuse may be associated with features of limbic system dysfunction, EEG, and other measures of hemispheric asymmetry as well as a diminished left cortex. In the popular media much reference has been made to the impact of chronic stress, namely heart diseases, hypertension, depression, immune suppression and diabetes as well as developmental abnormalities, unhealthy weight gain and neurodegeneration (Leutwyler, 1998; Robertson, 1998). These effects on autonomic, endocrinological, immunological and behavioural stress responses need to be noted but will not be addressed further as they do not

constitute the focus of this dissertation. However, they need to be recognised as an important component of trauma research.

1.2.2.5.2. Cognitive considerations

Drawing largely from animal studies, it has been found that exposure to consistent daily stressors results in resilience, but exposure to uncontrollable, unpredictable or severe stressors can be expected to lead to deficits. Children growing up in a persistently threatening environment develop stress-response systems in midbrain and brainstem areas that are overreactive and hypersensitive (Allen, Heston, Durbin and Pruitt, 1998). This may be highly adaptive but profound cognitive disturbances may accompany this process, resulting in problems in meeting the cognitive expectations of school. Information processing abnormalities associated with exposure to chronic violence have been investigated, namely deficits in attention and autobiographic memory (Schwartz, McNally and Yeh, 1998). Flooding of adrenal hormones during periods of acute distress have long-lasting, as well as immediate, consequences. Murberg, Mc Fall and Verth (1990) showed how the persistent flooding of these adrenal hormones may affect memory and the anatomic substrata of memory as well. Bremmer, Scott and Delaney (1993) reported short-term memory deficits occurring as a result of stressor-induced elevated corticosteroids . Duncan (1996) discusses the impact on cognitive functioning, namely poor school performance and impaired learning, as symptoms of the trauma youth suffer from witnessing chronic violence. This finding is consistent with Yule's studies (1994) of child survivors of life-threatening disasters. He noted that many children and adolescents experienced difficulties in concentration as well as difficulty with mastering new material and in remembering old skills. These studies have demonstrated that a posttraumatic response can adversely affect school performance, and educational achievement can remain impaired into adulthood.

1.2.3. POST-TRAUMATIC STRESS DISORDER

1.2.3.1. History of the nomenclature.

The origin of a psychological disorder following trauma came from the American Civil War where cardiac symptoms of those who had survived battle were named *soldiers' heart*. Jacob DaCosta's 1871 paper, entitled "On Irritable Heart", described the condition of such soldiers. This condition was later named "*shell shock*" during World War I (WW I) and was believed to result from brain trauma caused by the explosion of shells (Shephard, 2000). WW I seemed to confirm the existence of an "unconscious", a boxroom of the mind into which traumatic memories are thrown. During WW II, veterans and survivors of the concentration camps and atomic bombings in Japan were described as suffering from *combat neurosis* or *operational fatigue* (Kaplan and Sadock, 1991). Each of these terms infer either a) an abnormal/pathological response to trauma or b) euphemise the severity of the trauma by implying something as innocuous as fatigue. Freud and Burlingham (1943) termed the diagnosis *traumatic neurosis*, which was believed to result from a reactivation of an early unresolved conflict by a traumatic event (Benedek, 1985; Freud, 1933; Kaplan and Sadock, 1991). The concept posttraumatic stress was developed when the dramatic and long-lasting effects of the Vietnam war began to be recognised. It came to be appreciated that three major groups of symptoms seemed to form a coherent syndrome: 1) distressing recurring recollections of the trauma, 2) avoidance of stimuli associated with the trauma and 3) a range of signs of increased physiological arousal (Yule, 1994). The introduction of this new psychiatric diagnosis in the DSM-III (American Psychiatric Association, 1980) precipitated much research and controversy. PTSD has been classified as an anxiety disorder. However many have argued it should be classified as a dissociative disorder, while others question whether this reaction to trauma should be medicalised and pathologised at all. With the operationalization of PTSD, many patients showed numerous yet insufficient symptoms to meet the full criteria (American Psychiatric Association, 1987).

Regarding children and adolescents, Solomon (1942) documented a sample of children's reactions to blackouts and air raids during World War II. He noted that children who managed blackouts in the most "calm, healthy fashion" had relationships with meaningful, stable, well balanced persons who themselves "did not show anxiety". Freud and Burlingham (1943) too reported on children's responses to trauma and confirmed this phenomenon. Based on anecdotal material, they concluded

that the psychological sense of well-being experienced by children in traumatic situations was directly correlated with parental sense of well-being. This belief that a parent's response to trauma acts as a mediating factor in the development of trauma-related symptoms pervades the literature and persists to date. Bowlby (1969, 1973, 1980) and Spitz (1945) produced new psychological constructs based on observations of traumatised children. These referred predominantly to those children traumatised by separation and loss of parents and institutionalisation as a result. The terms included: *anaclitic depression*, *deprivation syndrome* and *affection-less character* (Benedek, 1985). Straker and The Sanctuaries Counselling Team (1987) asserted that the term PTSD is a misnomer in the South African context. They were specifically referring to individuals living in black townships, who were subject to continuous stress. This stress was attributed to the high levels of violence in the townships. Cultural influences on the validity of trauma and posttraumatic responses are crucial to resolve in our South African context. Care must be taken to do ethnographic work in the relevant community in order to understand local idiom, as there are culturally stipulated ways in which certain forms of child and adolescent mental health are given expression.

1.2.3.2. Epidemiology

There has been a growing interest in the epidemiology of PTSD. Epidemiological studies have focused on various sample groups: a *high-risk* cohort (war veterans, refugees, victims of disasters), an *at-risk* cohort (people living in violent communities), and *non-high risk* general population samples. According to Kaplan and Sadock (1991), those age groups most as risk of developing PTSD are "the very young and the very old" (pp. 410) as they have more difficulty coping with traumatic events. According to Stallard, Vellerman and Baldwin (1999), epidemiological estimates suggest that the incidence and lifetime prevalence rates of PTSD in the general population are around 1% - 9% and these levels increase markedly for young adults living in inner cities (23%), (see Appendix A.2.4. for definitions of prevalence). Pfefferbaum (1997) found that lifetime prevalence of PTSD varied from 1% to 14%. Giaconia et al. (1995) found that by age 18, more than 6.3% of a community population of adolescents (N = 384) met criteria for a lifetime diagnosis of PTSD. Kaplan and Sadock (1991) reported a lifetime prevalence rate to be between 1 and 3% of the general population. They added that a further 5 to 15% may experience *subclinical* forms of the disorder. They reported that after the occurrence of a disaster or traumatic situation affecting large numbers of

people, 50 to 80% of the survivors may have the syndrome. Without providing a definition of a high risk group, they reported that members of high risk groups who experience traumatic events have lifetime prevalence rates ranging from 5 to 75%. Variations in both lifetime prevalence and incidence of PTSD may result from the varying methodological approaches used in the studies. PTSD prevalence rates are presented in table 1.2.3.2. These prevalence rates are not directly comparable, as the studies in question have utilised a variety of research instruments, sampling strategies, and population groups.

The early research and studies examining youth's reactions to trauma were based solely on parental reports. Results indicated that children's reactions were mild and transient in nature (Bloch, Silber and Perry, 1956; Garmezy and Rutter, 1985). Terr's later work was groundbreaking. For the first time, child interviews rather than parental reports were obtained. Terr (1991), as well as Eth and Pynoos (1985), found that children's reactions to traumatic events were similar to those of adults (e.g. reexperiencing the event, avoidance, arousal) and these were neither transient nor mild, as previously believed. Furthermore, it became clear that some reactions to trauma appear to be unique to children. These reactions include persistent posttraumatic play, reenactment pf the trauma, omen formations and a sense of a foreshortened future. These findings are now incorporated into the PTSD diagnostic criteria in the DSM-IV (Yule, 1994).

Table 1.2.3.2. A) Prevalence studies of adolescent and child PTSD

Authors	Prevalence	Location	Instrument	Sample
Cuffe, Addy, Garrison, Waller, Jackson, McKeown and Chilappagari (1998)	4%	South Carolina school district, USA	Semi-structured interviews and K-SADS, CGAS	N = 581 7th & 8th grade
Ensink, Robertson, Zissis and Leger (1997)	21.7%	Khayelitsha, Cape Town	SECV, structured clinical interviews	N = 60 10 to 16 years old
Fitzpatrick and Boldizar (1993)	27%	New Jersey, USA	Adolescent Self-Report Trauma Questionnaire	N = 221 Low income African American 7 to 18 years old
Horowitz, Weine and Jekel (1995)	67.1%	New Haven, USA	Adolescent Self-Report Trauma Questionnaire	N = 79 Girls attending adolescent clinic
McCloskey and Walker (2000)	24.6%	Southwestern city, USA	Child Assessment Schedule Child Behaviour Checklist Clinical interview	N = 337 Children, mean age 9.3 years
Stein, Walker, Hazen and Forde (1997)	3.9%	Winipeg, Canada	Standardised telephone interview using DSM-IV PTSD checklist	N = 1002 Young adults
Pynoos et al. (1993)	70.3%	Spitak, Gumri and Yerevan, Armenia	CPTSD-RI Clinical interview	N = 231 1½ years after the 1988 earthquake
Reinherz, Giaconia, Lefkowitz, Pakiz and Frost (1993)	6.3%	North-Eastern, USA.	Structured interview and self-report questionnaire School records	N = 386 Mean age 17.9 years
Wright Berton and Stabb (1996)	25%	Mississippi, USA	Keane PTSD scale, the civilian Mississippi Scale for PTSD	N = 97 8th and 9th grade

CGAS Children's Global Assessment Scale

CPTSD – RI Children's Post-traumatic Stress Disorder Reaction Index

K-SADS Schedule for Affective Disorders and Schizophrenia for School Age Children

SECV Survey of Exposure to Community Violence

1.2.4. Developmental Considerations

Several studies have demonstrated the importance of age and developmental factors in the response of youth who experience violence or trauma. Rudenberg, Jansen and Fridjhon (1998) have drawn attention to developmental issues pertinent to each of the psychosexual development phases. According to Rudenberg et al. (1998), children in the latency age group (6-12) are thought to be most vulnerable to violence related stress symptoms. Responses to violent trauma in this developmental phase can include social difficulties (withdrawal and isolation), aggression, concentration/ memory difficulties, hypervigilance, loss or change in interests, fears, sleep disorders and impaired initiative. In younger children (4-6 years) regressive and antisocial behaviour have been noted. Separation difficulties have been noted in both children and adolescents (Yule, 1994).

Yet there are many studies that have recognised the resilience amongst these children exposed to trauma and violence (Dawes, 1994; Garmezy, 1993; McFarlane and Yehuda, 1996; Swartz and Levett, 1989; Werner and Smith, 1989). Studies have demonstrated how various factors seem to influence the development of symptoms and resilience, namely age, gender, temperament, coping strategies and defence mechanisms.

1.2.4.1. Adolescents and patterns in PTSD symptom profiles

According to Knapp (1998), the adolescent suffering from PTSD experiences rage, shame and betrayal. This is manifested by rebelliousness, dropping out of school, drug use and running away. Adolescents may also experience loss of impulse control, which is especially dangerous when there is easy access to lethal weapons. Pynoos and Nader (1990) demonstrated that adolescents who have witnessed or experienced trauma show elevated levels of substance abuse, delinquency and involvement in dangerous situations that may parallel the event they experienced. Unlike latency-age/prepubescent children, adolescents are capable of conceptualising more accurately the impact of actions they did, or did not, take while witnessing or experiencing a violent incident. Thus adolescents may as a result experience more guilt, survivor guilt and self-blame, than their younger counterparts (Pynoos and Eth, 1986).

1.2.4.2. Consequences of PTSD on development

The pubertal period in particular appears to be a critical developmental transition period as it contains a number of developmental tasks likely to be affected by abuse or trauma. These include 1) attainment of a new and positive sense of self, 2) establishment of strong, intimate interpersonal relationships, and 3) in many western cultures, beginning the process of developing independence from the family of origin. The pubertal period is also a time of exceedingly rapid physical growth and physiological change. Any stress-induced hormonal or biological responses produced by the consequences of exposure to violence would occur in the context of newly maturing hormonal systems (Bremmer et al., 1997; Pfefferbaum, 1997). Surprisingly little is known about the normal maturation of endocrine systems with growth and development, and their possible aberrant development in the face of stress and trauma. Reference to the impact of childhood trauma on chemical and structural characteristics of the developing brain has been made in section 1.2.2.5.

Adolescents exposed to violence often experience conflicts around dependency issues, with some teenagers showing marked swings toward excessive dependence (e.g. deciding never to leave home) or independence from parents (e.g. early marriage). Adolescence is a delicate and often turbulent period characterised by a process of individuation and the development of a separate and unique personal identity. In addition, some of the responses to exposure to violence can result in social and behavioural problems discussed in section 1.2.4.1., which may impact on the adolescent's capacity to belong to a peer social group (Pynoos, Steinberg and Goenjian, 1996). The consequences of PTSD may thus disrupt or impede the course of adolescent individuation and integration into society.

1.2.5. Socio-demographic variables as risk/protective factors in the development of PTSD and associated trauma-response symptoms

Each adolescent's reaction to violence is dependent upon a complex set of variables. The psychological impact is mediated or moderated by factors that can be categorised as 1) individual/ intrapsychic, 2) familial, 3) demographic, and 4) experiential circumstances, directly related to the trauma.

1) ***Individual/intrapsychic*** factors include age, level of ego development, and presence of psychopathology. Garmezy (1993) referred to this as the modification of stressors by potential *temperament factors* (activity level, sociability, intelligence, competence in communication skills and internal locus of control). According to Schwartz et al. (1998), lower intelligence may constitute a risk in the development of PTSD. When addressing the issue of intelligence and PTSD in children and adolescents, the *direction* of the causal relationship is still unclear. Lower intellectual functioning may either predispose youth to develop PTSD or may result from PTSD. More empirical studies are needed to clarify how PTSD influences intellectual development and the affective, social, motivational and cognitive components of learning.

Internal locus of control, i.e. the belief in one's ability to initiate change, is a major factor in the avoidance of helplessness, the development and maintenance of self-esteem and a self-image as a survivor and active agent of change. According to Frydenberg and Lewis (1991), girls are more likely to initiate help-seeking behaviours than boys. Duncan (1996) and Luthar (1991) found that in adolescents, an internal locus of control was protective in mitigating the effects of life stressors on social competence. Consistent with these findings are those of Moskowitz (1983), who identified three characteristics in orphans from Nazi concentration camps who managed best, namely adaptability, appeal to adults and assertiveness. Particular defence mechanisms have been associated with more effective traumatic stress management by adolescents. Adolescents with full PTSD were characterised by using projection, somatisation and conversion, whereas adolescents with partial PTSD were characterised by employing denial, splitting and repression. The mechanism of denial is demonstrated by Pynoos et al. (1987), who investigated the memory of trauma in children who had witnessed a sniper attack and found that those in the greatest danger minimised the perceived threat.

2) ***Familial factors*** include family intactness, family history of mental illness, family conflict and family/parental response to the traumatic event. Garmezy (1993) referred to the *family system* as serving a potentially protective function, which would involve a climate of warmth, cohesion and affectional ties and someone providing emotional support. This hypothesis is consistent with Freud and Burlingham (1943) and Solomon's (1942) observations of children's responses to air-raids and bombings during WW II and parental support moderating the effects of exposure to childhood trauma. The supportive role of parents as a protective factor has been confirmed by numerous studies (Baker, 1990; Bloch, Silber and Perry, 1956; Dawes, 1994; Dubrow and Garbarino, 1989; Figley,

1983, 1985; Nolen-Hoeksema, 1992; Scheinfeld, 1983). Raia (1996) noted that girls' higher "perceived social support" from a parent was associated with lower community violence exposure and PTSD symptoms. Boys' higher "perceived social support" from an adult (not necessarily a parent) was associated with lower overall symptoms, but not lower community violence exposure. Fitzpatrick and Boldizar (1993) in their study on low income African-American youth found that those living with their mothers reported lower levels of PTSD.

A psychoanalytic explanation of this process is that parents are able to acknowledge, digest and metabolise the trauma on behalf of the child/adolescent and re-present it to the child in a manageable and comprehensible form. In addition, the resilience of the caretaker as a protective factor has been confirmed. A supportive social context gives the child a sense of being contained by the social objects in the outer world and serves to facilitate the child's mastery over inner terror and turmoil. McCloskey and Walker (2000) demonstrated that a mother's PTSD symptoms played a role in predicting child PTSD symptoms and internalising problems, whereas supportiveness in the mother-child relationship was related to fewer child trauma symptoms, fewer problem behaviours and better school performance.

3) ***Demographic factors*** include parental educational and occupational level, family income and family size. Contradictory findings have been produced in the investigation of the impact of poverty on the development of PTSD. Famularo, Kinscherff and Fenton (1990) reported family incomes to produce no significant influence on the development of PTSD in a sample of 117 prepubescent children. Some studies have explained low PTSD prevalence by the notion of *resilience* (Fitzpatrick and Boldizar, 1993; Rutter, Izard and Read, 1985). Fitzpatrick and Boldizar (1993) explain the observed difference in PTSD symptom reporting to result from "a resiliency factor commonly found among low SES populations. Specifically youth more exposed to violence may build up a resistance that enables them to maintain a certain level of insulation from a variety of negative life circumstances and thus report less symptomatology". Other studies have demonstrated how factors associated with poverty create risks in the development of PTSD in youth (Boyden and Holden, 1991; Cairns, 1996; Kaplan and Sadock, 1991; Louw and Shaw, undated; Mercy, Rosenberg, Powell, Broome and Roper, 1993; Reinherz et al., 1993). In addition, poverty has been reported as an important risk factor increasing the incidence of *sexual abuse* and *violence* 4 to 7-fold (Finkelhor and Baron, 1986 referred to in Putnam and Trickett, 1993).

4) ***Experiential circumstances*** directly related to the trauma include: the degree of exposure, previous witnessing/experience of trauma (Pynoos and Eth, 1986), the time period between the event and mental health intervention, physical harm and perpetrator characteristics (Martinez and Richters, 1993; Pynoos and Nader, 1990).

Garmezy (1993) has added to this list of four protective/risk factors the presence of some form of *external support system* (an agency, church, school) that rewards the individual's competencies and determination and provides a belief system by which to live. Along similar lines to Garmezy (1993), Barbarin and Richter (1999) believe that a focus on adverse effects of community danger on children's development may unintentionally minimize the significance and beneficial effects of socio-cultural resources found to varying degrees in all communities. These resources can constitute important protective and supportive mechanisms that wield a powerful influence in the lives of their families. Children exposed to ongoing violence in the context of *political* conflict have shown that protective factors include a) the capacity for the child's mother to cope with the trauma (Bowlby, 1973; Dawes and Tredoux, 1989; Freud, 1967), and b) the religious belief system and political ideological commitment of the community and the children (Foster, Davis and Sandler, 1987; Foster and Skinner, 1990; Kinzie, Sack, Angell, Manson and Rath, 1986; Punamäki, 1987). To what extent are these protective factors applicable to the context of non-politically motivated civilian violence, where a cause, purpose or ideology for the violence is absent?

1.2.6. PTSD and co-morbidity

It has been well documented that adolescents demonstrate a myriad of responses to trauma and the communications of distress that are characteristic of their developmental group. These include eating disorders, substance abuse, anxiety disorders and conduct disorders. Other common features are school difficulties, deficits in social skills, prominent suicidal thoughts and attempts, truancy, antisocial behaviour and other high risk behaviour, namely unsafe and "promiscuous" sexual behaviour (McCloskey and Walker, 2000). Rathus, Wetxler and Asnis (1995) investigated PTSD and exposure to violence in adolescents aged 12-19 years (N = 34) presenting at an outpatient psychiatric clinic. They found that diagnostically, the vast majority of the sample met the criteria for mood disorders. However, 50% also had lifetime histories of PTSD, while 31% met the criteria for PTSD

at the time of the interview, typically as a comorbid condition to depression. Among the 19 subjects who made suicide attempts, those with a diagnosis of PTSD reported significantly more serious suicide attempts as measured by the Scale for Suicidal Intent than those without PTSD. Famularo, Fenton, Kinscherff and Augustyn (1996) noted that more classical thought disorder symptoms of concrete paranoia, illogicality, flat affect and bizarre delusions were not typically associated with PTSD symptoms in their sample.

For younger adolescents, studies have presented the following symptoms associated with PTSD: a) the development of trauma related and/or mundane fears, b) sleep disturbances, c) nightmares, d) secondary nocturnal enuresis, e) eating disturbances and f) acting out or withdrawal behaviour (Ackerman, Newton, McPherson, Jones and Dykman, 1998). Diagnostically, McCloskey and Walker (2000) demonstrated significant correlation between PTSD and phobias, oppositional disorder and separation anxiety. Contrary to McCloskey and Walker (2000), Famularo et al. (1996) noted no correlation between PTSD and formal behavioural disturbances (oppositional defiant disorder and conduct disorder). Their findings revealed that the PTSD diagnosis was significantly correlated with attention deficit hyperactivity disorder, brief psychotic disorder or psychotic disorder not otherwise specified (NOS), the presence of suicidal ideation and a trend towards mood disorders.

For older adolescents, Reinherz et al.(1993) noted that in their sample of 386 older adolescents in a 14 year longitudinal study, 6% met the criteria for PTSD. In addition, 9.4% met the criteria for major depression, 22.8% met the criteria for a lifetime diagnosis of a phobia, and 2.1% met the criteria for a lifetime diagnosis of Obsessive Compulsive Disorder. By far the most frequently occurring disorder in this working-class community sample was alcohol abuse/dependence, with almost one-third (32.4%) meeting lifetime criteria. It could be conceived that alcohol and substance use and abuse could be used as a means of self-medication.

This review, with its delineated foci, has presented and analysed a selection of the pertinent literature relevant to this study. The literature suggests that adolescent exposure to civilian violence is significantly high, especially in South Africa and in particular in the coloured communities of the Cape Flats. The nature of this violence as chronic, repetitive and high frequency and its impact have

also been discussed. Various characteristics of adolescents and their familial/social contexts have been shown to mitigate PTSD and related complications, consequent to violence exposure.

Given the review of the literature, objectives of this study are summarised below.

1.3. RESEARCH OBJECTIVES

The aims of the study are:

1. to estimate the prevalence and nature of non-civilian trauma as well as civilian violence (community, family and sexual violence) experienced by adolescents in Manenberg

2. to screen for the possibility of a diagnosis of PTSD in adolescents in Manenberg

3. to identify socio-demographic variables associated with risk of higher PTSD scores, CCDS distress scores and violence scores

4. to determine onset of PTSD and CCDS distress symptoms in relation to the Manenberg storm disaster (29/8/99)

CHAPTER TWO: METHOD

Chapter 2: METHOD

Know then thyself, presume not God to scan;
The proper study of Mankind is Man.
Plac'd on this isthmus of a middle state,
A being darkly wise, and rudely great ...
Alike in ignorance, his reason such,
Whether he thinks too little, or too much ... Alexander Pope, "An Essay on Man"

2.1 POPULATION AND SAMPLING

The sampling frame was identified as grade VIII pupils registered at and attending the three secondary schools in Manenberg (N = 618). The questionnaires were administered on three separate days: Manenberg Secondary School, 12/10/99; Phoenix Secondary School, 13/10/99; and Silverstream Secondary School, 19/10/99. All participants were registered at the school they attended and are thus residing in the environs of Manenberg. The schools are located in various parts of Manenberg which are believed to vary in the prevalence of gang-violence, due to overlapping territorial borders of rivalling gangs (N. Brown and N. Rustin, personal communication, September 17, 1999). If one were to calculate the approximate number of adolescents of the age suitable for grade VIII residing in Manenberg, then according to the Census 1996 statistics, one could estimate that 2 864 adolescents between the ages of 13-15 reside in Manenberg. Thus about 2 246 adolescents have neither been accounted for nor included in this study. Some of the 2 246 adolescents may be in grades VII or IX or may not be attending school in Manenberg or attending school at all. Absenteeism and the adolescents unaccounted for in this study are discussed in chapter 4, section 4.1.1.

2.2 SAMPLE SIZE

Manenberg Senior Secondary school had quoted 203 pupils registered in Grade VIII. At Silverstream Secondary School 202 pupils and at Phoenix Senior Secondary School 213 pupils.

Thus the total population of Grade VIII pupils was 618. The number of pupils attending school on the day amounted to 482. From them, 477 questionnaires were distributed and returned to the research assistants facilitating the classes. It appears that some subjects did not submit their questionnaires. Of the 477 returned, 471 were completed; the remaining 6 were returned with only certain socio-demographic items completed.

2.3 RESEARCH DESIGN

This study was a cross-sectional survey study of Grade VIII school pupils attending the three senior secondary schools in Manenberg. Pupils were screened to estimate the point prevalence of probable cases of posttraumatic stress disorder, the lifetime prevalence of exposure to community, family and sexual violence and non-violent trauma as well as the point prevalence of distress symptoms. See Appendix A.2.4. for definitions of prevalence. The results of additional sections of the questionnaire have not been included in this thesis as they constitute part of a broader study. (These additional sections investigate past and prospective help-seeking behaviour as well the extent and nature of alcohol and drug use.) Changes in the format of the questionnaire were made following the Manenberg storm disaster, including a) a column alongside PTSD and Distress symptom lists requesting subjects to note whether the onset of the symptoms occurred *prior to* or *subsequent to* the storm disaster, b) items pertaining to the disaster were added to the Harvard Trauma Questionnaire (HTQ) trauma list to determine whether subjects had to leave their home or whether they had taken in others who lost their home. In addition c), an autobiographical writing on the storm disaster, was included along with the HTQ autobiographical writing on their most traumatic/painful experience.

2.4 SITES

The questionnaires were administered between 9 and 11 am in the various Grade VIII classrooms of the schools. Tuesday and Wednesday were chosen, as the pupils had embarked on the new week but were hopefully not yet too fatigued. Not one of these three schools had a hall or a large enclosed space for the pupils to receive instructions and complete the questionnaire simultaneously. One research assistant was allocated per classroom, and teachers

were requested to remain absent and unaffiliated to the research. This was to ensure the task was construed as neither an evaluation for the school, nor work that would be scrutinised by members of the teaching staff.

2.5. RESEARCH PROCEDURE

A copy of the research proposal was submitted to the Director of Curriculum Services of the Western Cape Department of Education (WCED). Permission was granted to conduct this study in the three schools during the first two weeks of the 4th quarter of the academic year (see Appendix A.7.3. for copy of permission letter). Meetings were conducted with each of the three school principals as well as the guidance teacher of Manenberg Senior Secondary School, to discuss the study, its aims and the logistics of administration. In addition, principals were invited to recommend additional items. One principal suggested a need to ascertain racial conflict in the school context. The proposal was circulated to Mr Eugene Daniels of the Safer Schools Programme (WCED) who, along with Mr Hennie Mentz of the Department of Curriculum Services, requested the inclusion of several items pertaining to the storm disaster, gang activity and school safety (see section 2.6.5 for details). Once the questionnaire was finalised, it was translated from English into Afrikaans and back translated by a bilingual clinical psychologist and programme manager working at Selfhelp Manenberg (formerly known as CCATC, Community Counselling and Training Centre), a community organisation in Manenberg (Fife-Schaw, 1995; Katzenellenbogen, Joubert and Abdool Karim, 1997). The final draft was scrutinised and edited by a second bilingual clinical psychologist.

Lündbeck S.A., a pharmaceutical company, was approached and agreed to donate pens to all subjects as a token of gratitude for the school pupils' participation in the study. Bilingual (Afrikaans/English) research assistants were needed to assist with administration of the questionnaires and consisted of five 3rd year psychology students from the University of Cape Town. They were trained to present a standard introduction and explanation of the purpose and format of the questionnaire over the course of two mornings (see Appendix six for training of research assistants). Verbal and written reports were given by the research assistants on the process of administration. These reports suggest that a satisfactory level of uniformity across

classes and administrators was obtained. There were, however, three exceptions at Silverstream Senior Secondary: in two classes a teacher remained present and in the third class a fight erupted over the Lündbeck S.A. donated stationery. (See chapter 4: discussion section 4.2.2 on sampling strategy and related issues).

2.6 INSTRUMENTS

2.6.1. School Pupils' Questionnaire:

The questionnaire consisted of a) a list of socio-demographic items, b) an adaptation of the Harvard Trauma Questionnaire (HTQ) trauma list (devised by Mollica, 1991), c) a list of items on community, family and sexual violence, d) the HTQ PTSD checklist, e) a 15 item distress symptoms checklist adapted and abbreviated from the 28 item CCDS questionnaire to identify the presence of distress symptoms in children who have been exposed to violence (devised by Martinez and Richters, 1993 for the National Institute for Mental Health {NIMH}) and f) a section for autobiographical material pertaining to 1) the subjects' most terrifying or traumatic experience and 2) their experience of the Manenberg storm disaster of 29/8/99.

2.6.1.1. Socio-Demographic Questions

The following items were included in this section: age, date of birth, sex, number of siblings, number of people living in their home, number of habitable rooms in their home, number of places/homes previously lived in, identity of principal caregiver, employment status of mother and father and home language/s. Two items above were combined to create an *Overcrowding indicator* - items 5 and 6. Item 5 is "How many people are living in your home?" and item 6 is "How many rooms are in your home? (do not count the bathroom or kitchen)". This indicator was developed by the Department of Information Services of the Cape Metropolitan Council (CMC). It forms one part of the Levels of Living Index used to determine quality of life in areas of Cape Town. It was designed by the CMC from local databases and is therefore more specific and relevant to Cape Town. Overcrowding is defined as a household with over 1.5 residents per habitable room (excluding bathrooms, toilets, kitchens and passageways).

2.6.1.2. The Harvard Trauma Questionnaire (HTQ)

The Harvard Trauma Questionnaire (HTQ) is a cross-cultural instrument designed for the assessment of trauma and torture related to mass violence and their sequelae. The HTQ is intended for use in both clinical and research contexts with patient and community-based populations of diverse cultural backgrounds (Mollica et al., 1992). It consists of a self-report scale incorporating three sections. The *first* section identifies a variety of traumatic experiences. The *second* includes 30 symptom questions of which the first 16 are adapted from the DSM III R criteria for PTSD. The subjects' total mean scores from this section are calculated to indicate a possible diagnosis of PTSD with a mean cut-off point of 2.50. The *third* section is an open-ended question requesting subjects to provide descriptions of subjective experiences of their most traumatic/hurtful experiences. Added to this third section was an additional open-ended question requesting subjects to provide descriptions of their experience of the Manenberg storm disaster. The references applicable to refugees' experiences were removed from the HTQ. In addition, the section on head injuries was excluded as the neuropsychological analysis and interpretation of these items was outside the parameters of this study.

The HTQ has been used in many studies as an instrument assessing prevalence of trauma and subsequent PTSD symptomatology. This instrument was originally designed to be administered to refugees and asylum seekers. Studies employing the HTQ have included subjects from Serbia (Bilanakis, Pappas, Baldic and Jokic,1996), Bosnia (Elklit, Norregaard and Tibor, 1998; Mollica et al., 1999), the former Yugoslavia (van den Heuevel, 1998), Iran (Ekblad and Roth, 1997), Vietnam (Fawzi et al., 1997; Mollica et al., 1998; Smith-Fawzi et al., 1997), Afghanistan (Mghir, Freed, Raskin and Katon, 1995), Uganda and Malawi (Peltzer, 1998), Sri Lanka (Steel, Silove, Bird, McGorry and Mohan, 1999), South Africa (Robertson, Ensink and Zissis {in press}) and multiple nationalities (Ekblad and Roth, 1997; Kleijn, Hovens, Rodenburg and Rijnders, 1998; Sinnerbrink, Silove, Manicavasagar, Steel and Field, 1996). The HTQ is a screening instrument, designed to identify possible cases of PTSD. Psychiatric status would need to be confirmed by the use of an extensive psychiatric interview (gold standard or second stage criterion), (Beusenberg and Orley, 1994).

2.6.1.2.1. Scoring of Harvard Trauma Questionnaire:

A. The HTQ Trauma Events:

The HTQ Trauma events list was modified to suit the context, age group and life experiences of this adolescent sample. The original system intended for scoring this section (Mollica, 1991) suggested an ordinal variable of "level of exposure" with scoring increasing, depending on the degree of exposure to an event or phenomenon:

Heard about	= 1	Heard + Experienced	= 5
Witnessed	= 2	Witnessed + Experienced	= 6
Heard + Witnessed	= 3	Heard + Witnessed + Experienced	= 7
Experienced	= 4		

There are various problems with this approach. Firstly, this scoring system assumes that degree of exposure is synonymous with degree of severity. Secondly, an ordinal scale implies that the value assigned to each level of exposure is the same for all events. In addition, the category "Heard About" seems to be redundant considering the severity and pervasiveness of violence and trauma in Manenberg. The HTQ trauma events list was thus used to describe prevalence rates of experiences and witnessing only.

B. The HTQ Trauma Symptoms:

The response scale for the 30 item symptoms is an ordinal scale with four levels: 1) "*Not at all*", 2) "*A little*", 3) "*Quite a bit*" and 4) "*Extremely*". The responses were allocated a weighting of 0, 1, 2, 3 respectively. Two types of variables can be generated by this scale; a continuous measure of experienced symptom severity, formed by averaging responses on each symptoms scale over subjects (range 30-120); a categorical measure of symptomatology (i.e. the presence or absence of symptoms), formed by collapsing the four ordinal categories to two levels (Yes/No) range (1-30) (Mollica, 1991; Smith-Fawzi et al., 1997). The former system was used in the calculation of the scores. However, the latter system was chosen for the purposes of succinct reporting. The total score was calculated by summing the items 1-30 and dividing these by 30 (or the number of items completed). As established in various validation

studies (Mollica, 1991; Mollica et al., 1992; Smith-Fawzi et al., 1997), a total score of ≥ 2.5 is considered to be symptomatic of PTSD.

2.6.1.3. The Community, Family and Sexual Violence list:

A table of items was devised requiring subjects to note whether they had experienced any of a series of violent or violence related experiences. In addition, they were to note whether the perpetrator or person involved in the particular item was a) someone younger than 18 years, b) a stranger, c) someone they knew, or d) a member of their family. More than one of items a – d could be selected. This way information about prevalence rates of violence experiences as well as the identity of those involved could be established concurrently.

2.6.1.3.1. Scoring of the Community, Family and Sexual Violence list:

Regarding the method of scoring/weighting violent events, the following scoring systems were considered unsuitable methods of assessment: a normative approach, an observer-rated measure, a contextual approach or subjective ratings. A normative approach involves each event being assigned a fixed predetermined score based on previous studies. The observer-rated measure was not appropriate for this self-report questionnaire, as this system is used in an interview. The contextual approach takes into account the subject's individual biographical background, independent of his/her subjective emotional reactions (Dohrenwend, 1979). Finally, subjective ratings in retrospective studies have been widely criticised for their vulnerability to bias based on the *consequences* of those events and the resulting confusion between event and outcome (Fife-Shaw, 1995; Holmes and Rahe, 1967; Miller, 1996). The present researcher thus decided that the dimensions of traumatic events usually referred to in the literature were not appropriate for the type and magnitude of trauma experienced by this adolescent population, assessed in this self-report questionnaire format. Instead of attempting to assess the relative severity of each event, it was decided to implement a uniform weighting system for each item marked positively, irrespective of the identity of the perpetrator involved. Problems related to this choice will be addressed in the chapter 4: section 4.2.9.

2.6.1.4. The CCDS distress symptoms checklist:

The present study utilised an adapted version of Richters and Martinez's (1993) Checklist of Child Distress Symptoms (CCDS), which was developed from diagnostic criteria described in the DSM-III-R. The present study utilised a selection of fifteen items from the original total of 28 items of the CCDS list, assessing symptom presence subsequent to violence exposure. The 13 items not included in this study were considered too closely related to PTSD. It was considered unnecessary to replicate symptoms addressed in the HTQ. In addition, the researcher felt that several of the 28 items overlapped or were repetitious. The following 3 items provide an example: "*Wants to go outside and play but is afraid*" and "*Cannot play like s/he used to because is scared and sad*" and "*Does not want to play because something bad might happen*". Two additional items were added to the list: 1) "I am worried I will NOT live to be old (60 years old) because I may be shot or stabbed" and 2) "I have attempted suicide". Because of the changes made to the CCDS, the original depression and anxiety scales were not calculated. The present CCDS scale does not provide a conclusive diagnosis of anxiety, depression or other diagnoses related to trauma, but rather provides an indication of the level of distress experienced by the subject.

2.6.1.4.1. Scoring of the CCDS checklist:

Much like the HTQ symptom list, the CCDS list consists of a 16 item symptom checklist presented as a Likert scale response format, ranging from 1 to 4, an ordinal scale with four levels: 1) "*Not at all*", 2) "*A little*", 3) "*Quite a bit*" and 4) "*Extremely*" (see section 2.6.1.2.1.B). The responses were allocated a weighting of 0, 1, 2, 3 respectively. Again, two types of variables can be generated by this scale: a continuous measure of experienced symptom severity, formed by averaging responses on each symptom scale over subjects; or a categorical measure of symptomatology (i.e. the presence or absence of symptoms), formed by collapsing the four ordinal categories into a two level range (Yes/No). The former system was chosen in the scoring process, whereas in the reporting of the items, the two level categories were used. Due to the fact this list was abbreviated and modified to suit the context and life-experiences of this adolescent sample, the original scoring system assigned to this instrument was no longer suitable. CCDS distress scores were attained by summing all the items (allocating scores of 0, 1, 2, or 3) and dividing the total by the number of items completed and

finally multiplying this by 3 (see Appendix five, for CCDS list). Item no. 16 was removed as it was too directly related to PTSD.

2.6.1.5. Additional items regarding a) gangsterism, b) school and c) the Manenberg "Storm Disaster" of 29/8/99.

Mr Eugene Daniels of the Safer Schools programme (WCED) requested the following items to be included in the questionnaire. See Appendix A.7.5.

Manenberg storm disaster	I have had to live with someone else in their home.
	I have had persons affected by the storm living in my home.
Gangsterism	I have been forced to partake in gang activities.
	I have been forced to join a gang.
School context	I have been bullied/humiliated at school.
	I feel scared to come to school.
	I feel unsafe at school.
	I have been verbally abused at school.

2.6.1.6. Autobiographical writing

The subjects were asked to write about their most traumatic experience in the 10-line space provided, as well as the storm disaster of 29/8/99 in the 7-line space provided. These were processed on the basis of content analysis. This process tends to be more subjective and less explicit about the process by which interpretation of target material occurs (Wilson, 1995). The system of classification was derived from the research question. A coding frame was utilised to conduct the thematic analysis. The categories were exhaustive but not always exclusive, i.e. not all instances could be assigned to one category. Thus, a new category, namely miscellaneous and combinations, was created to accommodate those 23 responses which contained multiple themes.

2.6.1.7. Question determining non-disclosure.

After the autobiographical sections on the most traumatic/hurtful experiences and the

Manenberg storm disaster, subjects were asked whether they had chosen to withhold any information in this regard. They were also requested to supply their reasons for non-disclosure.

2.7. Validity of the Harvard Trauma Questionnaire

2.7.1 Criterion Validity

This is assessed by testing the hypothesised relationship of the test with external criteria. Concurrent validation involves observing the relationship between the test and other criteria that are measured at the same time (Hammond, 1995). The HTQ criterion validity was accomplished by measuring the degree to which the HTQ correctly classified patients with and without PTSD, in contrast to patients' diagnoses generated by clinicians according to the DSM-III-R criteria, (Mollica, 1991). The *sensitivity* of the screening instrument is the correct classification of patients with PTSD. A high sensitivity, therefore, reflects a low false negative rate. The *specificity* of the screening instrument is the correct classification of patients without PTSD. A high specificity, therefore, reflects a low false positive rate.

2.7.1.1. Sensitivity:

In Mollica's original study (1991) the resulting sensitivity of the HTQ for the presence of PTSD was 0.78. These findings indicated that 78% of patients with PTSD were correctly classified by the HTQ. Mollica (1991) explains the lowered sensitivity and specificity rates to result primarily from the fact that the HTQ was administered to the patients after a treatment response had occurred. In a further study by Mollica et al. (1992), the results revealed a higher sensitivity rate of 93% which increased to 98% in a more recent study by Smith-Fawzi et al. (1997).

2.7.1.2. Specificity:

Mollica's original study (1991) revealed a specificity level of 0.65; thus 65% of patients without PTSD were correctly classified by the HTQ. A subsequent study by Mollica (1992) yielded a significantly higher specificity level of 84%. In a further HTQ study by Smith-Fawzi et al. (1997), the HTQ demonstrated excellent diagnostic accuracy with specificity at 1.0.

Thus *misclassification rates* have varied according to the studies conducted, but appear to have decreased over time as the HTQ has evolved with various culture-specific versions (Mollica et al., 1998).

2.7.2. Content Validity

Content validity reflects the degree to which items on an instrument represent the universe of items that define the variable or behaviour to be measured (Hammond, 1995), i.e. is the content of the test relevant to the characteristic being measured? The HTQ, which seems to have a clear *face validity* (i.e. the subjective evaluation of the relevance of the test items), is helpful in that the respondents understand and recognise the relevance of the items to the function of the study. In the absence of face validity, (i.e. where items appear irrelevant), respondents may become irritable or impatient. However, face validity may also be a liability since the respondent may identify the purpose of the questions and then proceed to answer them in a biased manner. No specific data is available on measuring the content validity of the HTQ.

2.7.3 Construct Validity

The construct validity of the HTQ relies on the construct validity of PTSD as a disease entity that is separate and distinguishable from other psychiatric disorders. Cultural relativists regard PTSD as a concept, an abstraction, liable at any time to be adjusted or discarded. Considerable information has been accumulating regarding the validity of a PTSD *diagnosis*. It has not however, been properly established in non-Western cultures, or in non-Western adolescent populations. Peltzer (1998) employed the HTQ to investigate the ethnocultural construction of PTSD stress symptoms in Ugandan and Malawian patients. He concluded that the PTSD diagnostic category, as set forth in the DSM-IV and as applied to these particular two samples of African victims, did not appear fully applicable (Peltzer, 1998). This seemed especially true for symptoms that constitute Criterion C. The particular feature of psychic numbing could, however, have been substituted by bodily numbing symptoms. See Appendix A.2.2 for diagnostic criteria for PTSD (DSM-IV).

Research has demonstrated that PTSD *symptoms* do exist across cultures and in South African cultures in particular (Dawes and Tredoux, 1990; Ensink et al., 1997; Malepa, 1990;

Robertson, Ensink, Parry, and Chalton, 1999; Rumble, 1994; Simpson, 1991; Skinner, 1998; Thom, Zwi, and Reinach, 1993; Turton, Straker, and Moosa, 1991; Zissis, Ensink, and Robertson, in press). Yet it is not clear what symptoms are core to the trauma response and what symptoms are specific to the culture. In addition, Western psychiatric diagnostic systems are still wrestling with the degree of overlap between symptoms associated with PTSD and symptoms associated with other diagnoses such as depression and anxiety.

2.8. Reliability of the Harvard Trauma Questionnaire

2.8.1 Inter-rater reliability:

Inter-rater reliability does not apply to the *survey* format of the HTQ as opposed to the interview format. However, Mollica's (1991) original HTQ study provided convincing results for both the trauma events ($r = 0.93$) and the trauma related symptoms ($r = 0.98$).

2.8.2. Internal consistency:

There is a paucity of research on the internal consistency of the HTQ. However, Mollica (1991) employed Cronbach's coefficient alpha to measure the degree to which items on the questionnaire are intercorrelated, and found a high correlation for both the trauma events (0.90) and the trauma-related symptoms (0.96).

2.8.3. Test-retest reliability:

In Mollica's (1991) original research on the HTQ, subjects were given the HTQ for the second time one week after the initial administration. Correlations between patients' scores on both administrations were high for both the trauma events ($r = 0.89$, $p < 0.0001$) and the trauma-related symptoms ($r = 0.92$, $p<0.0001$). It should be noted, however, that test-retest reliability is difficult to ascertain in an investigation of post trauma-related symptomatology. It would be difficult to distinguish fluctuations that are responses to amelioration or exacerbation of symptoms from fluctuations due to unreliability. In addition, factors such as recall and practice may interfere with test performance so that responses appear more consistent over time than

they actually are. Thus interpretation difficulties arise from estimates of test-retest reliability of symptom profiles.

2.9. CULTURAL APPROPRIATENESS OF QUESTIONNAIRE

There is a paucity of research conducted on the coloured population residing in the peri-urban area of the Cape Flats. No research has investigated the appropriateness and validity of a self-reporting questionnaire format in this population. Swartz et al. (1985) believe there is no guarantee that instruments developed in one cultural setting, operationalising definitions of certain characteristics of one culture, will find concepts, or those same operational definitions, in another culture.

Rumble (1994) claims that black and, to a lesser extent, coloured communities in South Africa have distinct cultural heritages, including interpreting of mental illness and pathways to mental care, yet these traditions constantly interact with the Western model of mental health. This issue has been partially addressed in the section on construct validity in section 2.6.2.1 c). There has been an ongoing debate in psychiatric research regarding the applicability of the Western diagnostic criteria to non-Western populations. There are also many methodological questions involved in the development of clinical instruments for the use of non-Western groups. A specific combination of symptoms that constitutes a "disease" in one culture is not necessarily viewed as a disease in another. Swartz (1998), in his investigation of the limitations of the DSM system of diagnosis, concludes that although the DSM-IV is primarily a universalist product of North American (and European) psychiatry, it has begun a process of recognising the importance of cultural diversity in mental health and mental illness. In addition, it is problematic to construe the world as containing two distinct systems, both homogenous, both existing in impermeable vacuums: the rational, scientific, Western world vs. the irrational, spiritual, non-Western world (Boonzaier and Sharp, 1988). This dualistic view of cultures and communities creates a dilemma in the conception of coloured identity. The adolescent population under investigation belongs to both and neither worlds concurrently, as they are part of a community and culture that is neither black nor white but that has incorporated and woven a unique identity that has African, North American and European influences.

Robertson (1996) and Swartz (1998) refer to various culture-bound syndromes affecting youth and adults in South Africa: *Isimnyama esikolweni*, *Ukuphambana* and *Amafufunyane* to name three. Coloured communities of the Cape Flats have largely been excluded from such research. McCloskey and Walker (2000) have demonstrated that studies of youth who fled political violence and resettled in the United States have shown that even across diverse cultures and experiences, about half of the young survivors met the diagnostic criteria for PTSD. It is difficult to ascertain whether this specific combination of symptoms, which constitutes a "diagnosis" of PTSD according to the DSM-IV, is necessarily perceived or experienced as a diagnostic category in this coloured population. Further research is needed to investigate a) whether culture-bound syndromes or expressions of distress exist in this population and b) the nature, expression and management of these possible culture-specific responses. This study, however, was conducted with the knowledge that PTSD symptoms do develop subsequent to trauma, across diverse cultural and ethnic groups (see section 2.6.2. on the HTQ and section 2.7.3. for construct validity).

2.10. ETHICAL CONSIDERATIONS

2.10.1. Research on children and adolescents

According to the Guidelines on Ethics for Medical Research* (1993) ; regarding epidemiological studies, it states that "*observational studies (cross-sectional, case-control and cohort studies) that involve no intervention other than asking questions, carrying out medical examinations and simple laboratory tests or X-ray examinations, carry minimal risk to study subjects* ". Minimal risk in this context is difficult to ascertain as subjects' affective responses to the questionnaire may or may not constitute minimal risk depending on how their response is managed by the individual in question. As a vulnerable population group, children and adolescents need added protection, especially regarding risk/benefit assessment and consent. Clause 1.4.1 states that research should not be undertaken unless there is a specific and demonstrable need to perform the research on children, and *no* other route to the relevant

* Guidelines on Ethics for Medical Research (1993), section 18.1.1. (page 73)

knowledge is possible (e.g. research on animals or adults or in vitro research). Clearly, establishing the prevalence and impact of violence and trauma on adolescents can most effectively be established if adolescents themselves are the subjects of enquiry.

2.10.2. Minors and consent

According to clause 1.4.3 in the MRC's Guidelines on Ethics for Medical Research (1993), children/minors can be included in research if (own emphasis):

i) either those included who are legally capable of consenting have done so, or *consent has been given on their behalf by a parent or guardian*, and *they do not appear to object in either words or action*;

ii) in the case of non-therapeutic research, *participation places a child at no worse than minimal risk*.

2.10.3. Confidentiality of material

Subjects were requested not to identify themselves by placing their names on the questionnaire. In addition, the completed questionnaires would not be available to anyone besides NW and her thesis supervisor, Leslie Swartz. The researcher, NW, is bound by confidentiality clauses she has signed at the UCT Child Guidance Clinic as part of her training in clinical psychology.

2.10.4. Ownership of results

The University Scholarship Committee of UCT has granted funding for the completion of this study and is thus entitled to participate in ownership of the results. In addition, in the research proposal NW guaranteed she would make the results available to the staff of the three schools (in the form of a workshop presentation) as well as the following other role-players in the area:

Mr E. Daniels	Director of the Safer Schools Project
Dr J. Pretorius	Head of Psychological Services (WCED)
Mr R. Keys	Disaster Manager for the Disaster Counselling Group for Traumatised Learners
Prof D. Stein	The Director of the Bathuthuzele *Youth Stress Clinic* at Tygerberg Hospital
Mr F. Johnson	Manenberg Learner Support officer - Department of Safety and Security
Mr C. Giles and Ms G. Wiltschitt	Director and adolescent programme coordinator; Self-Help Manenberg

2.10.5 Communication of study results

When epidemiological data are unlinked (in this case anonymous), a disadvantage to the subjects is that individuals at risk cannot be informed of useful findings pertaining to their health. According to the MRC's Guidelines on Ethics for Medical Research (1993), under these circumstances the ethical duty to do good can be served by making pertinent health care advice available to the community to which the subjects belong. The subjects were informed that their individual results would not be available to them. However if they were concerned about any issues pertaining to the questionnaire, the services of Selfhelp Manenberg were available to them at their local community centre.

2.11. TRANSLATION

Translation from English to Afrikaans, as described in section 2.6.7., took into account the following factors identified by Mollica (1991): a) content equivalence: each item has a content relevant to the culture, b) semantic equivalence: the meaning of each item is the same in both languages, c) criterion equivalence: the interpretation of the results remains the same when compared against a norm in each culture and d) conceptual equivalence: responses to the instrument indicate the measurement of the same underlying theoretical construct across both cultures. Parry (1992) has identified threats to validity of Western psychiatric instruments when used in non-Western cultures to arise from a) cultural differences and b) the translation process. Similarly, Swartz et al. (1985) have pointed out that languages differ in the extent to which they allow for similar expression of inner distress. There is no guarantee that the instruments and the use of English used in these instruments have found the same concepts or operational definition in Afrikaans.

2.12. METHODS OF ANALYSIS

Descriptive statistics are used to analyse the socio-demographic variables, the point prevalence of both a PTSD diagnosis, traumatic experiences, and exposure to violence (family, community and sexual violence) as well as the point prevalence of CCDS distress symptoms. A

coding frame was utilised to conduct the thematic content analysis of qualitative material regarding a) their most traumatic event, b) the storm disaster and c) reasons for non-disclosure. Thereafter, ANOVA's, Pearsons' Product Moment Correlation Coefficient (to determine the Coefficient of Determination) and a multiple regression system named the Generalised Linear Model (GLM) were employed as needed to determine the strongest relationship between PTSD, Distress and Violence scores and socio-demographic variables. Regarding PTSD scores, the Kolmogorov-Smirnov Goodness of Fit test for Normality revealed that the distributions were not normal. A non-parametric analog was therefore selected: the Mann-Whitney U test. In order to transform the distribution into a normal distribution, the PTSD scores were log-transformed (i.e. taking the square root or the logarithm of the scores). It is well established that parametric inferential procedures are more powerful than non-parametric procedures. With non-parametric tests, the result is less likely to be statistically significant when there is a relationship between 2 or more variables (Howell, 1992; Rosnow and Rosenthal, 1996).

2.13. CONTROLLING FOR TYPE 1 ERRORS - α

The risk of erroneously rejecting the null hypothesis, when it is in fact true, would be an inferential mistake and poses a major problem in conducting multiple comparison procedures. Settling with a set of conclusions and interpretations of results has an inherent danger of containing at least one Type 1 error. This probability is named the familywise error rate (FW) (Howell, 1989). Several factors assisted in controlling the FW. Firstly, in instances where multiple comparisons procedures were utilised, the *Bonferroni Adjustment* (Howell, 1992) was employed, creating a stronger significance level of $p = 0.0125$. Secondly, the use of a large sample (N = 477) allowed effects to be estimated more accurately (Gelman, 1999) and thirdly, the reporting of exact p-values also assisted in controlling the FW. Rosnow and Rosenthal (1996) view the power of a statistical test to be determined by: a) the probability of a Type I error (α), b) the true difference between the null and alternative hypotheses ($\mu_0 - \mu_1$) and the level of risk of drawing a spuriously favourable conclusion (i.e. the p level), c) the sample size (N) and d) the effect size.

This chapter has presented a rationale for the choices of instruments as well as the methodological implications and limitations of this study. The focus of the study is on the PTSD symptom profiles derived by the HTQ and less emphasis is placed on the CCDS, as this symptom checklist underwent much change and adaptation, so the validity and reliability issues pertaining to the original instrument were no longer appropriate. Judging from the review of the studies involving the HTQ and CCDS, it was felt that these instruments were considered suitable (but not without limitations) for this adolescent population. The chapter that follows presents and analyses the findings.

CHAPTER THREE: RESULTS

Chapter 3: Results [i, ii, iii]

We have entered into the night to tell our tale, to listen to those who have not spoken. We who have seen our children die in the morning, deserve to be listened to. We have looked on blankly as they opened their wounds. Nothing really matters except the grief of our children. Their tears must be revered. Their silence speaks louder than the spoken word; and all being and all life shouts out in outrage. We must not be rushed to our truths. Whatever we failed to say is stored secretly in our minds... Our minds are numbed beyond the sadness. We have received the power to command; there is nothing more we can fear.

Mazisi Kunene, "Congregation of the story-tellers at a funeral of Soweto children", 1997

3.1. INTRODUCTION

The results are presented in the following manner. Firstly, general information is reported (section 3.2.), looking at the general profile of the sample regarding its demographic characteristics. Section 3.4. focuses on the prevalence of violence and demographic variables associated with types of violence, and creates three categories of violence, namely Community violence, Family violence and Sexual violence (section 3.4.4.). Section 3.5. focuses on the prevalence of PTSD symptoms within this population in relation to various discrete demographic variables. The fourth section (section 3.6.) is similar to the third in that it focuses on the prevalence of Distress symptoms also in relation to various discrete demographic variables. The final statistical analyses (section 3.7.) synthesize each of the above sections employing a Generalised Linear Model (GLM), where each set of scores (PTSD, CCDS distress and Violence) is scrutinised to determine the strongest relationships amongst them, and between them and demographic data. The last section of the chapter (section 3.8.) addresses the autobiographical writing produced by subjects and offers an analysis of the patterns and themes. The structure of this chapter is depicted graphically, in diagram form in Appendix A.3.1.

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i - All the results of t-tests presented in this study are 2-tailed tests unless stated to the contrary.
ii - All figures are rounded to the nearest two decimal places, with the exclusion of r and p-values.
iii - Appendix A.3 contains a selection of details of results/tests derived from significant and non-significant analyses

3.2 RESPONSE RATE

As described more fully in section 2.2., 471 questionnaires were completed. Of these 471 questionnaires, several subjects did not complete either a particular section or particular items within a section. The response rate for each section or each item is reported along with the results themselves. There was a poor response rate for the onset portion of the symptom checklists; 338 subjects (71.2%) did not stipulate onset. Onset could therefore not be used for the purpose of this study and is addressed in section 4.2.3. At Manenberg S.S., 159 Grade VIII pupils completed the questionnaire. The principal had quoted 203 registered in the Grade, thus only 78.3% of the subjects from this section of the sample were collected. At Silverstream S.S., 143 (70.8% of 202 registered) pupils completed the questionnaire and at Phoenix Senior S.S. the figures were 169 (79.3% of 213 registered pupils). In conclusion, 471 subjects reflect a response rate of 76.2%.

3.3 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

The mean age of the subjects is 14.2 years (median = 14.0). S/he has on average 1.89 brothers (median = 2.0, s = 1.05) and 2.04 sisters (median = 2.0, s = 1.28). S/he has on average 6.52 people living in the home (median = 6.0, s = 2.60) with an average of 2.2 habitable rooms per home (median = 2.0, s = 0.95). On average, s/he has lived in 1.79 previous homes besides is/her current residence (median = 2.0, s = 1.21). Of the total sample, 206 (44.8%) are males and 253 (55.1%) are female, but 11 subjects did not stipulate their gender. More information follows addressings the distribution of each factor in detail.

3.3.1. Age (N = 471):

Out of the sample of 471 subjects, 455 stipulated their age. The vast majority of subjects are either 13, 14 or 15 years old. The full age distribution is presented, in Appendix A.3.2.1.

3.3.2. Siblings (N = 463):

Most subjects (67.3%) have between 2 - 4 siblings; 34.6% of subjects have between 5 and 10 siblings. The full distribution of siblings is depicted in a table in Appendix A.3.2.2.

3.3.3. Overcrowding (N = 461):

There were 461 subjects who completed the two items to create the Overcrowding Index, namely a) people residing in the home, and b) number of habitable rooms. There were 53 subjects who obtained a score lower than 1.5 and 407 scoring above 1.5. Thus 88.29% of this sample live in conditions that are considered overcrowded according to the Levels of Living Index.

3.3.4. Previous Homes (N = 438):

Of the 438 subjects who completed this item, most have lived in 1 or 2 previous homes aside from their current home (n = 331, 75.5%). A further 89 subjects (20.31%) have lived in 3 - 10 previous homes. Eighteen subjects have not lived in any other home besides their current domicile.

3.3.5. Primary Caretaker (N = 451):

Most subjects (n = 306, 67.8%) reported their *parent* or *parents* as the primary caretaker without stipulating the gender of the parent. 51 subjects answered with *mother* (11.3%); 7 (1.5%) answered with *father* as their primary caretaker. A further 87 subjects reported having another person as their primary caretaker. See Appendix A.3.2.3. for full report.

3.3.6. Employment status of Parents (N = 466):

In this item, several subjects volunteered information that a parent was deceased. Of the 466 subjects who completed this item, 215 (46.1%) reported that their mother was employed and 4 (0.8%) reported that their mother was dead. This leaves 247 mothers who were either unemployed or not able or wishing to seek work outside of the home. Two hundred and seventy seven (n = 466) reported that their father was employed, thus leaving 158 either unemployed or not able or wishing to seek work, and 31 (6.6%) fathers were reported to be dead.

3.3.7. Home Language (N = 464):

Of the 464 subjects who completed the item, the majority - 337 (72.6%) - of the sample speak Afrikaans *only* as a home language. Next is the combination of Afrikaans and English

55 (11.8%). There are 42 subjects who speak Xhosa (alone or in combination with another language). The full list of responses is depicted in the table A.3.2.4. in Appendix 3.

3. 4. VIOLENCE PREVALENCE

This section assesses the prevalence of exposure to violence. Firstly, the Violence score will be discussed in terms of its composition and distribution. Secondly, violence will be addressed within the context of the school environment and in the context of gang culture. There will be a final section examining the prevalence and nature of sexual violence.

3.4.1 Violence scores

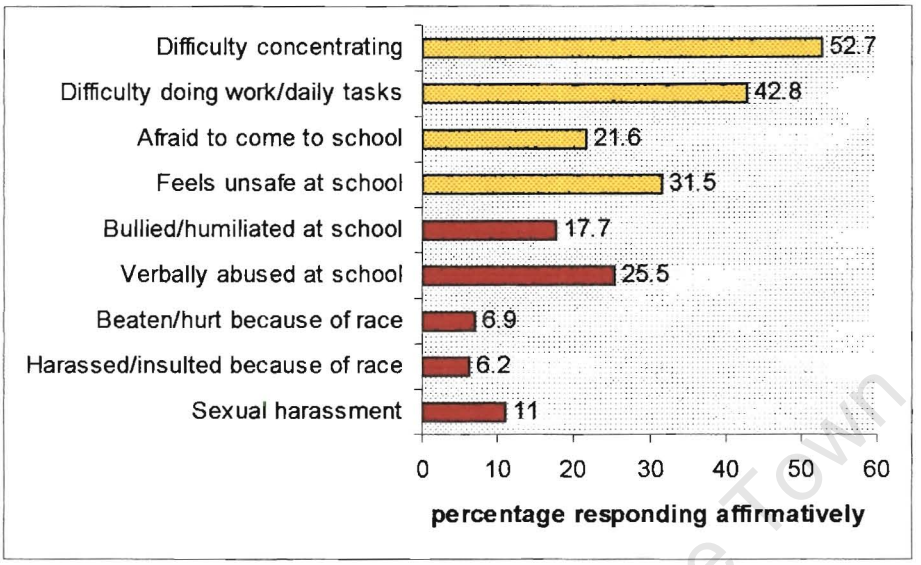
Violence scores were created by calculating the sum of responses to the items 1 to 11 of Part 3 of the Questionnaire. A positive response to any of the items "Yes - someone younger than 18", "Yes - a Stranger", "Yes - Someone I know" and "Yes - A Family Member" obtained a uniform score of 1. See Appendix 3.3. for detailed composition of categories of violence. Problems and limitations of such a system will be addressed in Chapter four, section 4.2.9. The distribution of Violence scores was normal. There were no statistically significant differences found between the Violence means of the three schools. This homogeneity of variance disconfirms the expectation that there may be increased scores of subjects attending Manenberg S.S.

3.4.2. School Environment

The bar graph 3.4.2.A) below depicts aspects of the adolescents' experiences and perceptions of the school environment regarding a) their personal safety and b) their subsequent capacity for effective functioning. Some of these items address racial conflict, which was reported by the school principals to be prevalent where black pupils are in the minority (N. Davids and D. Jacobs, personal communication, September 17, 1999).
The percentages for the top four items (in yellow) were obtained by conflating the ordinal responses "A little", "Quite a bit" and "Extremely" to create a uniform "Yes". For the bottom five items (in red), these percentages reflect all those subjects who reported having personally "Experienced" these events, thus excluding the responses "Witnessed" and

"Heard about". The results of the list of symptoms/ traumatic experiences can be found in Appendix A.8.1.

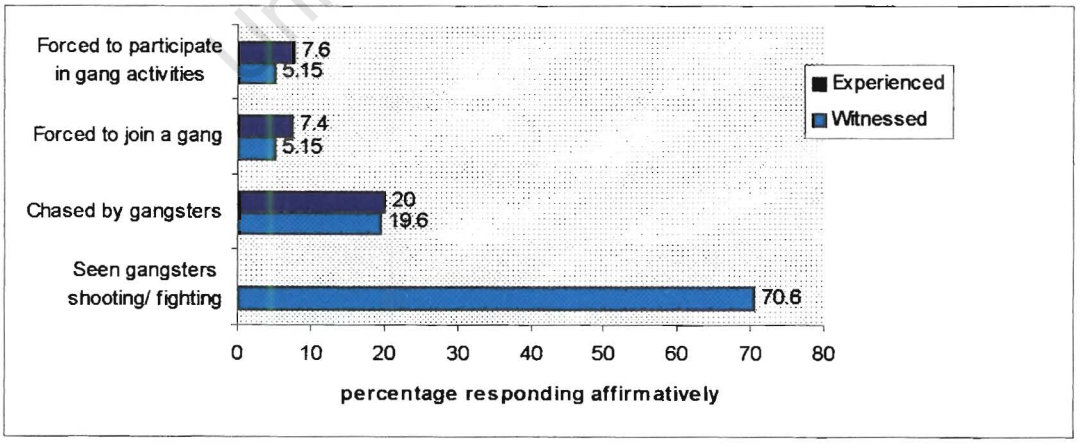
Figure 3.4.2. A) Items relating to the School Environment



3.4.3. Gang related experiences

Subjects were asked to report on their exposure to and personal experience of gang activity and violence in the following four items.

Figure 3.4.3. A) Gang activity and violence



"Seen gangsters shooting/fighting" – the two categories conflated, as "seeing" cannot be separated into Witnessed and Experienced.

From the sample of 460 subjects that completed the section on Violence, 367 (79.78%) subjects reported having witnessed someone being shot or stabbed either in their home or in Manenberg.

3.4.4. Three categories of Violence:

The numerous items pertaining to violence were divided into 3 categories of violence, based on the nature of the violence, its context and the identity of the perpetrator. These categories are as follows and are composed of the following phenomena. (See A.3.3.1-A.3.3.3. for list of precise items that were employed in each category.):

3.4.4.1. Community Violence:

Community Violence is a combination of public, criminal and gang violence (which does not include the school context).

3.4.4.2. Family Violence:

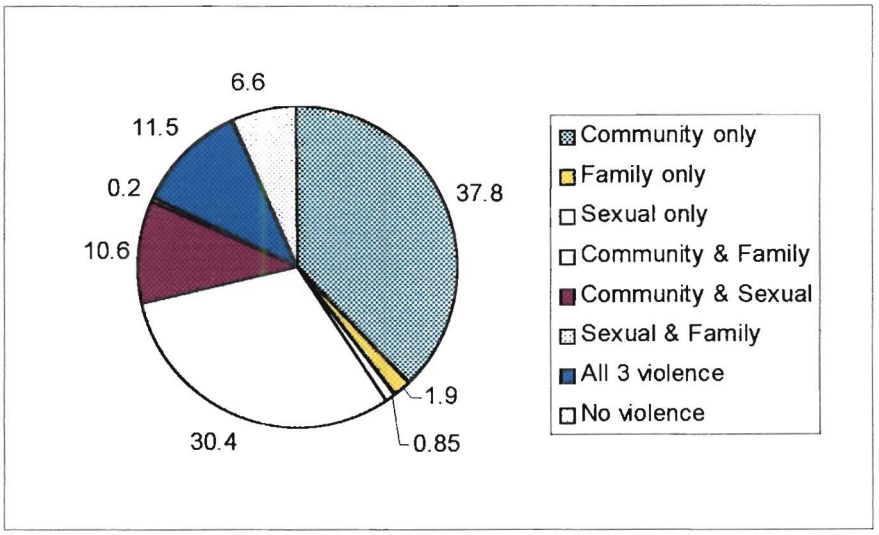
Family Violence is a combination of violence occurring *in the context of the home* or violence experienced *at the hands of a member of the family.* This category excludes sexual violence.

3.4.4.3. Sexual Violence:

Sexual Violence is composed of the experience of sexual molestation, the experience of attempted rape and the experience of rape. Sexual violence is addressed in more detail in section 3.4.5.

The prevalence and distribution of these three categories of violence is depicted in the form of a pie chart (figure 3.4.4. A) below.

Figure 3.4.4. A) Prevalence of 3 categories of violence:



In the sample only 31 (6.6%) subjects did not report having experienced any of the 3 types of violence depicted above. Thus 93.4% of this sample has been exposed to single or multiple violence.

3.4.5 Experience of Sexual Violence according to Gender

The parameters of "Sexual Violence" have been delineated in section 3.4.4.3. All components (molestation, attempted rape and rape) are presented below in table 3.4.5.A) separately and also conflated to determine how many subjects have experienced sexual violence of any nature. It becomes clear that many subjects have experienced more than one of the three forms of sexual violence (table 3.4.5.). The prevalence of *family members* as perpetrators of sexual violence, is also given and presented separately as a distinct proportion of sexual violence in each of the three components.

When conflating those that have experienced sexual molestation and those that have been raped, the result is not much greater than the separate results for each. There were 16.1% of subjects who have experienced either sexual molestation or have been raped (n = 72, N = 447). This could be understood in numerous ways. It either indicates that most of those who have been sexually molested have also been raped, or it may reflect a problem around ambiguity in language. The two items may have been understood to reflect the same experience. Both terms, rape and molestation, are ambiguous in their definitions and

parameters, both in English and Afrikaans, and were not defined or explained in the questionnaire.

Table 3.4.5. A) Experience of Sexual Violence according to Gender:

	ALL	Male	Female
Attempted Rape	n = 66 * (14.7%) N = 447	21 (10.4%) n = 201	35 (14.2%) n = 246
Attempted Rape by Family member	3 (4.5%) n= 66	2 (3%) n = 66	1 (1.5%) n = 66
Rape	45 * (10.04%) N = 448	20 (9.9%) n = 202	24 (9.7%) n = 246
Rape by Family member	6 (13.3%) n = 45	2 (4.4%) n = 45	4 (8.8%) n = 45
Molestation	58 * (12.83%) N = 452	23 (11.3%) n = 204	33 (13.3%) n = 248
Molestation by Family member	6 (10.3%) n = 58	4 (6.89%) n = 58	2 (3.4%) n = 58
Any experience of Sexual Violence	86 * (18.85%) N = 456	26 (12.6%) n = 206	60 (24%) n = 250

3.5. PTSD SCORES

The list of all 30 items is presented in Appendix A.8.3. A score ≥ 2.5 is considered by the HTQ rating system to be indicative of a diagnosis of PTSD. The Kolmogorov-Smirnov test was administered to determine whether the HTQ PTSD scores were not statistically different from a normal distribution. The results showed that PTSD differed significantly from a normal distribution ($d = 0.091$, $\chi^2 = 99.885$, $p < 0.01$). The distribution was skewed to the right. The PTSD scores needed to be log-transformed to approximate normality. Once they had been log-transformed, the Kolmogorov-Smirnov was again administered producing $d = 0.032$, $\chi^2 = 28.315$, $p > 0.05$). The graph 3.5.A) below shows the normal distribution of logged PTSD scores.

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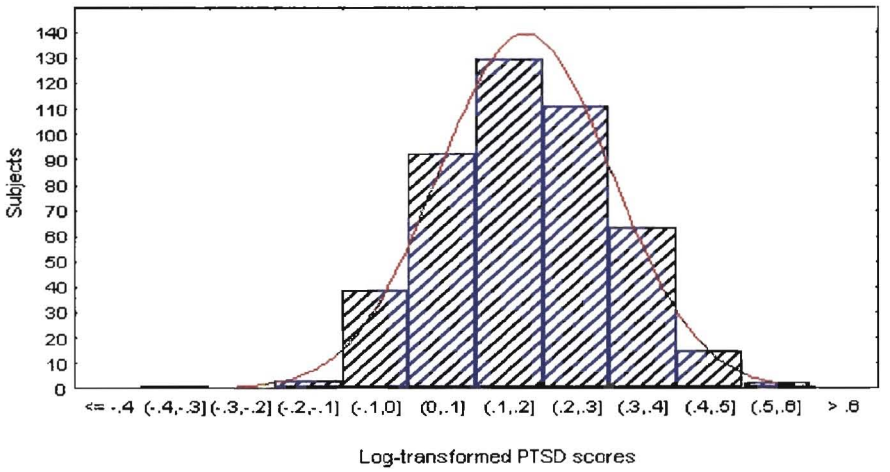
* "ALL" includes those 16 subjects who did not stipulate their gender on the questionnaire. So the sum of male and female does not necessarily amount to ALL

N total number of respondents

n total number who answered in the affirmative

Figure 3.5. A) Distribution of logged PTSD scores:

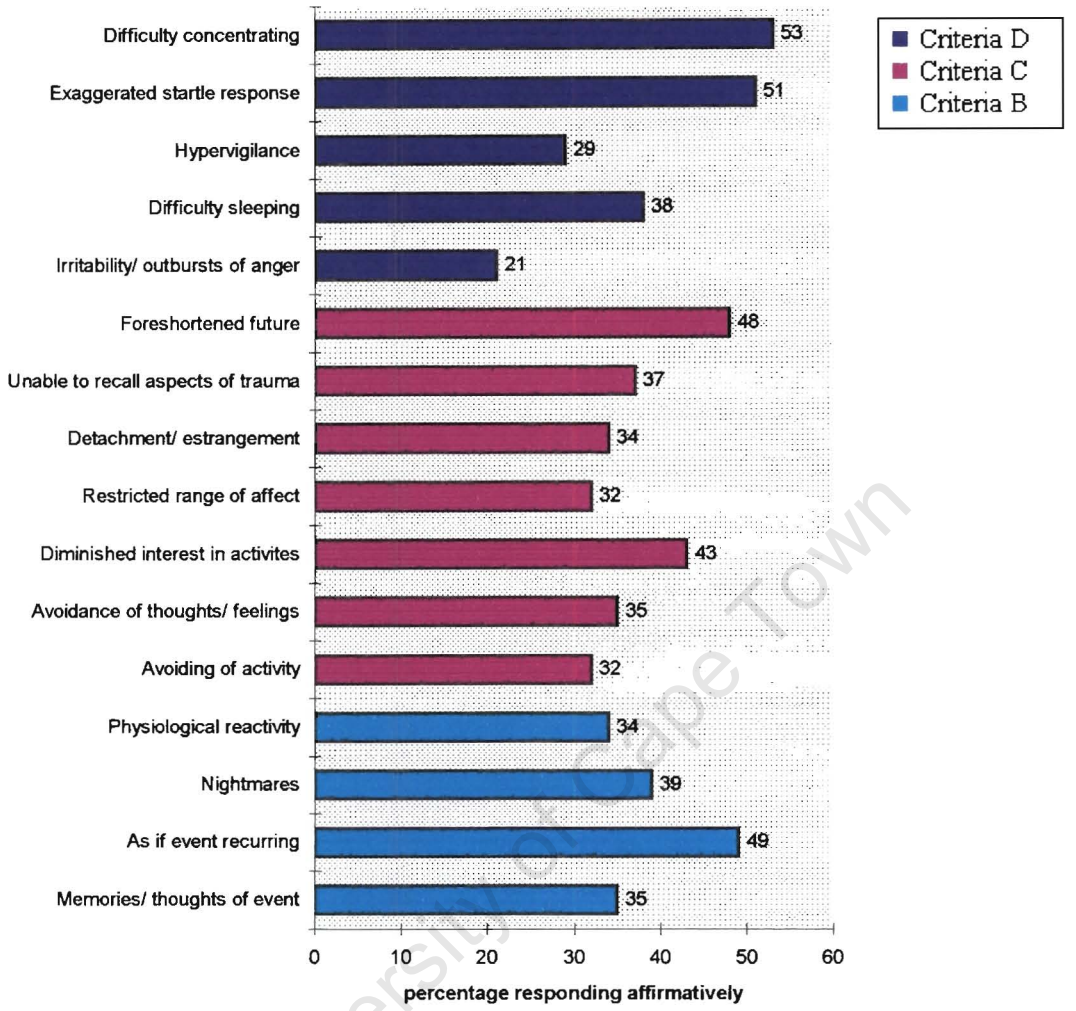


Of the 456 subjects who obtained a Harvard PTSD score, 24 subjects received a score of ≥ 2.5. Thus, according to the Harvard Trauma system of analysis, these subjects obtained a score that could be indicative of a diagnosis of PTSD.

3.5.1. PTSD Symptoms

Of the total 467 subjects who completed the PTSD symptom list, 436 (93.4%) reported the presence of one or more PTSD symptoms consequent to exposure to a traumatic experience. Figure 3.5.1.A) presents a selection of items reflecting the DSM-IV criteria B, C and D (refer to Appendix A.2.2. for definitions of diagnostic criteria). The results of the full list of 30 items can be found in Appendix A.8.3.

Figure 3.5.1. A) Prevalence of PTSD symptoms:



3.5.2. PTSD and Socio-demographic variables

This section focuses on the distribution of PTSD scores in relation to a selection of various demographic variables derived from Part 1 of the Questionnaire. Each section attempts to determine whether there is statistical evidence of a significant relationship between certain demographic criteria and PTSD scores.

3.5.2.1. Statistically *non-significant* analyses of PTSD scores and socio-demographic factors

- There were no statistically significant differences found between the PTSD **means of the three schools**. This homogeneity of variance confirms the expectation that the adolescents of each school belong to the same population. See Appendix A.3.4.1. for ANOVA results.
- There is no evidence that **age** has an influence on the development of PTSD symptoms. See Appendix A.3.4.2. for details of tests.
- Regarding PTSD scores and the reported **number of siblings**, the Pearsons' Product Moment Correlation Coefficient (Pearson's r) was conducted to determine whether an increase or decrease in the number of siblings revealed a an influence on PTSD scores. There was a very weak positive relationship with r = 0.08448.
- A Pearsons' r was conducted to determine whether an increase in the **Overcrowding Index** was associated with an increase or decrease in the PTSD scores. Again there was no statistically significant relationship, r = 0.0483.
- Regarding **employment status of parents**, the total sample was divided into two subsamples where a) those with either one of their parents employed (n = 368) were compared with b) those where neither of their parents was employed (n = 108). A t-test revealed no statistical significance. A similar test was conducted looking at a) those with both parents employed (n= 127) compared to b) those with neither parent employed (n = 108). No significance was yielded with $p = 0.169$. In addition, tests conducted to determine the possible influence of gender of the parent employed/unemployed, yielded no significance.

3.5.2.2. Statistically *significant* analyses of PTSD scores and socio-demographic factors

3.5.2.2.1 PTSD and *Gender*:

Once the PTSD scores were log-transformed, a significant difference was discovered between PTSD scores of males and females ($p = 0.007$, $df = 442$). This difference was obtained when males' (n = 195, $\bar{x}$ = 1.49, s = 0.46) and females' scores were compared (n = 249, $\bar{x}$ = 1.60, s = 0.48). See Appendix A.3.5.1.

3.5.2.2.2 PTSD and *Identity of Caretaker*:

The sample was divided into two subgroups a) those that had been raised by a parent: mother or father (n = 353 $\bar{x}$ = 1.52, s = 0.466) and those adolescents that were raised by any other type of caretaker: aunt, sibling, grandparent, guardian, step-parent (n = 87, $\bar{x}$ = 1.66, s = 0.524). A t-test produced a significant difference between these two subgroups: $p = 0.0309$, ($df = 122$). The result suggests that those who have a parent as a primary caretaker are less likely to develop PTSD symptoms than those who have been raised by non-biological parents.

3.5.2.2.3 PTSD and *Home Language*:

A test was conducted to determine any significant difference in PTSD distribution between language groups. The PTSD means according to language group are presented in table 3.5.2.2.3. A) below.

Table 3.5.2.2.3. A) PTSD scores and Home Languages (N = 467)

Afrikaans	English	Xhosa	Afrikaans/ English	Xhosa (alone or in combination with another language)
$\bar{x}$ = **1.52** (n = 328) s = 0.46	$\bar{x}$ = **1.65** (n = 24) s = 0.62	$\bar{x}$ = **1.63** (n = 27) s = 0.53	$\bar{x}$ = **1.60** (n = 55) s = 0.46	$\bar{x}$ = **1.71** (n = 33) s = 0.57

What is noted, is that the language groups in the minority (English and Xhosa) obtained the highest PTSD mean, and the largest language group (Afrikaans) obtained the lowest PTSD mean. A t-test was conducted to determine whether any statistically significant difference exists between the PTSD means of those who reported having Afrikaans (n = 328) as their home language and those who reported having Xhosa (alone or combined with another language, n = 33) as their home language. The test yielded a p-value of $p = 0.0375$, ($df = 359$). No other language comparisons yielded significance.

3.5.2.2.4. PTSD and *Number of Previous Homes*:

The sample was divided into two sub-samples, a t-test was conducted and demonstrated that those with *lowest* numbers of Previous Homes had correspondingly lower PTSD scores than those with *highest* Number of Previous Homes. See table 3.5.2.2.4. A) below.

Table 3.5.2.2.4 A) PTSD scores of those ≤ 1 previous homes & ≥3 previous homes

≤ 1 previous home	≥3 previous homes	p-value	*df*
$\bar{x}$ = 1.49 (n = 216) s = 0.46	$\bar{x}$ = 1.65 (n = 85) s = 0.47	0.0082	150

The above table demonstrates how those who have lived in 3 or more previous homes are prone to a higher prevalence of PTSD symptoms than those who have lived in 1 or no other homes besides their current home.

3.5.3. PTSD and 3 Categories of Violence

Three categories of violence were created to determine whether there are different traumatic responses to particular types of violence, as has been discussed in section 2.4. Refer to Appendix 3.3.1.- 3.3.3 for composition of the three categories.

Table 3.5.3. A) PTSD mean scores according to 3 categories of Violence:

	Mean HTQ PTSD log-transformed scores (x10) *	Percentage Σ = 100%	N = 470
Community Violence *Only*	$\bar{x}$ = 1.68	37.8%	n = 178
Family Violence *Only*	$\bar{x}$ = 1.57	1.9%	n = 9
Sexual Violence *Only*	$\bar{x}$ = 1.80	0.9%	n = 4
Community & Family Violence	$\bar{x}$ = 1.81	30.4%	n = 143
Family & Sexual Violence	$\bar{x}$ = NA	0.2%	n = 1
Sexual and Community Violence	$\bar{x}$ = 1.97	10.6%	n = 50
Sexual, Community & Family Violence	$\bar{x}$ = 1.61	11.4%	n = 54
No Violence	$\bar{x}$ = 1.44	6.6%	n = 31

Statistical tests were conducted between these subgroups to determine whether PTSD scores were influenced by the nature of violence experienced. No significance was obtained investigating differences between the PTSD means and violence categories above.

* The log-transformed HTQ PTSD means have been multiplied by 10 to enable easier reading.

3.5.4. PTSD scores and Sexual Violence

Of the 24 subjects who obtained a HTQ PTSD score ≥ 2.50, 16 have experienced sexual violence. Thus in this sample 66.7% of those with PTSD have experienced sexual violence. The *Bonferroni Adjustment* was employed, as the same scores have been subjected to repeated t-tests. The Bonferroni Adjustment involved dividing the p-value level by the number of tests (4), so the $\alpha = 0.05$ became $\alpha = 0.0125$. The change in the significance level meant that only two p-values retained significance (denoted with an asterisk in table 3.5.4. A) below.

The table gives a multiple comparison between the means of the two genders and also between those of each gender who have and have not experienced sexual violence. After the scores were assessed against the Bonferroni Adjusted significance levels, it became clear that the PTSD means are strongly correlated ($p = 0.001$) between males who have (n = 26) experienced sexual violence and those who have not (n = 169). There is the same finding between females ($p = 0.000197$) who have (n = 60) and who have not (n = 189) experienced this violence. Other correlations between these four groups were not significant.

3.5.4. A) Sexual Violence: PTSD means & t-test *p-values* between males and females
$\alpha = 0.0125$

	Male NO $\bar{x}$ **= 0.142** n = 169 (N = 206)	**Female YES** $\bar{x}$ **= 0.243** n = 60 (N = 250)
Male YES $\bar{x}$ **= 0.229** n = 26 (N = 206)	p = 0.001 * *df* = 70	p = 0.63 *df* = 91
Female NO $\bar{x}$ **= 0.169** n = 189 (N = 250)	p = 0.042 *df* = 341	p = 0.000197 * *df* = 114

N = total number of respondents
n = total number who answered in the affirmative
* = statistically significant

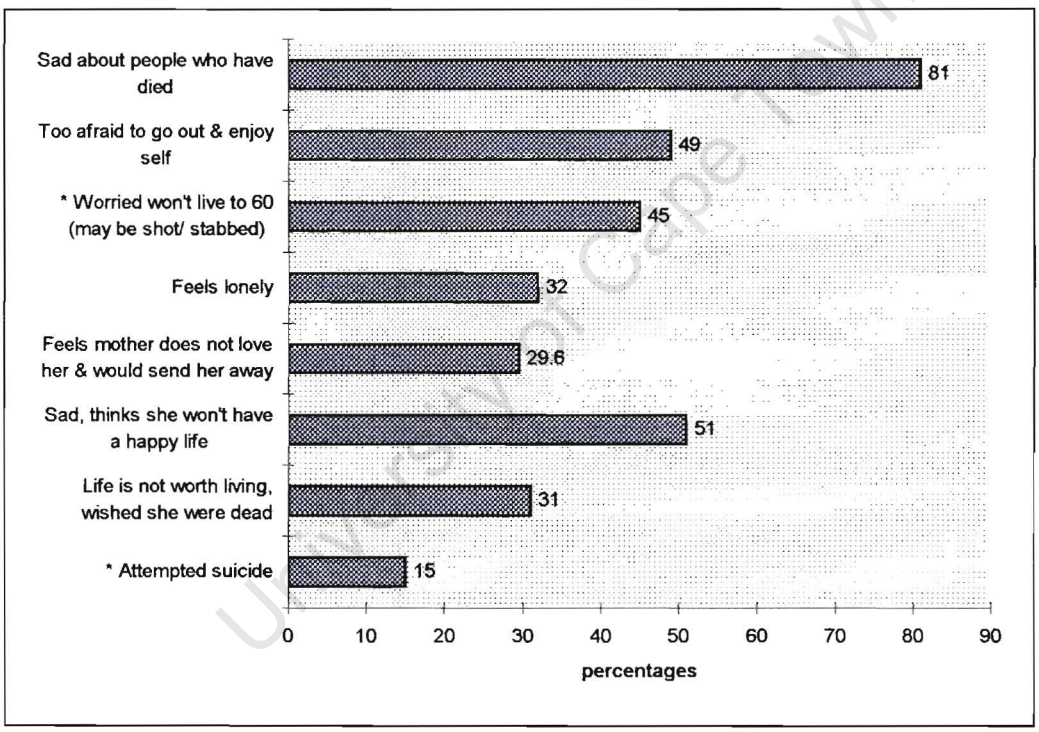
3.6. CCDS DISTRESS SCORES

A 16-item distress score was obtained by adapting the Checklist of Child Distress Symptoms (CCDS) (Richters and Martinez, 1993). This checklist was intended to identify the presence of distress symptoms in children who have been exposed to violence.

3.6.1. CCDS distress symptoms

The graph below presents a collection of CCDS distress items with their respective prevalence rates.

Figure 3.6.1. A) CCDS distress Symptoms:



3.6.2. CCDS distress scores and socio-demographic variables

The section that follows focuses on the distribution of CCDS distress scores in relation to a

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* - items added to checklist

Figure 3.6.1.A) - References to "she" or "her" are made to economise on space in the graph.

selection of various demographic variables derived from Part 1 of the Questionnaire. The researcher attempted to determine whether there was statistical evidence of a significant relationship between certain demographic variables and CCDS distress scores. Reporting of CCDS scores follows the same format as the reporting of PTSD scores. The non-significant results are presented first followed by the significant results.

3.6.2.1. Statistically *non-significant* analyses of CCDS distress scores and socio-demographic factors

The following items in the list below did not attain statistical significance when examined in relation to CCDS distress scores.

- An ANOVA was administered to determine whether there was any significant difference between the CCDS distress means of the **three schools**. There was none.
- The **Overcrowding Index** as a possible factor in the development of CCDS distress symptoms was investigated. A Pearsons' r was obtained, with the result r = 0.106 (n=443). This reflects a very weak positive relationship between these two factors.
- A Pearsons' r was conducted to determine whether there was a positive relationship between CCDS distress scores and the reported **number of siblings**. The test yielded a non-significant result with r = 0.043. See Appendix A.3.6.1. for distribution of mean scores.
- Regarding **employment status of parents**, although the differences between the mean scores of each sub-category were in the expected direction, none reached statistical significance ($p = 0.472$). Analyses to determine whether the CCDS distress scores were influenced by the *gender* of the parent (employed or unemployed) were not statistically significant. See Appendix A.3.6.2. for details.

3.6.2.2. Statistically *significant* analyses of CDDS distress scores and socio-demographic factors

3.6.2.2.1. *Gender* and the CCDS distress score

A t-test was conducted to determine whether there was a difference between scores for males and females. Females ($\bar{x}$ = 2.83, s = 1.92) obtained scores that were significantly higher than males ($\bar{x}$ = 2.08, s = 1.56). A t-test revealed a p-value of $p = 0.0003$ ($df = 397$).

3.6.2.2.2. *Age* and CCDS distress scores

A t-test was conducted to determine whether a certain age cluster could be linked to an increase in the CCDS distress score. Two sub-samples were created: a) those subjects 14 years or below (n = 273, $\bar{x}$ = 2.4) and b) those 15 years and above (n = 115, $\bar{x}$ = 2.8). When comparing these two subgroups, a p-value of $p = 0.0145$, ($df = 222$) attained, thus reflecting significance, with the older group obtaining higher scores than their younger counterparts. No other age comparisons yielded significance.

3.6.2.2.3. *Language* and the CCDS distress score

Home languages reported by subjects are presented in table 3.2.4. A) in the Appendix three. The CCDS distress score means according to language group, are presented in table 3.6.2.2.3. A) below. T-tests were conducted to determine whether some of these variations in the mean were statistically significant. Significance was revealed when the Afrikaans subgroup was compared with the subgroup containing Xhosa (alone or in combination with other languages). The t-test yielded a p-value of $p = 0.009$ ($df = 43$). See Appendix A.3.7.1. for details of the test results.

Table 3.6.2.2.3. A) CCDS distress scores and Home Languages (N = 402)

Afrikaans	English	Xhosa	Afrikaans/ English	Xhosa (alone or combined other language)
$\bar{x}$ = **2.4** (n =293) s = 1.75	$\bar{x}$ = **2.87** (n = 24) s = 2.06	$\bar{x}$ = **3.33** (n = 23) s = 1.9	$\bar{x}$ = **2.55** (n = 49) s = 1.97	$\bar{x}$ = **3.28** (n = 36) s = 1.83

3.6.2.2.4. *Identity of Caretaker* and CCDS distress scores

The full sample was divided into two sub-samples a) those subjects who identified their primary caregiver as parent/s, mother/father or both (n= 320, $\bar{x}$ = 2.46, s = 0.37) and b) those subjects who identified an "other" i.e. sibling, relative, guardian, foster-parent or multiple caregivers (n = 78, $\bar{x}$ = 3.6, s = 0.349). The t-test comparing the CCDS means of these two groups produced a p-value of $p = 0.0152$, ($df = 131$), which is statistically significant. Thus those who have been raised by someone other that their biological parents are more at risk of developing symptoms associated with distress.

3.6.2.2.5. *Number of Previous Homes* and CCDS distress scores

The full sample was divided into two subsamples a) those who have lived in 1 or no other homes besides their current home (n = 187, $\bar{x}$ = 2.1, s = 0.413) and b) those who have lived in 2 or more homes besides their current home (n = 196, $\bar{x}$ = 2.5, s = 0.334). A t-test produced a significant p-value, $p = 0.00469$, ($df = 412$), demonstrating that those subjects who have lived in numerous homes are more likely to have elevated CCDS scores than those who have only lived in their current or one other home.

3.6.3 CCDS distress scores and Violence

As presented in section 3.5.3. on PTSD and violence, here too CCDS distress scores are analysed according to subgroups of violence. The same three categories of violence have been utilised, namely Community violence, Family violence and Sexual violence.

Table 3.6.3. A) CCDS distress means according to 3 types of Violence

	Mean CCDS distress scores (Log-transformed x10)	percentage Σ = 100%	N = 412
Community Violence *Only*	$\bar{x}$ = **1.42**	39.6%	n = 164
Family Violence *Only*	$\bar{x}$ = NA	0%	n = 0
Sexual Violence *Only*	$\bar{x}$ = NA	0%	n = 0
Community & Family Violence	$\bar{x}$ = **3.35**	44.2%	n = 183
Family & Sexual Violence	$\bar{x}$ = NA	0%	n = 0
Sexual and Community Violence	$\bar{x}$ = **3.68**	3.14%	n = 13
Sexual, Community & Family Violence	$\bar{x}$ = **4.41**	12.07%	n = 50
No Violence	$\bar{x}$ = NA	0.48%	n = 2

* As with table 3.5.3. A), log-transformed CCDS distress means have been multiplied by 10 to enable easier reading.

Of those 412 subjects who obtained a CCDS distress score, 2 subjects (0.48%) did not report having had a personal experience of Family, Sexual or Community violence. The CCDS distress mean increases significantly when the subjects experience the effect of all 3 types of violence ($\bar{x} = 4.41$). Tests were conducted to determine whether the CCDS distress means differ between those who have experienced all 3 types of violence and those who have experienced any combination. A significant difference ($p = 0.049$) was only obtained when the means of those who had experienced all 3 types of violence (n = 50, $\bar{x} = 4.41$, s = 0.293) were compared with those subjects who had experienced all but sexual violence (n = 183, $\bar{x} = 3.35$, s = 0.349).

3.6.4. CCDS distress scores and Sexual Violence

Table 3.4.4. A) gives a cross correlation between the two genders and also between those of each gender who have and have not experienced sexual violence. Again the *Bonferroni Adjustment* was employed, as the same scores had been subjected to repeated t-tests (see section 3.3.5 for explanation). It is clear from the table that there are significant differences ($p = 0.003$) between the PTSD means of males who have (n = 21) experienced sexual violence and those who have not (n = 147). There is the same finding between females ($p = 0.0004$) who have (n = 58) and who have not (n = 176) experienced this violence. In addition, females who have not experienced sexual violence (n = 176) still obtained increased CCDS scores than males who had not experienced this violence (n = 147). Despite the adjustment to the significance level, the three results remained significant. These findings are discussed in chapter 4, section 4.2.1.

Table 3.6.4. A) Sexual Violence: CCDS distress score means and t-tests between male and female subjects, $\alpha = 0.0125$

	Male NO $\bar{x}$ = **1.60** (n = 147)	Female YES $\bar{x}$ = **4.72** (n = 58)
Male YES $\bar{x}$ = **4.09** (n = 21)	*p = 0.0035* * *df* = 73	p = 0.381 *df* = 102
Female NO $\bar{x}$ = **2.76** (n = 176)	*p = 0.0071* * *df* = 166	*p = 0.0004* * *df* = 125

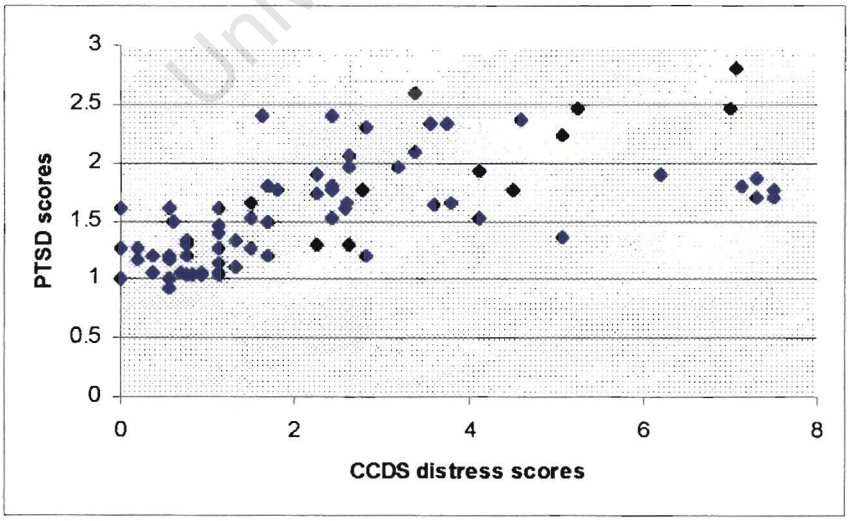
3.7. MULTIPLE REGRESSIONS AND CORRELATION ANALYSIS

The following section examines the relationships between sets of scores (i.e. the relationship between PTSD, CCDS distress and Violence scores) and uses a multiple regression model to determine the strongest relationships between these scores and demographic variables. A final analysis investigates the impact of the *interaction* between these demographic variables on the PTSD, CCDS distress and Violence scores.

3.7.1. PTSD & CCDS distress scores

From figure 3.7.1. A) below (and table 3.7.2. A) that follows), it is evident that the HTQ PTSD scores are strongly correlated with the CCDS distress scores. The corresponding scatter points increase from bottom left to top right. In this instance r = 0.7016 so $r^2 = (0.7016)^2 \times 100 = 49.22\ \%$. The percentage 49.22% is the "Coefficient of Determination" and indicates that 49.22% of PTSD symptoms are accounted for by distress symptoms, and vice versa. The figure below presents all subjects who obtained a CCDS distress and a PTSD score.

Figure 3.7.1 A) Scatter plot representing the relationship between PTSD and CCDS distress mean scores (r = 0.7016).



3.7.2 PTSD and Violence scores

There is a weak positive relationship between PTSD scores and Violence scores. A Pearsons' Product Moment Correlation Coefficient was obtained from the relationship between PTSD and levels of Exposure to Violence. In this instance $r = 0.3804$ so $r^2 = (0.3804)^2$. Therefore, the "Coefficient of Determination" is 14.47%. So 14% of the variation can be accounted for. It seems that PTSD is *more* strongly correlated with Violence scores than CCDS distress scores are correlated with Violence scores. Table 3.7.2. A) reflects all these correlations simultaneously.

Table 3.7.2 A) Correlation Matrix: log-transformed PTSD, CCDS distress and Violence Scores (N = 446) (* significant at $p < 0.05$)

	DISTRESS score	PTSD score	VIOLENCE score
DISTRESS score	**1.0000** p = ---	**0.7016** * p < 0.001	**0.3101** * p < 0.001
PTSD score	**0.7016** * p < 0.001	**1.0000** p = ---	**0.3804** * p = 0.001
VIOLENCE score	**0.3101** * p < 0.001	**0.3804** * p < 0.001	**1.0000** p = ---

3.7.3 Generalised Linear Model (GLM)

The Generalised Linear Model (GLM) looks at relationships between one response variable and predictor variables that are characterised as both *continuous* and *categorical*. This method therefore allows for continuous variables (e.g. number of siblings) to be assessed alongside categorical variables (e.g. employment status of parents). The GLM employed a step-wise model selection procedure. Using the GLM, the results were not particularly strong (see table 3.7.3.A. below). The three sets of scores were analysed according to various demographic factors to determine the influence of these factors on the scores and

how they, *in combination with one another*, appear to have a statistically significant impact on the outcome of PTSD, CCDS distress and Violence scores.

Table 3.7.3. A) below represents the strongest model (identified through the GLM analysis) between variables and obtained scores. As the p-values and F ratios of this model indicate, the levels of significance are not high and the predictive values therefore remain relatively weak.

Table 3.7.3 A) Generalised Linear Model

	Response variable		
	Distress score [i] (n = 407)	PTSD score [ii] (n = 405)	Violence score [iii] (n = 400)
Variables in model			
Number of siblings x number of previous homes	p = 0.11	p = 0.017	- - -
Overcrowding Index x number of Previous Homes	p = 0.086	- - -	p = 0.010
Number of Previous Homes	- - -	p = 0.081	- - -

The GLM has identified the variables most strongly associated with PTSD, CCDS distress and Violence scores. It is necessary to look more closely at these results to determine how the *interaction* between multiple socio-demographic variables has a stronger impact on the dependent variable than *single* socio-demographic variables. The sample of subjects in each case is broken down into sub-samples to determine the more subtle influence of the independent continuous variables on the dependent variables.

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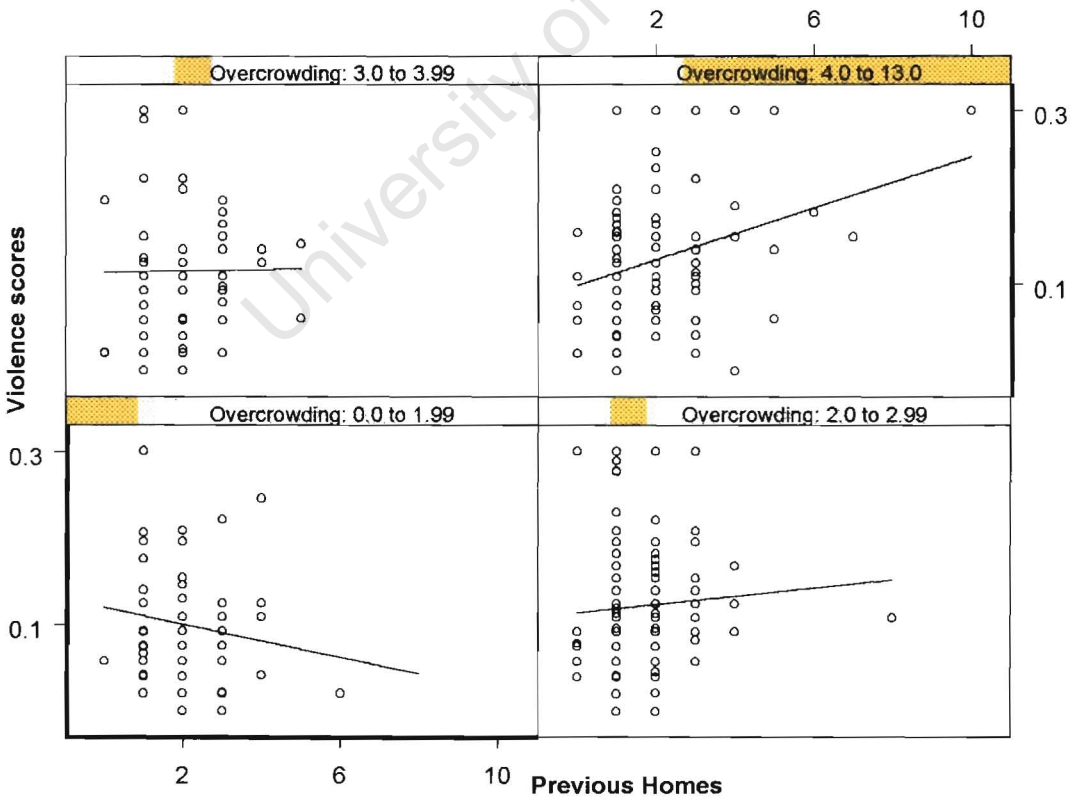
i Distress score: $r^2 = 0.043$, Standard error of estimates: 0.241, F ratio = 9.169
ii PTSD score: $r^2 = 0.054$, Standard error of estimates: 0.123, F ratio = 11.526
iii Violence score: $r^2 = 0.017$, Standard error of estimates: 0.080, F ratio = 6.764

3.7.3.1. GLM and Violence

The figure 3.7.3.1.A. below represents the relationships between Overcrowding *and* the Number of Previous Homes and their impact on Violence Scores. The "X" axis denotes the Number of Previous Homes and the "Y" axis presents the Violence scores. The graph is divided into 4 quadrants, each reflecting the results of subjects in ascending order of their Overcrowding Index. The first quadrant (bottom, left) shows how subjects who have an Overcrowding Index of 0 - 2 demonstrate a negative relationship between the number of Previous Homes lived in and their Violence scores. Subjects who have the lowest Overcrowding indices (0-1.99), their Violence scores ***decrease*** as the number of Previous Homes ***decreases***. Those subjects with Overcrowding Index scores of 3 - 4 show ***no association*** between their Violence scores and the number of Previous Homes. And finally, in the fourth quadrant (top, right), those subjects with Overcrowding Index scores between 4 – 13 demonstrate a positive relationship between the two variables. As their number of Previous Homes ***increases***, so too do their Violence scores. The Violence score gradients in quadrant 1 and 4 are opposite and depict an inverse relationship to the variables.

Figure 3.7.3.1. A) The relationships between number of Siblings & number of Previous Homes lived in and their influence on Violence scores



3.7.3.2. GLM and PTSD

PTSD scores are most affected by the interaction between the increase in the number of Previous Homes with number of siblings. A graph is presented in Appendix A.3.8. to illustrate the interactive relationship between these variables. The effect of previous homes is exacerbated by the number of siblings, with the more dramatic positive relationships being proportional to the number of siblings.

3.7.3.3. GLM and CCDS distress scores

CCDS distress scores seem to be most affected by the interaction between the increase in the number of previous homes and those who have 3 to 4 siblings. However, both predictors are not significant. As the number of siblings increases, so too do the CCDS distress scores in combination with the number of previous homes. A graph is presented in Appendix A.3.9. to illustrate the interactive relationship these variables have on one another. The CCDS distress score has its closest association with a) the cross interaction between number of siblings *and* number of previous homes, b) the cross interaction between Overcrowding *and* number of previous homes.

The results obtained by the GLM were not entirely significant, and will be discussed in chapter four.

3.8. THEMATIC ANALYSIS

3.8.1. Prevalent Themes

The subjects were asked to write about their most traumatic/hurtful experience. There were only 211 responses, as many subjects skipped this item and proceeded to the following item. These 211 responses were classified into the following 17 categories. The 17 categories create the impression that each response fitted perfectly under the theme heading. However, the researcher needed on occasion to use her discretion when allocating an autobiographical response to a discrete category. Examples of four categories are provided in section 3.8.2. The full list of themes is depicted in the table below in decreasing order of prevalence :

Table 3.8.1. A) Autobiographical Themes

Themes	Total	Percentage
1. Attacked/hurt	n = 28	13.27%
2. Accidents (MVA, fire, injuries)	n = 24	11.37%
3. The Manenberg storm disaster/tornado [i]	n = 24	11.37%
4. Miscellaneous or Combinations	n = 23	10.9%
5. Sexual Violence	n = 20	9.4%
6. Witnessed attack	n = 17	8.05%
7. Early loss of parent	n = 15	7.1%
8. Threatened/harassed	n = 15	7.1%
9. Responsible for perpetrating violence	n = 8	3.79%
10. Death of close person	n = 8	3.79%
11. Difficult/painful relationships	n = 8	3.79%
12. Betrayal	n = 6	2.8%
13. Suicide	n = 5	2.8%
14. Unclear [ii]	n = 5	2.8%
15. Illness	n = 2	0.9%
16. Poverty	n = 2	0.9%
17. Drugs	n = 1	0.47%

i The Manenberg storm disaster/tornado: this total of 24 subjects is composed of 6 subjects from Manenberg High School, 14 from Phoenix High School and 4 from Silverstream High School. Phoenix School is situated in close proximity to where the storm disaster struck.

ii Unclear responses may have resulted from problems with receptive or expressive language.

3.8.2. Vignettes

Examples of each of the above 17 thematic categories are presented in the Appendix A.3.10. Below are examples of four of the categories of violence delineated earlier in the study. All vignettes that appear in this dissertation, are transcribed verbatim.

3.8.2.1. Sexual Violence

> A very good friend of mine was brutally raped by her stepfather. She always use to confide in me and since he started doing these things to her she did not come to visit me anymore. He told her I was bad influence. He also sodermised her. They lived in the flat at the bottom of us. He played the music so loud while raping her. So we could not hear her cry for help.

3.8.2.2. Miscellaneous or Combination

> Somtuie dink ek my ma het my nie lief nie, en ek will net myself doodmaak. Ek het al geprobeur om my antie te vermoor want sy druk my af. My ma slaan my elkekeer. Ek voel alleen. Daar is niks in dies huis om te eet nie nou moet ek hier en daar gaan vra. My pa het my verbat.

3.8.2.3. Gang violence and involvement

> Ek was al gedrieg met 'n mes vuurwapen ek was al baie keer ombeskof met my ouers. Ek het nog glad nie verbeter nie. Ek weet nie of ek sal vebeter nie want ek is betrokke in bende my vriende is almal bendes ek is die enigste en wat 'n vrou is tussen hulle almal hulle stuur my om mense te roof met vuurwapens en mense ander gangsters te dreig met guns/vuurwapens.

3.8.2.4. Community/public violence

> Dit was op 'n Maandag wat die gansters vir hom en sy gatjie oor getrek het. Hulle het sy gatjie ses keer geskiet en vir hom geskiet hulle een deur al twee knee en deur sy kop toe maak hulle hom vas toe brand hulle hom uit hulle het die gatjie op R 300 gegooi

3.8.3 Reasons for Non-Disclosure

The subjects were asked whether they had chosen to refrain from disclosing traumatic material. They were required to provide their reasons for withholding this material. A total of 79 subjects reported doing so and their explanations have been classified into 11 categories in the table below in decreasing order of prevalence.

Table 3.8.3 A) Reasons for non-disclosure of traumatic material (N = 79)

Categories	N and %
1. S/he feels material is too personal or private for this context	(19) 24%
2. Pain/fear of experience	(15) 18.9%
3. S/he disclosed something not previously referred to in the questionnaire	(10) 12.6%
4. Miscellaneous reasons	(9) 11.3%
5. Simply does not want to	(8) 10.1%
6. Doesn't feel good	(5) 6.3%
7. Fear of repercussions of disclosure	(4) 5%
8. Wants to keep it to his/her self	(4) 5%
9. Wants to forget	(2) 2.5%
10. Shame of experience	(2) 2.5%
11. Believes no-one will understand	(1) 1.2%

Of the 79 who chose to withhold material, 55 (70.51%) were females, 23 (29.48%) were males and 1 did not stipulate her/his gender. Thus 55 out of a total of 253 females is 21.73% and 23 out of a total of 206 males is 11.16%. Thus almost twice as many females than males reported having withheld traumatic material. Examples of all 11 categories are listed in Appendix A.3.11. However, three examples are provided below;

3.8.3.1. Reason 5 : Simply does not want to (8) 10.1%

> Omdaat ek nie so voel nie ek is jammer vir dit.

3.8.3.2. Reason 7: Fear of repercussions of disclosure (4) 5%

> Want ek voel skuldig en ek is bang die mense of kinders aan my afsny.

3.8.3.3. Reason 9: Wants to forget (2) 2.5%

> Die rede hoekom ek nie daaroor wil skryf nie omdat ek wil dit nie meer omdou nie van hulle het daardie vrou baie lelik verkrag.

CHAPTER FOUR: DISCUSSION

Chapter 4: DISCUSSION

Till now, society has protected the adult and blamed the victim. It has been abetted in its blindness by theories, still in keeping with the pedagogical principles of our great-grandparents, according to which children are viewed as crafty creatures, dominated by wicked drives, who invent stories and attack their innocent parents or desire them sexually. In reality, children tend to blame themselves for their parents' cruelty and to absolve the parents, whom they invariably love, of all responsibility.

Alice Miller, "The drama of being a child", 1993

This final chapter examines the results of the present study in the light of: a) previous epidemiological research conducted in the area, b) the research objectives presented in Chapter 1, as well as c) methodological concerns. The structure of the chapter is as follows: firstly, a summary of the results will be presented with accompanying discussion for each pertinent finding (section 4.1). Then, the limitations of the study's design and content construction will be presented (section 4.2.). This will be followed by recommendations (section 4.3). And finally, the chapter will close with a conclusion that highlights the major findings and interprets their significance for this sample (section 4.4.).

4.1. SUMMARY AND ANALYSIS OF MAJOR FINDINGS

4.1.1. Sample size and selection

The total population was estimated to be 618, but a total of 482 subjects were present in the study and participated on the respective days, reflecting a response rate of 76.2%.

This absenteeism was explained by N. Davids, principal of Phoenix S. S., as resulting from various factors: a) a lack of parental supervision or working/absent parents that may result in truancy, b) adolescents are sometimes needed to stay at home to look after younger siblings when there is insufficient money to pay a childminder or a crèche, c) adolescents are also called upon to run

errands for parents on week days (pay bills, take a child or an elderly person to a clinic), d) in addition, adolescents are sometimes ill (personal communication, September 17, 1999). Studies have shown that school attendance of socio-economically deprived children and adolescents is sporadic due to the factors listed above (Boyden and Holden, 1991). A further explanation of absenteeism could also be the fact that many pupils lost their homes as a result of the Manenberg storm disaster and were compelled to move away and stay with relatives or friends in other neighbourhoods or towns. Mr Davids explained that 252 addresses registered in their school records no longer exist as a result of the damage caused by the storm (personal communication, September 17, 1999). Positions have been established by the Department of Safety and Security for 9 Learner Support Officers in Manenberg to explore and follow up children who are regularly absent from school. The role of such officers is a) to investigate particular children's difficulties and reasons for missing school and b) to meet with the family to engage their support and co-operation to improve the children's school attendance.

This sample of school-attending adolescents was not constructed according to random selection criteria, as violence is not a random process in metropolitan or peri-urban areas and tends to be concentrated in specific areas because of the intersection of several social, demographic, geographic and economic factors.

4.1.2. Socio-demographic findings

According to the Overcrowding index, 407 subjects scored above the 1.5 ratio - thus 88.29% of this sample live in conditions that are considered overcrowded according to the Levels of Living Index. Overcrowding is associated with increased risk of transmission of infectious diseases and reduced privacy within the home.

4.1.3. Trauma events and Violence exposure

Despite the fact that Manenberg S.S. is positioned on the territorial border of two rival gangs (N. Rustin, Manenberg S.S., personal communication, September 17, 1999), there were no statistically significant differences in the violence scores obtained by the three schools.

- Regarding personal safety and school, 21.6% (95) of subjects feel afraid to come to school. This could be explained by a sense of danger either within the school or by having to walk through certain high risk areas of Manenberg en route to school. Thirty one and a half percent (139) have felt unsafe at school and 25.33% (113) have been verbally abused at school. Regarding consequences of racism at school, 6.17% (27) have been harassed/insulted because of race, and 6.95% (31) have been beaten or hurt because of race. Sexual harassment at school was reported by 11.01% (48) of the sample; 33 females and 15 males.

- Regarding gangsterism, 70.6% (322) have witnessed gangsters shooting and fighting, 20.04% (90) have been chased by gangsters, 5.15 % (23) have been forced to both participate in gang activities and join a gang. Seventy five point three percent (338) of subjects reported having experienced/witnessed people shooting one another. In comparison, 70.6% of subjects reported having witnessed/experienced *gangsters* shooting/fighting. Perhaps this suggests, but is not indicative that, approximately 93.75 % of the shooting/fighting that subjects witness, is gang related.

- There were 367 subjects (79.78%) who reported having witnessed someone being shot or stabbed either in their *home* or in *Manenberg*. In the entire sample only 31 subjects did not report having experienced either community, family or sexual violence. Thus 93.4% of this sample has been subjected to single or multiple exposure to violence.

Telljohan and Price (1994), referred to in Duncan (1996), reported that in a survey of inner city adolescents, 10% of Black subjects reported having seen someone shot. Sheehan, DiCara, LeBailly, Kaufer and Christoffel (1997) reported that of their sample of 146 children aged 7-13 years, 42% and 37% have seen someone stabbed and shot, respectively. Bell (1987), referred to in Warner and Weist (1996), reported that 34% and 31% of middle school students had witnessed stabbing and shooting, respectively. In the present study, more than twice as many subjects (79.78%) as in other studies reported witnessing a shooting or a stabbing.

- The use of a "bullet" at the start of a paragraph denotes a reference to a result from the present study.

Regarding South African prevalence rates of violence exposure, Ensink et al. (1997) reported that in a sample of youth from Khayelitsha all 60 had been exposed to indirect violence, 45% had witnessed at least one killing, and 55% had witnessed at least one stabbing, shooting or other violent fight or attack. In a further study on youth in Khayeltisha, by Zissis, Ensink and Robertson (in press), prevalence rates of exposure to violence were again high. Of the 504 subjects, ages ranging from 9 to 20 years, 72%, 54% and 27% respectively reported having witnessed a stranger, acquaintance or family member being shot. In addition, 20%, 11% and 4% respectively reported that a stranger, an acquaintance or family member had threatened to shoot or stab them. The results obtained from the present study are more comparable with the South African prevalence rates where samples reflect historically and economically disadvantaged youth.

- There were 99 subjects (20.9%) who reported having been shot or stabbed. Of this 20.9%, 6% of perpetrators were identified as being someone younger than 18 years, 6.3% as being a stranger, 5.6% as being someone known to the subject and 4.27% as being a member of the family.

Nina (1995) indicates that perceptions and experiences of crime and criminals in coloured and African communities are very different to those represented in the popular press. She argues that crime is not an alien experience but something people live with daily and are frequently victim to. Crime is committed by friends, relatives or known community members. The distinction between the criminal and the victim is complicated and often impossible to place into a dualistic model of perpetrator and victim.

- Regarding sexual violence, namely rape, attempted rape or sexual molestation, 18.85% of the sample reported having experienced one or more of the 3 items (n = 86, with N = 456). Of these 86 subjects, 26 are male comprising 12.6% of the male sub-sample (N = 206) and 60 are female comprising 24% of the female sub-sample (N = 250). Thus twice as many females either experience or have reported sexual violence experiences. This discrepancy in prevalence of sexual violence between males and females is consistent with the findings of numerous studies on the topic.

4.1.4. Post-traumatic stress scores

4.1.4.1. PTSD Prevalence and the HTQ

There were 24 subjects (5.13%) who received a score of ≥ 2.50, which according to the HTQ system of analysis indicates a possible diagnosis of PTSD. A total of 93.36% reported the presence of one or more PTSD symptoms consequent to exposure to a traumatic experience. A study by Smith Fawzi et al. (1997) noted that the cut-off point of 2.5 as originally stipulated by Mollica et al. in 1991 could be adjusted to suit the requirements of a non-clinical sample. Smith Fawzi et al. (1997) suggest that a lower cut-off score for the HTQ in a community-based setting may be appropriate. However, this 2.5 cut-off score reflects highest sensitivity and specificity estimates. When considering the prevalence rate of 5.13% in this sample, it is difficult to determine whether this constitutes a high, medium or low prevalence rate, as the results of studies of PTSD prevalence consequent to civilian trauma have been so varied (see table 1.2.3.2.). These differential estimates of PTSD rates may be the result of different measures utilised, such as self-report questionnaire assessments of PTSD symptoms as opposed to interview-based assessments of clinical diagnoses. Fitzpatrick and Boldizar (1993) hypothesised that the relatively low PTSD prevalence amongst low SES youth resulted from the premise that youth more exposed to violence may build up a resistance that enables them to maintain a certain level of insulation from a variety of negative life circumstances.

Demott (1998) believes that the DSM-IV criteria for PTSD may not be fully appropriate for diagnosing PTSD in children and adolescents. The DSM-IV criteria for PTSD require that a person exhibit at least one re-experiencing symptom, three avoidance or numbing symptoms and two increased arousal symptoms (refer to Appendix A.2.2. for PTSD diagnostic criteria). Children and adolescents' symptoms tend to shift depending on their stage of development referred to by the American Academy of Child and Adolescent Psychiatry guidelines (AACAP). For example, at certain developmental stages, children are more apt to go through long periods of re-experiencing, followed by long periods of avoidance and numbing, rather than experiencing both criteria simultaneously (Cuffe et al., 1998). Under DSM-IV criteria, however, such youth would not be considered diagnosable.

Of the sample, 171 (39.3%) reported having been in a situation that threatened their life (i.e. fulfilling criterion A for the DSM-IV system of diagnosing PTSD). This means almost 2 in 5 subjects in this sample have had an experience that strongly predisposes them to developing PTSD. Yet only 2 in 40 subjects of this sample are presenting with a possible diagnosis of PTSD.

The defensive use of dissociation against overwhelming trauma has been noted in numerous studies with a variety of trauma victims, namely torture, combat, natural disasters and chronic sexual and physical abuse (Putnam and Trickett, 1993, refer to the following: Bliss, 1986; Braun and Sachs, 1985; Briere and Conte, 1989; Chu and Dill, 1990; Coons, 1986; Kluft, 1985; Ludwig, 1983; Putnam, 1985; Ross et al., 1989). This possibility of dissociation (as an explanation for the relatively low PTSD prevalence rates) could be serving a number of highly protective functions in the face of intolerable pain, fear and horror. These functions include: 1) the automisation of certain behaviours, 2) the resolution of irreconcilable conflicts, 3) escape from the constraints of reality and 4) isolation of catastrophic experiences. Frequent or prolonged use of dissociative defences in youth is believed to severely impair the consolidation of identity and continuity of memory. However, dissociation is but a hypothesis in this context.

4.1.4.2. PTSD scores and socio-demographic variables:

- **Schools:** There were no statistically significant differences found between the means of the three schools.
- **Age:** Did not produce any significant differences in PTSD scores, possibly because the age distribution was not diverse enough.
- **Gender:** A t-test demonstrated that females obtain significantly higher PTSD scores than males. Of the 24 subjects who obtained a score indicative of a possible diagnosis of PTSD, 16 are female (6.4% of female subsample), 7 are male (3.58% of male subsample), and 1 did not stipulate his/her gender.

Numerous studies have investigated the influence of gender on the development of PTSD symptoms, and a greater prevalence of PTSD amongst females has been established (Breslau et al.,

1991; Fitzpatrick and Boldizar, 1993; Green et al.,1994; Hankin, 1998). Some studies have indicated that prepubescent boys may be more susceptible to developing PTSD than prepubescent girls (Dawes and Tredoux, 1989). In the face of trauma and stress, girls appear more likely to experience emotionally-related symptoms, while boys appear more likely to develop cognitive or behaviourally-related symptoms (Green et al., 1994). Prior studies have shown that females are *more* likely than males to report traumatic stress symptoms after traumatic exposure than males (Breslau et al., 1991; Green et al., 1994; Reinherz et al., 1993). So the discrepancy found between males' and females' PTSD score could be explained by a) differences in symptomatic responses to trauma and b) differing levels of disclosure in self-reporting.

- **Primary caretaker:** Those subjects who have a parent as a primary caretaker have reported lower PTSD scores than those who have been raised by non-biological parents.

This finding is consistent with Fitzpatrick and Boldizar's (1993) study on low income African-American youth, where those living with their mothers reported lower levels of PTSD. This finding is of particular interest as it points to the presence of biological parents acting as a protective factor in the development of stress and distress. Freud and Burlingham (1943), in their study of children's responses to war, noted that children separated from parents and sent to areas away from the bombings presented with greater distress than children who remained with their parents and hid with them in bomb shelters. Thus separation from parents in the face of adversity seems to exacerbate the trauma response of children and adolescents. There has been much research investigating the impact of early/childhood separation from parents. Much of psychoanalytic research and theory is based on the premise that early separation or interruptions in maternal bonding has dire and longstanding repercussions for the development of a well-integrated and resilient personality. Reference has already been made to Bowlby (1969, 1973 and 1980) in section 1.2.5. McCloskey and Walker (2000) found that for prepubescent children, death or loss of someone close to them posed the strongest risk factor for PTSD, followed by ongoing domestic abuse.

- **Home language:** A statistically significant increase in PTSD scores was reported by subjects reporting Xhosa as their home language (alone or in combination with another language, compared to subjects reporting Afrikaans. These elevated PTSD scores of Xhosa speaking subjects could be explained in two ways. One could infer that belonging to a minority group at school predisposes adolescents to higher risk of PTSD. Mr Jacobs, the principal of Silverstream S.S., originally suggested the inclusion of items pertaining to racism in the school context, as there had been several incidents of intimidation and violence targeted at black, Xhosa speaking pupils in his school (personal communication, September 17, 1999). An alternative explanation of this difference in PTSD scores is the possibility that these Xhosa-speaking subjects do not live in Manenberg, but possibly in neighbouring Gugulethu, and are exposed to higher levels of violence where they reside than those subjects residing in Manenberg.

- **Number of previous homes:** Those who have lived in 3 or more previous homes are prone to a higher prevalence of PTSD symptoms than those who have lived in 1 or no other homes besides their current home. A higher rate of previous homes lived in could reflect an absence of social, economic and parental stability. Children and adolescents who have relocated frequently may be faced with additional stressors of feeling displaced and having repeatedly to adapt to new environments. The psycho-social impact of repeated moves has been addressed by Garbarino (1998).

- **Sexual violence:** In this sample, 66.6% (16) of those 24 who meet the criteria for a diagnosis of PTSD have experienced sexual violence. The impact of sexual violence on the development of PTSD has been demonstrated by numerous studies (e.g. Acierno, Resnick, Kilpatrick, 1997; Ackerman, Newton, McPherson, Jones, and Dykman, 1998; Breslau, Chilcoat, Kessler, Peterson, and Lucia, 1999; Breslau, Davis, Andreski, Peterson, and Schultz, 1997; Ensink, Robertson, Zissis, and Leger, 1997; Frydenberg, and Lewis, 1991; Horowitz, Weine, and Jekel, 1995; Pfefferbaum, 1997). Differences were found between the males that *have not* and males that *have* experienced sexual violence, as well as between the females that *have not* and the females that *have* experienced sexual violence.

4.1.5. CCDS distress scores

4.1.5.1. CCDS distress scores and socio-demographic variables:

- **Age:** CCDS scores of subjects 14 years or younger were significantly lower than subjects 15 years and above. Thus older adolescents in this sample appear to be more at risk of developing distress symptoms, aside from the standard PTSD symptoms, than their younger counterparts. This finding appears to be in conflict with Martinez and Richters's (1993) finding where a certain level of denial was found in adolescent boys compared to younger pubescent boys. They explained this phenomenon as a pattern of denial, signalling for a portion of boys a developmental shift toward bravado and the denial of anxieties and fears (that were nonetheless recognised by their parents in the parent report version of the CCDS).

- **Gender:** Females obtained scores that were significantly higher than males. Using a self-report methodology raises the possibility that gender difference in CCDS distress scores and PTSD scores may be due to reporting tendencies in which females are more likely than males to reveal and discuss PTSD and distress symptoms (Horowitz et al., 1995).

- **Home Language:** Those subjects with Xhosa (alone or in combination with another language) as a home language, scored significantly higher CCDS distress scores than those with Afrikaans as a home language. Perhaps this result may be pointing to an association between prevalence of CCDS distress symptoms and race in the context of learners attending high schools in Manenberg. This issue of language has been addressed in 4.1.4.2.

- **Primary caretaker:** Those subjects who have a parent as a primary caretaker have reported lower CCDS distress scores than those who have been raised by non-biological parents. This result raises the same issues as those addressed in relation to PTSD and primary caretaker in section 4.1.4.2.

- **Number of previous homes:** Those who have lived in 3 or more previous homes are prone to a higher prevalence of CCDS symptoms than those who have lived in 1 or no other homes besides their current home. Issues relating to multiple moves have been addressed in section 4.1.4.2.

- **Sexual violence:** A significant difference was obtained when the means of those who had experienced all 3 types of violence were compared with those subjects who had experienced *all but* sexual violence. The experience of sexual violence appears to be a strong predictor of distress compared with other types of experiences of violence, particularly for males.

  Females who have experienced sexual violence have significantly higher CCDS distress scores compared to females who have not experienced sexual violence. In addition, females *without* sexual violence obtain higher CCDS distress scores than males *without* sexual violence. There is a marked contrast in CCDS distress scores between males that have experienced sexual violence and those males that have not experienced sexual violence. This may be due to the imbalance in sub-sample size, but could alternatively be reflecting a phenomenon pertinent to males' responses to sexual violence.

- **Foreshortened future:** Forty seven point seven percent of subjects reported feeling they did not have a future and 44.8% reported being worried they would not live to be old (60 years) because they may be shot or stabbed. In Zissis et al's. recent study (in press) on grade VII pupils is Khayelitsha, results showed that 28.2% of subjects felt they did not have a future. Thirty one point four percent of subjects reported that life was not worth living and they wished that they were dead. Zissis et al. (in press) reported that in their sample 26% (132) feel this way.

Allen et al. (1998) believe that because of their avoidance and foreshortened sense of future, it may be difficult for young people suffering from PTSD to have a sense of future direction. If one does not expect to live a full and long life, there would seem to be little point in going to school, making long-term plans or considering the long-term repercussions of life choices.

4.1.6. Multiple Regression - Generalised Linear Model

There is a strong positive relationship between PTSD scores and CCDS distress scores. The "Coefficient of Determination" is 49.22%. There is a weak positive relationship between PTSD scores and Violence scores. An interesting interaction identified by the GLM is the relationship between overcrowding, number of previous homes and the Violence scores. Those subjects that obtained the lowest overcrowding scores demonstrated that as the number of previous homes decreased, so too did the Violence scores. Conversely, those who obtained the highest overcrowding scores demonstrated that as the number of previous homes increased, so too did their Violence scores. Knapp (1998) provides support for the notion that overcrowding, multiple moves, and family size can significantly affect adolescents' coping in response to violence exposure. Chronic poverty provides a longitudinal account of cumulative stressors that begin with poor maternal health and inadequate nutrition for the impoverished pregnant mother, followed by malnutrition and illness which is often enhanced by a lack of adequate medical care.

4.1.7. Thematic analysis of autobiographical writing

The most prominent themes that arose from the "most traumatic/hurtful experience" were: being attacked/hurt, accidents, the storm disaster, miscellaneous or multiple themes, sexual violence, witnessing an attack, and early loss of parent. Attention has already been drawn to the impact of separation from parents in section 4.1.4.2., where subjects raised by non-parent caregivers obtained elevated PTSD *and* CCDS scores. McCloskey and Walker (2000) found that for prepubescent children, violent crime was a significant risk, but accidents failed to predict PTSD. Had there been a greater response rate for this item, perhaps a correlation could have been conducted assessing the relationship between the nature of the most traumatic event and their corresponding PTSD scores.

It is interesting to note that responses confirm the complexity of trauma, where perpetrators are known to victims and victims are also perpetrators. The examples provided in the text and in Appendix A.3.10 demonstrate how adolescents can assume multiple roles over a period of time (victim, witness and perpetrator). As referred to in 1.2.2., certain victims of past violence are at risk of becoming the perpetrators of retributive violence or displaced social and domestic violence

(Dawes and Tredoux, 1990; Malepa, 1990; National Crime Prevention Strategy, 1996; Silva, Alpert, Munoz, Singh, Matzner and Dummit, 2000; Simpson, 1991).

4.1.8. Reasons for non-disclosure

Of the 79 who chose to withhold material, 55 were females, 23 were males and 1 did not stipulate her/his gender. Thus 21.73% of all females (n = 253) and 11.16% (206) of males have acknowledged withholding information. In this sample it appears that females are either a) twice less likely than males to disclose traumatic material or b) twice more likely to acknowledge having withheld information than boys. Although non-disclosure may appear to be a form of non-cooperation with the research task, it may also be reflecting subjects' healthy capacity for knowing personal boundaries and respecting these.

4.2. LIMITATIONS OF THE RESEARCH

4.2.1. Harvard Trauma Questionnaire and CCDS

The HTQ was developed and intended to be administered in an interview context but has also been used as a survey questionnaire in epidemiological studies (Zissis et al., in press). The HTQ was not designed with a specific age group in mind, which means it was not specifically designed for, but has been used with, adolescents (ibid). If the questionnaires had been administered *individually*, there may have been greater clarity for subjects, which could have diminished the possibility of adolescents' under-reporting, which may occur in the presence of a peer group.

4.2.2. Items in HTQ and CCDS symptom lists and DSM-IV criteria: operationalising trauma and distress.

The prevalence rate of a possible PTSD diagnosis (5.13%) in the present sample could have been depressed in various ways. Firstly, the mean cut-off point recommended by Mollica et al. (1992) is 2.50. This 2.50 delineation was identified based on an Asian refugee population in the USA,

and may underestimate the prevalence of PTSD in the present study's community sample. Secondly, it is possible that the HTQ, as a diagnostic instrument, under-detects PTSD in the present study's population and age-group. Thirdly, it is feasible that exposure to violence or chronic violence may not necessarily result in a significant risk of developing PTSD in the present study's population. Perhaps over time some subjects have become desensitised to the violence around them or deny its impact. Fourthly, it is clear that patterns of comorbidity in PTSD and subjects' alternative responses to trauma have gone undetected. Deering, Glover, Ready, Eddleman and Alarcon (1996) focused on the prevalence of substance abuse, depression, generalised anxiety, phobic, panic, somatization, psychotic and personality disorders as a study of comorbidity in PTSD. Subjects may be suffering from any of the above disorders. However, it is beyond the scope of this paper to explore such variations which may be due to developmental factors associated with adolescence. Fifthly, in conjunction with the former point, but from an anthropological point of view, indigenous categories of distress may lie outside the parameters of the DSM-IV system of diagnosing PTSD. It is uncertain whether "nerves", for example, features as a post-traumatic syndrome amongst these adolescents (Swartz, 1998). Although the condition of "nerves" may form part of the paradigm of mental health of the sample in question, it has not been included in this study.

According to Yule and Canterbury (1994), while there are a variety of measures for assessing PTSD in youth, there is no substitute for the individual clinical interview, which is, however, not easily implemented in survey research.

4.2.3. The issues of onset, duration and course of PTSD and CCDS symptoms

There were two references to a time-frame in the sections on PTSD and CCDS distress symptoms. Firstly, subjects were requested to report on the presence of symptoms within the last week. Secondly, accompanying the two symptom checklists was a column for onset of symptoms. Subjects were requested to mark if symptom onset was *prior to* or *subsequent to* the Manenberg storm disaster, i.e. 29/08/99. Unfortunately, this was sporadically and inadequately completed by subjects and could not be used for the purpose of this study. There were 338 subjects (71.2%)

who did not stipulate onset, 127 (26.7%) did stipulate onset and a further 9 subjects completed a selection of onset items. It is likely that having to denote *onset* created an additional task for the subjects that paralleled the immediate task of addressing the symptom items. The questionnaire design was thus problematic and perhaps a clearer layout and repeated instructions would have increased the responses to this onset specifier. Neither the HTQ nor the CCDS symptom lists address duration and course of symptomatology. The results are therefore limited to point prevalence, excluding period prevalence and lifetime prevalence.

4.2.4. Use of a Self-Report Questionnaire format

Self-report measures have the advantage of obtaining information from the individual who is of interest, and have the potential to access the subjective feelings that are part of PTSD or associated symptoms. For example, fears, intrusive thoughts, flashbacks or overwhelming feelings related to trauma may be experienced by the adolescent privately, undisclosed to others. In employing an anonymous self-report format, a stronger validity in reporting was expected as it was hoped subjects could feel less afraid to disclose traumatic or confidential information. However, in the results on reasons for non-disclosure, 79 subjects chose to withhold information for various reasons presented in section 3.8.3. So the self-report format does not necessarily obviate problems around levels of disclosure.

Alternatively, parent and teacher reports are believed to underestimate the prevalence of violence exposure in youth under their care (Yule, 1994). Accuracy of self-reporting (as opposed to parent/teacher reports), has been demonstrated by numerous comparative studies establishing reliability of reporting on exposure to violence and PTSD symptoms (Cooley-Quille et al., 1995b; Richters and Martinez, 1993). The disadvantages, however, of a self-report measure in this context are that subjects experiencing difficulties with the questionnaire may be more reluctant to seek help when peers are present. In addition, debates have centred around the lack of correspondence between scores obtained on self-report measures and observable behaviours (Finch and Daugherty, 1993). Numerous adolescents have been observed as hesitant or unwilling to disclose painful experiences (ibid). This may result from conscious anxiety or unconscious fantasies regarding the repercussions of the disclosure. Concerns about the consequences of self-

disclosure were raised by subjects (see section 4.1.7). In addition, it has been noted that some children and adolescents seem unable to express or label their feelings, which does not appear to be due to a defensiveness on their part, but rather to be associated with an expressive language deficit, namely alexithymia (Finch and Daugherty, 1993). Feedback from the research assistants revealed problems with the use of certain words in the questionnaire. Some subjects had difficulty understanding the words "traumatic", "confidential", "hoede" and "berader". Perhaps this problematic choice of language can explain the inconsistent response rate to items.

4.2.5. Study design issues

4.2.5.1. One stage screening

Parry (1996), in his review of psychiatric epidemiology in Africa, purports that numerous South African studies rely on a screening instrument to assess mental status (not followed up by a second stage study performed on screen-positives). Parry maintains that screening instruments have a tendency to overestimate prevalence, particularly regarding the true prevalence of psychiatric morbidity in children and adolescents. The present study constitutes a screening instrument and has not been designed with a second stage study. If this study has overestimated the prevalence of possible PTSD in this sample of adolescents, then a lower PTSD rate would warrant further investigation. What then are the psychological sequelae of exposure to violence in this sample?

4.2.5.2. Cross sectional design

The main problem with empirical studies investigating the evolution of PTSD is that no single study (in South Africa and elsewhere) has longitudinally followed the same groups of individuals in the community, and recorded actual clinical diagnostic PTSD data at multiple ages to assess accurately the emergence of PTSD over time. Models of aetiology and course of PTSD have been developed by researchers who have instead had to piece together various cross-sectional epidemiological studies that have used different measures with different groups of people at different ages in an attempt to delineate the developmental progression of PTSD. A longitudinal study of this population would reveal important information regarding course and duration of PTSD in the context of exposure to chronic violence.

4.2.6. Sampling strategy and research procedure

In retrospect, several problems surfaced in the process of administration. Firstly, it would have been important to read through the questionnaire with the classes so that any uncertainties or questions could have been raised and addressed, thus increasing the response rate to all items. Perhaps a copy of the questionnaire, using an overhead projector, would have been a more effective way of focusing the classes' attention on the instructions prior to distributing the questionnaires. Secondly, regarding the sites of administration of the questionnaires, on the whole, classrooms were overcrowded with class sizes ranging from 32-50 pupils. In some classrooms, pupils were compelled to share a desk, thus decreasing the level of privacy and confidentiality of the material. Thirdly, in two classes at Silverstream S.S., teachers insisted on remaining present to prevent problems with discipline and co-operation in the study (K. Abrahams, personal communication, October 1999). Their presence may have influenced the quality and content of the pupils' questionnaires. Fourthly, in a third classroom at Silverstream, a fight erupted over the distribution of the Lündbeck S.A. donated pens. This fight resulted in shouting and violence and NW, attending to this class, found it difficult to manage the conflict. As a result, three pupils left the classroom exasperated, one with a minor injury. Two of the three returned to complete the task. The first 15 minutes of the session were taken up by this conflict and by NW's attempts to re-establish order. Less time was therefore available for the completion of the questionnaire.

4.2.7. Items regarding socio-demographic variables

The inclusion of an item on religious affiliation or church/mosque attendance may have yielded useful information.

4.2.7.1. Number of people residing in home

This item should have specified whether or not to include the subject him/herself. As a result, numbers may be inaccurate, by one.

4.2.7.2. Primary caretaker

Subjects should have been requested to distinguish between mother and father, as opposed to answering "parent". This would have allowed for more specific analyses to be conducted on the impact of the parent's gender in mediating violence, PTSD and CCDS distress scores.

4.2.7.3. Employment status of parents

This item wrongly assumed that employment status of parents is equivalent to household income. The item should have requested employment status of those living in the home as well as those receiving pensions or state grants.

4.2.8. Items in HTQ Trauma list

Several items were removed from the original HTQ trauma list as they did not apply to this sample, namely torture items, head injury and brainwashing. These were replaced with items pertaining to gang and school violence, as well as effects of the storm disaster. Problems arose with the items that could not be categorised into either the "Experienced" or "Witnessed" category. For example, how does the HTQ distinguish between experiencing and witnessing *grown-ups hitting one another*? The same applies to the item "*have seen people shooting one another*". In the scoring process, the two categories were treated equally.

4.2.9. Items in Violence list and 3 categories of violence

Despite instructions to the contrary, it is possible that subjects felt compelled to *choose* a single category regarding identity of the perpetrator or the person involved in the item, as opposed to marking multiple categories. As a consequence, this may have resulted in an underreporting and thus an underestimation of the prevalence rates of violence. In addition, the three categories of violence (and thus the Violence score), which consisted of a combination of items from this list and the trauma list, did not include violence experienced at school. Therefore the calculations involving violence as a variable were not altogether complete, as bullying, fighting and humiliation in the school context had been excluded.

4.2.10. Ethical considerations

The ethical feasibility of this research has been discussed in Chapter one. Approval, participation and consent were offered by the WCED as well as the respective principals on behalf of the subjects, who constitute legal minors. Perhaps informed consent should have been sought from the participants themselves. Like most other school-related activities, the subjects had little power to influence the decision regarding their participation. In addition, a letter should have been distributed to the parents or guardians of these adolescents, explaining the nature and purpose of the study. A follow-up letter could have been sent to subjects, parents or guardians, informing them of the findings and providing information on mental health service providers in the area. Both letters would have had a dual purpose: a) to inform the parents and families of the research their adolescents were participating in, and b) to create awareness of the problems through rudimentary psychoeducation in the form of an information sheet. Although it is too late to inform subjects and their families of this study, it is still possible to distribute a follow-up letter as described above.

Regarding administration, the fight that erupted in the class at Silverstream S.S. over the stationery being distributed may have resulted from a sense of severe deprivation. Perhaps it was unwise for research assistants to arrive with a supply of pens in a school context where pupils come from poverty-stricken families. However, this problem arose in a single class and could not have been anticipated by NW.

In addition, an opportunity for debriefing or discussion should have been factored into the time and arrangements allocated. In all cases, subjects left the research site and proceeded to their first recess without any space for reflecting on what they had written. Perhaps subjects who had wished, could have been offered an opportunity to talk about any matters or concerns arising from the questionnaire. These subjects could have been offered a chance to meet with NW at Selfhelp Manenberg, during one of the afternoons during the one-week period of administration.

4.3. RECOMMENDATIONS

Prevalence rates on their own cannot inform intervention as the spontaneous recovery rates are unknown and there is no research available on intervention outcomes in this population. However, possible recommendations will nevertheless be presented and discussed.

4.3.1. School-based intervention/education

Schools are in many ways a natural setting for the provision of interventions to help adolescents cope with violence in their communities. Schools provide a setting in which professionals can have access to most of the children of a community. Donald, Dawes and Louw (2000) have edited a book that provides numerous powerful examples of a variety of school-based interventions taking place in South Africa. Ideally, a pupil should find an important support network in his/her classmates and school personnel. However, the classes in Manenberg schools are most often overcrowded and teachers feel overburdened and under-resourced (N. Davids, personal communication, September 17, 1999). Teaching staff providing pupils with emotional support may be an unrealistic and unfair expectation in these schools. Programmes in schools have most often included both *educational interventions* (curriculae including conflict resolution skills, cognitive anger control, communication skills, and drug education) and *environmental modifications* (metal detectors, visitor sign-ins, teachers monitoring halls/school grounds or the employment of security guards). Manenberg S.S. has installed an electrified fence around the perimeter of the school and has employed a security guard stationed at the school entrance. It is unknown whether pupils feel safer as a result.

Much has been written on the proclivity of abused and traumatised youth to later become criminal offenders, so that childhood victimisation has demonstrable long-term consequences for subsequent delinquent and adult criminal behaviour. Dawes and Tredoux (1990) and Malepa (1990) have demonstrated how children exposed to violence will more readily become perpetrators of violence themselves. Numerous studies have explored this cyclical nature of

violence, so that treatment/intervention with youth who have been subjected to violence serves a dual purpose, both therapeutic/reparative and preventative (Duncan, 1996; DuRant, Cadenhead, Pendergrast, Slavens and Linder, 1994; Gibson, 1996; Straker et al., 1992). Developing interventions to address chronic exposure to violence in this community will be more difficult than the school-based interventions discussed in the literature with youth exposed to discrete violence, i.e. debriefing and anticipatory guidance (Duncan, 1996; Gurwitch, Sullivan and Long, 1998; and Klingman, 1993). These adolescents attending schools in Manenberg may experience greater difficulty in identifying or discussing the specific events that have placed them under stress. The use of debriefing techniques may even undercut defences, such as denial or distraction, which the adolescent is using currently to cope with the violent life situation. More appropriate interventions for these adolescents might be focused on building their self-esteem and sense of self-efficacy (internal locus of control) and other personal/intrapsychic features associated with resilience (addressed in section 1.2.5). Another approach might be to encourage the adolescents to discuss and develop active strategies for protecting themselves from dangers in their community. "Hip", the adolescent programme at Selfhelp Manenberg, is currently running support groups and career development groups for youth in Manenberg. In addition, school-based life-skills workshops have been conducted by programme staff at Selfhelp Manenberg. The findings of the present study could be used to further inform such work taking place at Selfhelp Manenberg.

4.3.2. Education and training of teaching staff and truant officers

The 9 learner support officers, recruited to work in Manenberg schools, could obtain additional training regarding the emotional and behavioural consequences of exposure to violence. In certain cases, what may be construed as bad or delinquent behaviour could be reconceptualised, explained and addressed in the context of a more sensitive understanding of behavioural/psychological sequelae to violence exposure. While completing her internship at Selfhelp Manenberg, the researcher, NW, in collaboration with Rape Crisis Heideveld, was responsible for conducting a training course on post-rape management for police officers, community workers and members of the community, all from Manenberg . Selfhelp Manenberg has, on numerous occasions, provided training for community organisations in Manenberg and may be able to provide the necessary training for the learning support officers.

4.3.3. Liaison between teachers and Selfhelp Manenberg

Perhaps a more collaborative relationship could be developed between Selfhelp Manenberg and the teaching staff of the three high schools in Manenberg. A referral system could be put into place where direct contact is established and maintained, with teaching staff making referrals and Selfhelp Manenberg consultation staff conducting assessments and, if necessary, further referrals.

4.3.4. Further research

The cross-sectional nature of this study does not permit one to take into account the natural history of posttraumatic conditions or the evolutionary processes of adolescent and later adult development. For these reasons, there is a need for longitudinal studies of trauma-related syndromes in Manenberg adolescents, who are survivors of compounded community trauma. Such research could build onto Straker et al.'s (1987) model of the *continuous traumatic stress syndrome*. Future ethnographic studies are needed to determine whether there are culture-specific symptoms associated with reaction to trauma in this population. Such research may clarify the relevance of PTSD to the diagnosis and treatment of this cultural group. In addition, a study is needed investigating the *broader* repercussions of exposure to chronic violence in adolescents that extends *beyond* PTSD into further social, psychological, behavioural and attitudinal problems. Fitzpatrick and Boldizar's (1993) "resiliency factor" commonly found among low SES populations needs to be investigated in this population of adolescents.

Some symptoms can be seen as normal reactions to abnormal events. Certain types of fear, anxiety, intrusive thoughts, and even depression can serve adaptive functions in an objectively dangerous environment, particularly when they signal heightened vigilance and healthy emotional reactions to danger and loss. However, they can also signal maladaptive reactions with long-term negative consequences for normal social, emotional, and cognitive development (Higson-Smith and Killian, 2000). Initially adaptive responses become entrenched, resistant to change, and overgeneralised to situations in which they are maladaptive, depriving individuals of valuable healing/growth possibilities. An important task for future research will be to develop assessment strategies for discriminating more effectively between adaptive and maladaptive reactions to violence, and for detecting maladaptive response patterns before they become pathological.

4.4. CONCLUSIONS

According to the four research objectives (set out in section 1.3.), it is felt that all but one of the objectives, was achieved. Despite the methodological and construct limitations, the prevalence and nature of non-civilian trauma as well as civilian violence experienced by adolescents in Manenberg, was determined (objective 1). Screening allowed the possibility of a diagnosis of PTSD in adolescents in Manenberg to be made (objective 2). Socio-demographic variables associated with risk of higher PTSD scores, Distress scores and Violence scores were identified (objective 3). However, the intention to determine onset of PTSD and CCDS symptoms, in relation to the Manenberg storm disaster (objective 4), was unsuccessful.

Despite the broad focus of this study and its methodological limitations, a selection of important findings was obtained. Firstly, the vast majority of subjects, 93.4%, have experienced one or numerous types of violence, 79.7% have witnessed someone being shot/stabbed, 20.9% have, themselves, been shot/stabbed, and 18.85% have experienced one or numerous types of sexual violence. Secondly, there are certain socio-demographic variables that have a statistical association with elevated PTSD and CCDS symptoms. These variables are: a) being female, b) Xhosa as a home language, c) an increased number of previous homes and d) having a non-parent as a primary caretaker. Two of these four variables, c) and d), raise the theme of loss and separation (which is also prevalent in the autobiographical writings). Having a non-parent as a primary caretaker implies a loss/separation from a biological parent. An increased number of previous homes implies repeated moves and thus repeated loss/separation. In the absence of an experience of positive parenting, an unchanging or stable environment may partly compensate for a deficit in parenting (and vice versa). However, if both protective variables are absent, it is conceivable that such adolescents, in the face of trauma, are particularly vulnerable to posttraumatic stress responses.

The estimated point prevalence rate of PTSD in this sample was 5.13%. Additional responses associated with type II trauma may be prevalent in this sample but were not investigated. These

consist of defence mechanisms of denial, repression, dissociation, self-anaesthesia, self-hypnosis, identification with the aggressor, and aggression turned against the self.

The Generalised Linear Model identified overcrowding to be significantly associated with PTSD symptoms, but only when combined with an increase in the number of previous homes.

Epstein-Jayaratne (1993) flags the dangers of generalising with quantitative research (many aspects of Freudian theory are examples of generalisation from a non-representative sample). Yet generalised statements are important for advising policy-makers, for deciding on strategies for bringing about change in public opinion and for effectively directing future research. The present study suggests the need for further research, both into violence-related mental health issues for adolescents in coloured communities and into the use of the HTQ and CCDS as screening instruments.

As this study has demonstrated, adolescents in Manenberg are growing up in a community characterised by gang violence, drug war, shootings, family, school and sexual violence, with perpetrators often known to them. The effects of this violence are superimposed on numerous other sources of adversity (addressed in sections 1.2.1.1. and 1.2.1.4.). It is also important to remain cognisant of the social and historical climate into which these adolescents were born. The arrival of this generation succeeded the forced removals and fragmentation of many coloured communities in the Western Cape. In addition to their personal experience of violence, it is likely that these adolescents are also having to metabolise an intergenerational transmission of trauma from parents, as a result of their parents' experience of brutality and violence at the hands of the apartheid regime.

These adolescents will grow to adulthood in an atmosphere of threat, surviving many traumatic events and enduring multiple losses and grief. Preparing parents, schools and relevant role-players to provide help for these adolescents to cope with these conditions should be one of the major primary prevention tasks for the decades ahead.

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APPENDIX

APPENDIX ONE

Contents: **PAGE**

remains: Virginia Hartwick of Manenberg, left, spent yesterday lugging the remains of her crushed furniture outside with the help of two neighbours

Smashed: a rescue worker fastens ties up barrier tape to prevent people from entering a dangerous building

APPENDIX TWO

Contents: **PAGES**

A.2.1. Sample

The 1996 Census reported 2527 males and 2488 females between the ages of 10-14 years residing in Manenberg, and 2063 males and 2228 females between the ages 15-19 years. The Census data did not present each age discretely but rather in age clusters, which makes it difficult to estimate the number of adolescents between 13 and 16, the predominant ages of this sample. If one were to assume that each age has approximately the same number of humans, then between the ages 10-14 the average number would be 1003 for each year and between the ages 15-19 the average number per age is 858.2. The mean age of a grade VIII pupil is 13 -15 years.

A.2.2. Diagnostic criteria for 309.81 Posttraumatic Stress Disorder

(DSM-IV) American Psychiatric Association, 1994, pp. 427 – 429.

A. The person has been exposed to a traumatic event in which both of the following were present:
   1) the person experienced, witnessed, or was confronted with an even or events that involved actual or threatened death or serious injury, or a threat to a physical integrity of self or others
   2) the person's response involved intense fear, helplessness, or horror.

B. The traumatic event is persistently reexperienced in one (or more) of the following ways:
   1) recurrent and intrusive distressing recollections of the event, including images, thoughts or perceptions
   2) recurrent distressing dreams of the event
   3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated).
   4) intense psychological distress at exposure to internal or external cues that symbolise or resemble an aspect of the traumatic event
   5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

1) efforts to avoid thoughts, feelings, or conversations associated with trauma
2) efforts to avoid activities, places, or people that arose recollections of the trauma
3) inability to recall an important aspect of the trauma
4) markedly diminished interest or participation in significant activities
5) feeling of detachment or estrangement from others
6) restricted range of affect (e.g. unable to have loving feelings)
7) sense of a foreshortened future (e.g. does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

1) difficulty falling or staying asleep
2) irritability or outbursts of anger
3) difficulty concentrating
4) hypervigilance
5) exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C and D) is more than 1 month.
F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

Acute: if duration of symptoms is less than 3 months
Chronic: if duration of symptoms is 3 months or more

Specify if:

With Delayed Onset: if onset of symptoms is at least 6 months after the stressor.

A.2.3. Diagnostic criteria for 309.89 Posttraumatic Stress Disorder

(DSM-IIIR) American Psychiatric Association, 1987, pp. 250 - 251.

A. The person has experienced an event that is outside the range of usual human experience and would be markedly distressing to almost anyone, e.g. serious threat to one's life or physical integrity; serious threat or harm to one's children, spouse, or other relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been, or is being, seriously injured or killed as the result of an accident or physical violence.

B. The traumatic event is persistently reexperienced in at least one of the following ways:

1) recurrent and intrusive distressing recollections of the event
2) recurrent distressing dreams of the event
3) sudden acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative [flashback] episodes, even those that occur upon awakening or when intoxicated)
4) intense psychological distress at exposure to events that symbolize or resemble an aspect of the traumatic event, including anniversaries of the trauma

C. Persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:

1) efforts to avoid thoughts or feelings associated with the trauma
2) efforts to avoid activities or situations that arose recollections of the trauma
3) inability to recall an important aspect of the trauma (psychogenic amnesia)
4) markedly diminished interest in significant activities
5) feeling of detachment or estrangement from others
6) restricted range of affect, e.g. unable to have loving feelings
7) sense of a foreshortened future, e.g. does not expect to have a career, a marriage, or children, or a long life.

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following:

1) difficulty falling or staying asleep
2) irritability or outbursts of anger
3) difficulty concentrating
4) hypervigilance
5) exaggerated startle response
6) physiologic reactivity upon exposure to events that symbolize or resemble an aspect of the traumatic event (e.g. a woman who was raped in an elevator breaks out in a sweat when entering an elevator)

E. Duration of the disturbance (symptoms in B, C, and D) of at least one month

Specify delayed onset if the onset of symptoms was at least six months after the trauma.

A.2.4. Definitions of the epidemiological term "prevalence"

- **Point prevalence**: reflects the number of active cases of a disorder at a given time
- **Period prevalence**: reflects the number of active cases of a disorder during a given period
- **Lifetime prevalence**: reflects the number of cases who have ever experienced a disorder

A.2.5. Ethical guidelines: Medical Research Council

Taken from the South African MRC's Guidelines on Ethics for Medical Research (1993 revised ed).

1.4. Research on Children

1.4.1 Research on children should not be undertaken unless there is a specific and demonstrable need to perform the research on children, and *no* other route to the relevant knowledge is possible (e.g. research on animals or adults or in vitro research).

On the other hand, research involving children may be important for the benefit of all children and should be supported, encouraged and conducted in an ethical manner. Not to conduct scientifically rigorous and ethically sound research violates the principles of justice and equity in society. Specific problems and diseases unique to a specific paediatric age group or population may require the use of children even without prior testing in adults.

1.4.2. As a vulnerable population group children need added protection, especially regarding risk/benefit assessment and consent.

1.4.3. Children should only be included in research if:

i either those included who are legally capable of consenting have done so, or consent has been given on their behalf by a parent or guardian, and they do not appear to object in either words or action;

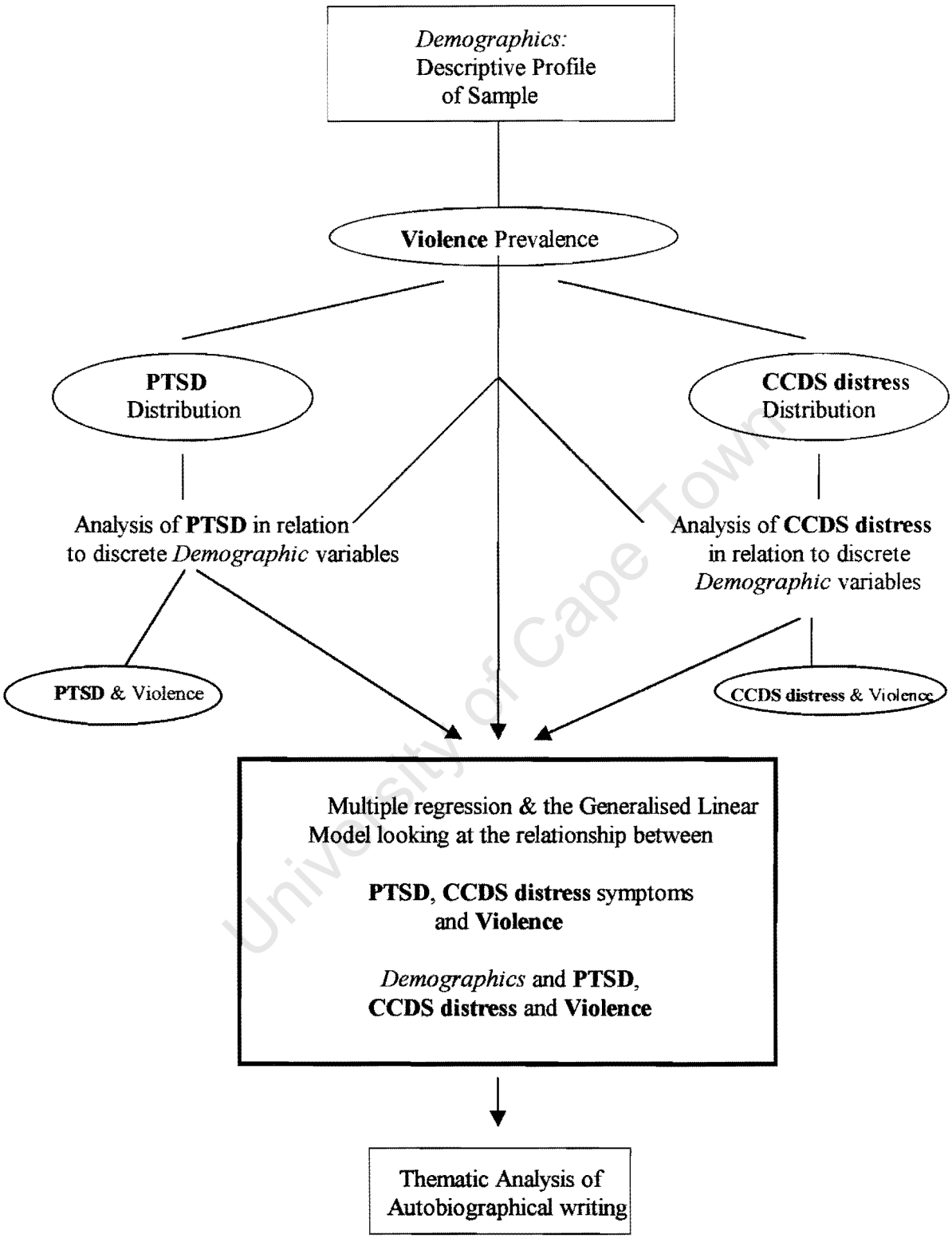
ii in the case of all therapeutic research, the benefits likely to accrue to a child participating outweigh the possible risk of harm;

iii in the case of non-therapeutic research, participation places a child at no worse than minimal risk.

APPENDIX THREE

Contents: **PAGES**

A.3.1. Structure of Results Chapter:



A.3.2. Details of Socio-demographic characteristics of the sample:

A.3.2.1. Detail of Age distribution of subjects (N = 455):

AGE (Years: months)	12:00 - 12:11	13:00 - 13:11	14:00 - 14:11	15:00 - 15:11	16:00 - 16:11	17:00 - 17:11	18:00 - 18:11	19:00 - 19:11
n	4	136	171	83	41	11	5	4
%	0.87%	29.8%	37.5%	18.2%	9%	2.4%	1%	0.87%

A.3.2.2. Detail of Distribution of number of siblings (N = 463):

Siblings	0	1	2	3	4	5	6	7	8	9	10/14
N	9	0	123	118	71	47	16	5	6	4	4
%	1.9%	10.8%	26.6%	25.4%	15.3%	10.1%	3.4%	3.2%	1.2%	0.8%	0.8%

A.3.2.3. Detail of Primary Caretaker (N = 449):

Those subjects who were identified as having a non-parent as their primary caretaker are discussed in more detail. There were 59 subjects (13%) who answered *grandmother*, 2 (0.44%) answered *grandfather*, 10 (2.2%) wrote *grandparents*. A further 10 (2.2%) also referred to 3 or more people and were classified as having *multiple* caregivers. A further 3 subjects (0.66%) wrote that a stepmother took care of them. And finally, 1 subject each wrote the following: *sister, guardian* and *aunt*.

A.3.2.4. Detail of Home Languages (N = 461):

The full list of home languages reported by subjects is presented below in decreasing order of prevalence.

Table A.3.2.4. A) Home languages n and %

Afrikaans	Afrikaans/ English	Xhosa	English	Xhosa/ Afrikaans	Xhosa/ English	Sesotho	Afrikaans/ French	Afrikaans/ German
337	55	32	24	5	5	1	1	1
72.6%	11.8%	6.8%	5.1	1%	1%	0.2%	0.2%	0.2%

A.3.3. Three categories of Violence:

The lists of items employed to create the three categories of violence are detailed in section A.3.4.4.1-3. Note that Part 3 involves subjects selecting either *Someone younger than 18, A*

Stranger, Someone I know or *A Family Member*. This choice will sometimes determine whether a response is placed in the Family Violence category or the Community Violence category. The numbers accompanying the items are the numbers used in the original questionnaire format.

A.3.3.1. Community Violence:

Part 2.	**Part 3.**
	All positive items excluding "YES: a Family Member"
6) I have seen people shooting one another	1) I have been beaten by someone
7) Have been chased by gangsters	2) Someone threatened to stab/shoot me
8) Have seen gangsters shooting and fighting	3) I have been shot stabbed by someone
19) Have witnessed taxi violence or shooting	7) I have seen someone being beaten up
	9) I have seen someone attempting suicide
	11) I have seen someone get shot/stabbed in Manenberg

A.3.3.2. Family Violence:

Part 2.	
18) Grown ups in my home hit each other	
Part 3.	
All positive responses to "YES: A Family Member"	7) I have seen someone being beaten up
1) I have been beaten by someone	9) I have seen someone attempting suicide
2) Someone threatened to stab/shoot me	*All positive responses:*
3) I have been shot stabbed by someone	10) I have seen someone get shot/stabbed in my home

A.3.3.3. Sexual Violence:

Part 3.	
All positive responses:	5) Someone has *attempted* to rape me
4) I have been sexually abused by someone	6) I have been raped by someone

Regarding the Violence scores, there were no statistically significant differences between the mean distributions of the three schools: Phoenix School $\bar{x} = 0.2167$ ($n = 170$, $s = 0.283$), Manenberg School $\bar{x} = 0.1986$ ($n = 156$, $s = 0.258$), Silverstream School $\bar{x} = 0.2084$ ($n = 142$, $s = 0.278$).

A.3.4. *Non-significant* analyses of PTSD scores and socio-demographic factors

A.3.4.1. PTSD scores and the *three schools*

An ANOVA test was administered to determine whether there was any significant difference between

the school PTSD means. There were no statistically significant differences found between the means of the three schools. An observed homogeneity of variance confirms the expectation that the adolescents of each school actually belong to the same population. The results are as follows: Phoenix School $\bar{x} = 1.550$ ($n = 167$, $s^2 = 0.193$) $s = 0.488$. Manenberg School $\bar{x} = 1.555$ ($n = 152$, $s^2 = 0.537$) $s = 0.1425$. Silverstream School $\bar{x} = 1.571$ ($n = 137$, $s^2 = 0.216$) $s = 0.465$.

Table A.3.4.1. A) ANOVA :PTSD scores of the three schools * ($\alpha = 0.05$)

Source of Variation	*SS*	*df*	*MS*	*F*	*p-value*	*F crit*
Between Groups	0.03432	2	0.01716	0.073816	0.928854	3.015629
Within Groups	105.3074	453	0.232467			
Total	105.3417	455				

A.3.4.2. PTSD and *Age distribution*:

The relationship between Age and PTSD scores was assessed. Firstly, a global test was administered; the Pearsons' r. This yielded an r value of 0.051 demonstrating neither a non-significant relationship between these two variables. Secondly, an ANOVA test was conducted, yielding results that suggest the absence of a relationship between these two factors. Thirdly, the sample was subdivided into age categories to determine whether specific age-ranges were associated with particular PTSD score distributions and again this yielded no significance. There is therefore no evidence that age has an influence on the development of PTSD symptoms.

A.3.5. *Significant* analyses of PTSD scores and socio-demographic factors

A.3.5.1. PTSD and *Gender*

Initially, the t-test between males and females revealed significance with a p-value of 0.01077 (Females' mean of 1.606 and Males' mean of 1.490). The Kolmogorov-Smirnov Goodness of Fit test for Normality revealed that the distributions were not normal, but skewed to the right. The d value was 0.087 for females and 0.119 for males. The Chi-square was 38.34 (Females) and 71.35 (Males). This therefore invalidated the results of this T-test. A non-parametric analog was therefore selected; the Mann-Whitney U test. Results from this test then showed that there were no significant differences of PTSD scores related to gender.

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* SS Sum of Squares df degrees of freedom
MS Mean Square F Fisher's F ratio

Table A.3.5.1. A) t-test: Gender and log-transformed PTSD scores

	Means and Standard deviations	p-value	t-value	df	F-ratio
Males (n = 195)	$\bar{x}$ = 0.187 s = 0.127	0.007	2.703	442	1.017
Females (n = 249)	$\bar{x}$ = 0.154 s = 0.128				

A.3.6. *Non- significant* analyses of CCDS distress scores and socio-demographic factors:

A.3.6.1. *Number of siblings* and CCDS distress scores:

The mean CCDS distress scores apparently increase when associated with 0 siblings to 3 siblings and then descend to a plateau until 6 siblings, after which they appear to decrease to 14 siblings. Because the sample size in each age group varies so dramatically, it would be unwise to interpret what appears to be a pattern.

Table A.3.6.1 A) Distribution of number of siblings and associated CCDS distress score means:

Siblings	0	1	2	3	4	5	6	7/8	9/10/14
n $\bar{x}$	n =11 0.007	n = 46 0.250	n = 110 0.256	n = 97 0.321	n = 55 0.264	n = 46 0.298	n = 12 0.288	n = 20 0.276	n = 7 0.101

A.3.6.2. *Employment Status of Parents* and CCDS distress:

Employment status of parents and thus income was investigated as a possible factor associated with the development of Distress symptoms. Tests were conducted in an attempt to identify significant differences between the following subsamples:

A.3.6.2. A) Employment status of parents and Distress score means:

Both Parents Unemployed	Only One Parent Employed	Both Parents Employed
$\bar{x}$ = **3.0** (n = 97) s = 0.385	$\bar{x}$ = **2.7** (n = 204) s = 0.366	$\bar{x}$ = **2.3** (n = 112) s = 0.38

A.3.7. *Significant* analyses of CCDS distress scores and socio-demographic factors:

A.3.7.1. *Language* and Distress scores

Below are the detailed results pertaining to the t-test investigating subjects whose home language is Afrikaans compared with Xhosa, alone or in conjunction with another language.

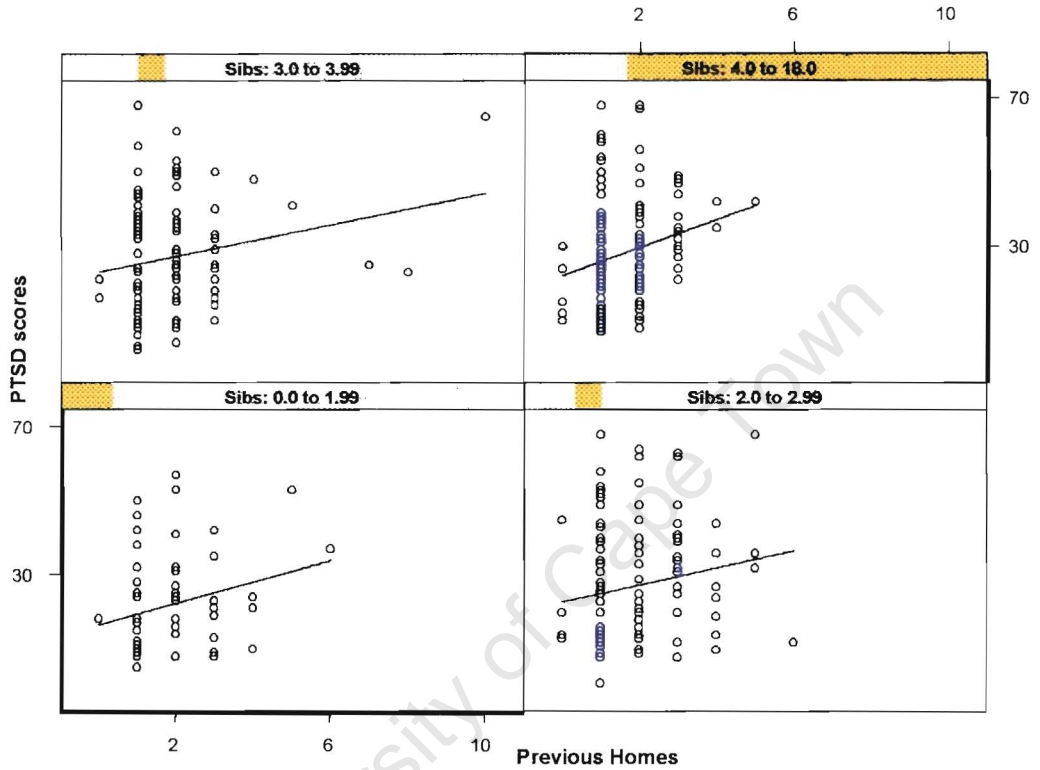
Table A.3.7.1.A) CCDS distress scores and Language: two-sample t-test (n = 329).

	Variable 1 Afrikaans	*Variable 2 Xhosa*
Mean	2.408524993	3.283850987
Variance	3.090862689	3.373744353
Observations	293	36
Hypothesized Mean Difference	0	
Df	43	
t Stat	-2.710830368	
P(T<=t) one-tail	0.004802415	
t Critical one-tail	1.681071353	
P(T<=t) two-tail	**0.009604829**	
t Critical two-tail	2.016690814	

A.3.8. GLM and PTSD:

The "X" axis denotes the number of previous homes and the "Y" axis denotes the log-transformed PTSD scores. Each quadrant arranges subjects in ascending order, according to their number of siblings.

Figure A.3.8. A) The relationship between number of siblings and previous homes and their influence on PTSD scores.

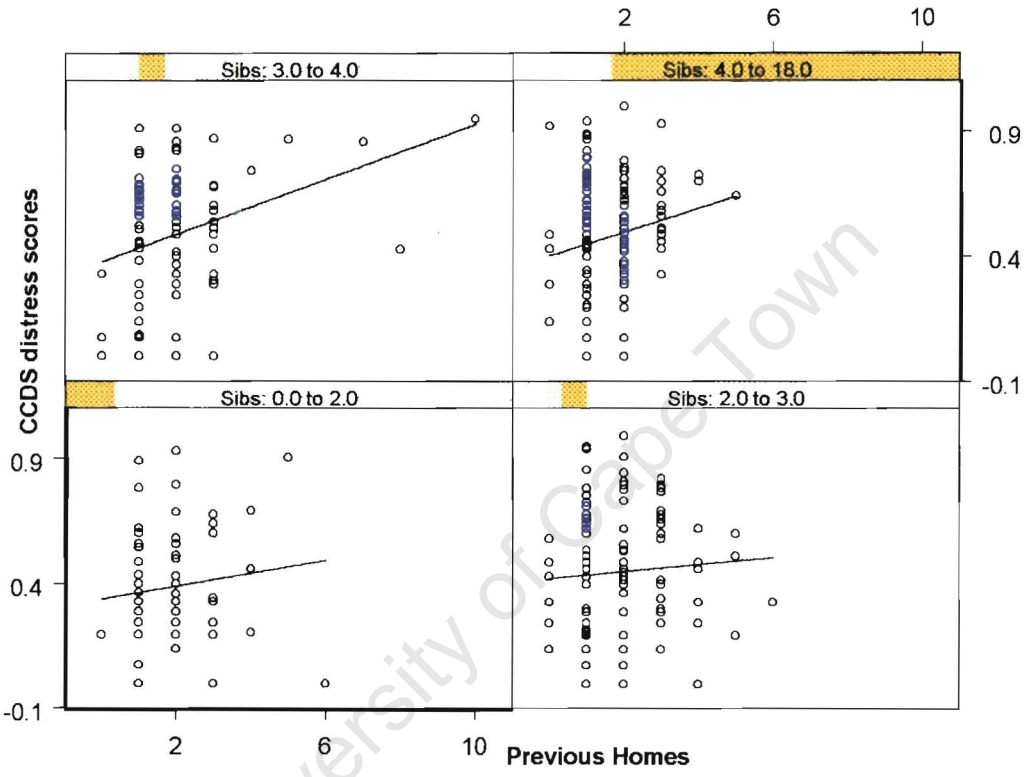


"sibs" - in the graph refers to siblings

A.3.9. GLM and CCDS Distress scores

The "X" axis denotes the Number of Previous Homes lived in and the "Y" axis presents the Logged CCDS scores for subjects. The graph is divided into 4 quadrants. Each quadrant reflects the results of subjects in ascending order of the number of siblings they have.

Figure A.3.9. A) The relationship between number of siblings and previous homes and their influence on PTSD scores.



"sibs" - in the graph refers to siblings

A.3.10. Vignettes

The vignettes below provide examples of each of the categories discussed in the text.

1. Attacked/hurt (n = 28)

> My ergste ervaring was toe ek deur bende lede gejaag was. Ek het van die winkel gekom toe die bendes op my geskiet het, gelukkig was ek nie maak geskiet nie.

2. Miscellaneous or Combinations (n = 23)

> Somtuie dink ek my ma het my nie lief nie, en ek will net myself doodmaak. Ek het al geprobeur om my antie te vermoor want sy druk my af. My ma slaan my elkekeer. Ek voel alleen. Daar is niks in dies huis om te eet nie nou moet ek hier en daar gaan vra. My pa het my verbat.

3. Accidents (MVA, fire, injuries): (n = 24)

> Daar het al iemand van my familie my broer gebeer. Ons het uit die taksie geklim en toe het die taksie se wiel oor sy kop gery en het hy net gese mamie dit is al wat hy se het.

4. Tornado (n = 24)

> Ek het geslaap toe my nigie my wake skreuu toe het ek nie gewiet wat was dit nie wat ek bote kom toe sien ek dat mens huise dak en mure is weg. Ek het baie groter geskrike toe ek sien wat gebeur het. Ek wat nou dammekaar maar wat dit by my kom toe kan ek dit nie gelok nie want daar het nog nooit soos iets in my lewe gebring nie. Dit het soos hard gereen en toe kom die venster in en mense skeer vra haar bada toe bring ek op uit my bed toe mekaar ons duer oop toe sien ons wat gebeur het.

5. Sexual Violence (n = 20)

> A very good friend of mine was brutally raped by her stepfather. She always use to confide in me and since he started doing these things to her she did not come to visit me anymore. He told her I was bad influence. He also sodermised her. They lived in the flat at the bottom of us. He played the music so loud while raping her. So we could not hear her cry for help.

6. Witnessed Attack (n = 17)

Dit was op 'n Maandag wat die gansters vir hom en sy gatjie oor getrek het. Hulle het sy gatjie ses keer geskiet en vir hom geskiet hulle een deur al twee knee en deur sy kop toe maak hulle hom vas toe brand hulle hom uit hulle het die gatjie op R 300 gegooi

7. Early loss of parent (n = 15)

My ma is 8 jaar dood en my ouma kyk nie reg na my nie sy slat my sy skel met my sy het my al verbrand met koekende water.

8. Threatened/harassed (n = 15)

Hulle het al in onse huis gehardloop moet guns en my ouma se huis on getip om my uncle te skiet en hulle het hom noiit gekry nie daarvooer is ek bly

9. Responsible for Perpetrating violence (n = 8):

When my mother started to hit me with a belt in the road and my grandmother. So I couldn't help so I stabbed my grandmother with a pen in her hand and I also wanted to stab her with a knife (my mother's mother)
Ek het al geskiet op 'n ander bende en toe het agter een gehardloop maar toe kom sy ma uit en die gun het net afgegaan en die vrou het geval. Ek in die kar gespring en ons het gerei.

10. Death of person close (n = 8)

The most terrible and traumatic experience that I ever had was when I heard that my aunt has been shot at the shop she was shot eight times. She had a daughter at the age of 3 years old but my grandmother is looking after her and my wish is that whoever shot her should be sent to jail.

11. Difficult/Painful Relationships (n = 8)

My ergste mees traumatiese ervaring is dat my vader nie by ons bly nie en hy bly met 'n ander vrou sonder kinders en daarom is daar so baie probleme in ons huis my ma is baie onaanvaarbaar met my sy bly vir my se sy is nie lief vie my nie dit maak my baie hartseer en ongevoelig.

12. Betrayal (n = 6)

My best friend that I trust in my life have do something that I will never forgive her. Because she was just like my sister but she betrayed me. And when I had that she was laiying too me and talking about me all the time. I did not like it because I could not believe that it was her. But she try to talk to me. But I just look at her. Because when I see her I just don't believe it.

13. A Suicide (n = 5)

Somtuie voel ek daar is niemand op die aarde wat my meer lief het nie, want my staan altyd my pa by en staan altyd vir my af ek voel ek wil dood gaan want ek het niemand wat omgee vir my nie maar net my friend en kerel.

14. Unclear (n = 5)

She must haven't money. I also told me about your mother. My mother is also resting to him.

15. Illness (n = 2)

Een aand het ek baie sware pyne op my hart gekry ek het gehuil want ek het gedink ek gaan dood want die pyne het al nader aan mekaar word ek was baie bang dat ek my lieflike familie sou agter los want ek is baie lief vir my famile veral my ouers.

16. Poverty (n = 2)

I can see the young children live in the road those children the say the Strolers. I don't live this thing if I have a money or bread I go there and to give this children and food and money to go buy food. But the other children are stole because are not respect the parents are not to under our parents now are gowing in the road

17. Drugs (n = 1)

There is something terrible in experience that you have had, thing like fire. Fire is dangerous other thing like Mandrax. When you have Mandrax you are a monster you are person that is a stranger. You going to kill people. Mandrax make people cruel, when I see people like that I feel unhappy because I am scared because its a gangster.

A.3.11. Reasons for non-disclosure (N = 79)

The 11 categories created to present the reasons for non-disclosure of traumatic material are presented in decreasing order of prevalence below:

1. S/he feels material is too personal or private for this context 24% (19):

   Because it is personal

2. Pain/fear of experience 18.9% (15):

   Ek wil nie eintlik daaroor praat nie van dit gaan my seer maak.

3. S/he disclosed something not previously referred to in the questionnaire 12.6% (10):

   Dit is my pa my abuse my en dit is te persoonlik om dit voorheen te se. Hy se vir my van ek is 'n Junto en al daardie goed my lewe is 'n groot mos.

4. Miscellaneous reasons 11.3% (9):

   Ek sal nooit 'n prostetoot raak nie.

5. Simply does not want to 10.1% (8):

   Omdaat ek nie so voel nie ek is jammer vir dit.

6. Doesn't feel good 6.3% (5):

   Yes, because I don't feel comfortable talking about it.

7. Fear of repercussions of disclosure 5% (4):

   Want ek voel skuldig en ek is bang die mense of kinders aan my afsny.

8. Wants to keep it to his/her self 5% (4):

   Ek het gese dat ek dit vir my sel sal hou

9. Wants to forget 2.5% (2):

   Want ek is bang dit heriner my daaroor.

10. Shame of experience 2.5% (2):

    Ek voel baie skaam oor my self.

11. Believes no-one will understand 1.2% (1):

    Want dit voel as of niemand vir my gaan luister nie en hulle net se ja ek vestaan dit is al

APPENDIX FOUR

Contents: **PAGES**

APPENDIX FOUR – *Afrikaans* Questionnaire

For the purposes of presenting this questionnaire in this appendix, the format and layout of the questionnaire has been condensed from 10 to 7 pages to economise space in this thesis. The original questionnaires distributed to the subjects were single-sided and 10 pages long.

TIENERS SE ONDERVINGE IN MANENBERG

AFRIKAANSE VRAELYS

- Ek vra julle graag om hierdie vraelys in te vul sodat ek inligting kan versamel oor die verskillende probleme wat tieners in Manenberg ondervind.
- Die inligting sal gebruik word deur organisasies wat spesiale hulp vir jong mense in Manenberg verskaf.
- Dit sal nie aan jou skool beskikbaar gestel word nie. Alle vraelyste word anoniem ingevul, daarom is alle inligting VERTROULIK.
- Wees asseblief so eerlik as moontlik. As jy onseker is oor 'n vraag, vra gerus vir hulp.

Baie dankie vir jou tyd !

DEEL 1. ALGEMENE INLIGTING

1. Geboortedatum: Ouderdom:	
2. Geslag:	Manlik: Vroulik:
3. Skool:	
4. Hoeveel broers of susters het jy?	Broers: Susters:
5. Hoeveel mense bly in jou huis?	
6. Hoeveel kamers is daar in jou huis? (moet asseblief nie die badkamer en kombuis tel nie)	
7. In hoeveel huise/ plekke het jy al ooit gewoon?	
8. Wie is die belangrikste persoon wat vir jou sorg? (ouer, ouma/oupa, ander)	
9. Werk jou ma?	
10. Werk jou pa?	
11. Watter taal/ tale praat julle by jou huis?	

DEEL 2.

Merk asseblief met 'n X of jy van die volgende gebeure *gehoor het, gesien het* of *ondervind het.* (behalwe op radio of televisie)

Vrae	Ondervind	Gesien	Gehoor	Nee
1. Daar was 'n tekort aan kos en water				
2. Was siek en kon nie mediese hulp kry nie.				
3. Was sonder skuiling/ onderdak.				
4. Was in die gevangenis.				
5. Het 'n ernstige besering gehad.				
6. Gesien hoe mense op mekaar skiet.				
7. Was gejaag deur bendes (gangsters).				
8. Gesien hoe bendes (gangsters) skiet en baklei.				
9. Is geforseer om aan bende aktiwiteite deel te neem.				
10. Is geforseer om by 'n bende-groep aan te sluit.				
11. Is verneder/ afgeknou by die skool.				
12. Is uitgeskel/ uitgevloek by die skool.				
13. Is al geslaan of seergemaak by die skool as gevolg van velkleur.				
14. Is al beledig/ geteister oor velkleur.				
15. By die skool, is al aan gevat of mee gepraat op'n seksuele manier wat ongemaklik laat voel het.				
16. Daar is al mense dood in die familie – nie aan siekte nie.				
17. Is al ontvoer.				
18. Die grootmense in die huis slaan mekaar.				
19. Was 'n getuie van taxi- geweld of – skietery.				
20. Na die onlangse tornado/ storm, moes met ander mense in hul huis woon.				
21. Na die onlangse tornado/ storm, moes mense wat daardeur getref is by ons kom bly.				

DEEL 3

Merk asseblief met 'n X of jy enige van hierdie ondervindings gehad het. Dui asseblief in die blokkie aan of dit gebeur het met *'n jong persoon onder 18 jaar*; met *'n vreemdeling, iemand wie jy ken,* of *'n lid van jou famalie*.

Vrae	NEE	JA Iemand Jonger as 18 jaar	JA 'n Vreemdeling	JA Iemand wat ek ken	JA 'n Famielielid
1. Ek is geslaan.					
2. Iemand het gedrieg om my te steek/te skiet.					
3. Ek is al geskiet of gesteek.					
4. Ek is al seksueel gemolesteer.					
5. Iemand het probeer om my te verkrag.					
6. Ek is al verkrag.					
7. Ek het al iemand gesien wat aangerand word.					
8. Ek het al 'n lyk gesien.					
9. Ek het iemand gesien wat probeer selfmoord pleeg het.					
10. Iemand is in my huis geskiet/gesteek.					
11. Ek het gesien hoe iemand geskiet/ gesteek word in Manenberg.					

DEEL 4.

Die volgende is 'n lys probleme wat mense somtyds ondervind nadat hulle blootgestel was aan vreesaanjaende gebeure in hul lewens. Lees asseblief die volgende vrae en besluit hoeveel van hierdie probleme jy **in die laaste week** beleef het. Merk met 'n X.

Skryf asseblief of hierdie gevoelens begin het voor *VOOR* of *NA* die Tornado/ Stormramp.

Vrae	**Glad Nie**	**'n Bietjie**	**Baie**	**Verskriklik Baie**	*VOOR* of *NA* die tornado /storm ?
1. Ek het herinneringe en gedagtes wat weer en weer kom omtrent pynlike/ vreesaanjaende gebeure.					
2. Ek voel asof die gebeurtenis weer plaasvind.					
3. Ek het nagmerries.					
4. Ek voel afgesny van ander mense.					
5. Ek kan geen emosies voel nie.					
6. Ek voel geirriteerd en skrik maklik.					
7. Ek konsentreer moeilik.					
8. Ek sukkel om te slaap.					
9. Ek voel op my hoede.					
10. Ek voel geirriteerd en het woede uitbarsings.					
11. Ek vermy aktiwiteite wat my herinner aan die mees vreesaanjaende/ pynlike gebeure.					
12. Ek kan dele van die traumatiese/ pynlike gebeure nie onthou nie.					
13. Ek het minder belangstelling in die daaglikse aktiwiteite.					
14. Ek voel asof ek nie 'n toekoms het nie.					
15. Ek probeer om nie gedagtes of gevoelens te he wat my herinner aan die traumatiese gebeure nie.					
16. Ek kry 'n skielike emosionele of fisiese reaksie wanneer ek herinner word aan die mees traumatiese of pynlike gebeure.					
17. Ek voel mense verstaan nie wat met my gebeur het nie.					
18. Ek vind dit moeilik om my werk en daaglikse take te verrig.					
19. Ek blameer myself vir dinge wat gebeur het.					
20. Ek voel skuldig omdat ek oorleef het.					
21. Ek voel hopeloos/ sonder hoop.					
22. Ek voel skaam oor die traumatiese of pynlike dinge wat met my gebeur het.					
23. Ek spandeer baie tyd om te verstaan waarom die dinge met my gebeur het.					
24. Ek voel asof ek mal word.					
25. Ek voel asof ek die enigste een is wie die gebeure deurgemaak het.					
27. Ek voel asof ek niemand het om op staat te maak nie.					

Vrae	Glad Nie	'n Bietjie	Baie	Verskriklik Baie	*VOOR* of *NA* die tornado/ storm ?
29. Ek voel asof ek twee mense is en die een is besig om die ander een dop te hou.					
30. Ek voel asof iemand wat ek vertrou het, my verraai het.					
31. Ek is bang om skool toe te kom.					
32. Ek voel onveilig by die skool.					
33. Ek was in 'n situasie waar my lewe in gevaar was.					
34. Ek het al selfmoord probeer pleeg.					

DEEL 5.

Die volgende is nog 'n lys probleme wat mense somtyds ondervind nadat hulle pynlike of blootgestel was aan vreesaanjaende gebeure beleef het. Lees asseblief elkeen versigtig deur en besluit hoeveel van hierdie probleme jy **in die laaste week** beleef het. Merk asseblief met 'n X.

Skryf asseblief of hierdie gevoelens begin het voor *VOOR* of *NA* die Tornado/ Stormramp.

Vrae	Glad Nie	'n Bietjie	Baie	Verskriklik Baie	*VOOR* of *NA* die tornado/ Storm ramp
1. Ek doen dinge wat ander bang maak, soos om nie om te gee om seer te kry nie.					
2. Ek voel teneergedruk wanneer almal anders 'n aangename tyd het.					
3. Ek geniet myself nie soos tevore nie, omdat ek bang en ongelukkig voel.					
4. Ek is bang om na sekere plekke toe te gaan.					
5. Ek voel regtig alleen.					
6. Ek voel my ma het my nie lief nie en wil my wegstuur.					
7. Ek voel baie maal senuweeagtig.					
8. Ek word gou onsteld.					
9. Ek voel hartseer oor mense wat dood is.					
10. Ek voel hartseer omdat ek dink ek sal nie 'n gelukkige lewe nie.					
11. Ek is bekommerd dat ek NIE sal oud word nie (60 jaar oud), omdat ek geskiet of gesteek sal word.					
12. Ek voel die lewe is nie die moeite werd nie en ek wens ek was dood.					
13. Ek wil uitgaan en myself geniet maar ek is te bang.					
14. Ek voel hartseer, maar weet nie hoekom nie.					
15. Ek voel baie ongelukkig oor iets wat ek gesien het, want ek dink ek kon iets gedoen het om dit te keer.					
16. Vuurwapens herinner my aan iemand wat geskiet is.					

DEEL 6.

a) Skryf asseblief oor dir ergste/ mees traumatiese ervaring wat jy al gehad het.

(half a page of lines was provided for this item)

b) Skryf asseblief oor jou persoonlike ondervinding van die Stormramp wat Manenberg/ Gugulethu en ander gebiede getref het op die oggend van 29 Augustus 1999.

(almost half a page of lines was provided for this item)

c) Is daar iets traumaties wat jy verkies het om NIE te noem nie? As daar so iets IS, verduidelik asseblief *hoekom* jy verkies om nie daaroor te skryf nie.

(two lines were provided for this item)

d) Het jy enige hulp gekry vir enige van jou bekommernisse of slegte ondervindings?

(merk asseblief met 'n X)

	JA Ek het	NEE Ek het nie
1. Berading met 'n berader		
2. 'n Gesprek met my onderwyser/es		
3. 'n Gesprek met my priester/ Imam/ predikant		
4. Gesels met iemand in my familie		
5. Gesels met 'n ander persoon _____		
6. Ek het medisyne gekry		
7. Enige iets anders (verduidelik asseblief) _____		

e) Watter sort hulp sal jy verkies nadat jy hierdie vraelys ingevul het?

(merk asseblief met 'n X)

	JA Ek sal dit verkies	NEE Ek sal dit nie verkies nie
1. Berading met 'n berader		
2. Om met my onderwyser/es te gesels		
3. 'n Gesprek met my priester/ Imam/ predikant		
4. Om deel van 'n ondersteuningsgroep vir tieners te wees.		
5. Om met iemand in my familie te praat.		
6. 'n Gesprek met iemand anders _____		
7. Om medisyne te kry		
8. Enige iets anders nie genoem nie (verduidelik asseblief) _____		

f) Het jy ooit enige van die volgende gebruik ?

	NEE	JA	Wanneer het jy begin?	Hoe gereeld neem jy dit?
1. BIER				
2. WYN				
3. "SPIRITS" (brandewyn, rum, vodka, gin, ens.)				
4. DAGGA				
5. GOM				
6. THINNERS				
7. CRACK				
8. BUTTONS/PILLE/MANDRAX				
9. BENSIEN				
10. ECSTACY (E)				
11. LSD				
12. ENIGE IETS ANDERS?				

DANKIE VIR U TYD EN SAAMEWERKING.

VOORSPOED VIR DIE EKSAMEN !

APPENDIX FIVE

Contents: **PAGES**

APPENDIX FIVE - *English* Questionnaire

For the purposes of presenting this questionnaire in this appendix, the format and layout of the questionnaire has been condensed from 10 to 7 pages to economise space in this thesis. The original questionnaires distributed to the subjects were single-sided and 10 pages long.

ADOLESCENTS' EXPERIENCES IN MANENBERG

ENGLISH VERSION

- I am asking you to fill out this questionnaire so that I can collect information on what kinds of difficulties adolescents experience in Manenberg.
- The information will be used to assist organisations that offer special help for young people in Manenberg.
- All questionnaires are anonymous. Therefore everything you write is STRICTLY CONFIDENTIAL. Nothing you write will be available to your school.
- Please be as honest as possible in your answers. If you feel at all confused/unsure about a question, please ask for help.

Thank you for your time!

PART 1. GENERAL INFORMATION

1. Date of Birth: Age:	
2. Sex:	Male: Female:
3. School:	
4. How many brothers/ sisters do you have?	Brothers: Sisters:
5. How many people are living in your home?	
6. How many rooms are in your home? (do not count the bathroom and kitchen)	
7. How many places/homes have you ever lived in?	
8. Who is the main person that looks after you? (parent, grandparent, other)	
9. Is your mother employed?	
10. Is your father employed?	
11. What language/s do your speak at home?	

PART 2. QUESTIONNAIRE

Please mark with an X whether you have *Experienced, Witnessed* or *Heard Of* any of the following events. (Not including radio and television)

Questions	Experienced	Witnessed	Heard About	No
1. Experienced a lack of food and water.				
2. Been sick and was unable to get medical care.				
3. Have had to live without Shelter.				
4. Have been imprisoned.				
5. Have had a serious injury.				
6. I have seen people shooting one another.				
7. Have been chased by gangsters.				
8. Have seen gangsters shooting and fighting.				
9. Have been forced to *participate* in gang activities.				
10. Have been forced to *join* a gang.				
11. Have been bullied/humiliated at school.				
12. Have been verbally abused at school.				
13. At school have been beaten/hurt because of race.				
14. At school, have been harassed/ insulted because of race.				
15. At school, have been handled/spoken to in a sexual way that was uncomfortable.				
16. There has been a death in my Family with unnatural Circumstances.				
17. Have been abducted or kidnapped.				
18. Grown ups in my home hit each other.				
19. I have witnessed Taxi violence or shooting				
20. Since the Tornado/storm, I have had to live with someone else in their home.				
21. Since the Tornado/storm I have had persons affected by the storm living in my home.				

PART 3.

Please mark with an X whether you have had any of these experiences. Please show in the block whether this happened in relation a *Young Person below 18 years*, a *Stranger*, *Someone you Knew* or a *Member of your Family*.

Questions	NO	YES Someone younger than 18	YES A Stranger	YES Someone I know	YES A Family Member
1. I have been beaten by someone.					
2. Someone threatened to stab/shoot me.					
3. I have been shot or stabbed by someone.					
4. I have been sexually abused by someone.					
5. Someone has *attempted* to rape me.					
6. I have been raped by someone.					
7. I have seen someone being beaten up.					
8. I have seen the Dead Body of a person.					
9. I have seen someone attempting suicide.					
10. I have seen someone get shot/stabbed in my home.					
11. I have seen someone get shot/stabbed in Manenberg.					

PART 4.

The following are problems that people sometimes have after experiencing hurtful or terrifying events in their lives. Please read each one carefully and decide how much these problems you have experienced **in the past week.** Mark with an X .

Please also write whether these feelings started *Before* or *After* the STORM DISASTER.

Questions	**Not at all**	**A little**	**Quite a bit**	**Extremely**	*Before* or *After* the Storm Disaster ?
1. I have memories and thoughts that come over and over of the most hurtful/terrifying events.					
2. I feel as though the event is happening again.					
3. I keep having nightmares.					
4. I feel cut off or withdrawn from people.					
5. I am unable to feel emotions.					
6. I feel jumpy, and I easily get frightened.					
7. I have difficulty concentrating.					
8. I have trouble sleeping.					
9. I feel on guard.					
10. I feel irritable/have outbursts of anger.					
11. I avoid activities that remind me of the most traumatic/hurtful event.					
12. I am unable to remember parts of the most traumatic/hurtful event.					
13. I have less interest in daily activities.					
14. I feel as if I don't have a future.					
15. I try not to have thoughts or feelings that remind me of the traumatic or hurtful events.					
16. I get a sudden emotional or physical reaction when I am reminded of the most hurtful or traumatic events.					
17. I feel that people do not understand what happened to me.					
18. I find it difficult to do my work or daily tasks.					
19. I blame myself for things that have happened.					
20. I feel guilty for having survived.					
21. I feel hopeless.					
22. I feel ashamed of the hurtful or traumatic events that have happened to me.					
23. I spend time thinking about why these things happened to me.					
24. I feel as if I'm going crazy.					
25. I feel that I am the only one who suffered these experiences.					
26. I feel others are hostile toward me.					
27. I feel that I have no-one to rely on.					

Questions	**Not at all**	**A Little**	**Quite a Bit**	**Extremely**	***Before* or *After* the Storm Disaster?**
29. I feel as if I am split into two people and one of me is watching what the other is doing.					
30. I feel that someone I trusted betrayed me.					
31. I have felt scared to come to school.					
32. I have felt unsafe at school.					
33. Have been in a situation where my life was in danger.					
34. I have attempted suicide					

PART 5.

The following are ALSO problems that people sometimes have after experiencing hurtful or terrifying events in their lives. Please read each one carefully and decide how much these problems you have experienced **in the past week.** Mark with an X.

Please also write whether these feelings started *Before* or *After* the STORM DISASTER →

	Not at all	A little	Quite a bit	Extremely	*Before* or *After* the Storm Disaster
1. I do things that are scary to others, like not caring about getting hurt.					
2. I feel sad when everyone else is having a good time.					
3. I cannot enjoy myself like I used to because I'm scared and sad.					
4. I'm afraid of going to certain places.					
5. I am feeling really lonely.					
6. I feel my mother does not love me and would like to send me away.					
7. I feel nervous a lot.					
8. I get upset easily.					
9. I feel sad about people who have died.					
10. I feel sad because I think that I will not have a happy life .					
11. I am worried I will NOT live to be old (60 years old) because I may be shot or stabbed.					
12. I feel that life is not worth living and I wish I were dead.					
13. I want to go outside and enjoy myself but I feel too afraid.					
14. I am feeling very sad but do not know why.					
15. I am feeling very sad about something I've seen because I think I could have done something to stop it.					
16. Guns remind me of someone who was shot.					

Part 6.

a) **Please write about the MOST terrible/traumatic experience that you have had.**

(half a page of blank lines was provided for this item)

b) **Please write about your personal experience of the Storm Disaster that struck Manenberg/Gugulethu and other areas on Sunday morning 29th August 1999.**

(almost half a page was provided for this item)

c) **Is there something traumatic that you have chosen NOT to mention? If there IS something, please say WHY you would rather not write it.**

(two lines were provided for this item)

d) **Have you ever got help for any of your worries or bad experiences?**

(please mark with an X)

	YES I have	NO I haven't
1. Counselling with a counsellor		
2. Talking to my Teacher		
3. Talking to my Pastor or Imam		
4. Talking to someone in my family		
5. Talking to someone else _____		
6. I got Medication		
7. Something else (please explain) _____		

e) What kind of help *would you find useful* in response to what you have written in this questionnaire:

(please mark with an X)

	YES I would want	NO I do not want
1. Counselling with a counsellor		
2. To Talk to my Teacher		
3. To Talk to my Pastor or Imam		
4. To be part of a support group for adolescents		
5. To Talk to someone in my family		
6. To Talk to someone else		
7. To Get Medication		
8. Something else (please explain): _____		

f) Have you ever used any of the following?

	NO?	YES	When did you first start?	How often do you take this?
1. BEER				
2. WINE				
3. SPIRITS (vodka, gin, sherry, etc)				
4. DAGGA				
5. GLUE				
6. THINNERS				
7. CRACK				
8. MANDRAX				
9. BENZINE				
10. ECSTACY (E)				
11. LSD				
12. OTHER?				

THANK YOU FOR YOUR TIME AND COOPERATION.

GOOD LUCK FOR THE UPCOMING EXAMS!

APPENDIX SIX

Contents: **PAGES**

APPENDIX SIX – Training of research assistants.

Your tasks will include a) introducing yourselves and the task, b) managing any queries and c) ensuring that the test situation remains conducive to working (i.e. managing any questions or disruptive behaviour).

Today we will:

a) Talk about the aim of the study and the questionnaire in particular.
b) Go through the format in which I want you to administer the questionnaire in.
c) Role-play/ practise giving the instructions in both Afrikaans and English.
d) Talk about any concerns, questions you may have.

a) Introduction and Aim of study

I will talk to you about this briefly.

b) Format and Instructions for questionnaire

Below is your introduction and instructions in a "script" format. It is important you speak clearly and succinctly. Familiarize yourself well with the instructions so that you don't waffle. It is important you keep it clear and clipped.

Hello, my name is . I am from the University of Cape Town. I am helping with research to find out what kinds of difficulties and worries adolescents experience living in and around Manenberg.

The results will be collected and used to help organisations, schools, clinics to better understand and assist you with problems you may be experiencing.

It is VERY important that you read the questions very carefully and answer each question as HONESTLY as you can. Your answers are private. So do not write your name please.

There will be 5 types of questions

Type 1) *Date of birth* _____
Age _____

Here just fill in the right answer for you.

Type 2) *Was sick and was unable to get medical care:*

There are 4 choices and you must decide if you have experienced this, witnessed this or heard about this. Mark the blocks that are true for you. There could be more than one block that is true per question.

Type 3) *Someone has beaten me*

No - YES: someone younger than 18 years – YES: a stranger - YES: someone I know – YES: a member of family

If your answer is yes, then decide which YES column is true for you. You can mark more than one if that is true for you. Remember, you might have more than one YES per question so mark each one that is right.

Type 4) *I have difficulty concentrating*

Not at all – A little – Quite a bit - Extremely

Choose one that best describes how you feel.

Type 5) *Talking with my teacher*
YES I have – NO I have not

Here you must choose the one or the other

*You have **1 hour** to do the questionnaire. You must work on your own – answers are private. Please raise your hand if you need me to help. When you have finished could you bring your paper to me and then leave the classroom without disturbing others. Please remember that your answers are private, you must not write your name.*

Thank you for your time. Let's begin.

It's important that you are not experienced as controlling or tyrannical, even though you will need to maintain order, as this may evoke resistance. The kids will be trying to "suss you out". Just be yourself and be respectful. Please remember that the subject matter is difficult and painful, so these young men and women may react in a variety of ways (stopping, avoiding the task, becoming anxious, irritable).
As each one finishes take the questionnaire and replace it in the box face-down. Ask him/her to leave.

Dates:

Tuesday 12th October	Manenberg Senior Secondary
Wednesday 13th October	Phoenix Senior Secondary
Tuesday 19th October	Silverstream Senior Secondary

You will be paid after we have finished administration at the third school. Thank you for helping me out.

Nadya

APPENDIX SEVEN

Contents: **PAGES**

A.7.1. Letter to LÜNDBECK S.A.

Attention:	Elaine Milne - Product Manager
At:	Lündbeck, S.A.
Fax:	011 – 886 1081
From:	Nadya Wynchank – Intern Clinical Psychologist (UCT)
Fax:	021 – 689 1006
Date:	1 October 1999
Re:	**Request for *Lundbeck* pens for subjects in MA research**

Dear Ms Milne,

My name is Nadya Wynchank and I am currently completing my Master's Degree Clinical Psychology Internship through the University of Cape Town. I was a delegate at the recent *11th National Congress Of the South African Association for Child and Adolescent Psychiatry and Allied Professions* in Cape Town. I met with representatives our your company who were promoting Lündbeck products by providing pamphlets and stationery.

I am in the process of producing my thesis examining the prevalence of a) exposure to violence and trauma in adolescents in Manenberg and b) subsequent PTSD and Distress symptomatology. I will be administering questionnaires to a sample of ± 620 adolescents in Manenberg, on 12th , 13th and 19th October 1999. I am being supervised by Prof Leslie Swartz, Director of the Child Guidance Clinic, UCT. After several meetings with the principals of the three schools, it became clear that as a result of terrible socio-economic conditions of this community, many of these adolescents will not be in possession of their own pen or pencil to complete their questionnaires.

I was hoping you would be able to donate some of your promotional pens for this purpose. I intend to distribute a pen/pencil to ALL participants as a gesture of my gratitude for their cooperation. I would be very grateful if you could assist me in this matter.
I intend to:

a) publish the findings in a peer reviewed journal
b) present the findings to the local role players in the area (i.e. school clinics, school committees, *The Safer Schools Project*, The Minister of Education of the Western Cape)
c) certainly acknowledge any assistance on your behalf in a) and b) above.

I would be grateful for any assistance in this matter. I look forward very much to your response.

Kind Regards

Nadya Wynchank
c: win\mybrief\thesis\corresp.doc

A.7.2. Letter to Mr Brown, Manenberg Secondary school and research proposal

Mr Brown
School Principal
Manenberg Secondary School
Tugela Road
Manenberg

16 September 1999

Dear Sir,

Re: Request for permission to administer questionnaires to Standard 6 pupils

As I explained to you in our telephone conversation (16/09/99), my name is Nadya Wynchank I have been working for CCATC (Community Counseling & Training Centre) in Manenberg since May 1999 as an intern clinical psychologist studying through the University of Cape Town. Through my work here I have become so aware of the extent to which adolescents are exposed to violence & traumatic events and most recently the *Manenberg Storm Disaster*. Through working with adolescents and their families, it has become increasingly clear that adolescents are suffering from *post-traumatic stress* as a result of being exposed to chronic trauma and violence. CCATC Staff who have counseled survivors of the Storm Disaster have found a marked increase in the abuse of alcohol and illegal substances – as a method of "self-medicating".

I have assisted CCATC's Children's Program (HOP) by developing a screening system to pick up depression, anxiety and Post-Traumatic Stress and other signs of not coping. I also devised a *Trauma Symptom Checklist* (translated into both Afrikaans and Xhosa) to be used with CCATC staff and Red Cross staff who have been in constant contact with survivors of the recent Storm disaster. The purpose of this checklist was to identify those people suffering from post-traumatic stress and to refer them to the nearest counselling facility (e.g. Green Pastures Church, Silvertree Community Centre, CCATC ...)

Research has shown that *early* detection of a post-traumatic response in adolescents can prevent the development of a chronic and entrenched condition. I am wanting to evaluate the impact of the recent disaster in the *context* of severe & chronic violence and poverty in Manenberg.

My is research is in partial fulfilment of my Masters in Clinical Psychology with the University of Cape Town, Department of Psychology. The proposal has been approved by the Department of Curriculum Services (Department of Education of the Western Cape).
I understand that the Department of Education has guidelines around administering research questionnaires in schools beyond the 3rd Quarter. I understand that pupils nearing exam preparation should not be distracted from their formal timetable. However, I urge you to make an exception in this case as I have a particular focus on Post-Traumatic Stress Disorder (PTSD) in relation to the recent Manenberg Storm Disaster. It is vital that I gather the information as soon as possible so that I am able to pick up on short/mid-term acute symptoms. I would like to be able to administer the questionnaires to your standard 6 pupils in the second week of the 4th Quarter. The entire process should take between 25 – 30 minutes (1 school period). In terms of pupil attendance, concentration and attention, the best time to administer these would be in the late morning before first break.

After reading my proposal and questionnaire, please make any suggestions or recommendations that you feel necessary. If you, your staff or SRC have any interests or questions that you would like included in my research then please make these known to me.

I apologise for the rush but I trust you will appreciate the urgent nature of this request.

For any enquiries please do not hesitate to contact me on:

Ph: 434 1570 (a/h)
404 3203/ 3240 (o/h)
Email: cgcny@protem.uct.ac.za

Kind Regards

Nadya Wynchank c: win\mybrief\thesis\corresp.doc

Note: Identical letters and accompanying research proposals were sent to the other two school principals, Mr Davids and Mr Jacobs of Phoenix S.S. and Silverstream S.S.

Research Title

The prevalence and impact of exposure to chronic violence in adolescents in Manenberg

Aims of Research:

The purpose of the research is to establish:

- *Prevalence* of Exposure to Trauma & Violence in Adolescents in Manenberg
- Post Traumatic Stress Disorder symptomatology & Distress
- Adolescents' *Perceptions* and *Experiences* of violent & traumatic experiences
- Any *possible association* between symptoms and specified socio-demographic variables.

Methodology:

A. Sample:
I am wanting to study the experiences of all Grade VIII pupils attending schools in Manenberg namely a) your school Manenberg Secondary School, b) Phoenix Secondary School and c) Silverstream Secondary School. The total number should be approximately 780 pupils.

B. Instruments:
The Harvard Trauma Questionnaire has been adapted to the context of these Adolescents. It will be available in both English and Afrikaans. The Questionnaire addresses a) experiences of trauma and violence b) posttraumatic stress and distress symptoms and c) help-seeking behaviour. At the end of the questionnaire, a selection of organisations in the area that work with adolescents will be provided, with an explanation of what the organisation offers and how to make contact with them.

What Happens when the Study is Complete:

The findings will give rise to recommendations which will be submitted to the Director of CCATC in Manenberg, Chris Giles as well as the Adolescent Program Manager, Geralda Wildschutt.

I commit myself to present the findings to your teaching staff and provide input on a) detection of such symptoms, b) methods of referral and c) management in the classroom. If you desire, I could arrange this input into a workshop-format. In addition I will make the results available to other role-players in the area:

- Dr Johan Pretorius - Head of Psychological Services
- Mr Robert Keys - appointed by the Provincial Administration of the W. Cape as Disaster Manager for their Disaster Counselling Group for Traumatised Learners
- Dan Stein - The Director of the *Youth Stress Clinic* at Tygerberg
- Eugene Daniels – Director of the *Safer Schools Project*

A.7.3. Permission letter from Mr Mentz, Western Cape Education Department

Hendrik Jeremy Mentz

PROVINSIALE ADMINISTRASIE WES-KAAP
Onderwysdepartement

PROVINCIAL ADMINISTRATION WESTERN CAPE

Education Department

ULAWULO LWEPHONDO LENTSHONA KOLONI

ISebe leMfundo

Navrae
Enquiries
Imibuzo

Telefoon
Telephone
Ifoni 403-6023

Faks
Fax
Ifeksi 403-6370

Verwysing
Reference
Isalathiso 13/2/10

Dear Ms Wynchank

RESEARCH PROPOSAL: THE PREVALENCE AND IMPACT OF EXPOSURE TO TRAUMA AND VIOLENCE IN ADOLESCENTS IN MANENBERG

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

- Principals, teachers and learners are under no obligation to assist you in your investigation.
- Principals, teachers, learners and schools should not be identifiable in any way from the results of the investigation.
- You make all arrangements concerning your investigation.
- A photocopy of this letter is submitted to the principal of each school where the intended research is to be conducted.

- A brief summary of the content, findings and recommendations is provided to the Director: Curriculum Management (Research Section).
- The Department receives a copy of the completed report/dissertation/thesis addressed to:

The Director: Curriculum Management
(Research Section)
Western Cape Education Department
Private Bag 9114
CAPE TOWN 8000

We wish you success in your research.

Kind regards

Hendrik Jeremy Mentz[1]
p.p. **HEAD: EDUCATION**
DATE: Monday, 13 September 1999

[1] Signed: e-mailed correspondence

A.7.4. Email from Mr Mentz, Western Cape Education Department

```
Return-Path: hmentz@wced.wcape.gov.za
Received: by PROTEM (Mort 2.23alpha) for CGCNY id 12094
     from mail2.uct.ac.za; Tue Sep 14 14:32:34 1999
From hmentz@wced.wcape.gov.za Tue Sep 14 16:32:33 1999
Received: from wcpes.x-link.za.net ([163.195.20.11])
     by mail2.uct.ac.za with esmtp (Exim 2.01 #1)
     for cgcny@protem.uct.ac.za
     id 11QtdI-00038P-00; Tue, 14 Sep 1999 16:32:32 +0200
Received: from pawc.wcape.gov.za ([172.24.252.99])
     by wcpes.x-link.za.net (8.8.5/8.8.5) with SMTP id QAA14425
     for <cgcny@protem.uct.ac.za>; Tue, 14 Sep 1999 16:31:59
+0200 (SAT)
Received: from wcdcus01-Message_Server by pawc.wcape.gov.za
     with Novell_GroupWise; Tue, 14 Sep 1999 16:25:53 +0200
Message-Id: <s7de7711.057@pawc.wcape.gov.za>
X-Mailer: Novell GroupWise 5.2
Date: Tue, 14 Sep 1999 16:25:21 +0200
From: "Hennie Mentz" <hmentz@wced.wcape.gov.za>
To: cgcny@protem.uct.ac.za
Subject: Fwd: Re: Research proposal: Nadya Wynchank
Mime-Version: 1.0
X-PMFLAGS: 34078848
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: quoted-printable
Content-Disposition: inline


Dear Ms Wynchank

Mr Daniels, who heads up the Safer Schools Project, asks that you
adapt your questionnaire as indicated and that you keep them
abreast of developments. Many thanks.

H


===
Hendrik Jeremy Mentz
Curriculum Services, Western Cape Education Department
Tel:  +27 +21 403-6023
Fax: +27 +21 419-5967
```

A.7.5. Email from Mr Daniels, Safer Schools Programme

Date: Tue, 14 Sep 1999 16:17:33 +0200
From: "Eugene Daniels" <edaniels@pawc.wcape.gov.za>
To: hmentz@wced.wcape.gov.za
Subject: Re: Research proposal: Nadya Wynchank
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: quoted-printable
Content-Disposition: inline

Dear Hennie

I apologise for the delay.

I think the research proposal is relevant and appropriate - especially if the findings are made available to all the role players concerned - ie. schools, school clinics, area office ....

Safe Schools would be very interested in the research findings and would like to include the following questions:-

in the appropriate category of the Harvard Trauma Questionnaire:-

I have had to live with someone else in their home.

I have had persons affected by the storm living in my home.

I have been forced to partake in gang activities.

I have been forced to join a gang.

I have been bullied/humiliated at school.

I feel scared to come to school.

I feel unsafe at school.

I have been verbally abused.

Thanks
Eugene

Safer Schools Programme - WCED
Ph. 4036316
Fax. 4036370

APPENDIX EIGHT

Contents: **PAGES**

APPENDIX EIGHT – Raw data

The data that follows are all the raw results depicting the full range of the ordinal scales as they featured in the questionnaires.

A.8.1. Adapted HTQ trauma experiences

Questions	Sample	Experienced	Witnessed	Heard About	No
1. Experienced a lack of food and water.	n = 450	n=49 10.8%	n=70 15.55%	n=95 21.11%	n=236 52.44%
2. Been sick and was unable to get medical care.	n = 448	n=47 10.49%	n=78 17.41%	n=74 16.51%	n=249 55.58%
3. Have had to live without Shelter.	n = 439	n=21 4.78%	n=87 19.8%	n=61 13.89%	n=270 61.5%
4. Have been imprisoned.	n = 446	n=19 4.26%	n=66 14.79%	n=73 16.36%	n=288 64.57%
5. Have had a serious injury.	n = 440	n=121 **27.5%**	n=94 21.36%	n=49 11.13%	n=176 40%
6. I have seen people shooting one another.	n = 450	n=68 + N = 338	n=271 **75.3%**	n=51 11.3%	n=60 13.3%
7. Have been chased by gangsters.	n = 449	n=90 20.04%	n=88 19.59%	n=37 8.24%	n=234 52.11%
8. Have seen gangsters shooting and fighting.	n = 456	n=81 + N = 322	n=241 **70.6%**	n=74 16.22%	n=60 13.15%
9. Have been forced to *participate* in gang activities.	n = 446	n=23 5.15%	n=34 7.62%	n=57 12.78%	n=332 74.43%
10. Have been forced to *join* a gang.	n = 446	n=23 5.15%	n=33 7.39%	n=49 10.98%	n=341 76.45%
11. Have been bullied/humiliated at school.	n = 447	n=79 17.67%	n=85 19.01%	n=15 3.35%	n=268 59.95%
12. Have been verbally abused at school.	n = 446	n=113 **25.33%**	n=74 16.59%	n=54 12.1%	n=205 45.96%
13. At school have been beaten/hurt because of race.	n = 446	n=31 6.95%	n=51 11.43%	n=27 6.05%	n=337 75.56%
14. At school, have been harassed/insulted because of race.	n = 437	n=27 6.17%	n=42 9.61%	n=42 9.61%	n=326 74.59%
15. At school, have been handled/spoken to in a sexual way that was uncomfortable.	n = 445	n=49 11.01%	n=54 12.13%	n=66 14.83%	n=276 62.02%
16. There has been a death in my Family with unnatural circumstances.	n = 449	n=147 N = 205	n=58 **45.6%**	n=54 12.02%	n=190 42.31%
17. Have been abducted or kidnapped.	n = 440	n=22 5%	n=23 5.22%	n=47 10.68%	n=348 79.09%
18. Grown ups in my home hit each other.	n = 452	n=45 + N = 134	n=89 **29.64%**	n=23 5.08%	n=295 65.26%
19. I have witnessed Taxi violence or shooting	n = 458	n=48 10.48%	n=77 16.81%	n=74 16.15%	n=259 56.55%
20. Since the Tornado/storm, I have had to live with someone else in their home.	n = 454	n=68 14.97%	n=65 14.31%	n=86 18.94%	n=235 51.76%
21. Since the Tornado/storm I have had persons affected by the storm living in my home.	n = 452	n=72 15.92%	n=52 11.50%	n=55 12.16%	n=273 60.39%

A.8.2. Violence checklist

Questions	Sample	YES	YES Someone younger than 18	YES A Stranger	YES Someone I know	YES A Family Member
1. I have been beaten by someone.	N = 466	**54.93%**	n = 57	n = 28	n = 79	n = 114
2. Someone threatened to stab/ shoot me.	N = 455	**36.92%**	n = 42	n= 61	n = 61	n = 13
3. I have been shot or stabbed by someone.	N = 444	**20.94%**	n= 27	n = 28	n = 25	n = 19
4. I have been sexually abused by someone.	N = 449	**13.14%**	n = 19	n = 16	n= 21	n = 6
5. Someone has *attempted* to rape me.	N = 443	**14.89%**	n = 18	n = 17	n = 29	n = 6
6. I have been raped by someone.	N = 446	**10.53%**	n = 14	n = 20	n = 12	n = 3
7. I have seen someone being beaten up.	N = 454	**69.60%**	n = 60	n = 156	n = 88	n = 26
8. I have seen the dead body of a person.	N = 457	**88.62%**	n = 74	n = 71	n = 138	n = 136
9. I have seen someone attempting suicide.	N = 447	**29.3%**	n = 24	n = 45	n = 53	n = 20
10. I have seen someone get shot/stabbed in my home.	N = 441	**32.42%**	n = 16	n = 18	n = 29	n = 84
11. I have seen someone get shot/stabbed in Manenberg.	N = 453	**75.93%**	n = 62	n = 145	n = 120	n = 28

A.8.3. HTQ PTSD symptom checklist & four additional items

Questions	Yes	Not at all	A little	Quite a bit	Extremely	*Totals* and left out x
1. I have memories and thoughts that come over and over of the most hurtful/ terrifying events.	148 34.4%	282 65.5%	100 23.25 %	30 6.9%	18 4.1%	N= 430 x=14
2. I feel as though the event is happening again.	214 49%	222 50.9%	141 32.3%	47 10.7%	26 5.96%	N= 436 x=9
3. I keep having nightmares.	168 38.5%	268 61.4%	91 20.8%	47 10.7%	30 6.8%	N= 436 x=11
4. I feel cut off or withdrawn from people.	154 34.2%	296 65.7%	75 16.6%	51 11.33%	28 6.2%	N= 450 x=8
5. I am unable to feel emotions.	140 32%	297 67.9%	92 21.05 %	32 7.3%	16 3.6%	N= 437 x=22
6. I feel jumpy, and I easily get frightened.	227 51.3%	215 48.64%	112 25.3%	67 15.15%	48 10.8%	N= 442 x=16
7. I have difficulty concentrating.	234 52.7%	210 47.2%	132 29.7%	59 13.2%	43 9.6%	N= 444 x=12
8. I have trouble sleeping.	171 38.2%	276 61.7%	88 19.6%	40 8.9%	43 9.6%	N= 447 x=15
9. I feel on guard.	129 29.3%	311 69.4%	70 15.9%	40 9%	19 4.3%	N= 440 x=16
10. I feel irritable/have outbursts of anger.	95 21.%	353 78.79%	52 11.6%	26 5.8%	17 3.7%	N= 448 x=13
11. I avoid activities that remind me of the most traumatic/hurtful event.	141 31.6%	305 68.3%	84 18.8%	34 7.6%	21 4.7%	N= 446 x=16
12. I am unable to remember parts of the most traumatic/hurtful event.	161 36.8%	276 63.1%	107 24.4%	32 7.3%	22 5%	N= 437 x=20
13. I have less interest in daily activities.	190 43.2%	249 56.7%	105 23.9%	51 11.6%	34 7.7%	N= 439 x=21
14. I feel as if I don't have a future.	210 47.7%	230 52.2%	105 23.8%	48 10.9%	57 12.9%	N= 440 x=18
15. I try not to have thoughts or feelings that remind me of the traumatic or hurtful events.	158 35.4%	288 64.5%	78 17.48 %	42 9.4%	38 8.5%	N= 446 x=12
16. I get a sudden emotional or physical reaction when I am reminded of the most hurtful or traumatic events.	150 33.7%	295 66.2%	91 20.4%	24 5.3%	35 7.86%	N= 445 x=14
17. I feel that people do not understand what happened to me.	140 31.5%	304 68.46%	49 11%	37 8.3%	54 12.1%	N= 444 x=15
18. I find it difficult to do my work or daily tasks.	188 42.8%	251 57.1%	100 22.7%	53 12%	35 7.9%	N= 439 x=13

Questions	Yes	Not at all	A Little	Quite a Bit	Extremely	*Totals* and x left out
19.I blame myself for things that have happened.	200 44.8%	246 55.1%	101 22.6%	53 11.8%	46 10.3%	N= 446 x=13
20. I feel hopeless.	185 41.5%	260 58.4%	112 25.1%	38 8.5%	35 7.8%	N= 445 x=14
22. I feel ashamed of the hurtful or traumatic events that have happened to me.	158 35.9%	281 64%	83 18.9%	31 7%	44 10%	N= 439 x=15
23. I spend time thinking about why these things happened to me.	204 46.9%	231 53.1%	90 20.6%	61 14%	53 12.1%	N= 435 x=21
24. I feel as if I'm going crazy.	123 28%	315 71.9%	65 14.8%	24 5.4%	34 7.7%	N= 438 x=21
25. I feel that I am the only one who suffered these experiences.	128 29%	313 70.9%	64 14.5%	30 6.8%	34 7.7%	N= 441 x=18
26. I feel others are hostile toward me.	166 38%	270 61.9%	88 20.1%	31 7.1%	47 10.7%	N= 436 x=22
27. I feel that I have no-one to rely on.	188 44%	239 55.9%	88 20.6%	45 10.5%	55 12.8%	N= 427 x=24
28. I have found out or I have been told by other people that I have done something that I cannot remember.	159 36.6%	275 64.8%	83 19.1%	40 9.2%	36 8.2%	N= 434 x=23
29. I feel as if I am split into two people and one of me is watching what the other is doing.	128 29.3%	309 70.7%	74 16.9%	33 7.5%	21 4.8%	N= 437 x=29
30. I feel that someone I trusted betrayed me.	186 42.9%	247 57%	89 20.5%	37 8.5%	60 13.8%	N= 433 x=28
31. I have felt scared to come to school.	95 21.6%	344 78.3%	57 12.9%	14 3.18%	24 5.46%	N- 439 x= 18
32. I have felt unsafe at school.	139 31.5%	301 68.4%	82 18.63 %	28 6.3%	29 6.3%	N = 440 x= 15
33. Have been in a situation where my life was in danger.	171 39.3%	264 60.6%	81 18.62 %	43 9.8%	47 10.8%	N = 435 x= 19
34. I have attempted suicide	68 15.4%	376 84.6%	33 7.5%	15 3.4%	20 4.5%	N = 444 x= 10

A.8.4. CCDS symptom checklist

	Total Positive	No	A little	Quite a bit	Extremely
1. I do things that are scary to others, like not caring about getting hurt.	**21.6%**	349 n= 445	55 12.3%	14 3.1%	27 6%
2. I feel sad when everyone else is having a good time.	**40%**	264 n=440	108 24.54%	37 8.4%	31 7.04%
3. I cannot enjoy myself like I used to because I'm scared and sad.	**42.2%**	250 n= 433	98 22.6%	38 8.7%	47 10.85%
4. I'm afraid of going to certain places.	**57%**	188 n= 438	118 26.9%	63 14.3%	69 15.7%
5. I am feeling really lonely.	**32.6%**	289 n= 429	78 18.1%	27 6.29%	35 8.1%
6. I feel my mother does not love me and would like to send me away.	**29.6%**	311 n= 442	59 13.3%	25 5.6%	47 10.6%
7. I feel nervous a lot.	**34.3%**	288 n= 439	77 17.5%	32 7.28%	42 9.5%
8. I get upset easily.	**52.1%**	205 n= 428	102 23.8%	53 12.3%	68 15.8%
9. I feel sad about people who have died.	**80.9%**	82 n= 431	102 23.6%	95 22%	152 35.2%
10. I feel sad because I think that I will not have a happy life.	**51.2%**	210 n= 433	102 23.5%	51 11.77%	70 16.1%
11. I am worried I will NOT live to be old (60 years old) because I may be shot or stabbed.	**44.8%**	241 n= 437	79 18%	57 13%	60 13.7%
12. I feel that life is not worth living and I wish I were dead.	**31.4%**	293 n= 427	67 15.6%	31 7.25%	36 8.43%
13. I want to go outside and enjoy myself but I feel too afraid.	**48.7%**	221 n= 431	102 23.6%	44 10.2%	64 14.8%
14. I am feeling very sad but do not know why.	**45.3%**	234 n= 428	87 20.32%	45 10.5%	62 14.4%
15. I am feeling very sad about something I've seen because I think I could have done something to stop it.	**46.8%**	226 n= 425	92 21.6%	54 12.7%	53 12.4%
16. Guns remind me of someone who was shot.	**50.3%**	210 n= 423	76 17.9%	53 12.5%	84 19.8%