THE PSYCHOLOGICAL EFFECTS OF VIOLENCE ON CHILDREN:

AN EXPLORATORY STUDY OF A SAMPLE OF BLACK PRIMARY SCHOOL CHILDREN FROM THE NATAL MIDLANDS.

BARBARA LYNN MASON

Submitted in partial fulfilment of the requirements
for the degree of Master of Arts (Clinical Psychology)
in the Department of Psychology,
University of Natal, Pietermaritzburg.

1994

ABSTRACT

In this study a sample of about 300 black senior primary school children from schools in and around Pietermaritzburg were assessed. Projective drawings, a Life Events Scale and a Symptom Checklist were used to ascertain the range and extent of violence- related trauma to which the children had been exposed, the degree of reported symptoms, and the manifestation of emotional features on drawing tasks.

Results show high levels of exposure to a variety of violence-related trauma. Over three quarters of the subjects reported being directly exposed to violence and almost all of them had been indirectly exposed to violence. The findings suggest exposure to multiple and ongoing trauma. Similarly, relatively high levels of reported symptoms are also found, with over 90% of the subjects reporting symptoms of Depression and/or Post-traumatic Stress Disorder. Approximately 13% of the subjects are found to score within the clinical range for Post-traumatic Stress Disorder, and 9% for Depression.

A strong link between exposure to violence and other stressors, and reported symptoms is found. Family-related traumas are found to play a particularly important role.

The findings of this study are used to develop recommendations for further research.

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Beverley Killian, for her inspiring ideas, for her help on both a practical and an academic level, and for her enthusiasm and commitment to this work.

I would also like to extend grateful thanks to Lucky, Numusa and Derek for their help with gathering the data, to Derek Gabela for translating the questionnaires, and to Maureen Mbense and Elliot Makathini for checking the translation. Thanks also to Toni van der Merwe for doing the clinical interviews for the Pilot Study and to Joelle McDonogh for helping with the scoring of the Human Figure Drawings.

Sincere thanks to the children who participated in the study, the teachers and principals for giving up their valuable time, and to the Department of Education and Training (DET) for giving us permission to conduct this research in their schools. Thank you also to the children at the place of safety, the child-minders, and the Superintendent for their participation in the Pilot Study, and to the Natal Provincial Administration (NPA) for granting us permission to work at the place of safety.

Acknowledgement must also be extended to the Kwazulu/Natal Programme for Survivors of Violence for financial assistance and support of this research as a part of the larger intervention programme.

The financial assistance of the Centre for Science Development (CSD) is also gratefully acknowledged. Opinions expressed in this thesis are those of the author, and are not necessarily those of the CSD.

Finally, to Catharina and Shirley, who kindly agreed to proof-read this thesis, and to Greg for support and encouragement - thank you.

PREFACE

This whole thesis, unless otherwise noted in the text,
is the product of my own original work.

TABLE OF CONTENTS

APPENDICES

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE
INTRODUCTION

1.1 THE CONTEXT OF VIOLENCE

It is essential that any discourse on violence in this country be situated within the broader social, historical, and political context. However, it is clearly beyond the scope of this dissertation to comprehensively discuss the history and socio-political dynamics of South Africa. The aim of this introduction therefore, is to provide a broad overview of the context out of which this study emerges.

In 1948 the National Party came to power and the era of apartheid began. Although discrimination on the basis of race had been practised for decades, it was with apartheid and its cornerstone, the Population Registration Act of 1950, that racial separation and discrimination became enshrined in law in South Africa. Along with the classification of people into different "groups" also came the segregation of resources, with "Whites" (or people of European descent) receiving disproportionately more than people of other races, and "Blacks" (or people of African descent) receiving the least. In effect what this meant was gross disparities in access to adequate land, housing, education, health care, welfare, employment and so on.

Resistance to minority domination and protest against the oppressive legislation of apartheid by the disenfranchised black majority was met with further repression by the state. From the mid-1970's, marked by the protest by youth in Soweto against "Bantu Education", the contending forces became more sharply polarised, with the state increasing the reach of its coercive and repressive powers, and the opposition responding with a mood of greater determination than ever before (Stadler, 1987). In the 1980's this struggle escalated further "... and reached the proportions of civil war" (Chikane, 1986, p334). In July 1985 a partial State of Emergency was declared followed by a full State of

Emergency in June 1986. This served to invest the state with enormous legislative powers and was seen by most as an attempt to repress political expression within the mass democratic movements. Tens of thousands of people were detained; there were many allegations of torture and deaths at the hands of the security forces, and thousands of people were killed in ongoing political violence.

In February 1990, the government announced its intention to do away with apartheid. Gradually political prisoners were released and apartheid legislation repealed, and a process of negotiation toward a political settlement in South Africa was undertaken. During this spasmodic negotiation process violence increased further. In 1992 alone almost 3500 people were killed in political violence (Kimaryo, 1993), more people than have been killed in over 20 years of conflict in Northern Ireland (Harbison and Harbison, 1980, in Garmezy and Rutter, 1985). Following an agreement being reached on an interim constitution and in the months preceding the country's first democratic election, threats of civil war from various groups were rife. On March 31 a state of emergency was declared in KwaZulu-Natal. According to a Human Rights Committee report, 337 people were killed in the province in April 1994 (The Natal Witness, 18 May 1994). It remains to be seen whether the levels of violence will abate now that apartheid legislation is truly buried and a democratic government has been set in place.

1.2 VIOLENCE IN KWAZULU-NATAL

KwaZulu-Natal has been particularly affected by escalating violence since the mid-1980's. During the period up to 1986 the Natal region was characterised by a number of interacting stressors which finally erupted into full scale violence in 1987 (a detailed account of this process, particularly with respect to the Midlands region, is provided by Aitchison, 1993). The ensuing violence from this period through into the 90's has been described as an "unofficial war" (Kentridge, 1990). Statistics from the Unrest Monitoring Project (University of Natal) reveal that in the Natal Midlands alone, from 1987 to 1989, over 1800 people were killed in political violence; well over a thousand homes were

damaged or destroyed; around 12000 people were forced to move permanently and a further 15000 were temporarily displaced (Aitchison, 1993). In early 1990 the war reached a new crescendo, with more than 80 people being killed in a week in what has been referred to as the "Seven Days War" (see Kentridge, 1990, for a detailed account).

Aitchison (1993) discusses a number of features of the conflict in the Natal Midlands. He argues that although the conflict in the Midlands was related to the general revolt against apartheid and its structures which flared up in South Africa in the 1980's, it was further fuelled by other dynamics. He states that there was a powerful political dynamic to the conflict, particularly at its inception, and that this related primarily to Inkatha's[1] attempt to maintain (or increase) its influence in the region. Although the conflict has been primarily between Inkatha and United Democratic Front (UDF) affiliated forces, passive collusion by the police is well documented (Kentridge, 1990; Amnesty International, 1992; Aitchison, 1993 etc.). Statistics gathered by the Unrest Monitoring Project indicate that the conflict appears to have begun in Imbali, Ashdown and Mpophomeni (urban townships around the Pietermaritzburg area), and then spread outward into Edendale and the peri-urban and semi-rural areas such as Vulindlela.

Conflict has become endemic to this region. In regions such as Imbali where an "uneasy peace" was achieved, reconstruction has been hampered by the emergence of youth gangs who continue to terrorize the community (Butler and Harley, 1993).

> "Life for entire communities [in Natal] has been marked by endless killings, burnings, kidnapping, disappearances, displacements, detentions, and shootings; the list of devastations seems almost endless"
>
> (Nzimande and Thusi, 1991, p1).

Post-election, amidst allegations of election fraud, there remains uncertainty as to whether the hopes of reconciliation and reconstruction will be realised in this region.

---

[1] Inkatha was later renamed the Inkatha Freedom Party (IFP).

1.3 CHILDREN & VIOLENCE IN SOUTH AFRICA

These extreme stressors have particularly taken their toll on children[2]. This has perhaps been exacerbated because the youth[3] have been seen to be at the forefront of the struggle against apartheid, and some argue that children have been a special target of the security forces (Lawyers Committee for Human Rights, 1986). During 1986 alone, the Detainees Parents Support Committee estimated that approximately 10 000 children, some as young as ten and eleven years old, were detained (Straker, 1992). More recent figures suggest a total of 12 000 in 1992 (The Natal Witness, 4 November 1992). There have been many allegations of torture and intimidation of children, including physical tortures such as beatings and the use of electric shocks, and psychological tortures such as solitary confinement and threats of hanging or burning (The Lancet, 1988; Dowdall, 1990; Hickson, 1992). In many cases parents have not been informed of their children's whereabouts, and the child in detention has had no right to visits by his/her parents (McLachlan, 1986 in Hickson, 1992).

Children have also been caught in the perpetual crossfire of confrontations in areas where they live, play and go to school (eg. Klaasen, 1990).

> " The world of the township child is extremely violent. It is a world made up of teargas, bullets, whippings, detention, and death on the streets. It is an experience of military operations and night raids, of roadblocks and body searches. It is a world where parents and friends get carried away in the night to be interrogated. It is a world where people simply disappear, where parents are assassinated and homes are petrol bombed. Such is the environment of the township child today." (Chikane, 1986, p336).

---

[2]In this thesis the legal definition of a child as a person under the age of 18 years, is used.

[3]The term "youth" refers broadly to young people ranging in age from pre-adolescence to young adulthood. It has acquired political connotations in that the term is used in designating political structures for example, the ANC Youth League.

Troops and vigilantes have occupied many townships, and have maintained a strong presence in schools, supervising examinations, enforcing discipline and controlling access (Straker, 1992). Violence has been cited as the most common reason for disruption in schooling in Natal (Gultig and Hart, 1990; Nzimande and Thusi, 1991).

> " .... the lives of the majority of school children in the area [Greater Pietermaritzburg] have been characterised by severe disruption of their schooling and their personal lives. They have witnessed, initiated, and been involved in acts of violence on a large scale and their schooling has taken place in an atmosphere of fear, hostility, and suspicion."
>
> (Gultig and Hart, 1990, p11)

Over and above the exposure to direct violence, whether personally or as witnesses, children have also been affected by the indirect concomitants of violence. Children and their families have been dislocated and forced to leave their homes; children have often been separated from their families and have had to cope with the loss of family members and friends; schooling has been disrupted; normal play and recreation have been hindered. Political violence has also been compounded by high levels of criminal violence and domestic violence (Dawes, 1994a).

Furthermore, as argued by Gibson (1990), these stressors associated with violence have been exacerbated by structural violence, that is the violence which is perpetuated through a political philosophy and set of laws which allow for political, economic and social oppression (Burman, 1986). Black children in South Africa have grown up in a social order where they have been afforded inferior education, health and welfare services, where their parents have been unable to vote, and where discrimination is entrenched in the very fabric of the society. Apartheid has affected both the physical and emotional well-being of children[4]. For example, it is estimated that black children have an infant mortality rate of approximately 80 per 1000 while white children have an infant mortality rate of

---

[4]For a more comprehensive discussion of the structural aspects of adversity for South African children see Dawes and Donald (1994).

approximately 13 per 1000 (Straker and Moosa, 1990).

Gibson (1989) maintains that there is an urgent need for research focusing on the psychological effects of oppression and violence, and that although some researchers have taken up this challenge "there is clearly a need for sustained exploration into the possible effects of high levels of political violence on children in this country." (Gibson, 1989, p659). It is to this end that the proposed research is directed.

1.4 RATIONALE FOR THIS STUDY

As discussed above, South Africa has been fraught with civil "unrest" for close to two decades. Clearly this has had significant effects on all South Africans, but particularly those people marginalised by the repressive legislation of apartheid. It has been recognised as a matter of urgency by many people working within progressive organisations that there is a need for intervention with survivors of violence and for working toward both social and psychological reconstruction. It is from within the context of such an intervention and prevention programme currently being implemented in the KwaZulu-Natal region by the South African Health & Social Services Organisation (SAHSSO) Programme for Survivors of Violence, that this study emerged.

In order to work effectively with communities affected by violence in a way that is both accountable and appropriate, it was seen as important to ascertain what the needs of the community are, and more specifically, what the effects of this violence have been, how people have coped, and what factors have contributed to resilience and vulnerability, not only on the individual level but also collectively at the community level. The initial phase of the above mentioned programme therefore focused on research. This study was designed as one of a number of studies contributing towards this first phase of the intervention programme, and as such the data emerging from this study is being used in conjunction with the data gathered in the other studies in order to guide this programme.

Apart from this practical need, it was also recognised that there is a paucity of research investigating the effects of violence on children within an African context. As will be argued in the literature review below, contextual factors play a crucial role in the process and sequelae of traumatisation. This study therefore provided the opportunity to gain further information regarding the interaction of various variables affecting children in traumatic situations generally and situations of violence in particular.

The rationale for this study therefore was twofold. On the one hand this study stands as a useful research endeavour in its own right. There is little research on the psychological effects of violence on children in KwaZulu-Natal and the information gained through this study will provide a useful contribution to the overall body of knowledge on the effects of violence on children. On the other hand this study, together with several other similar studies, forms part of a larger intervention programme, which has arisen out of an expressed need of a community.

1.5 OVERVIEW OF THE CHAPTERS

The purpose of this first chapter has been to situate this study within the broader socio-political context of the region and to provide a rationale for carrying out the research. Chapters Two and Three provide a review of current literature and research in the area of the effects of violence on children. In Chapter Two different conceptualisations of stress and trauma are discussed. This is followed by a discussion of the classification of reactions to trauma and a critique of contemporary approaches. An overview of theoretical explanations of trauma reactions is given.

In the third chapter the focus is on research on the effects of violence on children. In the initial section of this chapter some related research on children and disasters is reviewed. This is followed by a review of research on various forms of violence, including criminal violence, war, and political violence. The chapter is concluded with a section on resilience and vulnerability factors which emerge from the research.

Chapter Four provides a detailed description of the present study. This includes the methodology used, the sample, the development of assessment instruments and the process by which the study was undertaken.

In Chapter Five the results of the study are reported. The results are reported in sections beginning with the descriptive findings regarding life events, reported symptoms and drawings, and followed by the findings relating to an exploration of the relationship between reported symptoms and various other variables.

This is followed by a chapter dealing specifically with a discussion of the results and how they relate to some of the theoretical issues raised in Chapter Two, and to other research reported in Chapter Three. In the final chapter a summary of the results is given, followed by recommendations for further research. This chapter is concluded with a discussion of the study itself.

CHAPTER TWO
THEORETICAL ISSUES

2.1 THE CONCEPTS OF STRESS & TRAUMA

In the research on the effects of various disasters (of natural and human origin) on children and on adults the terms "trauma" and "stress" are both used. However neither word is clearly defined, and both are subject to a variety of different usages.

2.1.1 STRESS

The word "stress" is widely used and understood within a general context, however more precise definitions remain problematic (Cox, 1978). This is largely a result of the use of the term in a number of different contexts. The *Penguin Dictionary of Psychology* provides the following definition:

> "**Stress** - 1. Any force that when applied to a system causes some significant modification of its form ... stress in this sense refers to a *cause*; 2. A state of psychological tension produced by the kinds of forces alluded to above ... stress in this sense is an *effect*."
>
> (Reber, 1985, Penguin Dictionary of Psychology).

This definition suggests that stress may either be a stimulus or event which causes a reaction, or it may be the reaction experienced in response to some event or *stressor*. More recent theories of stress (Cox, 1978) focus on the *interaction* between the person and his/her environment. The interactional conception of stress is based on (i) the recognition that the environment is not an objective set of events but rather a subjective experience mediated by a subjective process of appraisal; and (ii) a move towards the perception of stress as a process within a dynamic person-environment relationship

(Gibson, 1987). This conception of stress is considered to be useful in that it allows for individual differences in vulnerability, coping skills and the experience of stress.

2.1.2 TRAUMA

The *Penguin Dictionary of Psychology* defines the word "trauma" as follows:

> "**Trauma** - From the Greek word for "wound", a term used freely for either physical injury caused by some direct force or for psychological injury caused by some extreme emotional assault."
>
> (Reber, 1985, Penguin Dictionary of Psychology).

The term "trauma", as used in psychology, has historical roots in psychoanalytic theory. There has been a growing concern within various sectors of the psychoanalytic community that the term has been used too widely and that its meaning has become blurred (eg. Yorke, 1986; Furman, 1986).

Yorke (1986) attempts to clarify this by distinguishing different uses of the term within psychoanalytic theory. The use which is most relevant to the topic of this thesis is "trauma" as in the context of *traumatic neurosis*. Traumatic neurosis arises when the ego is confronted by a traumatizing event of an external kind, for which it is totally unprepared. Yorke gives the example of a car accident. This results in the stimulus barrier being broken down and the ego being overwhelmed to the extent of being "knocked out" and temporarily unable to function. This lasts for a short but variable period and is seen in what is often termed a "state of shock". The subsequent picture is characterised by symptoms related to the re-experiencing of the trauma and the gradual release of excess excitation. (A more detailed account of this process is given below in a section focusing on theoretical formulations of trauma reactions). The term "trauma" used in this sense refers to an event of an external kind which overwhelms ego functioning due to the sheer nature and quantity of the stimuli, and/or the lack of preparedness of the system, and/or by the system's inadequacy in coping with such stimuli (Furman, 1986). As such, it is not the external event *per se* that is traumatic, but rather trauma is the name for a quality of

a relational act between subject and object (Burgin, 1993). It is the specific relationship between the organism and his (*sic*) inner or outer milieu which decides if the stimulus barrier is maintained or not (Fischer, 1986, in Burgin, 1993).

From the above outline of current understandings of stress and trauma, it seems that both may be conceptualized as a subjective experience rooted in an interaction between person and environment. However, unlike stress, trauma implies some form of psychic disruption and discontinuity in the face of catastrophic threat (Becker, 1992). The term "trauma" would therefore seem more appropriate to the extreme stressors under discussion when considering civil conflict and violence. However, as will be discussed in a later chapter, associated experiences of stress interact intimately with the trauma process. Furthermore, as argued by Becker (1992), trauma may be the product of several experiences which "accumulate". He therefore suggests a focus on the "traumatic situation" rather than simply on "trauma".

2.2 PSYCHIATRIC CLASSIFICATION OF REACTIONS TO TRAUMA

Recognition of the possibility of psychological consequences resulting from extreme stressors has important socio-political implications, particularly since many "extreme stressors" are intentionally designed by human beings. For centuries, and across many cultures, war has been seen as a rite of passage from boyhood to manhood (Mazali, 1993). It is only relatively recently that the view of war as having detrimental effects, not only on the direct participants but also on civilians, has begun to gain recognition. Furthermore, interest in reactions to trauma has generally followed major wars, and has been stimulated when men are hurt (Peterson, Prout and Schwarz, 1991). It is only very recently that there has been some interest in rape survivors, child survivors of violence, and the effects of family violence. Peterson *et al* (1991) raise a number of questions as to the role of cultural and political influences in the apparent resistance to the concept of psychological problems coming from physical trauma, and the denial that some traumas even occur. They cite

Freud's abandonment of the seduction theory as one of the most glaring examples of this phenomenon.

Garmezy and Rutter (1985), in their review of the historic antecedents to the recognition of reactions to severe stress, the stress disorders[1], note that as early as 1801 Pinel recognised that "unexpected reverses or adverse circumstances produce intense shocks and may lead to manifest anxiety". Despite the historical recognition of reactions to extreme stress and the concomitant attempts to explain these reactions, it is only relatively recently that such reactions have been officially recognised in psychiatric classification systems as an official category.

In the Ninth Revision of the International Classification of Diseases: Mental Disorders (ICD-9, World Health Organisation, 1978) the category *Acute Reaction to Stress* is included. This category comprises "transient disorders of any severity and nature which occur in individuals without any apparent mental disorder in response to exceptional physical or mental stress, such as natural catastrophe or battle, and which usually subsides within a few hours or days." (WHO, 1978, in Garmezy and Rutter, 1985). A separate category, *Adjustment Reaction*, emphasizes a stressful event that evokes emotional disturbance or disturbance of conduct of a less transient nature (ibid).

Post-traumatic Stress Disorder (PTSD) was officially recognized in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III, APA, 1980) and with some changes in the revised edition of 1987 (DSM-IIIR). PTSD will be discussed in more detail below, as the DSM diagnosis is more frequently used in the recent literature on the effects of severe stress and trauma.

---

[1]The term "disorder" is considered to be problematic and inappropriate particularly when used in the context of a reaction to trauma. However it is used in this section for the sake of congruency with the terms used in the psychiatric classification systems.

2.3 POST -TRAUMATIC STRESS DISORDER

The DSM classification is designed as a descriptive nosology based on empirical observation and is therefore not seen as tied to a specific theoretical framework. It has been hailed by some as particularly important because it allows for the description of reactions to trauma separate from a theoretical formulation of underlying mechanisms, unlike the term "traumatic neurosis" used previously, which has clear ties to a psychodynamic conceptualisation of trauma reactions (Jones and Barlow, 1990). This claim is disputed though, by those who argue that the very aim of classifying difficulties such as reactions to trauma in a manual of disorders, presupposes a particular paradigm and conceptualisation of psychological phenomena within a medical model framework (Becker, 1992).

2.3.1 DIAGNOSTIC CRITERIA

As classified in the DSM III-R, Post-traumatic Stress Disorder comprises a set of symptoms that emerge following exposure to an extremely stressful event which would be markedly distressing to almost anyone, and is usually experienced with intense fear, terror, and helplessness. The characteristic symptoms include (i) reexperiencing the traumatic event, (ii) avoidance of stimuli reminiscent of the trauma or emotional numbing, and (iii) increased arousal (APA, 1987).

The DSM-IIIR criteria are outlined in detail below:

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

Continued overleaf .....

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

1. recurrent and intrusive distressing recollections of the event (in young children repetitive play in which aspects of the trauma are expressed);
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 waking or when intoxicated);
4. intense psychological distress at exposure to events that symbolize or resemble an aspect of the traumatic event, including anniversaries of 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. deliberate attempts to avoid thoughts or feelings associated with the trauma;
2. deliberate attempts to avoid activities or situations that arouse recollections of the trauma;
3. inability to recall an important aspect of the trauma (psychogenic amnesia);
4. markedly diminished interest in significant activities (in young children, loss of recently acquired developmental skills eg. language skills);
5. feelings of detachment or estrangement from others;
6. restricted range of affect, eg. unable to have loving feelings;
7. sense of foreshortened future, eg. child does not expect to have a career, 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 at exposure to events that symbolize or resemble an aspect of the traumatic event.

E. Duration of disturbance of at least one month. Specify delayed onset if the onset of symptoms was at least six months after the trauma.

(DSM-IIIR, APA, 1987)

2.3.2 ASSOCIATED FEATURES

Usually the clinical picture presented by people with PTSD is not restricted to the symptoms outlined in the diagnostic criteria above. Peterson *et al* (1991) discuss some of the associated features. These include:

(i) Depression - symptoms of depression such as feelings of hopelessness, recurrent depressive feelings etc. frequently co-exist with symptoms of PTSD; high rates of suicide have also been noted in some studies of people with PTSD;

(ii) Anxiety - symptoms of anxiety, particularly the physiological symptoms are also common in people with PTSD;

(iii) Death Anxiety - defined by Lifton (1979, ibid) as "the radical intrusion of an image-feeling of threat or end to life" is cited as a "cardinal feature of survivors of massive traumatisation";

(iv) Impulsive Behaviours - impulsive behaviours, such as sudden trips, unexplained absences, or changes to lifestyle or residence (APA, 1987) may occur;

(v) Substance Abuse - alcohol is reported to be used initially as a form of self medication to lessen symptoms of PTSD but a habituation effect results in larger doses being required and ultimately in alcohol dependence and sometimes an exacerbation of symptoms;

(vi) Somatisation - symptoms such as headaches, nausea, muscle pains, lower back pain, dizziness etc. have also been noted;

(vii) Alterations in time sense - in addition to the sense of foreshortened future, other alterations in time sense, such as misperceptions in time duration, confusion of sequencing, sense of prediction, omen formation and time skew, have been noted by Terr (1983, ibid);

(viii) Changes in Ego-functioning - Lindy and Titchener (1983, ibid) are cited regarding noted changes in ego-functioning such as over-control, regression, rigidity, etc.

Other secondary symptoms of PTSD may also be present, for example, difficulties in interpersonal functioning, disrupted self-image, and feelings of being betrayed (Peterson *et al*, 1991). The DSM-IIIR also notes guilt as an associated feature.

McNally (1992) cites research demonstrating the high rates of co-morbidity between PTSD and depression, alcohol abuse, and other anxiety disorders. He notes that this co-morbidity pattern resembles that found with other anxiety disorders and suggests that this is evidence that PTSD is correctly classified as an anxiety disorder. However he does comment that further research is needed in order to ascertain whether symptomatic overlap between PTSD and disorders such as Depression, produces the high co-morbidity rates, or whether the co-occurrence of PTSD and Depression reflects the genuine co-morbidity of two discrete entities.

2.3.3 THE DIAGNOSTIC VALIDITY OF PTSD

Keane, Wolfe and Taylor (1987) review the evidence for the validity of the PTSD diagnosis. They base their review on the method for validating a diagnostic category in psychopathology which was described by Robins and Guze (1970, ibid). Firstly, they highlight evidence accumulated through clinical description which shows a fairly characteristic set of symptoms amongst survivors of trauma. Secondly, they focus on laboratory studies. A number of studies of psychophysiological reactivity of veterans, diagnosed with PTSD, to combat-related stimuli consistently differentiate these subject from other appropriate comparison subjects (such as combat veterans without PTSD, subjects with other diagnoses etc.). They also cite evidence from psychometric studies which suggests discrimination between combatants with PTSD, those without, and those with other diagnoses. Third, they focus on the differentiation between PTSD and other psychiatric diagnoses; however they note a paucity of research in this area.

A more recent review by McNally (1992) provides more detail in this area. He reviews studies investigating the boundaries between PTSD and Depression, Panic Disorder and Simple Phobia.

He notes that a number of symptoms overlap between Depression and PTSD, including social withdrawal, anhedonia, sleep disturbance, concentration difficulties, irritability, dysphoria, and guilt. Where they differ is on the symptoms relating to exaggerated startle response and re-experiencing symptoms. McNally (1992) also cites studies showing

differences in sleep disturbance and also neuroendocrine differences.

Regarding Panic Disorder, he states that both categories are characterised by chronic anxiety, sudden episodes of arousal, fear of arousal symptoms, and frequent avoidance behaviours. Similarities are also seen in sleep disturbance and in neuroendocrine functioning and responses. Where these categories do differ is on the cognitive content associated with the episodic arousal (panic attacks vs flashbacks). People diagnosed as having a Panic Disorder also do not report re-experiencing phenomena, nor do they report psychic numbing.

With Simple Phobia and PTSD he notes that both categories are characterized by fear and avoidance of specific stimuli. However in the case of Simple Phobia fears are much more circumscribed and none of the other PTSD related symptoms (such as psychic numbing, flashbacks etc.) are present.

McNally (1992, p232) concludes that "since the formal recognition of PTSD as a discrete anxiety disorder in DSM-III, evidence has accumulated in support of its validity", and also that "studies[2] indicate that PTSD constitutes a coherent syndrome that can be diagnosed with satisfactory reliability".

2.3.4 SUBTYPES AND COURSE OF THE DISORDER

According to the DSM-IIIR classification of PTSD, a number of subtypes can be distinguished. If symptoms begin soon after the trauma and do not last for more than 6 months the diagnosis of "PTSD, Acute" is made. "PTSD, chronic" is indicated when the duration of symptoms has exceeded 6 months, and "PTSD, delayed" when symptoms only emerge after a latency period of 6 months or more. McNally (1992) cites various research suggesting that following exposure to a traumatic event, most people temporarily experience at least some symptoms. Of those who develop full-blown PTSD, most meet

---

[2] These studies are discussed in detail by McNally (see page 232) and include the work of Davidson *et al* (1989), Keane (1989), and Spitzer *et al*, (1987).

criteria immediately following exposure to trauma. He refers to Blank (1989, ibid) in stating that the majority of people recover, whereas others go on to develop chronic PTSD.

The course of PTSD has tended to be described with respect to specific sub-populations of people exposed to specific types of traumatic events (Peterson *et al*, 1991). Although there are clearly variations in course depending on the nature and extent of the traumatic event, some general features have been noted. Peterson *et al* (1991) discuss the broad clinical course of PTSD. They present a model adapted from the work of Harowitz (1974, 1976; ibid) who describes five general phases of PTSD, and Epstein (1989, ibid) who suggests characteristics of adaptive and maladaptive resolution of reactions to trauma. While they note that the model presented is theoretical and descriptive, and is more heuristic than empirical, they argue that it provides useful guidelines for conceptualising the process through which a person may pass following exposure to a traumatic experience. The phases are:

* Phase 1 - Outcry - The immediate response to the traumatic event (eg. panic, dissociative reactions, reactive psychoses, stunned uncomprehending daze).
* Phase 2 - Denial - A period of denial and numbing, including avoidances (eg. withdrawal, substance use, fugue states).
* Phase 3 - Oscillation between denial/numbing and intrusive thoughts, feelings, images, and memories.
* Phase 4 - Working through - Intrusions become less intense and more manageable, denial lifts.
* Phase 5 - Adaptive resolution - varied and flexible coping strategies with greater existential awareness.

(from Harowitz, 1974,1986, in Peterson *et al*, 1991)

OR

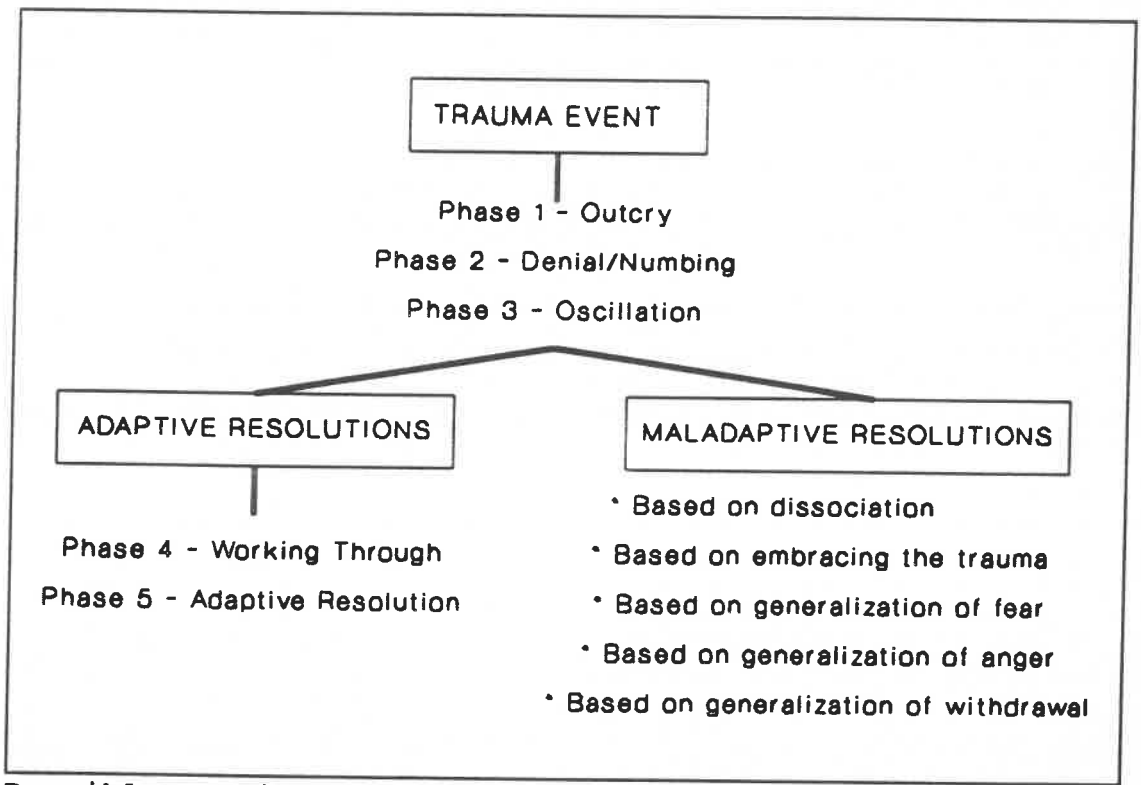
* Maladaptive Resolution

- based on dissociation (primary symptoms are constricted affect and behaviour);
- based on generalisation of the fear response (primary symptoms are chronic

anxiety, hyperalertness and sensitivity to trauma-related cues, and psychosomatic symptoms);

- based on generalisation of the anger response (primary symptoms are paranoia and antisocial acting out);
- based on generalisation of the withdrawal response (primary symptoms are withdrawal, alienation and incapacity for intimacy);
- based on embracing the trauma (primary symptoms are unreasonable risk taking, lack of commitment and direction, inability to establish intimate relationships, antiphobic behaviours).

(from Epstein, 1990 in Peterson *et al*, 1991)



Possible Trajectories in the Course of Post-traumatic Stress Disorder (*Peterson et al, 1991, p48*).

2.3.5 PTSD IN CHILDREN

In the DSM III-R classification system there is no separate category for reactions to severe stress in children; however children may be diagnosed in terms of the adult

category of PTSD. Since this "disorder" was first recognised as an official diagnostic category, a number of studies on the effects of extreme stress and trauma on children have noted high percentages of children showing evidence of symptoms which fulfil the criteria for diagnosis of PTSD (eg Arroyo and Eth, 1985; Kinzie *et al*, 1986; Frederick, 1985, in Peterson *et al*, 1991; Malmquist, 1986, ibid). As with the adult presentation, PTSD in children may coexist with other disorders such as Anxiety Disorders and Depression (Burgin, 1993) and may vary in severity and persistence of impairment.

Empirical studies and clinical observation do suggest some differences in the presentation of PTSD in children as compared to that in adults (eg. Terr, 1979, 1983, 1985, in Peterson *et al*; Pynoos and Nader, 1990; Dodge and Raundalen, 1991).

* Children seldom become amnesic for the event and do not make use of denial of reality;
* Children rarely experience adult-like flashbacks, but they describe disturbing intrusion of images and sounds;
* Reenactment of the trauma in post traumatic play activities is common, as are dreams depicting the trauma;
* Children often demonstrate a striking foreshortening of their sense of future, and often evidence time skew, that is distortions in perceptions of time around the incident as well as a tendency to confuse the order of events as to whether they occurred before or after the trauma;
* They are less likely to describe the experience of psychic "numbing" but rather seem to evidence reduced interest in activities;
* Children sometimes report seeing ghosts of friends or family members who died as a result of a traumatic event.

2.3.6 CRITIQUE OF THE CONCEPT OF PTSD

Post-traumatic Stress Disorder is a diagnostic category in a psychiatric classification system, and as such is intended as a description of characteristic reactions to extreme stressors. However although many would claim that it is value free and independent of

theoretical conceptualisations of trauma (eg. Jones and Barlow, 1990), others argue that PTSD is a concept that shapes the way we understand trauma, the way it is treated, and the way people experience trauma and deal with their problems (Becker, 1992). Becker (1992) provides a useful critique of the PTSD concept with particular reference to victims of human rights violations (such as political violence, detention, torture, gender-related violence etc.).

His first criticism is of the use of the word "post". This implies that the traumatic event was discrete and time-limited. He notes that for many people experiencing trauma, the trauma is ongoing and accumulative. This point is also made by Straker (1987) who notes people living in South Africa's black townships are subjected to *continuous* traumatic stress.

Becker's (1992) second criticism is of the term "disorder". He notes a number of different problems:

(i) He argues that "those who exercise the terrors of man-made (sic) disasters" justify their actions by arguing that the victims are "disordered". For example, persecution of the Jews has been justified by the argument that Jews were a threat - a cancer - in the society and therefore had to be eliminated. This blaming of the victim is also noted on an individual level, for example, the covert question in the response of the legal system to rape is often one which places responsibility for the crime on the survivor rather than on the perpetrator. By using the term "disorder" in reference to the experiences of people subjected to traumatic situations, clinical language mirrors the self-justifying attitude of victimizers, and repeats the denial initiated by the victimizers thereby deepening the trauma (Becker, 1992).

(ii) He notes the point made by Eissler (1963, ibid) that it is more appropriate to consider a person who does **not** develop symptomatology after extreme traumatisation in some way "disordered" than one who does.

(iii) The third point noted by Becker (1992) regarding the inappropriateness of the term

"disorder", comes from his experience of working with survivors of such traumas. He states, " ... to these persons it makes an enormous difference that we consider them less individually disturbed, and more as persons suffering the consequences of a disturbed society" (p6).

(iv) Finally, he raises the issue of symptomatology. He maintains that the term "disorder" implies a clearly identifiable set of symptoms which follow a particular course and can be treated in a particular way. It implies a conceptualisation of a person's reactions to trauma within a medical framework. Becker (1992) claims that although it is possible to identify a set of typical problems of the survivor, these do not fit the PTSD diagnosis and tend to be closely tied to the social process.

Becker's (1992) third critique is of the term "traumatic stress". He argues that this use is contradictory because trauma and stress are qualitatively different. He cites Benyakar, Kutz, Dasberg and Stern (1989, ibid) in his elucidation of this difference, saying that with stress the process entails stressogenic threat and reorganizing response where the structure of the person experiencing the stress process remains intact, whereas with a traumatic experience the process could be described as catastrophic threat and chaotic response, implying the occurrence of structural breakdown.

An additional issue which is briefly alluded to by Becker (1992), is that of the exclusively individual focus adopted by the psychiatric nosology, and indeed by most traditional clinical and theoretical approaches to stress and trauma. The diagnostic category of Post-traumatic Stress Disorder focuses exclusively on symptoms seated within the individual. Although provision is made on Axis IV (DSM-IIIR, APA, 1987) for the severity of stressor to be taken into account, the context within which a person may develop symptoms is not considered. The effects of the extreme stress on interactions *between* people and within whole communities are also not included. Furthermore the focus on the concept of Post-traumatic Stress Disorder has promoted an assumption that if symptoms of PTSD are not present then the person is not seriously affected.

Becker (1992) proposes that the concept of "extreme traumatization" be adopted as an

alternative to the psychiatric classification of Post-traumatic Stress Disorder. Extreme traumatization involves an individual and a collective process that occurs in reference to, and in dependency of, a given social context.

> [Extreme traumatization] ... is a process because of its intensity, duration in time, and the interdependency between social and psychological process. It exceeds the capacity of the psychic structure of the individual and of the society to answer adequately to this process. Its aim is the destruction of the individual, his (sic) sense of belonging to the society, his (sic) social activities. Extreme traumatization is characterised by a structure of power within the society that is based on the elimination of some members of this society by others of the same society. The process of extreme traumatization is not limited in time and develops sequentially.
>
> (Becker, 1992, p10).

Using this concept, the aim is to transcend the individual level without denying it. Instead of classifying a person on the basis of the presence or absence of characteristic symptoms, traumatic experiences and sequences become the basic way of understanding people, while symptomatic diagnosis is used only to describe specific difficulties.

2.4 THEORETICAL CONCEPTUALISATIONS OF REACTIONS TO TRAUMATIC SITUATIONS

Notwithstanding the criticism levelled at the psychiatric classification of reactions to traumatic situations, evidence accumulated from clinical observations and empirical studies suggests that people may develop a fairly characteristic set of symptoms or reactions following exposure to a traumatic situation, such as a natural disaster, war, torture and the like. The details of some of these studies will be discussed in a later chapter. A number of different theoretical formulations have been developed in order to explain these reactions to trauma. Some of these models are rooted firmly in the medical

model approach which underlies the psychiatric classification discussed above, while others heed some of the above criticisms in their understanding of the trauma process and the context within which it occurs.

2.4.1 BIOLOGICAL THEORIES

Theories falling under this broad category attempt to explain people's reactions to trauma in terms of biologically-based mechanisms such as neurochemical and neuroanatomical processes and changes. The most well documented of these theories is a biochemical model associated with the work of van der Kolk (eg. van der Kolk, Boyd, Krystal, and Greenburg, 1984, in Jones and Barlow, 1990; van der Kolk, 1985, in Fairbank and Nicholson, 1987; Saporta and van der Kolk, 1992).

Biochemical Model

Studies reviewed by Anisman (1978, cited in Fairbank and Nicholson, 1987) on neurochemical changes induced by stress, show that neurotransmitter activity varies as a function of (i) frequency, intensity, and duration of the stressor; and (ii) the subject's level of control over stress onset or termination.

Van der Kolk, Boyd, Krystal, and Greenburg (1984, in Jones and Barlow, 1990; and in Peterson *et al*, 1991) proposed that human reactions to severe stress parallel the behavioural and biochemical reactions that occur in animals exposed to severe inescapable shock. More recently Saporta and van der Kolk (1992) have developed the theory further by incorporating evidence from studies of neurochemical changes in animals under conditions of forced isolation and of separation. In all three of these situations catecholamine depletion has been recorded together with impairment in arousal regulation and hyper-reactivity to future stress (Saporta and van der Kolk, 1992).

The original biochemical model suggests that significant norepinephrine (NE) depletion results from exposure to severe stress, and that this is observed behaviourally in decreased motivation and decline in functioning analogous to the "learned helplessness syndrome" (Maier and Seligman, 1967, cited in Peterson *et al*, 1991) commonly observed in animals

subjected to inescapable shock. This would explain the depressive symptoms observed in trauma survivors. Alongside this direct behavioural correlate of NE depletion, NE depletion may also lead to adrenergic hypersensitivity (Fairbank and Nicholson, 1987). This manifests behaviourally in such symptoms as a heightened startle response, anxiety, increased arousal, impulsivity and aggressive behaviour.

Van der Kolk *et al* (1984, in Jones and Barlow, 1990; 1985, in Fairbank and Nicholson, 1987; and 1992) also propose that stress-induced analgesia occurs, mediated by endogenous opioids. Again this hypothesis is based on observations of the behaviour and neurochemical changes seen in animals exposed to inescapable shock. They contend that "addiction" to the endogenous opioids, and the resultant experience of analgesia (often referred to as "numbing"), occurs. This results in a pattern of oscillation between the active seeking of situations reminiscent of the trauma, which stimulate opioid production, which in turn leads to sensations of control and the characteristic analgesic effect (van der Kolk, 1984, in Jones and Barlow, 1990), followed by the adrenergic hyperactivity, seen in increased anxiety, associated with the subsequent opioid withdrawal (Fairbank and Nicholson, 1987).

While they recognise the importance of the role of biochemical variables in the process of stress reactions in general, Jones and Barlow (1990) state that information regarding the precise mechanisms of action and influence on behaviour is lacking. Saporta and van der Kolk (1992) also acknowledge the importance of psychological factors and suggest close links between neurochemical factors and behavioural correlates.

Psychophysiologic Model

Other biological theories of reactions to trauma have also been proposed. Peterson *et al* (1991) describe a psychophysiologic model proposed by De la Pena (1984, in Peterson *et al*, 1991). De la Pena argues that parasympathetic - dominant individuals, ie. individuals characterised by a relatively lower level of central nervous system (CNS) arousal, are at higher risk of developing symptoms following exposure to severe stress than others. He suggests that such individuals ordinarily experience lower rates of information processing in the CNS when exposed to a normal level of sensory stimuli than sympathetically

dominant individuals. In situations of severe stress (he bases his theory on the example of combat), the level of sensory stimulation greatly increases. For the individual typically characterised by under arousal of the CNS and low levels of information flow, this increase is experienced as optimal. However when the level of stimulation returns to normal levels (that is after the person is no longer in the situation of extreme stress) the person experiences a rebound effect. CNS information flow drops to very low levels resulting in a situation similar to severe boredom and depression. In an attempt to augment the information flow to reach the optimum level experienced in the sensory rich environment of extreme stress, the brain increases its information flow manifesting in symptoms such as hypervigilance and arousal, and memories and dreams of the trauma.

Structural Model

Another biologically oriented model, developed by Kolb (1987, in Jones and Barlow, 1990) is discussed by Jones and Barlow. Where van der Kolk (1985, in Fairbank and Nicholson, 1987) postulates that exposure to trauma results in changes in neurochemical levels, Kolb (ibid) posits that exposure to traumatic events causes the development, alteration and/or death of neuronal pathways (Jones and Barlow, 1990). He maintains that trauma may cause synaptic changes which enhance a person's capacity to attend to stimuli. This results in hypersensitivity to stimuli and easily evoked arousal. Further, if the exposure to trauma continues, various lower brainstem structures activated by norepinephrine escape cortical control resulting in the repeated reactivation of the perceptual, cognitive, affective, and somatic clinical expressions relating to the original trauma (Jones and Barlow, 1990). While they acknowledge that this model is provocative and draws on literature about changes evidenced in acoustic systems after intense auditory stimulation, as well as on literature demonstrating the link between learning and basic synaptic functioning, Jones and Barlow (1990) go on to comment that research supporting Kolb's (ibid) claims is still lacking. They also note that in its current formulation, Kolb's theory does not adequately account for individual differences in reactions to exposure to traumatic events.

Although there is much accumulated evidence suggesting biological changes associated with exposure to situations of severe stress - in particular the various animal studies

underpinning van der Kolk's model (1985, in Fairbank and Nicholson, 1987) - the question remains as to whether these changes are primary and the behavioural correlates secondary.

2.4.2 BEHAVIOURAL MODEL

From the perspective of the Behavioural school of thought, post-trauma reactions, like most other behaviours, are explained in accordance with the principles of learning theory.

Two-factor learning theory model

Keane, Zimering, and Caddell (1985, in Peterson *et al*, 1991) provide a behavioural formulation of reactions to severe stress. They base their formulation on a two-factor learning theory originally developed by Mowrer (1947; 1960; in Peterson *et al*, 1991), which explains the development of psychopathology in terms of classical conditioning and instrumental learning.

The basic thesis of this model is that human reactions to severe stress parallel the development of classically conditioned fear responses in animals (Fairbank and Nicholson, 1987). In accordance with the principles of classical conditioning, a traumatic event acts as an unconditioned stimulus (UCS) which automatically elicits high levels of autonomic distress (unconditioned response). This response then becomes conditioned to a number of other stimuli, both external (eg. aspects of the physical environment) and internal (eg. physiological and cognitive state), that accompanied the occurrence of the traumatic UCS. Future exposures to these conditioned stimuli may then elicit psychological and physiological distress similar to that resulting from the original traumatic event (Fairbank and Nicholson, 1987).

The second main component of this model is based on the principles of instrumental or operant conditioning. According to these principles, behaviour that leads to the reduction of an aversive stimulus is likely to occur again. This process of "negative reinforcement" thus mediates avoidance behaviours, such as actual physical avoidance of conditioned stimuli, as well as psychological avoidance of cognitions associated with the traumatic event. Behavioural reactions such as drug and alcohol abuse are similarly seen as

behavioural patterns which are functionally reinforced by their capacity to reduce aversive responses (Keane *et al*, 1985, in Peterson *et al*, 1991).

In addition, stimulus generalisation and higher-order conditioning are also hypothesised to play a role in the symptom patterns observed in trauma reactions (Fairbank and Nicholson, 1987; Jones and Barlow, 1990; Peterson *et al*, 1991). Through the process of stimulus generalisation stimuli that are similar to a conditioned stimulus can also elicit an aversive response. Higher-order conditioning may result in a stimulus that is conditioned to elicit fear itself becoming fearful, and thus acting as an unconditioned stimulus, resulting in the conditioning of other stimuli to elicit fear.

Jones and Barlow (1990) maintain that one would expect that, with repeated exposure to the feared stimuli in the absence of aversive consequences, extinction of the anxiety response should occur. Clearly this does not happen readily in many people exposed to traumatic events. They cite the explanation provided by Keane *et al* (1985, in Peterson *et al*, 1991) who assert that complete exposure to all components of the memory, while in a physiological and/or cognitive state resembling that which accompanied the trauma, is necessary in order for extinction to occur. This does not readily occur as the memories which are associated with anxiety and negative affect are usually avoided. Furthermore, this may be reinforced by familial and/or cultural expectations not to discuss traumatic events (Peterson *et al*, 1991).

Jones and Barlow (1990) provide a critique of the learning theory model proposed by Keane *et al* (1985, ibid). They argue that although this model provides an important contribution to our understanding of the development of reactions following exposure to trauma, it fails to explain the mechanisms through which a number of the factors shown to affect individual vulnerability to developing symptoms operate.

2.4.3 COGNITIVE THEORIES

A number of theorists emphasise the importance of cognitions and cognitive structures in the development and maintenance of reactions to trauma.

Cognitive Appraisal Models

Peterson *et al* (1991) provide an overview of the cognitive appraisal model of trauma reactions espoused by Janoff-Bulman (1985, ibid) and Epstein (1990, ibid). Both of these authors focus on the constructs that people have about the world and themselves. Janoff-Bulman identifies three basic assumptions that most people share. They are (i) the belief in personal invulnerability; (ii) the perception of the world as meaningful and comprehensible; and (iii) the view of the self in a positive light. Epstein outlines "three fundamental beliefs in a personal theory of reality" which are closely related to the assumptions described by Janoff-Bulman (in Peterson *et al*, 1991).

According to the Cognitive Appraisal Model, an individual's personal theory of reality changes and grows in response to life experiences through the interaction of assimilation and accommodation. However, in the case of severe trauma the victim may be unable to assimilate the experience into the existing personal beliefs about the world and self, and accommodation is impossible as it would necessitate the complete abandonment of existing schemata. The emergence of symptoms following a traumatic experience is explained in terms of "the invalidation of the personal theory of reality at a deep experiential level" (Epstein, 1990, in Peterson *et al*, 1991). While some form of post-traumatic response (facilitating the assimilation of the experience into existing belief structures as far as is possible, and allowing the accommodation of those belief structures to the traumatic experience) is seen as healthy, more serious and pervasive symptoms are seen as a maladaptive coping response to the invalidation of the basic belief structures (Peterson *et al*, 1991).

Peterson *et al* (1991) comment on several positive features of this cognitive appraisal formulation. They cite growing empirical evidence supporting the importance of cognitive appraisal in trauma, and note that the relevance of disrupted beliefs and assumptions about the world and the self corresponds to the experiential realities of people with a post-trauma syndrome. They say that the model is also useful in that it allows for a continuum of normal to pathological responses to trauma, and also that it is compatible with other existing theories of trauma reactions - notably the psychodynamic formulations.

Information-Processing Models

Jones and Barlow (1990) discuss two information-processing models both based on Lang's (1979, ibid) analysis of fear structures. Lang (ibid) contends that fear is stored as a network in memory which functions as a programme for escaping danger, with information about fear-relevant stimuli, information about responding in such situations and so on.

The first theory outlined by Jones and Barlow (1990) is that proposed by Foa, Steketee and Olasov-Rothbaum (1989, ibid) who posit that fear structures differ from other memory structures in that they contain information about threat. In situations of trauma, previously held safety assumptions are violated and as a result cues previously considered safe become cues for danger. Furthermore, the fear structures associated with trauma are larger and more intense than other information structures and are therefore considered to be more easily activated. Foa *et al* (ibid) go on to argue that traumatised individuals experience a lack of predictability and controllability because the boundaries between safety and danger become blurred. Jones and Barlow note the limitations of this model as being primarily related to its failure to account for a number of variables which have been shown empirically to be linked to people's reactions to traumatic events such as social support and other individual differences.

The second theory is that proposed by Chemtob, Roitblat, Hamada, Carlson and Twentyman (1988, ibid). Chemtob *et al* (ibid) propose that fear structures are comprised of hierarchically arranged and interconnected nodes which represent all elements required for a specific act, including information about neurochemical and muscular activity, thoughts, behaviours and emotions. Chemtob *et al* (1988, ibid) explain pathological reactions to traumatic events as a continuation of the activation of fear structures. This, they say, is maintained through a feedback loop whereby threat- related arousal potentiates threat-seeking behaviour, which facilitates narrowing of attentional focus and a greater likelihood of interpreting ambiguous information as threatening. This in turn increases threat-related arousal and maintains the activation of fear structures (ibid).

Among some of the problems with this model are that it does not adequately explain why

some trauma survivors continue to function in this mode of reactivation of fear structures and others do not, and also that it does not adequately explain factors such as control, social support etc.

2.4.4 PSYCHODYNAMIC THEORIES

As with the groups of theories outlined above, there is no single psychodynamic approach to understanding the effects of extreme traumatization and the reactions of people to such situations (Fairbank and Nicholson, 1987). Classical analytic theories have emphasised the pre-trauma personality and psychic conflicts in the reaction to traumatic stress. Although they provide useful insights into the reaction of the individual to traumatic stress, the classical conceptions have also been seriously criticised for failing to give due weight to the importance of the traumatic event itself (Peterson *et al*, 1991).

Psychoanalytic theory : Traumatic neurosis

According to Freud (1920, in Furman, 1986) and A. Freud (1964, ibid), the essence of trauma is the influx of stimuli which break through the ego's protective shield (referred to as the "stimulus barrier") and flood the system with excitation. This results in the suspension of ego functioning and manifests in a state which an observer might refer to as "shock". Such a shock state may be characterized by psychic numbing, forms of depersonalisation, paralysis of action and so on (Furman, 1986). This state may last minutes, hours, days or even years (ibid); however, although of variable time, this state is usually short-lived (Yorke, 1986).

After the catastrophic event and the flooding of the ego, the psychic apparatus is faced with the task of mastering the excess stimuli and restoring ego functioning (Furman, 1986). As outlined by Furman (ibid), the gradual process of "binding" or mastering the excess excitation takes the form of a "repetition compulsion", whereby aspects of the trauma are repeatedly relived in some form until all stimuli have been mastered. This process may result in resolution without treatment, however in other cases resolution is not easily attained and a more chronic picture is seen (Yorke, 1986). The symptoms and

conflicts resulting from exposure to a traumatic event of this type together are referred to as a *traumatic neurosis*.

A more recent theory subsumed under the rubric of psychodynamic formulations of reactions to severe stress, which has received much attention for being particularly useful, is that developed by Harowitz (1973, 1974, 1976, 1979, 1986, in Peterson *et al*, 1991).

Harowitz' Information - Processing Model

This model has its roots in psychodynamic formulations of trauma constructed around the concept of "energy overload". As outlined above, an event is seen as becoming traumatic when external stimuli exceed the ego's "stimulus barrier" resulting in an attempt by the ego to restore homeostasis by "binding", "discharging" or "abreacting" the excess energy (Harowitz, 1974, ibid). In Harowitz' more recent formulations the concept of "energy overload" is replaced by that of "information overload".

As summarized by Fairbank and Nicholson (1987), and Peterson *et al* (1991), Harowitz asserts that traumatic events involve vast amounts of internal and external information (not just cognitive but affective too) and because such events and situations of severe stress are outside of the realm of usual experience, this information cannot be easily integrated into existing concepts of the self and the world. Such information is unable to be processed and remains in a raw or active form, where it threatens existing internal schemata. The result is that defence mechanisms such as denial and numbing are used in order to keep the information unconscious. However, as Harowitz describes, there is a completion tendency (based on the concept of repetition compulsion) which results in this raw psychic material intruding into consciousness in order for information processing to occur. Such intrusive episodes result, as before, in information overload of the ego and consequent engagement of defense mechanisms pushing the material back into an unconscious state. Harowitz posits that an oscillation between defensive overcontrol and numbing, and intrusive undercontrol and overload, occurs. Intrusions are seen as potentially facilitating information processing, while defenses are seen as ensuring the gradual assimilation of traumatic experiences. These two phases may even coexist with regard to different aspects of the trauma, and continue to oscillate until the information

is fully processed and integrated. At completion, the experience is integrated so it becomes part of the individual's view of the world and of him- or herself, and no longer needs to be walled off from the rest of his or her personality (Green, Wilson, and Lindy, 1985, in Peterson *et al*, 1991).

Psychosocial-Developmental / Psychoformative Model

Wilson (1977, 1978, 1980; Wilson & Krauss, 1985; in Peterson *et al*, 1991) focuses more specifically on the role of developmental issues in manifestation of post trauma reactions. This model of the effects of trauma on the developing personality integrates the theoretical orientations of Erikson (1946, 1968; ibid) and Lifton (1967, 1973, 1976; ibid).

Erikson's model (Shaffer, 1985) posits a universal sequence of psychosocial stages through which all people pass during the course of their lives. Each stage is characterised by a crisis which must be resolved. These stages are (i) trust versus mistrust - birth to 1 year; (ii) autonomy versus shame and doubt - 1 to 3 years; (iii) initiative versus guilt - 3 to 6 years; (iv) industry versus inferiority - 6 to 12 years; (v) identity versus role confusion - 12 to 20 years; (vi) intimacy versus isolation - young adulthood; (vii) generativity versus stagnation - middle adulthood; and (viii) ego integrity versus despair - old age. Wilson (ibid) suggests that trauma may disrupt the adequate resolution of the current and all subsequent psychosocial stages. He applies this to Vietnam veterans and hence focuses on the fifth stage; however it follows that the same principle would apply to trauma survivors of other ages too. Wilson and Krauss (1985, ibid) note that as a consequence of trauma the ego may undergo:

* retrogression to earlier modes of psychosocial adaptation;
* psychosocial acceleration (ie. new ego-strengths and capacities emerge prematurely);
* exacerbation of current psychosocial stages, thus intensifying the experience/conflict of that stage; and
* a change in hierarchical arrangements of needs (eg. the need for safety or power may become more salient).

Each of these processes results in the disruption of psychosocial development. Wilson (ibid) also draws on the theories of Lifton (1967, 1976, 1979). Peterson *et al* (1991) note that within Psychoformative theory there are three "sub-paradigms" which represent basic formative modes of thinking/symbolizing: (i) connection vs separation; (ii) integrity vs disintegration; (iii) movement vs stasis. When a person is exposed to trauma "uncentering" may occur, resulting in psychic numbing, which constellates the separation, disintegration and stasis poles of the three sub-paradigms (ibid).

Wilson's (ibid) model thus proposes that trauma may result in the negative constellation of both Erikson's psychosocial stages and Lifton's psychoformative sub-paradigms.

Object-Relations Formulation

Brende (1983, in Peterson *et al*, 1991) proposes an object-relations formulation of reactions to trauma. In his studies, Brende notes similarities between the character pathology seen in Vietnam veterans and various disorders of the self (Borderline and Narcissistic Personality Disorders). He posits that the extreme stressors experienced by some veterans had a fragmenting effect on the identity, resulting in "splits" in the self-system. Such splits are effected by a destructive recapitulation of the separation-individuation process (Brende, 1983, ibid), which results in an "idealized part-self object" and a "devalued part-self object" (Kernberg, 1975, ibid). A number of pathological identifications follow from this splitting process:

(i) The killer-self, resulting from idealized identification with the aggressor, seen in aggressive behaviours;

(ii) The victim-self, in essence the introjected victims of the killer-self, seen in self-destructive behaviours and helplessness;

(iii) Pathological omnipotence, emerging as a defence against awareness of the victim-self, seen in aggression and risk taking behaviours;

(iv) The protective-self, the idealized part-self identification, seen in symbiotic relationships and introjection of other members to the extent that their loss is experienced as a loss of part of the self.

(Brende, 1983, ibid)

Brende's (ibid) formulation is based specifically on the experience and reactions of Vietnam veterans. However it is possible that a similar object-relations formulation may be generalisable to other populations.

Burgin (1993) also describes a process whereby splitting of the self-system occurs together with identification with the aggressor. He notes that traumatic situations are characterised by asymmetry of power and powerlessness (Ehlert and Lorke, 1988, ibid). Power is situated in the perpetrator and powerlessness in the victim. He states that the intensity of powerlessness results in an overwhelming amount of anxiety. This forces the ego into an acute state of regression, where infantile self- and object-representations are reactualized, defense mechanisms manifest in archaic forms, and the boundaries between the inner and outer world become blurred. He states that in such moments the ego lacks narcissistic gratification; the traumatic situation takes on the significance of a "fundamental loss of love". Burgin (1993) maintains that in much the same way as an infant learns to introject the representation of the love-object (usually the mother) in order to ensure continuity of the object, the trauma victim begins to introject the representation of the perpetrator who is the only source of narcissistic gratification, and as the powerful other, might potentially give comfort and consolation. However this introject of the aggressor is a "traumatically deformed part of the self-representation" and is unacceptable to the superego. This part of the self-representation is then split off from the rest, resulting in alternating ego states (ibid).

Saporta and van der Kolk's (1992) discussion of the nature of trauma attests to this thesis. They note that one of the most pernicious effects of trauma (here the focus is on the so called "manmade traumas") is that in their attempts to maintain attachment bonds, victims turn to their nearest source of hope to regain a state of physiological and psychological calm - the perpetrator. They cite numerous studies providing evidence of "traumatic bonding" between victims and perpetrators, and the associated need for denial and dissociation of the traumatic experience in order to maintain an image of safety and avoid losing hope of the existence of a protector.

2.4.5 AN ECOSYSTEMIC APPROACH

While all of these theories appear to contribute something to our understanding of reactions to trauma, none is entirely adequate alone. In keeping with the move towards a systemic paradigm, it may be contended that a more useful understanding could be provided in a model incorporating the interaction of some of the mechanisms described above. Many of the models are not mutually exclusive and may complement one another in a useful way. Peterson *et al* (1991) attempt such an integration. They propose an ecosystemic model which incorporates aspects of a number of the approaches discussed above.

Peterson *et al*'s (1991) ecosystemic model is based on the psychosocial model proposed by Green, Wilson and Lindy (1985, ibid). The focus of this model is on the interaction between the traumatic situation, "normal" reactions to catastrophe, individual characteristics, and the socio-cultural environment in which the trauma is experienced and in which the person recovers.

(i) The traumatic experience - factors such as the severity of the stressor, the duration of the trauma, the degree of bereavement, warning and speed of onset, degree of displacement from the community, role of the survivor (passive vs active), degree of moral conflict, etc., all play a role in affecting the long term response of the person.

(ii) Post-traumatic cognitive processing - this is seen as a usual reaction to trauma and builds on Harowitz' (1973, 1974, 1976, 1979, 1986; in Peterson *et al*, 1991) information processing model. The person experiences "psychic overload" which mobilises defenses. A process of oscillation between intrusion / psychic overload and avoidance / gradual assimilation results. The success of the "working through" process depends on the interaction of the experience itself, individual characteristics of the survivor, and characteristics of the broad environment.

(iii) Individual characteristics - important variables include ego-strength, effectiveness and nature of coping and defenses, pre-existing vulnerability to psychopathology, prior

experiences, current stage of psychosocial development, and demographic factors (such as age, socioeconomic status, education, gender etc.).

(iv) Environment - environmental factors such as social supports, protectiveness of family and friends, attitudes of society, intactness of the community and cultural factors, all play an interacting role in contributing to the outcome.

(v) Outcome - this may be positive, where re-stabilisation and growth occur, or negative, where pathology such as PTSD, personality disorders, or psychosis results.

In their ecosystemic model Peterson *et al* (1991) build on this basic model. They incorporate the role of classical and operant conditioning in the development of symptoms (notably hypervigilance and avoidance behaviours), which in turn interact with other factors in the model (for example self-concept). They also elaborate on the role of cognitive processing in the system. Firstly, they note the importance of the cognitive appraisal of the traumatic situation itself (eg. did the person believe his/her life was in danger?). Secondly, they mention the role of how the person understands the trauma and what attributions they make about the trauma and about the symptoms experienced. Thirdly, they highlight the role of the degree to which the individual's assumptive world or personal theory of reality is threatened in the process of assimilation and accommodation in the integration of the experience. Finally, Peterson and colleagues stress the importance of feedback and interaction between all of these aspects of the process. They include a cybernetic deviation amplification circuit which can have a positive or negative effect and serves as an active conduit for interaction between variables.

2.4.6 A CRITICAL THEORY APPROACH

From the perspective of critical theory it is argued that all of the above theories fail to give adequate attention to the role of sociopolitical and cultural factors in the experience of trauma and the subsequent emergence of symptoms. By their very nature, traumatic situations (particularly those directly caused by human action such as wars, family

violence, etc.) are rooted in a social, political and cultural fabric. It is contended that the effects of such traumatic situations on people (and hence the associated theoretical formulations), cannot be removed from the context in which they occur. As such, research cannot be seen as value free, instead the ideological assumptions underlying the research need to be considered.

In her critique of contemporary approaches to stress research, Gibson (1986) argues that research has been rooted in a positivist approach which conceptualises science as incompatible with ideology. The role of scientific research is therefore to observe in an objective manner, where subject is separate from observer, where the unit of study is the individual, and where data is interpreted in a mechanistic manner of cause and effect. She contends that even the interactionist approaches fail to move away from this traditional positivist paradigm. The theories discussed above, like the research, are situated within this broad paradigm. These formulations of reactions to trauma focus on the reaction of the individual or on groups of individuals; the basic unit of society is the individual whose acts are explained primarily in terms of internal (be they cognitive, biological or intrapsychic) processes; formulations are based on empirical research and clinical observation which presume an objective observer; and the implicit assumption is that given adequate knowledge of the variables involved, outcomes can be predicted and explained.

Gibson (1987) cites Young (1980) who argues that the assumptions underlying the positivist approach subtly limit discussions of stress and trauma to a single level of determinants. The focus is skewed towards the individual level and therefore ignores the social forces embedded in the political economy, leading away from questions about the nature of society itself. In this way discussions about traumatization fail to analyze the role of broader factors such as socio-economic status, gender, discrimination etc. in the trauma process. In all of the theories discussed above, the implicit assumption underlying the mechanistic explanations is that reactions to violence follow from the way in which "human nature" functions.

Gibson (1986; 1987) suggests an alternative framework for examining and understanding the effects of traumatic situations. She proposes the adoption of a critical approach which

not only incorporates the interaction and interdependence of a number of intrapersonal, interpersonal and social factors in the stress process, but takes the additional step of relating these factors to the wider social and historical context. She bases this proposal on the work of Turton (1986, ibid) which focuses on stress research in general. However the framework is equally (if not more) pertinent in the research and understanding of the trauma process - particularly when considering trauma specifically linked to human cause. She suggests five levels of interactive analysis when discussing and investigating political violence. They include the nature of the events themselves, factors internal to the child which promote coping, the quality of family and social support systems, the nature of the political economy, and the material and ideological structure of society (1989).

2.4.7 CONCLUDING COMMENT

In this section a number of different theoretical explanations of traumatization have been considered. While each one of these theories contributes an important component to our understanding of the experience of trauma and the responses to traumatic situations, none of them provides an adequate explanation alone. It has further been asserted that while an interactional approach which considers the interaction of a number of different processes is more useful, it still fails to give adequate account to contextual factors and does not adequately transcend a positivistic framework. It has been argued that a more useful approach is one which situates our understanding of trauma within the sociopolitical and historical framework.

CHAPTER THREE
REVIEW OF RESEARCH

Research into the effects of violence on children draws on and overlaps with research in a number of other areas focusing on children in traumatic situations, such as conventional war conditions, natural disasters and technology-related disasters.

3.1 EARLY RESEARCH

During the last half of the nineteenth century and through into the first three decades of the twentieth century, the first documentation of the effects of traumatic situations on children emerged (Benedek, 1985a). However this was characterised by unsystematic observations of children in institutions such as orphanages and hospitals. These children were reported to exhibit a higher incidence of retarded emotional and intellectual development. The emphasis of the researchers was on the importance of physical hygiene (or lack thereof) rather than on a recognition of the effects of emotional trauma (ibid).

It was only around the time of World War II, with a growing concern about the mental, emotional and physical development of the many thousands of children affected by the war, that some research reports began to focus on the psychological welfare of children in disasters. An early finding was that there was seemingly little relationship between anxiety about air raids and actually living in heavily bombed areas (Burbury, 1941; Bodman, 1941; Carey-Tretzer, 1949, Freud and Burlingham, 1973; all cited in Dyregrov and Raundalen, 1987). It was also found that evacuation which included separation from parents and environment was worse than the immediate effects of the air raid (Burbury, 1941, ibid). Freud and Burlingham (1944, in Benedek, 1985b) highlighted the importance of maintaining the parent-child bond through physical contact between the parent and the child, and also the importance of parental reactions to the sense of psychological well-

being experienced by children. Another important observation emerging from Freud's (ibid) work was that of the importance of peers in the absence of parents, and more generally of the importance of significant caring relationships subsequent to any disaster.

Other researchers (Dunsden, 1941; Brandims, 1943; both in Gibson, 1989) investigating the effects of air-raid conditions on children during World War II, in contrast to the findings discussed above, reported significant symptoms ranging from activity inhibition to terror states. Around the same time Brander (1943, in, Arroyo & Eth, 1985) documented symptoms akin to PTSD in Finnish children as young as 8 years old who were exposed to warfare in the Russo-Finnish War of 1939-1940. This inconsistency in findings may largely be ascribed to a lack of systematic research and a tendency to rely on anecdotal evidence (Gibson, 1989).

Since this beginning stage, research on children in traumatic situations has been varied in both quality and design.

3.2 CHILDREN & DISASTERS

3.2.1 ISSUES IN DISASTER RESEARCH

Saylor (1993) notes that until recently there has been little research on children and disasters, and that what there has been is marked by diversity in both quality and design. He discusses some of the difficulties with disaster research: there is no opportunity for random assignment to experimental groups; there is seldom systematically collected baseline or pre-disaster data to compare with post-disaster observations; the research is often conducted with few resources in areas with limited access to space, telephones etc. and disasters tend to occur at places and times that are unpredictable. He also mentions ethical concerns that are inherent in research on the effects of disasters on people, and even more so on children. The question has been raised as to the ethics of subjecting victims of disaster to the research process; however, others have attested to the

therapeutic benefit of relating traumatic experiences and subsequent difficulties (eg. Krell, 1985). The difficulty for the researcher is that it is impossible to know on a case-by-case basis whether a potential subject is one who will be helped, unaffected, or distressed by the experience of research participation (Saylor, 1993). The importance of debriefing, follow-up, and access to supportive services is particularly important in these situations, as is the selection of research protocols which impose minimal stress (ibid).

3.2.2 NATURAL DISASTERS

Belter and Shannon (1993) provide a comprehensive review of studies considering the impact of natural disasters (such as earthquakes, floods, hurricanes and fires) on children. They conclude that "the studies which have been conducted on children and adolescents to assess the psychological impact of natural disasters have all found emotional and behavioural consequences to varying degrees" (p99). However, an earlier review by Garmezy and Rutter (1985) suggests that the consequences of disasters may be less severe than might be expected. The process of summarizing and drawing conclusions from disaster research appears to be fraught with difficulties, not only because of the variation in design and quality of the research, but also because of the variation among disaster situations. Disasters can be characterised not only by form, but also by the rapidity of onset, degree of unexpectedness, extensiveness of impact, duration, preparedness of the community and so on (Garmezy and Rutter, 1985).

In their review, Belter and Shannon (1993) consider both the earlier, less systematic studies as well as several recent studies characterised by far more rigorous designs than seen previously. They draw a number of general conclusions from the research on natural disasters to date:

(i) In general, diagnosable psychopathology is not frequently seen in children who have experienced a natural disaster; however, most children report significant levels of emotional distress.

(ii) On average, acute effects tend to diminish over time; however in some circumstances

long-term effects have been found to be more severe than immediate effects.

(iii) It seems that psychological impact increases the more directly the disaster is experienced and the more personally threatening it is.

(iv) In most of the studies reviewed the impact of disasters appeared to be greater with younger children. This is argued to be a result of their greater vulnerability to separation and disruption of routine.

(v) Reports from parents and children differ, suggesting that parents may tend to under-report the extent to which their children are negatively affected.

(vi) Children who have experienced some type of difficulty prior to the disaster appear to be at greater risk for developing negative long term reactions to the disaster.

(vii) Parents' coping and degree of distress seems to affect the impact of the disaster on the child.

Belter and Shannon (1993) note the importance of further research focusing with more refinement on developmental issues. They also suggest another critical area of research being the identification of factors which mediate psychological impact, such as pre-disaster coping, social supports etc., as well as the individual child's personal perception and experience of the disaster.

3.2.3 TECHNOLOGY - RELATED DISASTERS

Yule (1993) reviews studies carried out to date which examine the effects of technology-related disasters on children. He discusses mass transport disasters (Malt, 1988; Parry Jones *et al*; Sugar, 1989; Yule & Williams, 1990; Hodgkinson & Stewart, 1991; Yule & Udwin, 1991; all in Yule 1993), mud-slide and dam disasters (Lacey, 1972; Newman, 1976; ibid), and nuclear plant disasters (Handford *et al*, 1986, ibid). Many of his conclusions drawn from these and other studies are similar to those discussed above in

relation to natural disasters. Yule concludes that reactions among children to disasters are related to the severity of the disaster, particularly as regards the threat perceived by the individual. He also notes the importance of parental reactions.

3.3 CHILDREN & VIOLENCE

3.3.1 CRIME-RELATED VIOLENCE

Recently there has been an increasing concern about the high crime statistics, particularly by researchers in the United States (see Richters and Martinez, 1993). Although the statistics pale in comparison to many of those in countries in Latin America, Africa and South East Asia, the United States now has the highest crime rate in the developed world (Earls, 1993). With this "epidemic of violence" children's exposure to human-made violence is becoming a significant public health concern (Garmezy, 1986; Pynoos and Nader, 1990; Rozensky, Sloan, Schwarz, and Kowalski, 1993). Although the research into the psychological sequelae of involvement in and exposure to violent crime is meagre relative to the extent of the problem, some studies are beginning to emerge.

Terr (1979, 1981, 1983, 1990, reported in Rozensky *et al*, 1993) conducted a longitudinal study of the effects of a kidnapping and hostage situation on a group of children ranging in age from 5 to 14. Several months after the traumatic event, Terr (1979, ibid) conducted detailed interviews with the children and their parents. Nearly all of the children reported fears related to the kidnapping as well as other nonspecific fears. Personality and behavioural changes were also observed. She found that some of the symptoms were highly contagious and spread easily amongst the children and even to their families. This contagion effect was particularly noted with "omen formation" or the sense of premonition of the event (Terr, 1985). She reported a number of symptomatic manifestations of Post-traumatic Stress Disorder in the children which differed from accepted symptomatology manifested in adults. In particular she mentions that (i) the children did not become amnesic for the event or employ denial or repression; (ii) psychic numbing was not

demonstrated; (iii) visual flashbacks were not evidenced, rather the children utilised consciously willed daydreaming; (iv) children's work performance rarely suffered for more than a few months after the traumatic event; (v) post-traumatic play occurred frequently; (vi) time skew was evidenced more commonly than usually seen in adults; and (vii) they showed a particularly striking manifestation of trauma in the sense of foreshortened future (Terr, 1985).

Terr (1983, ibid) went on to conduct a four year follow up study with all but one of the kidnap victims. She concluded that "every child was found to suffer from post-traumatic stress response syndrome as late as 4 to 5 years after the incident" (Terr, 1983, p1550, in Rozensky *et al*, 1993).

A number of studies of the impact of school shootings have also been conducted (Pynoos, Frederick, Nader, Arroyo, Steinberg, Eth, Nunez, and Fairbanks, 1987, in Rozensky *et al*, 1993; Gillis, 1991, ibid; Schwarz and Kowalski, 1991, ibid). All of these studies examine the effects on children of primary school age.

In the Pynoos *et al* (1987, in Rozensky *et al*, 1993) study, significant relationships were found between degree of exposure to the killing, whether and how well the child knew the victim, previous exposure to other traumatic events and reports of Post-traumatic Stress Disorder (PTSD). A 14 month follow-up also found that degree of PTSD symptomatology was significantly associated with exposure, however in general the percentage of PTSD symptoms reported decreased with time.

Schwarz and Kowalski (1991, in Rozensky *et al*, 1993) found that almost one third of the children met the criteria for a diagnosis of PTSD 8 to 14 months after the incident; however, unlike the Pynoos study above, they did not find a positive association with proximity. They argue that degree of exposure does not just relate to physical proximity but also to emotional state. Re-experiencing symptoms were reported by almost all of the children, but avoidance and arousal symptoms were most associated with children with a PTSD diagnosis (Schwarz & Kowalski, ibid).

The Gillis (1991 in Rozensky *et al*, 1993) study found no overall difference in the degree of symptomatology as a function of proximity, but rather reports a difference in the manifestation of symptoms. Similarly, no quantitative difference was found in symptom presentation as a function of sex, however a qualitative difference was observed. Boys exhibited more externalising (such as oppositional behaviours) and girls more internalising behaviours (such as fears and clinginess). On follow up Gillis found that symptoms had declined in all children except those who were actually wounded in the attack.

Another group of studies focuses on the effects of witnessing extreme acts of violence such as homicide, rape and suicide involving at least one parent. Pynoos and Eth (1985) discuss their clinical observations of children who witnessed these acts. They found that the core of the child witness's trauma was the continued intrusion of the central violent action when physical harm was inflicted. They report that these intrusive memories involve all sensory modalities. Intrusive recollections were also almost always seen in the children's drawings, as well as in play with other children. They also note that the child may commonly experience fantasies or dreams of revenge, which serve as an attempt to reverse the feelings of helplessness which are central to them as witnesses. Malmquist's (1986, in Rozensky *et al*, 1993) work with child witnesses also found intrusive recollections and nightmares to be central. Malmquist (ibid) also observed mood disturbances and declines in school performance. Regarding rape, Pynoos and Eth (1985) report the tendency of the child to repress the sexual aspect of the assault almost immediately and to focus on the violence and vulnerability of the mother. They found that children experience difficulties with processing this aspect, and propose that the child's sense of security and vulnerability to being physically violated may be profoundly affected.

Finally, there has been a recent study (Martinez and Richters, 1993) of children's distress symptoms associated with exposure to general crime-related violence. They found that there was a significant association between exposure to general crime-related violence (such as assault, drug deals, shootings, arrests etc.) and symptoms of distress. They also found a marked difference in the distress expressed by the children and how their parents rated their distress, supporting the earlier finding that parents tend to underestimate their children's distress. They found scores on their anxiety scale (based on DSM-IIIR

diagnostic symptoms) to be highly correlated with scores on the depression scale. Parallel studies with different samples of children using the same instruments generally confirmed these findings (Lorion and Saltzman, 1993).

3.3.2 CONVENTIONAL WARFARE

As mentioned in the introductory section of this chapter, the initial studies of the effects of war on children were carried out around the time of World War II and yielded varied results. Since then a number of researchers have further investigated the effects of war on children in different countries.

Israel - The Yom Kippur War

Since the inception of the State of Israel in 1948, it has, until recently, been in an almost uninterrupted state of war with its neighbouring states. The Yom Kippur War happened with little warning, and although it lasted only three weeks, was marked by large numbers of casualties (Raviv and Klingman, 1983).

Milgram and Milgram (1976) reported findings of an almost doubled general anxiety level amongst Israeli children during the Yom Kippur War as compared with baseline levels measured prior to this. They found that children showing the lowest levels of anxiety prior to the war experienced the largest increases of anxiety during the war. Contrary to their expectations the rise in anxiety was not related to personal war stress or to self-concept. They hypothesised that children who had previously viewed the world as safe, experienced greater shock in response to the war and hence a greater increment in anxiety levels than those who already had high anxiety levels before the war started (Raviv and Klingman, 1983).

One and a half years after the Yom Kippur War, Ziv, Kruglanski and Shulman (1974) studied the psychological reactions of children in settlements which had been subject to frequent artillery shelling. They found that shelled children exhibited a greater degree of patriotism, greater degree of covert aggression, and greater appreciation of the personality trait of courage than did non-shelled controls. No difference between the shelled and non-

shelled groups emerged with respect to attitudes toward war, desire for peace, or overt aggressiveness toward their enemy. The findings were interpreted as reflecting an active process of coping amongst children from settlements which had been shelled. They noted the importance of prevailing social norms in affecting coping modes.

Although most of the studies suggest that Israeli children seem to cope well overall, other studies indicate that children who lost a family member were extremely vulnerable to the development of short-term and long-term adjustment problems (Lifschitz *et al*, 1977; Kaffman and Elizur, 1979; Elizur and Kaffman, 1982; Kaffman and Elizur, 1983; all cited in Dyregrov and Raundalen, 1987). Kaffman and Elizur (1983, in Swenson and Klingman, 1993) examined the effects of bereavement on children whose fathers had been killed during the war. They found excessive mourning reactions which lasted from 6 months to three years. The factors which they found to be related to long-term pathological bereavement were low impulse control, emotional lability, a tendency to react with explosive rage to frustrations, withdrawal, pre-traumatic long-term separation from father, pre-traumatic family conflict, the mother's anxiety, and the absence of a substitute father figure (ibid).

The Gulf War

In 1991 the Gulf War broke out in the Middle East. A number of studies have emerged on the effects of this on the Israeli population[1]. Over a six week period the Israeli civilian population was subjected to 18 different attacks in which 39 Scud missiles fell. Due to the uncertainty about weapon type (conventional or chemical/biological), whenever the attack alarm was heard people were required to enter a sealed room and to put on a gas mask.

Studies carried out during the war (Rosenbaum and Ronen, 1991; Klingman, 1992; in Swenson and Klingman) found greater stress reactions in the earlier part of the war than later. They also found the intensity of the attack and degree of destruction to be a significant factor. In a study one week following the ceasefire, Mintz (1991, in Swenson

[1]Israel was clearly not the only country adversely affected by the Gulf War; however, few, if any, studies have emerged to date on the effects of the war on, for example, the Kuwaiti population.

and Klingman, 1993) found that children who lived closer to the attacked areas were more anxious. Females were more anxious than males and younger children more anxious than older children.

Weisenberg, Schwarzwald, Waysman, Solomon, and Klingman (1993) assessed the coping of school-age children in the sealed room during scud missile attacks. Emotion-focused coping strategies such as avoidance and distraction strategies were associated with less post-war stress reactions than persistence at direct problem-focused actions. Emotion-focused coping was also more common amongst the older children. This bears out Mintz's (1991, ibid) findings mentioned above.

The role of the family as a support system was also noted (Zeidner, Klingman and Itzkovitz, 1992, in Swenson and Klingman, 1993). Both the degree of parental anxiety perceived by the children and the degree to which children viewed their families as communicative and supportive were found to impact on anxiety levels, emotional congruence and more effective defences.

In discussion of their review of the Israeli Gulf War studies, Swenson and Klingman (1993) conclude that children appeared to adjust to the war situation over time. They hypothesise that this may be related to a perceived decrease in the uncontrollability and unpredictability of the situation as the threat of unconventional weapons failed to materialise. They also suggest the role of an increased sense of community coherence, a general strengthening of family coping processes, and the adoption of proactive roles by older children. However they note that where families had pre-existing problems, such problems were intensified by the war experience.

The War in Lebanon

In her report on war experiences of Lebanese children, Macksoud (1991, in Swenson and Klingman, 1993) reported that of those children exposed to war, 96% had been exposed to at least one traumatic event, and most of them had been exposed to more than five traumatic events. Chimienti, Abu Nasr, and Khalifeh (1989, ibid) found that in a study of over one thousand three to nine year old children living in Lebanon during wartime, most

of them exhibited behavioural symptoms. They noted that the experience of personal stressors, and particularly loss of a family member, was associated with a greater incidence of anxiety, fear, and behavioural difficulties. In a study of children presenting at a clinic (Saigh, 1989, ibid) around one third of the children were found to warrant a diagnosis of chronic PTSD.

Chimienti and Abu Nasr (1993) conclude from their studies of women and children in Lebanon, that (i) the experience of previous trauma significantly increased a child's likelihood of emotional or behavioural problems; (ii) boys were more likely than girls to display symptoms; (iii) symptoms were more common amongst younger children (3 to 6 years old); (iv) the reactions of significant adult models played an important role; (v) affective symptoms and behavioural problems tended to generalise to include non-stress situations; and (vi) children displayed an ambivalence about war in that while proclaiming to love peace they had a favourable attitude towards fighters and a willingness to fight.

3.3.3 CIVIL/POLITICAL VIOLENCE

Political violence differs from conventional warfare in a number of ways. Political violence is usually associated with oppression and divisions within a community (Gibson, 1986). In situations of political violence and civil war, civilians are often directly involved in the violence and children may themselves be combatants. There is often little to distinguish between enemies and non-enemies, and this together with the often unpredictable nature of the violence and poorly defined enemy territory, necessitates constant vigilance (Swenson and Klingman, 1993). In situations of political violence, fighting may occur in homes, schools and neighbourhoods, and children are often forced to hide their identities for survival purposes (Ronstrom, 1989, in Swenson and Klingman, 1993). Because the violence is usually ongoing it is also difficult for children to work through the trauma.

There are many indirect effects of civil war and political violence which also have an adverse effect on the civilian population in general and children in particular. Dodge (1991) discusses the national and social implications of civil war on children, focusing specifically on Africa. He notes that war and civil conflict are not only expensive in terms

of life but also in terms of money. War inevitably utilizes precious budgetary resources, often to the detriment of sectors such as health and welfare. Health units may be closed, and non-governmental services often cannot operate during times of civil war. Agriculture and food supplies may also be seriously affected, often resulting in food-shortage and famine during times of war (eg. Sudan, Ethiopia, Somalia, Mozambique etc.). The plight of refugees is also a well-noted concomitant of civil war. In times of civil war, the collapse of commerce, transport, communications and medical services combine to have an impact on the civilian population. In addition public services become the target of attack from both pro- and anti-government forces. He cites the example of both southern Sudan and Uganda where ordinary hand pumps were damaged or destroyed by government troops during forays into the country side in search of anti-government guerillas. Guerillas similarly destroy hand pumps in pro-government areas in an attempt to either drive civilians away or convince them to support their cause (Dodge, 1991, p16). All of these factors point to the importance of considering not only the direct effects of political violence, but also the effects of the stressors resulting indirectly from situations of political violence and civil war.

Political violence varies from one country to the next and the experiences of children in situations of civil conflict are closely tied to the context in which it occurs; however some commonalities may be drawn from research conducted in a number of different places.

Northern Ireland

Since 1968 Northern Ireland has experienced periods of political violence which have euphemistically been termed "the troubles". Many articles have been written about the effects of "the troubles" on children growing up in strife-torn areas of Northern Ireland. During the 70's the focus was primarily on the psychiatric and psychological sequelae of the violence (Garmezy and Rutter, 1985). Fraser (1973) found that most children experienced acute anxiety which dissipated rapidly; however some individuals developed chronic reactions in the form of phobias and the worsening of pre-existing problems. Lyons (1971, 1979), on the other hand, found a low incidence of disturbance amongst children and concluded that those who do develop symptoms are generally vulnerable, anxiety prone and particularly receptive to communicated anxiety.

Although short-term consequences of violence appeared to be relatively low, with those children evidencing symptoms of emotional disturbance being primarily those predisposed through some vulnerability factor, much concern was expressed regarding the long-term consequences of violence (Lyons, 1979). Lyons (1973, in Garmezy & Rutter, 1985) cautioned that the relatively low incidence of emotional disturbance may not be an indicator of health. He claims that antisocial disorder may be important and states:

> The normal child in the short term enjoys the group activity and excitement but in the longer term he (*sic*) has learned that violence is an acceptable and successful way of life and this will have a disturbing effect on his (*sic*) personality development in the future.
>
> Lyons (1979, p391).

In the 80's the focus of research shifted and an increased emphasis was placed on the resilience of children in Northern Ireland (Garmezy and Rutter, 1985). McWhirter (1983) maintained that in contrast to previous claims (eg. Lyons, 1973; Fraser, 1974; Fields, 1973 and 1977, in McWhirter, 1983) evidence suggests that the Northern Ireland "troubles" have not had as adverse a psychological effect on children as might have been feared, and that children and young people have been seen as encouragingly adaptive. She cites research by Harbison and Harbison (1980), McWhirter and Trew (1982), Harbison (1983), and McWhirter (1983). Cairnes and Wilson (1989) also support this claim. They reviewed research data on the effects of violence in Northern Ireland gathered through clinical studies, statistical studies of psychiatric admission rates, suicide rates etc., and community studies. They concluded that only a very small proportion of the population in Northern Ireland has suffered mental disorder as a result of political violence. They say that the conclusions apply equally to children as to adults.

A further study by Cairns and Wilson (1989) suggests that coping is related to appraisal of violence rather than to actual violence levels. Their research suggests that denial may play an important role in the apparently adaptive coping amongst children in Northern Ireland.

Palestinian Population

Punamaki (1987, 1988, 1989) studied coping modes of Palestinian children living in the Israeli occupied West Bank and Gaza strip, and Palestinian children in refugee camps in Beirut, Lebanon. Her studies suggest the crucial role played by historico-political factors in affecting the coping modes adopted by children exposed to violence and political oppression.

Furthermore, her research (Punamaki, 1989) is unequivocal in the finding that exposure to political violence increases a child's risk of developing mental health problems. Contrary to some studies of children in Northern Ireland, this study showed exposure to political violence to exercise a stronger impact on mental health than family factors or economic security. Younger children were found to be more vulnerable than older children and both boys and girls were found to be vulnerable when faced with traumatic events: the only sex difference observed was a higher level of fears amongst girls. Regarding the role of the mother in "buffering" her child's mental health, Punamaki (1989) concludes that the stressful events typical of political violence appear to affect the psychological well-being of both the mother and the child separately as well as in interaction with each other. She notes the inadequacy of individual factors alone in explaining the effects of political violence on children.

Central America

Violence has been endemic in a number of Central American countries, resulting in thousands of people attempting to escape danger by resettling in other countries. A large number of Salvadorian and Nicaraguan refugees fled to Los Angeles.

Arroyo and Eth (1985) examined thirty children who presented at a mental health facility in Los Angeles. The children ranged in age from pre-school to adolescence and had been in the United States between 3 and 34 weeks. Ten of these children were diagnosed as having PTSD. The younger children characteristically displayed regression and separation anxiety. Latency-aged children showed learning and conduct problems, and adolescents tended to act out with aggression and delinquency (Swenson & Klingman, 1993). Arroyo and Eth attest to the importance of additional stressors over and above the many extreme

atrocities experienced and witnessed by many of the children. Of particular importance were general stressors associated with poverty and forced separation from parents, many of whom had emigrated to the United States before their children.

Children of South American Refugees

Allodi (1980) reviewed three studies of Chilean and Argentinian children of victims of political persecution. In all three studies most of the children were under 6 years of age at the time of the traumatic experience. The experiences were similar and involved family separation and profound alteration in the protective quality and physical integrity of the family atmosphere (Allodi, 1980). Allodi reported the most common reactions to be social withdrawal, chronic fear, depressive moods, over-dependent behaviour, sleep disorders, somatic complaints, and arrest or regression in social habits and school performance. Irritability and aggressiveness were reported for older children or as late onset symptoms. Allodi compared these findings to the findings of other studies where separation of a parent occurred (eg. through war or imprisonment for criminal activities). He concluded that the symptoms were very similar and suggested that they related to the loss of parental bond and/or the loss of protective home atmosphere rather than to the political persecution *per se*.

In a ten year follow-up study, he found that children of South American refugees showed no difference in emotional health from a group of immigrant children from the same region whose families had not directly experienced torture and persecution. These children did remain with at least one parent throughout, therefore these parents may have sheltered their children in some way which protected them from anxiety (Swenson & Klingman, 1993). Allodi (1989) noted the importance of not being separated from parents, parental coping, social support and parental mental health in protecting these children from long-term negative consequences.

Africa

Raundalen and Dyregrov (1991) report findings of children's experiences of war in Sudan, Uganda, and Mozambique. Between a half and two thirds of the children in each of the samples were reported to be anxious every day. In the more detailed study of the

Mozambican sample they found high percentages of children who experienced characteristic symptoms of PTSD. Nearly 80% of the children reported distress at anything which reminded them of a traumatic event; 67% reported re-experiencing phenomena; around 70% reported fears specifically related to the loss of loved ones and separation from family members; around 70% reported avoidance strategies; and over half reported feeling sad or depressed.

South Africa

In a review of South African literature on the emotional impact of violence on children, Dawes (1994a) notes than since the first literature appeared in 1986 there have been 48 reports on the psychological effects of violence on South African children. Almost half of these papers are theoretical in nature and a further 14 are case descriptions. Only 6 research papers have been published on the topic, and some of the studies refer to the same data. This review focuses on the empirical studies, with the inclusion of some of the clinical case studies.

Dawes, Tredoux and Feinstein (1989) carried out a study in which they assessed some of the effects on children of the violent destruction of the homes of four squatter communities near Crossroads in the Western Cape. Based on interviews with parents and children they found an overall prevalence of PTSD of 9.2% amongst the sample with approximately 40% showing some symptoms of distress. In the youngest age group the incidence of stress symptoms was higher amongst boys, similar numbers were observed in the middle-childhood group and a reversal of the trend was seen by adolescence where the girls were found to evidence a greater prevalence of symptoms. The middle-childhood group emerged overall as the most vulnerable group. Their findings also suggested a greater likelihood of multiple symptoms amongst children whose mothers were diagnosed as having PTSD. The most commonly observed symptom cluster was anxiety and fear. This was true across all ages and both genders. Weepiness was common amongst the youngest group while older children were commonly reported to be withdrawn, apathetic and restless. Sleep difficulties were most common amongst the younger group, while difficulties in concentration and memory were more common amongst the group older than seven. The 7-11 year old group displayed evidence of social difficulties in the form

of aggressiveness or withdrawal from peer interaction.

Straker and Moosa (1990) report on their clinical work with a group of 60 children who had been exposed to a range of traumatic events in a township in the Eastern Transvaal, which subsequently resulted in them fleeing the area and seeking refuge in a church community centre. The experiences of separation, exile and witnessing the death of a loved one emerged as the three experiences which were found to be the most traumatic. They noted high levels of insecurity in reaction to the separation from family and a strong need to re-establish contact with attachment figures. Feelings of alienation were described regarding the experience of exile, and persecutory anxieties projected onto the new environment. Witnessing the death of a loved one was reported to be associated with symptoms of bereavement, flashbacks and survivor guilt. Straker and Moosa also noted a greater degree of overall distress amongst the younger group (12-15 years old).

Another study focusing on displacees was carried out by Michelson (1994) who worked with displacees in Natal following the "Seven Days War" in the Midlands in March 1990. Although her sample was not specifically children, about half of the group were in the age group of 14 to 18. She found that 86.3% of the sample of displacees were experiencing symptoms in keeping with a diagnosis of PTSD. Those who had been injured and those who had lost a family member in the violence reported more intense PTSD symptoms. Overall her findings suggested that the intensity of PTSD symptoms was affected by the number and type of traumatic events experienced. She noted that in many cases it was difficult to separate out the effects of the immediate traumatic situation (the war and subsequent displacement) from the continuous distress related to conditions of poverty and violence. She also noted the range of symptomatology expressed and the importance of individual differences in the manner in which symptoms manifested, as well as the overlap observed with symptoms of bereavement.

Some reports have also been written on the effects of detention on children. Dawes (1990) reviewed reports (Detainees Parents Support Committee, 1986; Foster *et al*, 1987; Browde, 1988; ibid) on reactions of adolescents to detention. He noted that common symptoms included depressed mood, psychic numbing, anxiety, irritability and acting out

behaviour. He also commented on the role of belief structures in mediating the effects of detention, and argued that child detainees who are not possessed of strong political beliefs are more vulnerable to this stressor than those who are.

Dowdall (1990) has also noted a wide range of effects ranging from the strengthening of political commitment to profound psychological distress. His findings were based on clinical work with ex-detainees. He reported that the most common clinical picture seen amongst ex-detainees was one with many features of PTSD along with features of underlying anxiety and depression. Disturbances in memory and concentration were the most common difficulties seen. Sleep disturbances and nightmares were also common, while flashbacks, startle reactions and extreme emotional reactions were seen in some cases. He noted that in general the range and degree of psychological reaction following the experience of detention depended on a range of factors. These included the nature of the detention experience, the person's emotional stability, the presence of supportive relationships, and the person's ideology (ie. the way in which s/he is able to make sense of the experience). He argued that the nature of support given following release was also often important.

Straker (1993) discusses the psychological significance of violence from the perspective of the perpetrator. She uses a detailed single case-study and discusses it in the light of theories of violence. She concludes that while involvement in acts of violence may relieve tension in the short term, it is in itself potentially pathogenic. This is so if superego dictates are contravened. These dictates are influenced both by personal experiences as well as by collective ideology. This suggests the crucial implications of the role of social attitudes in influencing militants' post-war adjustment. She discusses the importance of healing rituals which provide the opportunity for militants to acknowledge the necessity for violence in the context of war, but also to acknowledge the tragedy thereof, and the transforming effects that violence has on those who participate in it.

The majority of the studies and reports concerning the effects of violence on children (and adults) in South Africa focus on the experience of overtly political violence. Turton, Straker and Moosa (1991) consider the importance of the more habitual forms of violence

occurring under so called "normal" township conditions. In this study they consider two cohorts of youth (mean age was 19.5 years), one who had recently experienced a period of intense political violence, and a second whose recent experience was "*only* of the more habitual forms of violence in their townships". Findings on views of township life, exposure to violence and a general health checklist found few differences between the two cohorts. Both groups were primarily concerned with material hardship and crime. Both groups were exposed to high levels of violence and the majority were psychologically distressed. Turton *et al* conclude that the more "ordinary" forms of violence appear to be as distressing in terms of psychological symptoms as "unrest-related" violence. This provides support for the proposal that both structural factors and individual appraisals of threat, and personal abilities in the face thereof, are important in the construction of stress. This study also supports the point made by Straker *et al* (1987) that the concept of a "continuous traumatic stress syndrome" is a more useful one in this context than that of a "post traumatic stress disorder".

Mendelsohn and Straker (1993) followed up this study with an investigation of a third cohort from the same area in 1992. The mean age of this group was 17.7 years. In this group they found an even greater preoccupation with violence paralleling the increase of violence between political groupings within the township. They suggest that although the absolute levels of violence were remarkably similar over the three periods (as assessed by an exposure to violence scale), the increased concern with violence in the most recent group may be related to the nature of intra-community violence which is much less predictable and more difficult to comprehend than that perpetrated by state forces from the outside. They also found that "across all three groups studied, regardless of conscious preoccupation with violence, psychological distress was found to be markedly high by any standards." They discussed the role of control and predictability in children's perceptions of violence. They also note the subtle differences in the effects of different forms of violence. Overall they concluded that violence does result in psychological distress.

A case discussion by Gibson (1990) supports many of these observations. She highlights that even those children who are not directly exposed to violence may still experience the effects of living in a violent society. She also illustrates by way of the case studies that

sequelae need not necessarily constitute clinical syndromes such as PTSD, but may manifest in more subtle ways involving moral and political socialisation. Finally, she notes the complexity of the process involved in reactions to political violence, and the number of interacting factors involved in the process.

Research conducted by Lab (1987, in Schmukler, 1990) on the effects of unrest conditions on children growing up in the townships of South Africa, supports the finding of the importance of other township-related stressors, but also points to the significant level of preoccupation with violence amongst these children. A number of measures were used with a sample of 52 African children. Overall the findings indicated that the black child's world is dominated by police presence and violence against a backdrop of poverty and deprivation. For example, 71.2% drew pictures with soldiers in them. On a sentence completion task, 75% of children indicated that having their house raided was the most frightening thing. However on being asked about their main worry, children indicated that it was related to money.

These findings are supported by a study by Carrolissen (1987, in Dawes, 1994a) who obtained drawings from a sample of children in the Durban area. Again she found high levels of concern about violence. In his review of research, Dawes (1994a) expresses some concern about the potential experimenter bias in this type of study (where the children were asked to draw things they feared) and suggests the use of more open-ended instructions regarding the drawing task.

Another study utilising drawings to investigate children's perceptions of violence was carried out by Gibson, Mogale and Friedlander (1991, in Mendelsohn & Straker, 1993) They found that approximately half of the children spontaneously drew scenes of violence. Others made no mention of the conflict. They interpreted this finding as an indication that children may retreat into a primitive defensive state of denial rather than as an indication that children habituate to violence over time.

In a recent study reported by Dawes (1994b) uncued pictures were used to elicit

responses from a sample of children exposed to high levels of political violence, about what they thought was going on in the picture. He reports that the most striking finding of this study was that children's responses referred more frequently to general criminal and domestic violence than to political violence.

Other South African studies have focused not on the direct distress symptoms following exposure to violence but rather on the relationship between exposure to political violence and the acceptability of violent conduct.

Rabinowitz (1988) examined the influence of civil "unrest" on children's evaluations of violence. Her study was based on a questionnaire containing a number of vignettes which respondents were required to rate in terms of the acceptability of the violent act depicted. She concluded that no generalisations could be drawn regarding particular racial or class group's evaluations of violence. The only case where a racial difference was noted was on the scenario depicting a child's violence towards a soldier. In response to this picture black children were more accepting of the violent act than whites. She discussed this result in the context of the sociopolitical context and the relationship between police and township residents. No gender differences emerged and no clear relationship was found between previous exposure to violence and subsequent attitudes towards violence. What she did note was the context bound nature of the children's evaluations of violence. For individual respondents different violent acts ranged from acceptance to condemnation. Politicisation was noted as an important variable.

Pastor (1988, in Dawes, 1994b) carried out a similar study but held class and race constant and assessed children from areas which differed in the levels of political and criminal violence. No general relationship was found between exposure and attitudes towards violence. Like the Rabinowitz study there were some specific differences regarding specific acts and specific previous exposure. However even in these cases the majority of subjects judged the act to be wrong.

Setiloane (1991) carried out a study of 116 school pupils between the ages of 13 and 19 years. The basic thesis of this study was to establish to what degree violence influences

attitudes towards violence and tolerance thereof. Overall he found no differences by age or sex regarding the acceptability of violence in general, although girls endorsed violence for self-defence more than boys. Overall the results suggested an abhorrence of violence for fun or for political reasons.

In his review of research on the effects of political violence on socio-moral reasoning and conduct, Dawes (1994b) points to the complexity of outcomes for moral and behavioural orientations following political violence. He concludes that exposure to violence will not by itself produce lowered moral reasoning.

Finally a related strand of research which, although it does not focus specifically on violence, is germane to this study, is that which attempts to assess the prevalence of psychopathology amongst South African children generally. In their review of prevalence studies conducted to date (Broughton, 1986; Robertson & Juritz, 1988; Loening, 1990; Van Zyl, 1990; Visser, 1990), Robertson and Berger (1994) discuss the many methodological difficulties in conducting research of this nature. They noted several problems with each one of the mentioned studies and they concluded that no authoritative data are available on the nature and prevalence of psychopathology in South African children. They said that while studies of psychopathology reflect only one aspect of the emotional development and functioning of South African children, and that documentation of the nature and prevalence of psychopathology cannot be separated from the study of dynamic etiological factors, studies would provide useful indicators regarding much needed services.

3.4 SUMMARY OF RESEARCH FINDINGS

Drawing together the findings from the range of studies on the effects of various forms of violence on children is a difficult undertaking. This is at least partly due to the difficulties inherent in this type of research. As discussed above regarding issues in disaster research, baseline data is often difficult to obtain and matched control groups are often

not available. Furthermore in many instances researchers face danger themselves, particularly in situations of ongoing political violence. People may also not be willing to participate in such research and researchers may be hindered by authorities who have a vested interest in maintaining the status quo. The studies which have been undertaken also vary considerably in methodology. Important information concerning baseline symptom levels of children, the full range of stressors involved, and mediating conditions is often not reported, making comparisons between the findings of different studies difficult (Martinez & Richters, 1993).

The term "political violence" is itself a rather loose one and is applied to a range of situations. Political violence also occurs concomitant with other stressors and in some settings may be difficult to separate from criminal violence. Structural violence, the term used for political, economic and social oppression by the state, also plays a crucial role, and here too the effects are difficult to separate out from the effects of more overt civil conflict. Political violence is not a unitary phenomenon with unitary psychological "effects" (Dawes, 1994a).

However, notwithstanding these difficulties, a number of points may be drawn from the research conducted to date:

* Most children express significant emotional distress when exposed to violence. Many children show anxiety and specific fears. The specific nature of acute reactions varies particularly as a function of age.

* Acute reactions tend to diminish over time; however this may not occur under conditions of ongoing political violence where traumas and stressors are continuous and unpredictable. Serious long-term consequences have however been observed in some cases.

* The psychological impact of violence appears to be related to the degree of exposure and personal threat; however this may be mediated by other factors. The child's appraisal of the violence seems to be of particular importance.

* Separation from family/parents and situations involving loss and bereavement are associated with much higher levels of emotional distress and more long-term psychological sequelae.

* Social support appears to buffer the impact of the stressors associated with violence. Studies suggest the importance of the family environment, community cohesion, and peer support.

* Prevailing social norms and the meaning ascribed to violence may affect the degree of emotional distress experienced by children.

* Parental distress and coping seem to be closely related to the degree of psychological symptoms observed in children.

* Parents tend to under-report symptoms of distress in their children.

* Risk factors relating to the family or to the child (eg. previous separations from the caregiver, previous traumas, family conflict) significantly increase the vulnerability of the child to long-term psychological problems following exposure to violence.

In their review of the literature on children and violence, Martinez and Richters (1993) conclude,

> "... Children who are exposed to violent incidents are significantly more likely than those not exposed to suffer from a wide range of social and emotional problems. Prevalence rates are not always as high as one might expect *a priori*, but they are certainly high enough to warrant concern about violence as a risk factor for children's adjustment." (p24).

Overall it seems that no single conclusion about the effects of violence on children can be drawn. Clearly a number of factors interact in the development of reactions to trauma. In

attempting to gain a better understanding of children living in conditions of ongoing political violence it is necessary to examine some of these factors in more detail.

3.5 RESILIENCE & VULNERABILITY

The initial focus of research on stress and adversity on children was on the negative consequences of such adversity for subsequent psychological development. This was followed by a shift towards differentiating between different types of life events and the differences in negative psychological effect. In the early 1980's a third shift occurred towards recognising that there are marked individual differences in reactions to various stressors. This shift is associated in particular with the work of Rutter (1985) who introduced the notion of resilience. He noted that "large individual differences in response to stress and adversity are a universal feature of empirical studies following all manner of research strategies" (1985, p599). Rutter goes on to postulate that these differences may be explained in terms of an interactive process involving a number of different protective factors.

As mentioned above, the research on the effects of violence on children has also yielded many differences, not only between different studies but also between subjects within the same studies. A number of factors are thought to play a role. Some of these factors emerge from the studies reviewed above, while others are drawn from the work of authors such as Rutter (1985) and Zea (1994).

3.5.1 ENVIRONMENTAL FACTORS

The nature of the traumatic situation

The type of event, whether it is directly or indirectly experienced, the duration of the traumatic situation, whether it is a single discrete event or a series of ongoing stressors, and the intensity of the experience, all play an important role in determining how a child will react to exposure to such a situation. Eagle (1994) suggests the importance of

whether the trauma is compounded on past traumatic situations in the individual's history and the context in which the trauma occurs. Whether the situation is transitory or transitive (irrevocable, such as a death) has also been cited as a feature important in affecting outcome for the child (Dawes, 1994a). Traumatic situations with irrevocable features are likely to have more serious effects than those which do not have such a definite effect on life structure.

Socioeconomic context

The background against which the traumatic situation occurs may play an exacerbating or protective role in compounding or ameliorating the severity of stress experienced. This is closely linked to the nature of the traumatic situation. Objective physical conditions of families (such as overcrowding) have also been recognised as important variables.

Ideology or interpretations of the event

The meaning ascribed to the event is important in influencing how it is experienced. Research has suggested the potential ameliorating effect of a particular ideological explanation of political violence (eg. Punamaki, 1987; Dawes, 1987). The broader social meaning ascribed to events is also linked to the meaning ascribed at an intra-personal level.

3.5.2 INTERPERSONAL FACTORS

Social Support

Various studies have also suggested the importance of social support as a mediating factor to stress. The availability of a close individual who can provide emotional support for the child and interpret what is occurring reduces risk (Dawes, 1994a). Social support has been hypothesised to act as a buffer which helps individuals to cope with stress by enhancing their trust in the continuation of emotional ties and by facilitating mastery of the environment (Gibson, 1986). Support is also protective if it provides containment and facilitates expression by the child.

Support from parents or primary caretakers has been discussed as one of the most

important determinants of positive or negative outcome (Zea, 1994). Support from peers and strong group and/or community cohesion may also operate as protective factors. External social agencies (such as a school that is well integrated and supportive) can also provide an important source of stress mediation. Schools can provide support by providing accurate information on events of the crisis and have a calming effect in that they provide an ongoing routine.

Coping of Family/Caretakers

How caretakers cope with traumatic situations has been found to play an important role in promoting resilience or vulnerability in children. Growing up with traumatized parents can add to the vulnerability of a child (Bunk, 1993). Active as opposed to reactive coping by caretakers may act in a protective manner. Caretakers model coping behaviour for those in their care and provide a sense of control and certainty (Dawes, 1994a). In situations where a parent is lost research suggests that it is the remaining parent's ability to cope with this loss that is crucial. The reactions of parents are also important in that they may impede the parent's ability to provide a source of support for the child. Research has also suggested that caretakers who have themselves been supported have been able to give better care to their children (Punamaki, 1989).

3.5.3 INTRA-PERSONAL FACTORS

Coping and Temperament

The outcome for the child is not just a function of the severity of the stressors and the availability of social protective factors (Dawes, 1994a). The child's coping style has been shown to play an important role. Children with active coping styles tend to be more resilient than those who respond in a more passive way. Rutter (1985) states that it is not so much the particular coping strategy which is used that is important but that the child does *act* and not simply *react*. Research has indicated that some temperamental factors are associated with a child's ability to cope, namely, good social skills, interpersonal sensitivity, likeability, and internal locus of control (Garmezy, 1983). Positive coping with stressors is also linked with self-esteem and a sense of self-efficacy, which is in turn connected to the cognitive appraisal of the event (Rutter, 1985). Gibson (1986) also

mentions good problem-solving skills as a factor cited by various researchers as associated with better coping.

The literature also suggests a gender difference with boys being more susceptible than girls until puberty where the pattern reverses (Dawes, 1990).

Development

The developmental stage at which the child is when a traumatic situation is experienced is crucial in influencing the nature and extent of impact on the child. The following discussion is summarized from a review by Gibson (1986).

Pre-school children are primarily oriented towards the care giver and the family, and their understanding of the outside world is largely mediated through these relationships. As a result of this dependence, pre-school children's anxieties tend to relate to their subjective experience of the adults around them rather than to objective threats in the environment. They are therefore more vulnerable to the impact of types of trauma which impact on the dynamics and structure of the family, and are also particularly sensitive to the reactions of caretakers. While pre-school children do have some understanding of physical harm in terms of tangible threat they do not have the capacity to understand threat on a more conceptual level. This can act in a protective way; however children tend to pick up feelings of distress from their parents and families which can lead to high levels of anxiety as children of the age are unable to mediate these perceptions by logical thought. Reactions of children of this age may take on a number of forms but are typically regressive in nature.

Children in the middle-childhood range have an improved capacity for understanding the threats to themselves and others. At the same time they are unable to make sense of or rationalise these threats at an abstract level. Children of this age are beginning to relate to people outside of the family and develop a sense of autonomy and industry, but they have not gained the independence to act appropriately on their environment in order to lessen their fears. Children in this phase may be aware of dangers but unable to alleviate their fears through concerted political involvement. Furthermore children in this stage can

appear to have an adult style of dealing with emotions yet may still experience the intensity of early childlike feeling. This may inhibit their ability to express anxieties. All of these factors point to the particular vulnerability of children of this age group. They may be vulnerable to factors which affect the stability of the family, the social environment and peer relationships, and those which affect the broader community. Children of this age can however resort to the more infantile defence of denial.

By the time a child reaches the adolescent stage s/he has the cognitive capacity to understand abstract threat, but unlike the younger child is more able to understand the meaning of the situation. Adolescents experience increasing needs for independence while at the same time experiencing identity confusions for which answers are sought from among the peer group. This may result in the child being more susceptible to the meanings and roles prescribed by peers, but can also result in complicated feelings of guilt regarding family and parents often manifesting in unrealistic concern for their safety. In the case of political violence peer pressure in conjunction with the need to rebel may find expression in political activism (this can have problems in terms of leading to situations for which the adolescent is no emotionally prepared, but might also serve as a protective factor in terms of providing meaning etc.) Reactions to stress during adolescence usually takes the form of depression, isolation and withdrawal and/or anti-social behaviour.

3.5.4 CONCLUDING COMMENT

The basic tenet of the work on resilience and vulnerability is the interaction of a number of different variables in determining the outcome of a particular event or series of events, in this case violence. While this approach is useful in that it generates predictive statements and suggests conditions under which a particular outcome is likely to occur, it remains mechanistic in its explanatory framework (Dawes, 1994a).

The social constructivist argument rejects the subject-object dualism inherent in the positivist approach and focuses instead on the development of understanding through a process of social negotiation. Said another way, the social constructivist paradigm looks at how groups construct meanings with which to interpret their situation. In the words of

Dawes, "stressors have different meanings in different communities, and community discourse shapes the very notion of what is stressful and also what is an appropriate response. Socialisation 'naturalises' or renders normal, certain forms of response to adversity" (1990, p15). "The social constructivist position suggests that many aspects of the child's age- [and gender-] related capacities are a function of social convention and practice." (1994a, p190).

The social constructivist perspective is particularly useful in explaining *why* particular factors may promote resilience or vulnerability. Furthermore this perspective ensures that notions of resilience and vulnerability, and for that matter, notions of what constitutes childhood, are not assumed to be absolutes but rather are considered within the social and ideological context within which they emerge.

CHAPTER FOUR
THE PRESENT STUDY

4.1 AIMS

As discussed in Chapter One, this study formed part of a larger-scale needs analysis being carried out as the first phase of an intervention programme being set up in the region. This study is broadly epidemiological in approach in that the overall aim was to establish the degree of manifest impairment in a particular cohort of children (Garmezy, 1986). Unlike a case-descriptive method where a group is specifically selected on the basis of exposure to a traumatic event(s), or a quasi-experimental method where groups are compared, this study focuses on prevalence in a general cohort of black children.

The overall objective of this study was to develop a "trauma profile" for black school children in the 9 - 12 year age group. As such, this study was descriptive in focus and aimed not to test existing hypotheses but rather to generate them. More specifically the aims were:

(i) to investigate the extent to which subjects had been exposed to a variety of violence-related stressors;

(ii) to investigate the extent of reported symptomatology amongst the target population;

(iii) to investigate how such symptomatology was manifesting if at all;

(iv) to undertake a preliminary investigation into the relationships between different variables. These included the relationship between various demographic variables,

exposure to violence generally, and to certain stressors specifically and the degree and nature of manifest symptomatology; and

(vi) to generate hypotheses for further investigation.

4.2 SAMPLE

The sample under study was a group of approximately three hundred black children attending senior primary schools in and around Pietermaritzburg in Kwazulu/Natal.

4.2.1 SAMPLING PROCEDURE

During the planning phase it was decided that this study should focus on school-going children. The reasons for this were that (a) it would be easier to gain access to such children and (b) that the planned intervention programme was to be school-based in the initial stages.

Permission was gained from the Department of Education and Training (DET) to conduct research in schools under the DET jurisdiction. Unfortunately the researcher was unable to obtain permission from the KwaZulu Department of Education and Culture for the research. Consequently no KwaZulu schools were included in the sample. A random sample of DET schools with senior primary pupils from the Pietermaritzburg, Lions River and New Hanover census districts was then selected. A map of the greater Pietermaritzburg area showing the distribution of DET schools (prepared by the Institute of Natural Resources, University of Natal, Pietermaritzburg) was used in deciding which districts to sample from, and a comprehensive list of DET schools was used to select the random sample. The names of the selected schools were then submitted to the DET for final permission. The initial letter of permission named five of the schools from the original random sample. This clearly no longer represented a truly random sample. The five schools are situated in Sobantu Village (1) (Pietermaritzburg district), Imbali township (2)

(Pietermaritzburg district), Ashdown (1) (Pietermaritzburg district), and Howick (Lions River district).

Using class registers, random samples of children were then selected from within the schools. In the higher primary schools two groups of twenty five children were selected from the Standard Three group, and in the primary schools two groups of twenty five children, one from Standard Two and the other from Standard Three, were selected. This yielded an overall sample of approximately 250 subjects.

A sixth school was then selected in order to increase the sample size to around 300 as originally planned. It had come to the attention of the researcher that none of the schools in those named by the DET from the original sample were in areas currently affected by violence (although many of the pupils were living in areas which had been affected by violence and some of the schools had previously been affected by violence). It was therefore decided that the additional school should be selected from an area currently affected by violence. After consultation with colleagues with a knowledge of the various areas, a sixth school was selected (also situated in the Imbali township) from the original list of randomly sampled schools.

4.2.2 SAMPLE CHARACTERISTICS

The total sample therefore comprised approximately 300 children selected from DET primary and higher primary schools in the Pietermaritzburg and Lions River census districts. Subjects were drawn from Standards two and three and the majority were therefore between nine and twelve years of age. More specific demographic details of the sample are reported in the following chapter along with the other results of the study.

4.3 INSTRUMENTS

The importance of a multi-method approach to assessing children's reactions to trauma has been stressed (Garmezy, 1982, in Benedek, 1985b). In addition to interviews and various forms of self-report inventories, non-intrusive measures such as drawings are recommended (ibid). In this study a combination of assessment instruments were used.

The assessment instruments used included: a Life Events Scale, a Symptom Checklist, Demographic Questions, a Human Figure Drawing and a Projective "Life Events" Drawing (see Appendix 1 & Appendix 2).

Although it would have been ideal to conduct some form of interview with the parents of the children as well as with the children themselves (see Pynoos & Eth, 1986, for discussion of interview procedures), time constraints and practical difficulties relating to the size of the sample prohibited this. Furthermore much of the research on children and disasters suggests that parents tend to underestimate their children's distress, and that the responses elicited from children themselves tend to provide a more accurate picture (Martinez and Richters, 1993).

4.3.1 QUESTIONNAIRE

The Life Events Scale was designed by the researcher, using information drawn from the literature on children and violence and specifically on the violence as it has been experienced in South Africa, together with other life events scales (Township Life Events Scale, Bluen and Odesnik, 1988; Coddington Life Events Scale for Children, 1981). It was informally checked by psychologists working in the field.

The Symptom Checklist was also developed by the researcher specifically for the purposes of this study as existing instruments were inappropriate and had not been designed for use with Zulu-speaking South African children. This checklist was based largely on information drawn from the literature regarding the psychological effects of violence on

children, together with a clinical diagnostic system (APA, 1987), and other similar checklist type instruments (eg. Piers-Harris Children's Self-Concept Scale, 1969; Beck Depression Inventory, 1972). Again this instrument was informally checked by several Clinical Psychologists.

The Life Events Scale, Symptom Checklist and Demographic Questions were compiled by the researcher into questionnaire format. This questionnaire was then translated into Zulu by the Psychology Department translator. The draft Zulu questionnaire was then checked by a Zulu-speaking Clinical Psychologist, and a number of changes were made to the translation, particularly where psychological terms were used. This Zulu draft was then used for the pilot study (discussed below). Following the pilot study some changes were made to the questionnaire. The changes were then re-translated by the translator. A back-translation of the final questionnaire from Zulu into English was then carried out by an independent translator. The few discrepancies which were found were then discussed with the primary translator and altered where necessary (see Appendix 3 for final Zulu questionnaire).

4.3.2 DRAWINGS

Children's drawings have been used as an indicator for cognitive development and also of personality for many years. The basic premise is that the structure of children's drawings reflect both the age and maturation of the child and that the style of children's drawings reflects attitudes, anxieties and concerns of the moment. Drawings are a form of projective assessment, and as such, are believed to facilitate the expression of anxieties and concerns which may not otherwise be directly reported.

Koppitz (1968) developed a systematic method for analysing the human figure drawings of children. This method entails analysing the drawing for the presence or absence of 30 emotional indicators. While Koppitz says that the presence of three or more emotional indicators suggests the likelihood of emotional problems, not all children with emotional problems show three or more indicators. Some empirical support has been found for the

distinction between disturbed and non-disturbed groups on the number of emotional indicators observed (eg. McNeish and Naglieri, 1993)

In this study children were asked to do a Human Figure Drawing as well as an unstructured Life Events Drawing. The Human Figure Drawing was administered according to the standard instructions (translated into Zulu) (see Appendix 1). The projective Life Events Drawing entailed asking the children to draw something that had happened to them. It was stressed that each child could choose what s/he wanted to draw and that they could choose something good or something bad (see Appendix 1 for specific instructions). The rationale for utilizing the projective drawing tasks was firstly as a method of assessing presence of indicators of emotional problems, and secondly as a way of facilitating the expression of concerns and fears which children may have been reluctant to mention on direct questioning or which may have been repressed.

4.4 PILOT STUDY

A pilot study was conducted with the aim of acquiring some information on the reliability of the instruments, the appropriateness of the planned method of data collection, and on any ambiguities in the questions themselves. The pilot study was carried out with a group of 20 children from a place of safety in the Edendale area.

The children were asked to do the Projective Life Events Drawing (as described above) followed by a Human Figure Drawing. They were then asked to complete the Demographic Questions, the Life Events Scale and the Symptom Checklist. This was done in a group administration with the assistance of a Zulu speaking research assistant. Although each child had a copy of the questionnaire, the research assistant read out each question one at a time in an attempt to prevent any difficulties arising from variations in the level of literacy amongst the children. Assistance was also given when the children were required to write down answers to open ended questions.

In addition to the group administered "battery", information was also sought from the children's files, as well as from the childcare workers. A random sample of 8 children were also interviewed individually by an independent interviewer trained in Clinical Psychology. This additional information was used to provide concurrent data for comparison with the data obtained from the group administered battery, with the aim of gaining some indication as to the reliability and validity of the "battery" to be used in the main study. This also afforded the opportunity to change ambiguously worded questions, and to adjust the procedure for administration where necessary.

The following findings were noted:

4.4.1 ADMINISTRATION PROCEDURE

The children were very cooperative and completed all aspects of the protocol conscientiously; there were no obvious problems with administering the battery on a group rather than an individual basis. They appeared to understand the tasks and were able to complete the questionnaire with relatively few problems. It did appear however that the reading out of the questions one at a time by the research assistant was important. Although the children managed to complete the open ended questions, this appeared to be difficult for some and was necessarily very slow as the assistant was required to check the children's answers. The protocol also seemed too long, with the drawings and the questionnaire taking two hours in total to complete. However, when given the option of stopping and continuing on another day, the children insisted on continuing with the tasks - possibly indicating that the interest generated by the tasks outweighed the fatigue and lapses in concentration that one would expect from a protocol of this length.

The following suggestions were made regarding the procedure for the administration of the battery: the battery should be shortened (possibly by omitting one of the drawing tasks or by shortening the questionnaire); a smaller group should be considered (eg. 10 children rather than 20) as this would afford the assistant greater opportunity to help the children where necessary and to keep track of children who might be slow in answering; the questions should be read out one at a time by the research assistant as done in the pilot;

the number of open-ended questions should be reduced and where possible they should be changed to a closed format.

4.4.2 RELIABILITY OF THE DATA

Overall, comparison of the data from the group administered battery with that from the interviews and records suggested a relatively high level of agreement.

Information obtained on the clinical interviews was categorised. These categories were then compared to the questionnaire, and those categories which yielded data corresponding to that obtained on the questionnaire were selected. In total the overlapping categories numbered 32 items from the questionnaire (including some items of demographic information, some of the Life Events items and some of the Symptom Checklist items). For each subject the information obtained on the questionnaire items was compared with the corresponding information in the interviews. The percentage of corresponding items where information was in agreement was calculated for each subject. On average 81% of the information which could be compared was consistent between the interview and the questionnaire. Analysis of each of the 32 comparison items suggested that certain of the items yielded contradictory information more often than others. Qualitative analysis of these items and the corresponding interview data suggested that some of these contradictions were the result of ambiguities in terms such as "parents" and "family".

4.4.3 AMBIGUITIES IN QUESTIONS

Observation of questions asked by the children during the administration as well as comparison of questionnaire answers with those given in interviews, suggested a number of potentially ambiguous questions which may have decreased the reliability of answers given.

These questions were discussed with other researchers and with the translator, and the wording altered where possible in order to clarify the ambiguities. It was also suggested

that more detailed instructions be given to the research assistant such that s/he could explain or clarify the questions for the children as they were read out. Where possible, examples or clarifications were then included in the questions (for example "family" was specified by a list of examples: father, mother, brother, sister, uncle, aunt , cousin etc.).

4.4.4 FOLLOW-UP

Qualitative analysis of the drawings, questionnaires and interview data suggested that a number of children at the place of safety were experiencing emotional difficulties. An interview with the superintendent and a discussion with the childcare workers confirmed this. They also mentioned difficulties that they were experiencing in coping with the behavioural problems of some of the children, and expressed a need for some form of intervention to assist them with the children. The researcher approached the Community Mental Health Programme (a joint project of the University of Natal Psychology Department and the Rehab Trust) for assistance in providing follow-up intervention at the place of safety. In response to the expressed need, two Intern Clinical Psychologists placed at the Community Mental Health Programme worked with the staff, and directly with the children, at the place of safety over about a 6 month period.

4.5 PROCEDURE

4.5.1 CONSULTATION WITH PRINCIPAL

For each school visited, before seeing the children the researcher met with the principal of the school. This was necessary not only to make logistical arrangements regarding when the school would be visited, which children would be seen and for how long, but also to discuss the objectives of the research and the broader intervention programme. The researcher forwarded a copy of the proposed intervention programme to the principals for their comment, and also undertook to send a summary of the research findings to the schools on completion of the study. The interviews with the principals also provided

useful background information about the schools and the particular problems experienced by those schools, which was useful in guiding the larger intervention programme.

4.5.2. ASSESSMENT OF CHILDREN

The administration procedure used followed much the same format as that used in the pilot study, with a few small changes. In each case the selected children were seen in a spare classroom. Wherever possible children were requested to sit at separate desks to avoid copying and interference with other children. Contrary to the recommendation made in the pilot, children were seen in groups of about 25. This was done out of necessity in the first school and was found to pose no problems, so it was continued in subsequent schools seen. This difference between the schools in the main study and the children used in the pilot could be attributable to generally lower levels of literacy amongst the Children's Home group, who ranged from Standard One level to Standard Four level.

As outlined in the instructions for administration (Appendix 1), the first stage of the administration involved introducing the researcher and research assistant, explaining the purpose of the activities, explaining confidentiality, telling the children about the importance of honesty, and that there were no right or wrong answers, and outlining how the children had come to be selected. Children were given time to ask questions. Following this initial introductory stage the children were given pencils and a copy of the questionnaire. Blank paper for the two drawings[1] was attached to the questionnaire to facilitate easy administration.

The children were then asked to do a Life Events Drawing (see Appendix 1). Once they had all begun their drawings the research assistant went from child to child asking him/her about what was happening in the drawing. The assistant then wrote down the child's response along with the questionnaire number (so that responses could later be matched with the appropriate child's picture). This questioning process was necessary to ensure

---

1 The questionnaire was made considerably shorter by omitting most of the open-ended questions, therefore it was decided to use two drawings as had been done in the pilot study.

that the researcher could be clear as to what the child had drawn. On completion of the first drawing, the children were given the instructions for the Human Figure Drawing (see Appendix 1).

With most of the groups, the children were given a break where they could go to the toilet if necessary and get up and stretch, prior to beginning the questionnaire. As in the pilot, the questionnaire was administered in a group. Each child had a copy of the questionnaire. The Zulu research assistant then read through the questionnaire, question by question, explaining and giving examples where necessary. For example, an explanation was given as to how to answer the questions by ticking the appropriate answer, or in the case of YES/NO answers by circling the appropriate one. The research assistant kept a constant check that children were keeping up with the group, and helped them with written answers where necessary. The assistant was also given more detailed instructions about the meaning of the questions and examples were included on the assistant's copy of the questionnaire. For example, where children were asked whether anyone in their family had died an example was given of "mother, father, brother, sister, uncle, aunt, cousins" to explain what was meant by "family" in this context. This enabled clarifications to be given where necessary, hence avoiding the ambiguities identified in the pilot study, and also ensuring some degree of standardisation in administration across the different schools.

4.6 DATA ANALYSIS

The questionnaire data and the drawings were coded and entered into a data base on a personal computer. Statistical analysis was then carried out using the Statistical Package for the Social Sciences (SPSS/PC) version 3.1 at the University of Natal.

CHAPTER FIVE

RESULTS

5.1 INTRODUCTION

In the first section of this chapter results of descriptive statistics pertaining to each section are presented. This is followed by the results of the inferential statistics which explore relationships between variables.

Basic descriptive information of the demographic data is presented first. This is followed by the results of descriptive statistics from the Life Events Scale and some analysis of the relationship between various demographic variables and certain Life Events scores. Descriptives of the Symptom Checklist data and analysis of the relationship between Symptom scores and demographic data are then reported. This is followed in a similar structure by the results of the Life Events Drawing and the Human Figure Drawing.

In the second section of the results, inferential statistics exploring the relationships between symptoms and indicators of emotional distress, and various stressor scores and demographic data are reported. This section includes Analysis of Variance between different groups of subjects, Multiple Regression analysis examining independent variables which best predict various scores, and a Factor Analysis of symptom items followed by various statistics using the factor scores as dependent variables.

5.2 DEMOGRAPHICS

The total sample size was 299. The sex distribution was found to be even with almost the same numbers of boys and girls (boys = 50.8%; girls = 49.2%). The mean age was 10.9 years. The age distribution ranged from 8 years to 16 years (see figure 1). 50.2% of the

children live in the Imbali township, 14.5% in Sobantu, 16.8% in Ashdown, and the remainder in various other areas in and around the Edendale valley and in the Howick area.

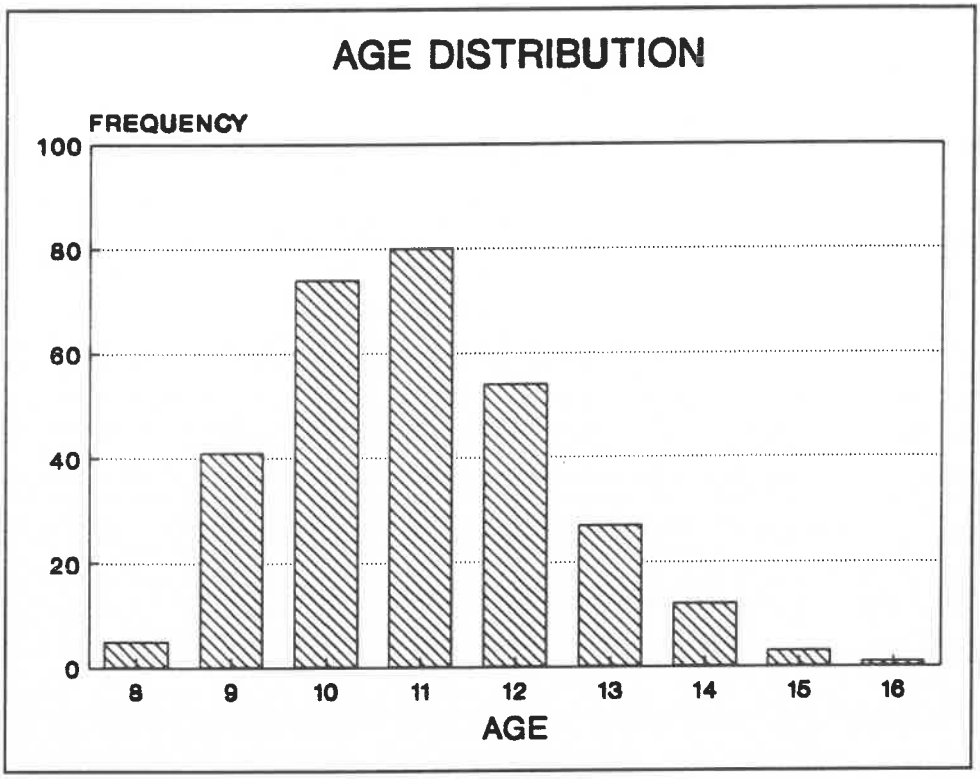


Figure 1

The number of people living in the child's home ranged from 1 to 16 with a mean of 4.8. Approximately 43% of the children said that the person who took care of them was their mother, a further 17% cited their grandmother as primary caregiver, 15% said that both parents took care of them, about 12% stated that it was the father, and the remaining children's responses were spread across siblings and extended family members. There were roughly equal numbers of children seen from each of the schools sampled and 77.6% of the children were in Standard three and 22.4% in Standard two.

5.3 LIFE EVENTS SCALE

5.3.1 FREQUENCIES

Frequencies were calculated for each item on the Life Events Scale. Tables 1 - 4 below show the percentage of subjects who reported each of the stressors/events on the Life Events Scale (see Appendix 2 for complete items). For ease of interpretation they have been grouped into four tables. Table 1 lists those events which indicate direct exposure to overt violence, Table 2 lists those events which indicate indirect exposure to violence, Table 3 lists events which suggest family-related stressors, and Table 4 lists other stressors/events included on the scale. For each table the items are ranked from most frequently reported events to least frequently reported events.

Table 1: Direct Exposure to Violence

Rank	Item	Percent
1.	Witnessed a person being assaulted	46.5%
2.	Own house has been raided by security forces	32.1%
3.	Witnessed a person being killed	27.5%
4.	Has been violence at own school	24.3%
5.	Been in other situations where harmed or afraid of harm to self	16.6%
6.	Own house has been attacked or burned	15.8%
7.	Personally been attacked before	7.7%
8.	Witnessed family member attacked before	7.7%
9.	Personally been assaulted by security forces	6.0%
10.	Been part of a group that has killed a person	3.7%
11.	Personally attacked people	3.3%
12.	Personally killed a person	2.7%
13.	Witnessed friends being killed in violence	2.3%
14.	Been arrested before	2.0%
15.	Witnessed the killing of a family member	1.0%
16.	Been in gaol	0.7%

Table 2: Indirect Exposure to Violence

Rank	Item	Percent
1.	Prevented from going to school because of violence	67.8%
2.	Houses in the area been attacked or burned	63.9%
3.	Have found that life is dangerous in the townships	53.6%
4.	Family member has been arrested before	38.8%
5.	Had to move house in order to be safe	26.2%
6.	Family member has been attacked in the past	18.4%
7.	Personally been frightened by vigilantes	18.4%
8.	Personally been frightened by security forces	17.7%
9.	Witnessed family member being arrested	15.1%
10.	Family and/or close friends have gone missing	14.7%
11.	Family member has been killed in the violence	11.1%
12.	Family members have gone into hiding	10.1%
13.	Friends have been killed in the violence	6.4%
14.	Friends been arrested before	3.0%
15.	Witnessed friends being arrested	2.3%

Table 3: Family-related Stressors

Rank	Item	Percent
1.	Death of a family member	57.2%
2.	Child displeased about new younger sibling	44.0%
3.	Frequent fighting between family members	27.4%
4.	Do not live with own family	27.3%
5.	Parent has died	17.2%
6.	Parents frequently beat or physically harm child	17.1%
7.	Frequent arguments between parents and child	14.4%
8.	Had to leave family and go to live with other people	6.7%

Table 4: Other Items

Rank	Item	Percent
1.	Have been very ill	59.9%
2.	Repeated a year at school	46.2%
3.	Stayed in hospital before	34.8%
4.	Sometimes do not have food at home	22.8%
5.	Have had to live outdoors before	19.2%
6.	Have had no house to go to	4.7%

An additional item which was included in the Life Events Scale was a question about political affiliation. Approximately 25% of the children responded that they did belong to a political grouping.

Three open-ended items were also included in the Life Events Scale.

(i) Subjects who answered "Yes" to the question regarding the presence of violence at school were then asked to provide details of the events. Of the 24% who said that there had been violence at their school, about half described their school as being in the midst of overt violence. Examples of responses include: "Shots were being fired and the school closed", "People were carrying guns", "Classes were broken into and furniture was stolen", "Fighting took place using guns and some boys even ran away". About 20% of the group referred to the injury of people through overt violence, for example, "Violence spread to school - people were killed", "Shots were fired and some girls were raped", and, "The teacher was stabbed and shot dead". A further 16% gave details which suggested a perception of direct threat to self, for example, "I was threatened by guys carrying knives", and, "I was hit with a bottle".

(ii) Similarly subjects who answered "Yes" to the item asking if there had been any other situations (other than those already mentioned in the scale) in which they had been harmed or were afraid of being harmed, were also asked to give details. 27% gave details of situations in which the child him/herself was directly threatened, for example, being stoned, stabbed or shot at. 20% gave responses indicating situations of fear in response

to overt violence, 18.8% gave details of situations of fear in the vicinity of violence, and 16.7% described situations of accidental injury to self such as falling and breaking a limb.

(iii) Finally, those subjects who answered "Yes" to the last question asking if there were any other things or situations which made him/her feel bad or unhappy, were also asked to give details. Of the 14.2% (42 subjects) who responded affirmatively to this question, one third gave responses relating to bereavement or death. About 17% gave responses focusing on conflict or problems at home, and a further 17% gave responses about violence in general. Other responses included negative peer interaction (such as being teased or mocked), sickness or injury, police brutality, poverty and crime.

5.3.2 SCORES

In addition to computing the number of subjects who checked each of the items on this scale, a set of scores was also calculated for each subject. A total Life Events score was calculated as the sum of the number of negative events (or stressors) checked by each subject. Out of a possible total score of 46, the mean score was 9.6 and the mode 6, with a standard deviation (Sd) of 5.2. Scores ranged from a low of 0 to a high of 29 (see figure 2). There was only 1 subject who did not check off at least one item on the Life Events Scale.

Sub-scale scores were then calculated from the Life Events Scale. Four sub-scale scores were calculated. The first (LE Scale 1) is made up of the sum of items reflecting direct exposure to violence, the second (LE Scale 2) comprises the sum of items reflecting indirect exposure to violence, the third (LE Scale 3) is the sum of items suggesting family stressors, and the fourth (LE Scale 4) is made up of other items on the checklist. The specific items making up each scale are listed above in the frequency tables.

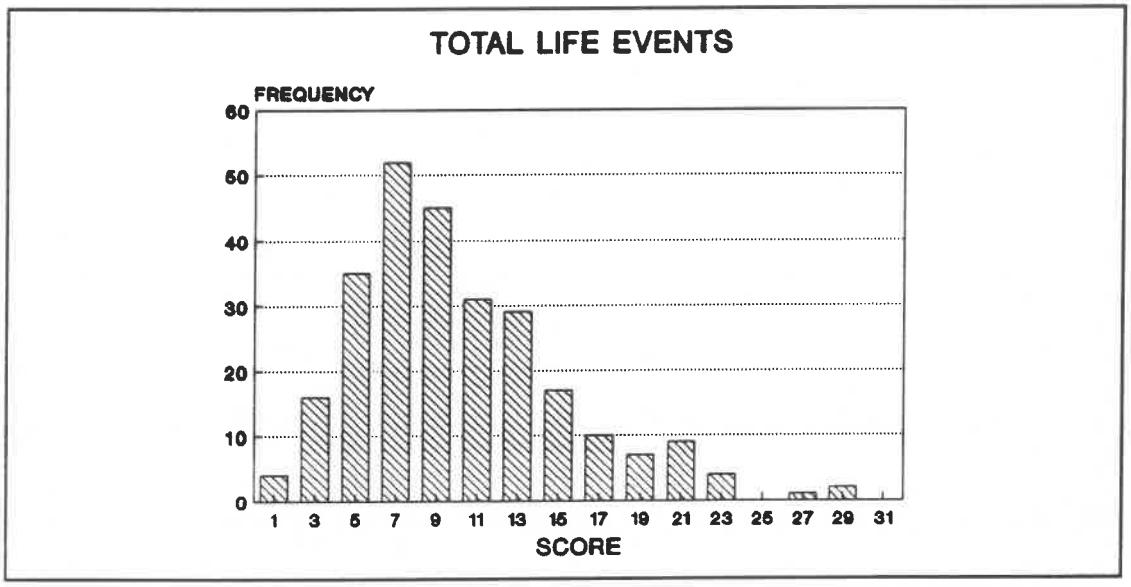


Figure 2

With a possible maximum of 16, scores on LE Scale 1 ranged from 0 to 9 with a mean of 2.021 (Sd = 2.005) and a mode of 1 (see figure 3). Approximately 77% of all subjects scored at least 1 on this scale, that is, about three quarters of the children interviewed had been directly exposed to at least one form of violence, and the average was around two. It is important to note that these scores do not reflect the number of incidents to which the child was exposed but rather the different types of exposure.

On LE Scale 2 (indirect exposure to violence), with a possible maximum of 15, scores ranged from 0 through to a high of 13. The mean score was 3.7 (Sd = 2.3) with a mode of 3 (see figure 4). Scores on this scale indicate that 95% of subjects reported indirect exposure to at least one form of violence, with around 45% reporting more than three items on this scale.

Of a possible total of 8 on LE Scale 3 (family related stressors/events), the mean and the mode were 2 (Sd = 1.3), with scores ranging from 0 through to 6. Here again the majority of subjects endorsed more than one of the items (see figure 5). Scores on LE Scale 4 ranged from 0 to 5 (against a possible maximum score of 6). The mean score was 1.9 (Sd = 1.2) and the mode 2.

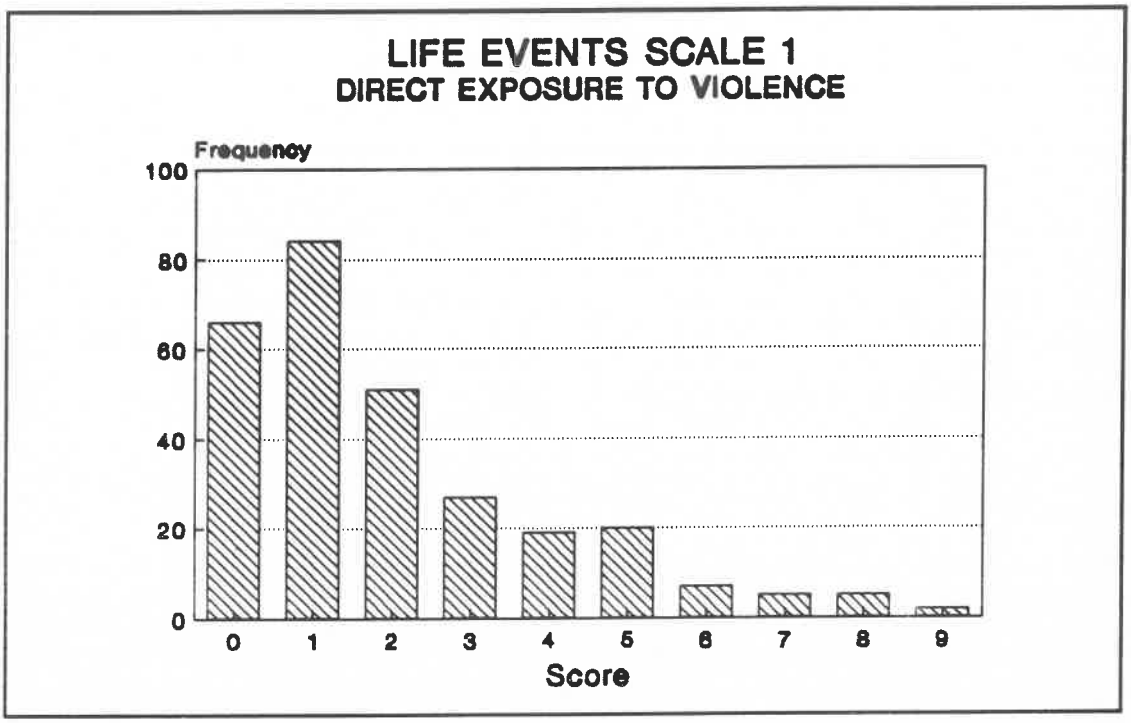


Figure 3

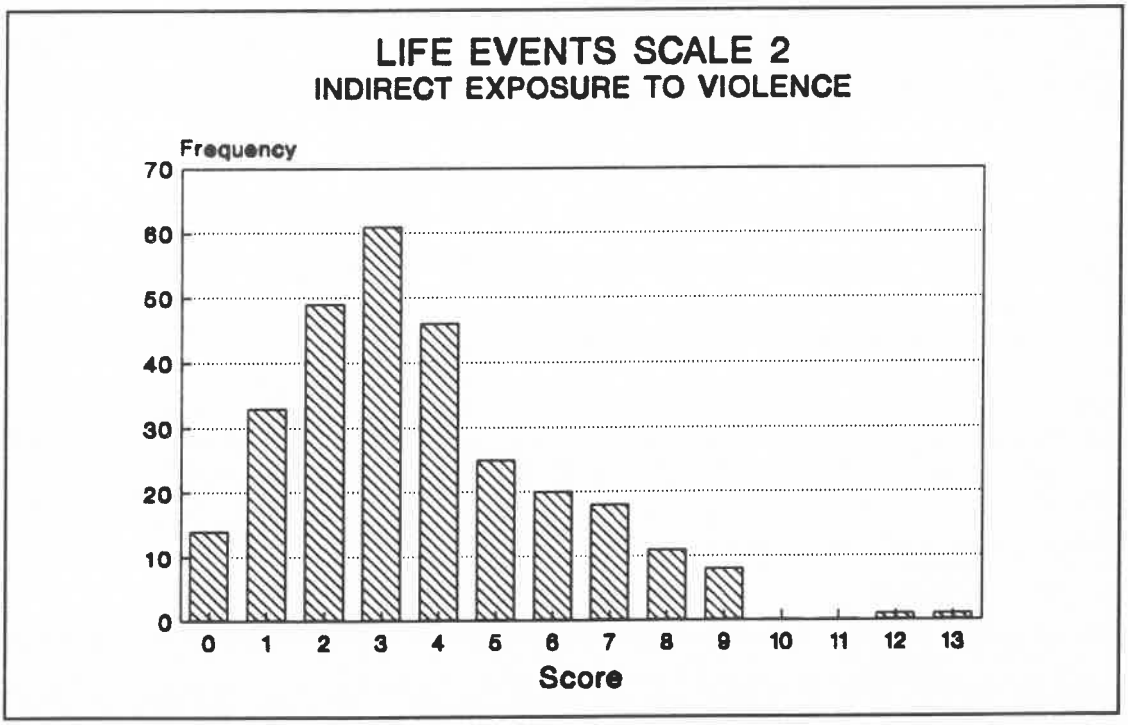


Figure 4

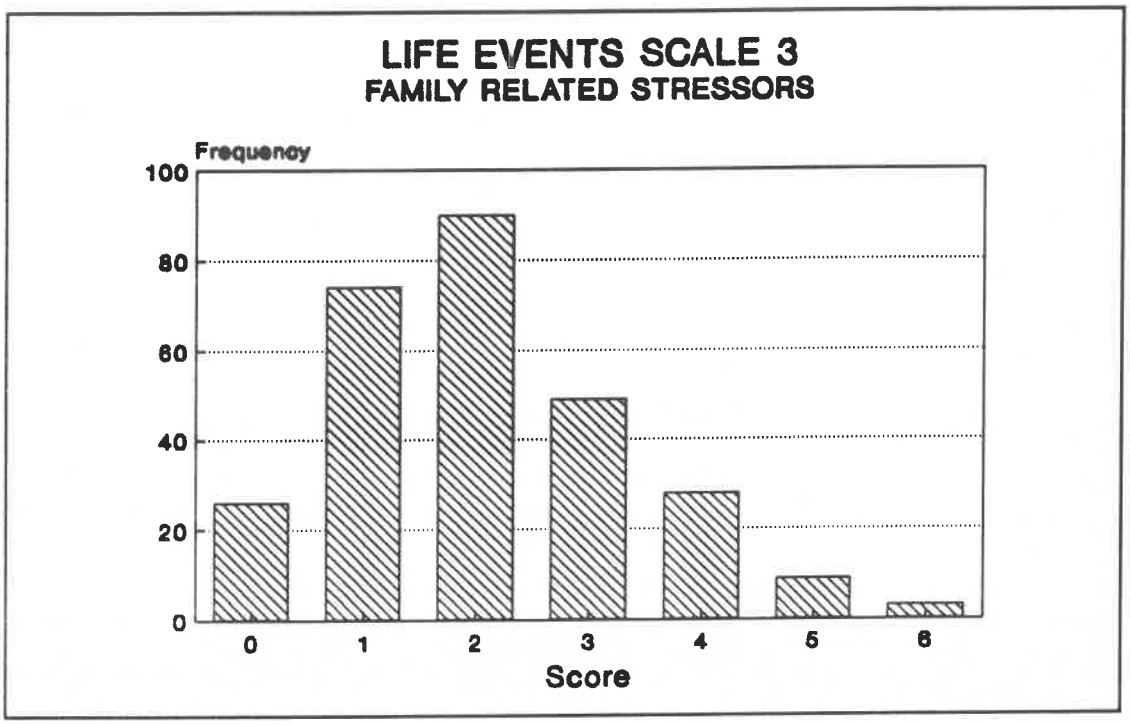


Figure 5

Correlations of the total Life Events score and the Life Events sub-scale scores with each other were calculated. All were found to have positive correlation coefficients, with a 2-tailed significance of $p<0.001$ (see Appendix 5.1).

5.3.3 ANALYSIS OF VARIANCE

Mean Life Events Scale scores (as dependent variables) were compared across different groups using a One-way Analysis of Variance (ANOVA) procedure in order to establish whether different sub-groups of subjects differed in terms of the number of Life Events checked (as reflected by the total Life Events score and the four sub-scale scores)[1].

A highly significant result was obtained for the ANOVA of total Life Events score by school ($p<0,001$). School F scored the highest, with a mean score of 12.43, followed by school B with 11.98, school D with 9.08, school A with 8.66, school C with 7.91 and

---

1

Specific details of mean scores, F values and P values for each ANOVA may be obtained from the author on request.

school E with 7.34. Significant results ($P<0.001$) were also found for LE Scale 1 (direct exposure to violence) and LE Scale 2 (indirect exposure to violence) by school, with the scale means ranked in the same order as for the total Life Events score. Differences in means by school were not significant for Scale 3 or Scale 4.

Differences in Life Events Scale scores were also found across the age categories. Ages were recoded into two categories, namely those children between the ages of 8 and 12 years, and those children over 12 years of age. Highly significant differences were found between the two age groups on the total Life Events score and on LE Scales 1, 2 and 4 ($p<0.01$). In all cases the mean scores for the older group was higher than that for the younger group. The difference between the two groups on LE Scale 3 (family-related stressors) was also statistically significant, but at a lower level ($p=0.022$), again with the older group scoring higher.

Comparing mean Life Events scores by sex also yielded some highly significant differences. On the total Life Events score and Scales 1 and 2, boys scored higher at a highly significant level ($p<0.01$). For Scale 4 there was also a significant difference ($p=0.013$). On Scale 3 (family-related stressors) there was no significant difference between the score obtained by boys and those obtained by girls. A two-way ANOVA of Life Events scores by age and sex did not yield a significant interaction effect.

Finally a highly significant difference was also found between the mean Life Events Score of those children who drew unpleasant scenes in the Life Events Drawing and those who did not ($p<0.001$). The difference was not significant for LE Scales 3 or 4, and was most significant for LE Scale 1.

5.4 SYMPTOM CHECKLIST

5.4.1 FREQUENCIES

As with the Life Events Scale, frequencies were calculated on each item of the Symptom Checklist. Table 5 shows the items ranked from most frequently reported symptom to least frequently reported symptom together with the percentage of the total sample who reported that symptom.

Table 5: Symptoms

Rank	Item	Percent
1.	Must watch out for danger all the time	66.1%
2.	Wake up at night/early morning and can't go back to sleep	57.9%
3.	Often feel sick or have pains in the body	54.8%
4.	Don't fall asleep easily at night	54.0%
5.	Things wish had/had not done (regrets)	53.4%
6.	Feel tired a lot of the time	46.2%
7.	Get angry easily	43.8%
8.	Frightening dreams nearly every night	42.8%
9.	Recurrent, intrusive negative recollections	41.1%
10.	Places avoided because of association with bad/frightening things	40.7%
11.	Problems with eating (too much/too little)	37.5%
12.	Feel cross or irritable most of the time	35.2%
13.	Things/situations avoided because lead to feelings of fear	35.1%
14.	Difficulty remembering things	32.8%
15.	Don't think I'm a good person	26.8%
16.	Difficulty sitting and keeping one thing on my mind	26.1%
17.	Happy one minute then sad the next for no particular reason	24.1%
18.	Feel frightened a lot of the time	22.8%
19.	Have no feelings inside	19.7%
20.	Get into a lot of fights with other children	17.7%
21.	Feel sad a lot of the time	17.4%
22.	Often feel like crying	17.4%
23.	Don't enjoy self in spare time	14.0%

24.	Wish I was dead or that life would end	12.4%
25.	Sometimes urinate in bed at night	4.4%
26.	Other problems or bad feelings	2.4%
27.	Use drugs or alcohol	1.3%
28.	Don't like playing games with other children	1.0%

As with the Life Events Scale, an open-ended question was included at the end of the Symptom Checklist to allow children the opportunity to report anything which might not have been included on the checklist. Only 7 subjects responded to this question (2.4%). Their responses included references to grief, problems with fighting with peers, nightmares and anxiety. Observations made by the researcher of the data collection process, suggest that the small number of responses on this question was at least partly due to it being the last question on the questionnaire, and subjects being tired.

5.4.2 SCORES

A total Symptom Checklist score was calculated to give an indication of the number of symptoms reported by each child. Out of a possible total of 28 symptoms, scores ranged from 1 to 22, with a mean of 8.5 and standard deviation (Sd) of 4.2. The modal score was 10. There were no scores of 0 (see figure 6).

Scale Scores

PTSD (Post-traumatic Stress Disorder) and Depression scales were also calculated. These scores represent the total number of symptoms of PTSD or Depression reported by each child. Symptoms were allocated to PTSD or Depression in accordance with the DSM IIIR (APA, 1987) criteria. Some of the symptoms did not fall into either category and some fell into both. The symptoms were not weighted as to their relative importance as indicators of PTSD or Depression. Out of a possible total of 12 symptoms on the PTSD Scale, scores ranged from 0 to 12 with a mean 4.9 and Sd of 2.5 (see figure 7). Over 90% of all subjects reported more than one symptom of PTSD. Out of a possible total of 14 symptoms on the Depression Scale, scores ranged from 0 to 13 with a mean of 4.2 and Sd 2.3 (see figure 8). With this scale too, over 90% of subjects reported more than one symptom of Depression.

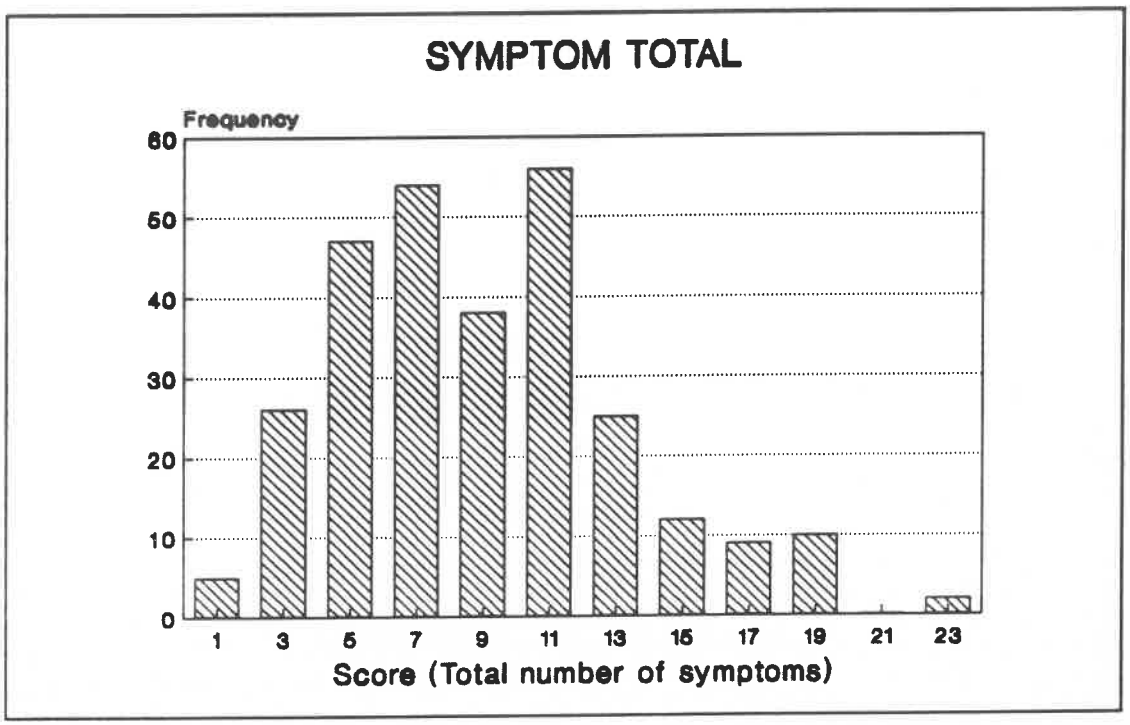


Figure 6

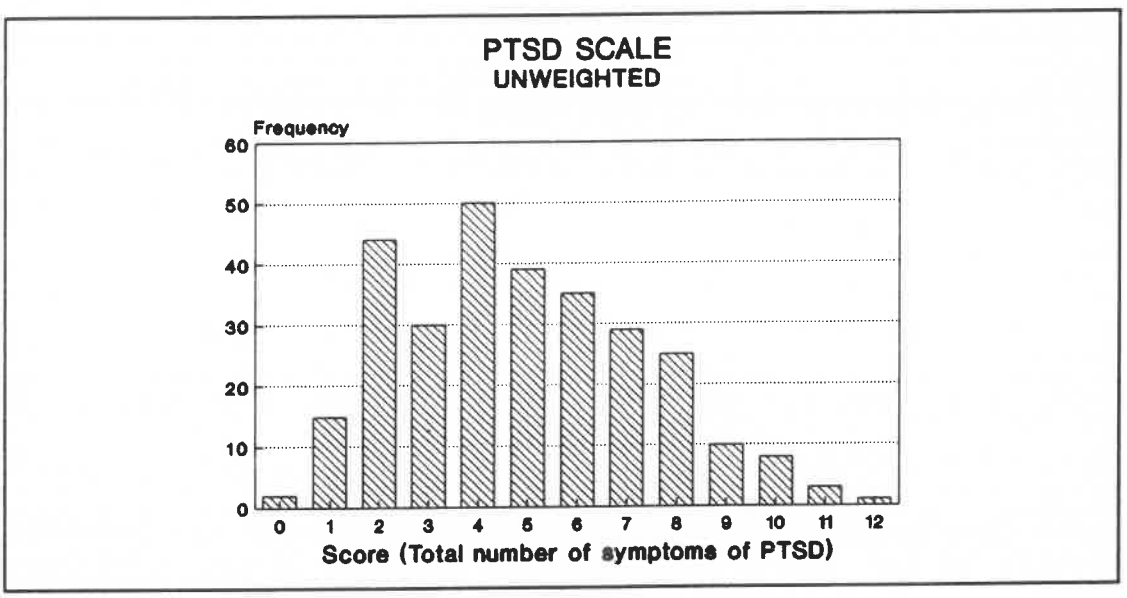


Figure 7

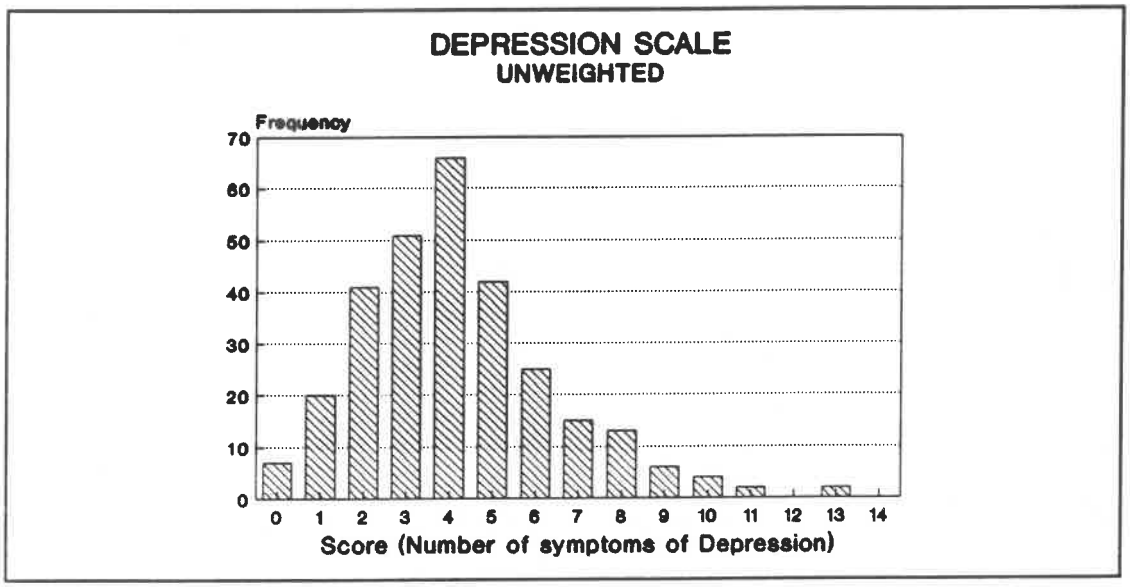


Figure 8

Weighted Symptom Scales

Since some of the items on the Symptom Checklist appear to reflect more serious symptoms than others, it was decided to calculate weighted symptom scales. A list of the items from the symptom checklist was compiled along with a rating scale. Ten Clinical Psychologists (n=5) and Intern Clinical Psychologists (n=5) were asked to rate each item from the checklist on a scale ranging from 0 (not a significant indicator) to 4 (a very strong indicator). Using this scale they were asked to rate each item as (i) a general indicator of emotional problems, (ii) an indicator of Post-traumatic Stress Disorder, and (iii) an indicator of Depression. An average of the 9 ratings (one person failed to return the questionnaire) was calculated for each item for each of the three scales. Total scale scores were then calculated as the sum of the weighted items (see Appendix 4 for a list of item weights). Three scale scores were calculated for each subject: (i) a general Emotional Problems Scale (ii) PTSD Scale (iii) Depression Scale.

Descriptive analyses revealed the following: Of a possible maximum score of 67, scores on the Emotional Problems Scale ranged from a lowest score of 2.3 to a highest score of 54.7. The mean score was 20.5 with a standard deviation of 10.3 (see figure 9). With a maximum score of 65.5, scores on the PTSD Scale ranged from a low score of 1.4 to a high score of 56.0. The mean score was 21.6, with a standard deviation of 11.0 (see figure 10). On the Depression Scale, with a maximum score of 59.4, scores ranged from 0.9 to

50.4. The mean score was 17.5 with a standard deviation of 9.2 (see figure 11).

In order to get some indication of the number of subjects scoring at a clinical level on each of these scales, cut-off scores were calculated. These calculations were used to give some indication as to what the cut-off score might be. A very conservative cut-off was calculated as the sum of the ten highest weighted items on the scale. Using this formula the cut-off score for the Emotional Problems Scale was 28.6, for the PTSD Scale was 33.4, and for the Depression Scale was 32.

On the basis of these cut-off scores, 17.8% of the subjects scored within the clinical range on the Emotional Problems Scale; 12.9% scored within the clinical range on the PTSD Scale; and 8.7% scored within the clinical range on the Depression Scale. It must be noted that these cut-off scores are arbitrary and may very well err on the conservative side. It is possible that a number of subjects who may well warrant a clinical diagnosis fall below the cut-off score.

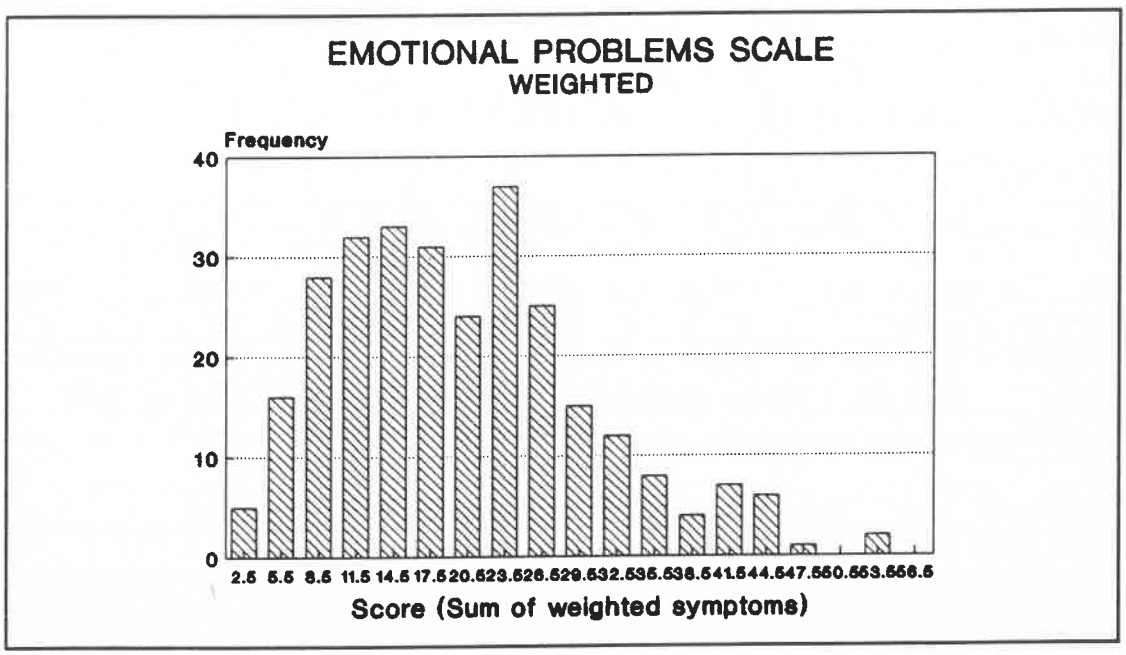


Figure 9

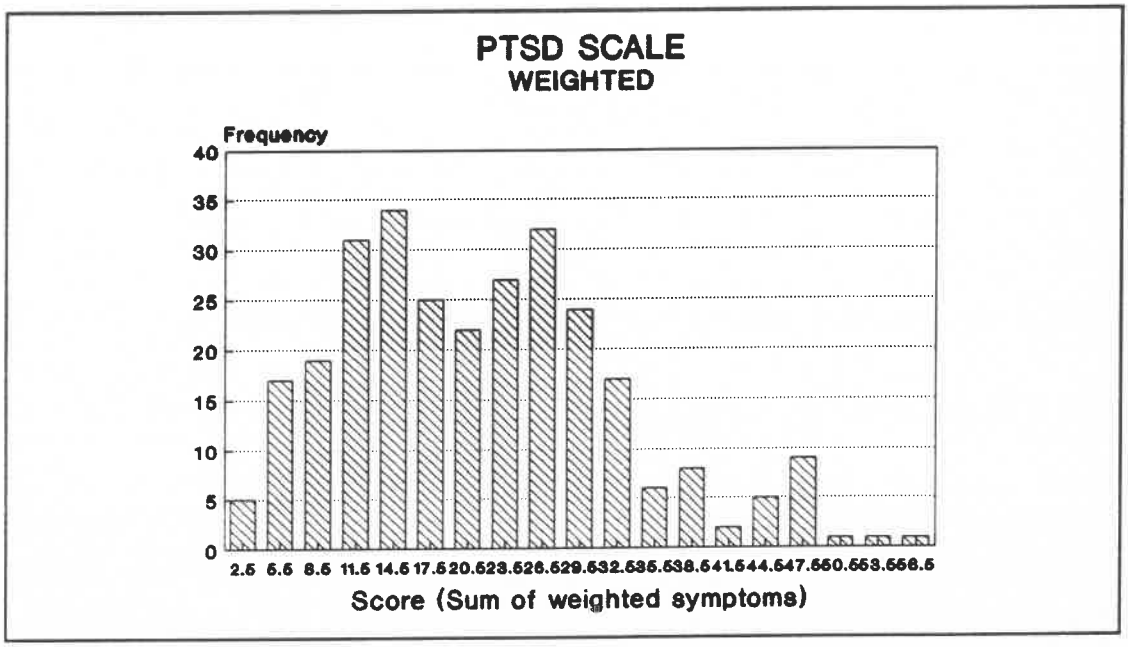


Figure 10

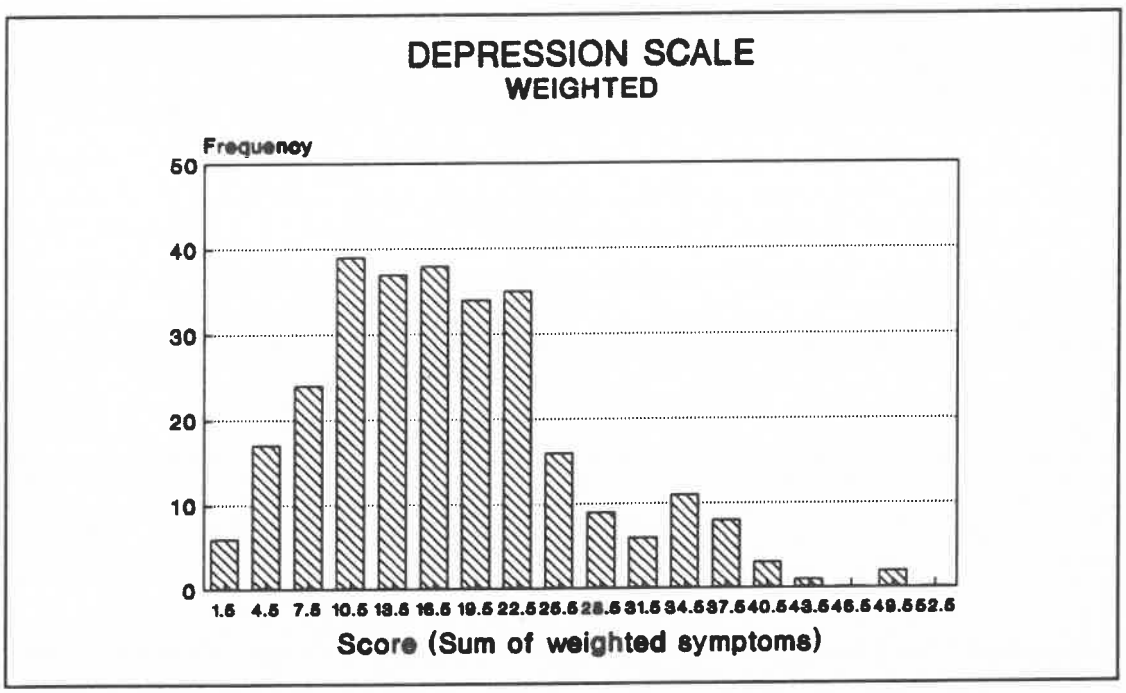


Figure 11

Correlation of Symptom Scores

Correlations were calculated for each symptom scale by each other, that is the total Symptom Checklist score (unweighted), the PTSD Scale score (unweighted), the Depression Scale score (unweighted), the Emotional Problems Scale (weighted), the PTSD Scale (weighted), and the Depression Scale (weighted) were all correlated with each other. High positive correlations were found between each one of the scale scores ($p<0,0001$). The correlations between the weighted and unweighted scales were all around 0,9 which is a very high positive correlation. For this reason in several of the subsequent statistics, only the total Symptom Checklist score and the weighted scales were used. Scatterplots were also generated in order to check that the high positive correlations were not a result of a few extreme cases. This was not found to be the case (see Appendix 5.2 for the detailed correlation matrix).

5.4.3 ANALYSIS OF VARIANCE

Analysis of Variance was used to establish whether differences in sub-group means on the various symptoms scale scores were statistically significant[2].

A comparison of symptom scores by the different schools yielded significant results, with the mean scores for each of the scales being consistently higher in the two schools that also scored highest on the Life Events scales.

Analysis of Variance of Symptom Scales by age revealed no significant differences between group means for the total Symptom Checklist score ($p=0.566$), the Emotional Problems Scale ($p=0.54$), the PTSD Scale ($p=0.508$) or the Depression Scale ($p=0.617$). Some significant differences in mean scores were however found on the basis of grouping by sex. ANOVA revealed that differences by sex on Emotional Problems Scale scores were just statistically significant ($p=0.047$) and on the Depression Scale scores were significant ($p=0.019$), with girls scoring higher than boys. Differences on the Total

---

2

Specific details (means, sum of squares, f and p values) of the ANOVA results may be obtained from the author on request.

Symptom score and on the PTSD scale were not statistically significant. A two-way ANOVA of Symptom scores by age and sex revealed that for all of the symptom scales older females had a higher group mean, however they were not at a statistically significant level.

No significant differences were found in symptom scale scores on the basis of grouping by the child's primary caregiver.

5.5 LIFE EVENTS DRAWING

5.5.1 FREQUENCIES

The general Life Events Drawing where the child was simply asked to draw something that had happened to him/her, either good or bad, was analyzed in terms of the presence or absence of a number of features. These features were primarily content-related. Analysis of the features was based on the drawings themselves together with the responses of the children to questions asked about their drawings. Frequencies were then calculated, giving the number of children whose drawings reflected each of the specified features. The list of features was drawn up from the drawings themselves.

The first mode of categorisation of the drawings was simply to classify the content as either a pleasant scene (eg. a birthday party) or an unpleasant scene (eg. an accident). Frequency counts indicate that 39% of the drawings were of an unpleasant scene. Results were as follows:

Table 6: Features of Life Events Drawings

Feature	Percentage[3]
Possession of pride (eg. a new dress or toy)	24.6%
More than three figures	20.4%
Self-activity for pleasure/entertainment (eg. watching TV)	17.8%
Presence of flowers, trees or birds	16.8%
Weapons in the picture (non-traditional eg. guns, knives)	14.1%
Witnessed overt aggression (eg.seeing someone get shot/stabbed)	13.7%
Picture of house(s) which is/are intact	11.4%
Cars - unspecified	11.1%
Presence of a baseline (across the bottom of the picture)	11.1%
Overt aggression directed at self (eg. subject being beaten)	11.0%
Bullets drawn in the picture	10.8%
Domestic animals	10.4%
Being run down/ nearly run down by a car	7.4%
Positive peer group interaction (eg. playing with friends)	7.0%
The aftermath of aggression (eg. wounded people, running away)	6.4%
Outings or trips for pleasure/leisure	6.4%
Picture of house(s) under threat (eg. being burned or raided)	6.0%
Multiple scenes involving violence	5.7%
A party	5.4%
General household chores (eg. cooking, cleaning, gardening)	5.4%
Positive interaction with parents	5.0%
Presence of a sun in the picture	4.4%
General school related activities	3.7%
Self-activity to obtain food (eg. picking oranges, going to shop)	3.4%
Presence of family car	3.7%
Presence of clouds in the picture	3.0%
Wild animals	2.7%
Traditional weapons (eg. spears, shields, knob kerries)	2.4%
Negative peer group interaction (eg. fighting with peers)	2.3%
Presence of snake of snakes in the picture	2.0%
Stone-throwing scenes	2.0%
Behaviours aimed at protecting self (eg. hiding from threat)	1.7%
Presence of SADF/police vehicle	1.7%
Overt aggression carried out by self	

[3] Percentage of the drawings in which this feature is present.

(eg. hitting someone else)	*1.3%*
Presence of a taxi	*1.3%*
Scenes about illness (eg. hospital scenes)	*1.3%*
Drawing of a family gathering	*1.0%*
Negative interaction with parents (eg. being punished)	*1.0%*
Funerals or graveside scenes	*0.7%*
Positive interaction with siblings	*0.7%*
Presence of rain	*0.7%*
Kidnapping scenes	*0.3%*
Achievement (eg. winning a prize)	*0.3%*

5.6 HUMAN FIGURE DRAWINGS

5.6.1 FREQUENCIES

The Human Figure Drawings were also analyzed in terms of the presence or absence of certain features. The features consisted of the 30 emotional indicators identified by Koppitz (1968) as significant differentiators between normal and clinical samples, together with a number of other features often considered in the analysis of human figure drawings. Each drawing was scored for the presence or absence of each of the features by a colleague trained as a Clinical Psychologist. A sub-sample of the drawings were scored jointly by the researcher to check consistency in the scoring.

The following tables document the percentage of drawings in which each feature was identified. The features are divided into a table of those identified by Koppitz (ibid) as emotional indicators, and those not in Koppitz' list, but also used in the clinical analysis of human figure drawings.

Table 7: Features of Human Figure Drawings

Feature	*Percentage*
Arms short - don't/ would not reach waist	*41.1%*
Tiny figure (2" or less)	*21.4%*
Transparencies	*21.1%*

Teeth	*17.1%*
Gross asymmetry of limbs	*13.7%*
Hands cut off	*11.7%*
No neck	*8.7%*
No nose	*8.1%*
Shading body/limbs	*7.7%*
No mouth	*4.4%*
Shading hands and/or neck	*4.3%*
Poor integration	*3.7%*
No feet	*3.7%*
Large figure (9" or more)	*2.3%*
Arms clinging to side of body	*2.0%*
Axis tilted by 15 or more	*1.7%*
Big hands	*1.7%*
Arms long - reach below knee	*1.7%*
No legs	*1.7%*
No arms	*1.3%*
No eyes	*1.3%*
Legs pressed together	*0.7%*
No body	*0.7%*
Shading face	*0.3%*
Crossed eyes	*0.3%*
Genitals	*0.3%*
Monsters/ grotesque figures	*0.0%*
Three or more figures	*0.0%*
Clouds, rain, snow	*0.0%*
Tiny head (< 1/10th total height)	*0.0%*

Table 8: Features of Human Figure Drawing

Feature	*Percentage*
Heavy pencil lines and/or patterning	*69.6%*
Vacant or non-seeing eyes	*26.1%*
Profile view	*19.1%*
Sex of drawing discordant	*17.4%*
Very Long Neck	*12.7%*
Very Small Feet	*10.0%*
Big head	*9.7%*
Broken or sketchy lines	*8.0%*
Baseline or grass	*7.7%*
Very Short legs	*6.0%*

Very Large Ears	*5.0%*
Very Large Eyes	*4.7%*
Very Long legs	*4.0%*
Hidden hands	*3.3%*
Sideways glance of both eyes	*2.7%*
Sunglasses	*2.7%*
Very Large Mouth	*2.3%*
Very Small Eyes	*2.0%*
Very Large Feet	*1.7%*
Very Small Nose	*1.0%*
Figure cut off by edge of paper	*0.7%*
Very Large Nose	*0.7%*
Very Small Mouth	*0.0%*
Very Small Ears	*0.0%*
Sun or moon	*0.0%*

5.6.2 EMOTIONAL INDICATOR SCORES

For each subject an Emotional Indicator score was calculated. This score comprises the sum of the Emotional Indicators present (using just those features identified by Koppitz (1968) as significant differentiators between normal and clinical populations). Scores ranged from 0 to 7 with a mean score of 1.8 and a standard deviation of 1.3 (see figure 12). Approximately one quarter of the subjects had drawings with 3 or more Emotional Indicators present.

Analysis of Variance

Oneway ANOVAs of the Emotional Indicator score by some demographic variables were calculated in order to determine whether there were significant differences in the scores obtained by different sub-groups of subjects.

ANOVA of Emotional Indicator score by age did not yield a significant difference in score on the basis of age ($p=0.65$). Similarly there was no significant difference in scores by sex ($p=0.52$)[4].

4

Specific details of ANOVAs may be obtained on disk from the author.

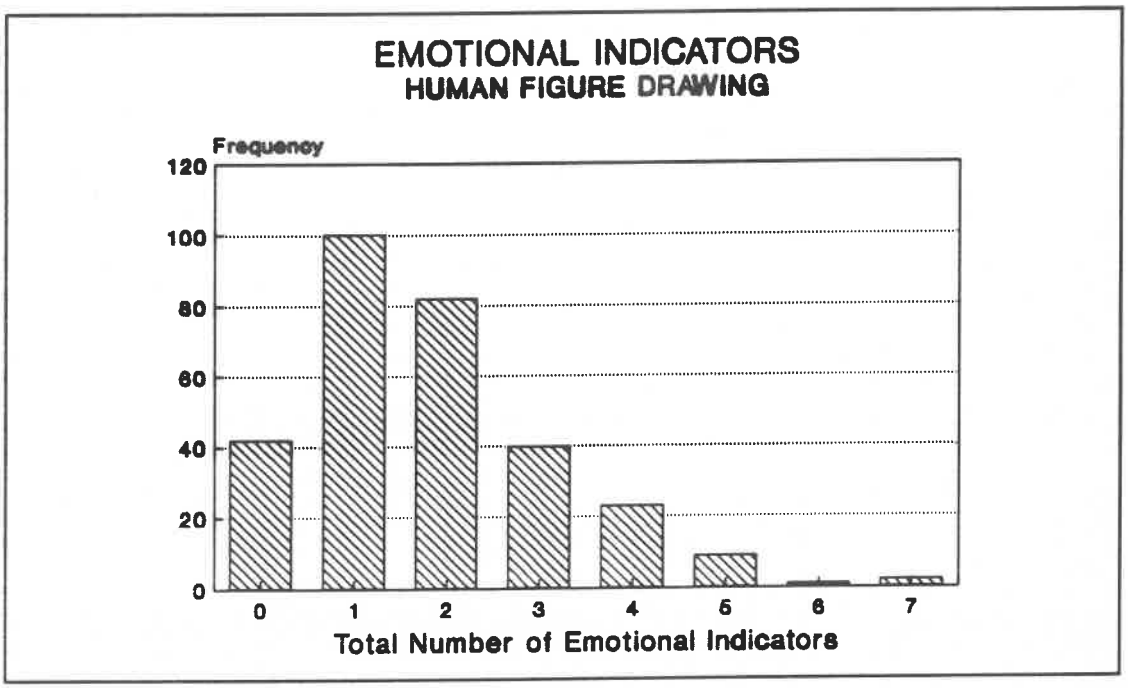


Figure 12

Correlations with Life Events and Symptom Scores

Correlations of the Emotional Indicator score on the Human Figure Drawing with the Life Events scores and the various Symptom Scales yielded correlation coefficients of around zero for each one. The Emotional Indicator score was not found to be correlated with any of the Life Events scores or the Symptom scores (see Appendix 5.3 and Appendix 5.4 for matrices of correlation coefficients).

Cross-tabulation by Symptom Categories

The categorised Symptom Scales (number of subjects scoring above the cut-off score and number of subjects scoring below the cut-off score on the weighted Emotional Problems, PTSD, and Depression scales) were then used in cross-tabulations and Chi-square analysis in order to ascertain whether (as suggested by Koppitz' (1968) research) scores of 3 or more on the Emotional Indicator Scale were significantly related to scores above the clinical cut-off score for the Symptom Scales. None of the Chi-square analyses of Emotional Indicator Category (greater than or equal to 3 indicators and less than 3 indicators) by Symptom Category (less than the cut-off score or greater than the cut-off score) were significant.

5.7 RELATIONSHIPS BETWEEN SYMPTOMS & LIFE EVENTS

5.7.1 CORRELATION OF SCORES

Pearson's Correlation was calculated for each Symptom Scale score with each Life Events Scale score. All of the correlation coefficients were positive and had a 2-tailed significance of $p<0.001$ (see table 9 and figure 13).

5.7.2 ANALYSIS OF VARIANCE

Analysis of Variance was used to analyze whether Symptom Scale scores were significantly different between groups who reported specific life events versus those who did not. Results are recorded in table form in Appendix 6. Only those Life Events items which yielded a significant difference in group mean Symptom scores between those subjects who had reported the event and those who had not are included in the table. Those Life Events items on which either group had fewer than twenty cases were also excluded. These additional results are available on disk, and may be requested from the author if required.

One ANOVA which requires specific mention is that where belonging to a political group was used as a grouping variable. Children who responded that they did belong to a political group scored significantly higher on the Total Symptom score ($p=0.035$). An ANOVA of belonging to a political group by Life Events was then calculated. Significant differences were found on Total Life Events ($p=0,003$), Life Events Scale 1 ($p=0.013$), Life Events Scale 2 ($p=0.026$), and Life Events Scale 3 ($p=0.0008$). In each instance, the group of subjects who said that they did belong to a political group obtained higher mean Life Events scores.

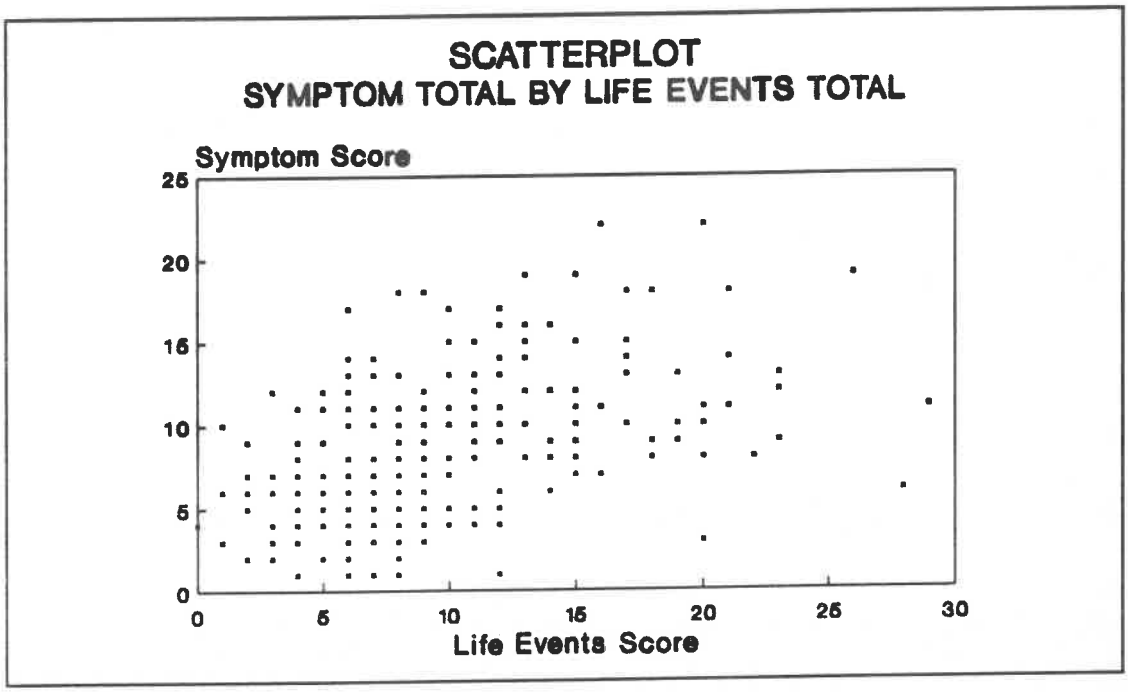


Figure 13

Table 9: Correlation Coefficients - Symptom Scale scores by Life Events Scale scores

	Total Symptom Score	PTSD Score	Depre. Score	Emotion Problem Scale	PTSD Scale Score	Depre. Scale Score
LE Total	0.4606	0.3684	0.4119	0.4557	0.4566	0.4492
LE Scale1	0.3605	0.2798	0.3319	0.3589	0.3595	0.3557
LE Scale2	0.3529	0.2650	0.3137	0.3483	0.3417	0.3434
LE Scale3	0.4054	0.3675	0.3445	0.4049	0.4104	0.3855
LE Scale4	0.2466	0.2075	0.2315	0.2404	0.2492	0.2477

5.7.3 MULTIPLE REGRESSION

Multiple regression may be used to identify the subset of independent variables that is most useful for predicting a dependent variable, to develop an equation that summarizes the relationship between a dependent variable and a set of independent variables, and to predict values for a dependent variable from the values of independent variables (Norusis, 1985). A multiple regression procedure was therefore chosen to identify which variables best predicted the Symptom Scale scores.

Total Symptom Score

As a starting point, a regression analysis using the Total Symptom score as dependent variable and the Total Life Events score, age, sex and caregiver as independent variables, was run. A simple enter method was used whereby all specified independent variables are entered into the equation. Results were as follows:

LE Total	*Beta=0.50740*	*T=8.738*	*Sig. of T=0.0000*
Care giver	*Beta=0.06714*	*T=1.205*	*Sig. of T=0.2294*
Sex	*Beta=0.18574*	*T=3.186*	*Sig. of T=0.0016*
Age	*Beta=-.04024*	*T=-.687*	*Sig. of T=0.4928*
(Constant)		*T=2.366*	*Sig. of T=0.0188*

A further regression analysis was then carried out using the four Life Events Scale scores, age, and sex as possible predictor variables of the Total Symptom score. A stepwise model-building method was used yielding the following results:

Variables included in the equation were:

LE Scale 3	*Beta=0.33068*	*T=5.790*	*Sig. of T=0.0000*
LE Scale 1	*Beta=0.30974*	*T=5.311*	*Sig. of T=0.0000*
Sex	*Beta=0.17108*	*T=3.038*	*Sig. of T=0.0026*
(Constant)		*T=7.485*	*Sig. of T=0.0000*

A regression was then carried out using age, sex, LE Scale 3 (family stressors) as before, but combining LE Scale 1 and LE Scale 2 into a single score (exposure to violence), and

only using the two items on Scale 4 which relate to illness. As before a stepwise method was used.

Variables included in the equation were:

LE Scale 3	*Beta=0.30713*	*T=5.318*	*Sig. of T=0.0000*
LE Scales 1&2	*Beta=0.33289*	*T=5.627*	*Sig. of T=0.0000*
Sex	*Beta=0.17865*	*T=3.183*	*Sig. of T=0.0016*
(Constant)		*T=6.049*	*Sig. of T=0.0000*

A further regression analysis was run using sex and each of the Life Events items as possible predictor variables. A stepwise method yielded the following results:

Variables included in the equation were:

Sex	*Beta=-.12097*	*Sig. T=0.0000*
Had to move to be safe	*Beta=-.39199*	*Sig. T=0.0000*
Found life dangerous in twnshp	*Beta=-.26133*	*Sig. T=0.0000*
Pleased about new baby	*Beta=-.51006*	*Sig. T=0.0000*
Person in the family died	*Beta=-.37827*	*Sig. T=0.0000*
House attacked or burned	*Beta=-.12752*	*Sig. T=0.0000*
Belong to a political group	*Beta=0.22086*	*Sig. T=0.0000*
Parents beat or harm child	*Beta=0.44173*	*Sig. T=0.0000*
Sees friends killed	*Beta=0.13969*	*Sig. T=0.0000*
House raided by secur. forces	*Beta=-.18914*	*Sig. T=0.0000*
(Constant)		*Sig. T=0.0000*

PTSD Scale Score

Using the Life Events Scale scores, age, and sex as possible predictor variables of the weighted PTSD Scale, regression analysis using a stepwise model-building method yielded the following results:

Variables included in the equation were:

LE Scale 3	*Beta=0.33765*	*T=5.927*	*Sig. of T=0.0000*
LE Scale 1	*Beta=0.30019*	*T=5.154*	*Sig. of T=0.0000*
Sex	*Beta=0.14067*	*T=2.493*	*Sig. of T=0.0133*
(Constant)		*T=7.424*	*Sig. of T=0.0000*

The regression analysis was then run with each individual Life Events item entered as a possible predictor variable of the unweighted PTSD Scale score. Stepwise selection of independent variables yielded the following results:

Variables included in the equation were:

Prevented from going to school	*Beta=-.52063*	*Sig. T=0.0081*
Fighting btwn family members	*Beta=0.36286*	*Sig. T=0.0527*
Seen a friend killed	*Beta=0.44818*	*Sig. T=0.0181*
Violence at school	*Beta=0.46096*	*Sig. T=0.0193*
(Constant)		*Sig. T=0.0000*

Depression Scale Score

Using the Life Events Scale scores, age, and sex as possible predictor variables of the weighted Depression Scale, regression analysis using a stepwise model-building method yielded the following results:

Variables included in the equation were:

LE Scale 3	*Beta=0.31636*	*T=5.539*	*Sig. of T=0.0000*
LE Scale 1	*Beta=0.30805*	*T=5.276*	*Sig. of T=0.0000*
Sex	*Beta=0.19139*	*T=3.383*	*Sig. of T=0.0008*
(Constant)		*T=6.825*	*Sig. of T=0.0000*

A regression analysis using sex and each Life Event item as a possible predictor of the unweighted Depression Scale yielded the following results from a stepwise method:

Variables included in the equation were:

Prevented from going to school	*Beta=-.52517*	*Sig. T=0.0022*
Family been in hiding before	*Beta=-.70356*	*Sig. T=0.0006*
Fighting btwn family members	*Beta=0.38000*	*Sig. T=0.0054*
Seen a person being killed	*Beta=0.18436*	*Sig. T=0.0564*
Seen a friend killed	*Beta=0.29322*	*Sig. T=0.0144*
Arguments with parents often	*Beta=0.75835*	*Sig. T=0.0005*
Been assaulted by security forces	*Beta=0.54404*	*Sig. T=0.0016*
Stayed in hospital before	*Beta=-.27978*	*Sig. T=0.0285*
Been frightened by security forces	*Beta=0.30608*	*Sig. T=0.0177*
(Constant)		*Sig. T=0.0005*

Life Events Drawing

Regression analysis was used to identify variables which predicted whether subjects drew pleasant or unpleasant scenes in the Life Events Drawing. A stepwise method using the four Life Events Scales, age and sex as independent variables yielded only Life Events Scale 1 (direct exposure to violence) as a significant predictor of the nature of the drawing (Beta=0.21954 and Significance of T=0.0004).

5.7.4 FACTOR ANALYSIS

Factor analysis may be used to identify underlying constructs or "factors" that explain the correlation among a set of variables, to test hypotheses about the structure of variables, to summarize large numbers of variables with a smaller number of derived variables, and/or to determine the number of dimensions required to represent a set of variables (Norusis, 1985).

A factor analysis of symptom items from the Symptom Checklist was run in order to identify possible factors underlying the individual symptoms checked off.

Principal component analysis yielded 10 factors with eigenvalues greater than 1.0, which accounted cumulatively for 56.3% of the variance. The factor analysis was restricted to 4 factors yielding the following final statistics:

Factor	Eigenvalue	% Variance	Cum % Variance
1	4.28017	15.3%	15.3%
2	1.56003	5.6%	20.9%
3	1.52482	5.4%	26.3%
4	1.45927	5.2%	31.5%

The rotated factor matrix and the factor transformation matrix are provided in Appendix 7. The four factors were then saved as additional scores.

Items which weighted most strongly on each factor are as follows:

Factor One

Symptom	
6	Frightening dreams nearly every night
11	Wake up in the middle of the night and can't go back to sleep
12	Sometimes urinate in bed at night
14	Feel frightened a lot of the time
16	Often feel sick or have pains in the body
17	Problems with eating (too much or too little)
18	Feel tired a lot of the time
19	Difficulty sitting and keeping one thing in mind (concentration)
20	Difficulties remembering things
21	Happy one minute then sad the next for no particular reason
23	Feel that one must watch out for danger all the time
24	Often feel like crying
26	Sometimes have no feelings inside (flat)

Factor Two

Symptom	
2	Feel sad a lot of the time
7	Wish were dead or that life would end
9	Many things wish had/had not done (regrets)
10	Places/things avoided because remind of bad/frightening things
15	Think about horrible things that have happened all the time even if try not to (intrusive memories)
27	Things or places avoided because feel afraid
28a	Other problems or bad feelings mentioned

Factor Three

Symptom	
4	Feel cross or irritable most of the time
13	Get into a lot of fights with other children
25	Use drugs and/or alcohol

Factor Four

Symptom	
3	Don't like playing with other children
5	Unable to enjoy self in spare time
8	Don't think I'm a good person
22	Get angry easily

Correlation

Pearson's correlation of the four factor scores by the Life Events scores and the Symptom Scale scores yielded the following correlation coefficients:

Table 10: Correlation Coefficients - Factor Scores by Life Events Score and Symptom Scores

	Factor 1	Factor 2	Factor 3	Factor 4
Total LE Score	.3151**	.3817**	-.0195	.0164
LE Scale 1	.2026**	.3664**	-.0813	.0513
LE Scale 2	.2648**	.2634**	.0555	-.0115
LE Scale 3	.2893**	.3057**	-.0190	.0095
LE Scale 4	.1924*	.1635*	-.0469	.0048
PTSD Scale	.6635**	.5728**	.0330	.1699
Depression Scale	.6692**	.4531**	.2413**	.2068
Emotional Problems$^{(w)}$	.8037**	.5191**	.1358	.1571
PTSD Scale$^{(w)}$	.7788**	.5723**	.0265	.0979
Depression Scale$^{(w)}$	.8228**	.4350**	.1410	.1763
Emotional Indicator Score$^{(HFD)}$	.0950	-.0611	.0090	-.0331

* = 2-tailed significance where p<0.01

** = 2-tailed significance where p<0.001

$^{(w)}$ = weighted scale

$^{(HFD)}$ = Human Figure Drawing

ANOVAs

Analysis of Variance was then used in order to ascertain whether any of the factor scores differed significantly across sub-groups of subjects[5]. ANOVA of factor scores by age-group found a significantly higher mean score for the older subjects (p=0.046) on Factor Two, and a significantly higher mean score for older subjects on Factor Four (p=0.000).

5

Specific details are available on disk from the author.

ANOVA of factor scores by sex yielded significant results on two of the factors. Mean scores for the female group were significantly higher on Factor One (p=0.000) and Factor Four (p=0.044).

A multiple regression procedure was then used in an attempt to identify independent variables which best predict the factor scores.

Regression - Factor One

With age, sex, Human Figure Drawing score and each Life Events item entered as possible predictor variables, a stepwise regression analysis yielded an equation with the following variables:

Seen a person being assaulted	*Beta=0.20058*	*Sig. T=0.0008*
Family member been in hiding	*Beta=0.18994*	*Sig. T=0.0009*
Fighting btwn family members	*Beta=0.14246*	*Sig. T=0.0120*
Sex	*Beta=0.25368*	*Sig. T=0.0000*
Repeated a year at school	*Beta=-.17143*	*Sig. T=0.0018*
Sometimes have no food in house	*Beta=0.15930*	*Sig. T=0.0053*
Been frightened by security forces	*Beta=0.14251*	*Sig. T=0.0121*
Parents beat/harm child	*Beta=0.15467*	*Sig. T=0.0062*
Been arrested before	*Beta=-.14063*	*Sig. T=0.0112*
House been attacked or burned	*Beta=-.13499*	*Sig. T=0.0197*
Someone in family died	*Beta=0.11950*	*Sig. T=0.0353*
(Constant)		*Sig. T=0.0000*

The regression was then re-run with the Life Events Scale scores, the total Human Figure Drawing score, primary caregiver, age and sex as independent variables. The following variables were included in the regression equation:

LE Scale3	*Beta=0.23684*	*T=3.909*	*Sig. of T=0.0001*
LE Scale2	*Beta=0.27202*	*T=4.359*	*Sig. of T=0.0000*
Sex	*Beta=0.21729*	*T=3.619*	*Sig. of T=0.0004*
Age	*Beta=-.15902*	*T=-2.632*	*Sig of T=0.0090*
(Constant)		*T=0.428*	*Sig. of T=0.6694*

Regression - Factor Two

With age, sex, Human Figure Drawing score and each Life Events item entered as possible predictor variables, a stepwise regression analysis yielded an equation with the following variables:

Seen a person being assaulted	*Beta=0.16468*	*Sig. T=0.0079*
Other bad/frightening things	*Beta=0.21074*	*Sig. T=0.0003*
Been frightened by vigilantes	*Beta=0.13460*	*Sig. T=0.0272*
Parents beat/harm child	*Beta=0.20532*	*Sig. T=0.0003*
One or both parents dead	*Beta=0.17228*	*Sig. T=0.0027*
Age	*Beta=0.12671*	*Sig. T=0.0277*
(Constant)		*Sig. T=0.0010*

The regression was then re-run with the Life Events Scale scores, the total Human Figure Drawing score, primary caregiver, age and sex as independent variables. The following variables were included in the regression equation:

LE Scale1	*Beta=0.29159*	*T=4.862*	*Sig. of T=0.0000*
LE Scale3	*Beta=0.21114*	*T=3.532*	*Sig. of T=0.0005*
Age	*Beta=-.12457*	*T=2.141*	*Sig of T=0.0333*
(Constant)		*T=-3.636*	*Sig. of T=0.0003*

Regression - Factor Three

With age, sex, Human Figure Drawing score and each Life Events item entered as possible predictor variables, a stepwise regression analysis yielded an equation with the following variables:

Had no house to go to	*Beta=-.17066*	*Sig. T=0.0063*
Seen a person being killed	*Beta=-.14488*	*Sig. T=0.0208*
Seen a family member killed	*Beta=0.13301*	*Sig. T=0.0335*
(Constant)		*Sig. T=0.1317*

The regression was then re-run with the Life Events Scale scores, the total Human Figure Drawing score, primary caregiver, age and sex as independent variables. None of the variables met the criteria for stepwise entry into the regression equation.

Regression - Factor Four

Finally a regression was run with age, sex, Human Figure Drawing score and each Life Events item as possible predictor variables of Factor Four scores. A stepwise regression analysis yielded the following variables:

Age	*Beta=0.29548*	*Sig. T=0.0000*
Sex	*Beta=0.24039*	*Sig. T=0.0001*
Seen a person being killed	*Beta=0.15550*	*Sig. T=0.0103*
Belong to a political group	*Beta=-.16054*	*Sig. T=0.0074*
Family/friends gone missing	*Beta=0.11881*	*Sig. T=0.0480*
(Constant)		*Sig. T=0.0000*

As with the other factors the regression was then re-run with the Life Events Scale scores, the total Human Figure Drawing score, primary caregiver, age and sex as independent variables. Only age and sex emerged as significant predictor variables:

Sex	*Beta=0.21226*	*T=3.413*	*Sig. of T=0.0008*
Age	*Beta=0.31638*	*T=5.088*	*Sig of T=0.0000*
(Constant)		*T=-5.227*	*Sig. of T=0.0000*

CHAPTER SIX
DISCUSSION OF RESULTS

6.1 EXPOSURE TO VIOLENCE

Overall the results of this study confirm the many reports (Chikane, 1986; John, 1990; Nzimande and Thusi, 1991; Straker, 1992; Kimaryo, 1993; etc.) of high levels of exposure to violence and other stressors amongst black township children in South Africa. On average, the children in this sample reported around ten different types of stressors and only one subject in the entire sample failed to report at least one of the negative life events included on the Life Events Scale. More than three quarters of the children reported direct exposure to violence and 95% of them reported indirect exposure to violence. Given that subjects in this sample where not chosen because of exposure to a particular trauma, but rather were randomly selected as a general sample of black primary school children, these responses are alarming. This finding suggests that growing up in a black township around Pietermaritzburg in the late Eighties and early Nineties constitutes a vulnerability in itself in terms of exposure to violence.

6.1.1 POLITICAL/CRIMINAL VIOLENCE

Almost one half of the children reported having witnessed a person being assaulted and nearly one third reported having witnessed a person being killed. Although the literature supports the role of a number of mediating factors, the general consensus appears to be that the experience of trauma and subsequent sequelae is closely related to the nature and extent of exposure to violence. The direct witnessing of a person being killed, all other mediating factors being equal, could be expected to be associated with more severe distress.

The single most frequently reported item on the Life Events Scale was being prevented from going to school because of violence. This corroborates Gultig and Hart's (1990) findings which indicate major disruptions in schooling in the Greater Pietermaritzburg area due to violence. Over and above the obvious implications for education, the disruption in schooling could also be hypothesised to have negative implications for coping with other forms of trauma. The school environment has been seen to play an important role in fostering social support, in explaining and ascribing meaning to traumatic events, and in providing some structure and stability in the child's life (Ziv and Israeli, 1973 in Zea, 1994).

The majority of the children reported that houses in the areas where they lived had been attacked or burned in the past, and over half responded that they found life in the townships dangerous. Approximately one third reported that their house had been raided by security forces. These findings suggest an environment characterised by danger, where even the child's home is not secure. This type of context where violence occurs within people's communities and where constant vigilance is demanded, is considered typical of civil conflict (Swenson and Klingman, 1993).

The items pertaining to violence perpetrated by the subject also warrant comment. Although the percentages are small relative to the other items on the Scale (approximately three percent for having attacked and for having killed a person), in absolute terms they represent several children. One can only speculate regarding the role of response bias on these questions. On the one hand it is possible that the numbers may be higher than reported, given the possible perception of negative consequences which might follow from admitting to involvement in assault or murder. However on the other hand it is possible that amongst certain peer groups involvement in violence may be considered to be an indication of strength and prowess, and therefore may be subject to over-reporting. This finding must therefore be interpreted with caution. This notwithstanding, given that the average age of subjects was 11 years, the number of children reporting involvement in perpetrating violence is troubling.

Following the line of thought in some of the studies from Northern Ireland (eg. Lyons,

1979), the increasing acceptability of violence as a mode of behaviour may be seen as a repercussion of growing up in a society racked by civil violence. However, it is crucial that this finding of a number of children being involved in perpetrating violence, is not simplistically interpreted. Straker's (1993) work suggests that involvement in perpetrating violence is in itself traumatic, and other South African studies (for example those reviewed by Dawes, 1994b), indicate that exposure to violence does not by itself cause lowered moral reasoning. Clearly the experiences of these children, whether as "victims" or "perpetrators", cannot be separated from the socio-political and historical context within which they are situated.

6.1.2 FAMILY TRAUMA

Regarding the family-related items, the majority of subjects reported more than one item. The most commonly reported item was the death of a family member. About one third reported that they did not live with their own family and about one fifth reported that one or both of their parents had died. This suggests the likelihood of greater vulnerability to distress. Many of the studies on the effects of violence on children indicate that loss, bereavement and separation from family are associated with a greater likelihood of long term psychological sequelae (eg. Freud and Burlingham, 1944, in Benedek, 1885b; Allodi, 1980; Straker and Moosa, 1990; Michelson, 1993). Another troubling finding is the number of children who reported frequent fighting between family members or physical abuse by parents. Both of these constitute added risk factors which may exacerbate the effects of other violence-related traumas and indeed are not easily separated from them.

6.1.3 STRUCTURAL VIOLENCE

Items on Scale 4 constitute other related stressors primarily associated with health problems and poverty. Again the number of subjects endorsing the various items appear relatively high. This could be understood to reflect the impact of structural violence (Burman and Reynolds, 1986). The most frequently reported item, having been very ill, may well reflect the child's biased perception of what having been "very ill" is, hence resulting in the high number of positive responses. However this may also reflect, at least

to some extent, the impact of poverty and inadequate sanitation and health services, supporting the arguments by several authors (eg. Gibson, 1990; Straker and Moosa, 1990; Dawes and Donald, 1994) for the importance of structural violence in exacerbating the stressful conditions in which black children live. For example it is argued that growing up in poverty is the single most powerful and multifaceted negative influence on psychological development (Dawes and Donald, 1994).

6.1.4 MULTIPLE STRESSORS

The high positive correlations between scores obtained by subjects on the Life Events Scales indicate that those children who score high on one scale tend to score high on the others as well. This suggests that exposure to multiple stressors is prevalent. Again this indicates a likelihood of greater distress (Michelson, 1994) and mixed symptoms (Eagle, 1994). Furthermore, although the Life Events Scale did not elicit information about the number of times a child was exposed to each particular type of event, the finding of multiple reported stressors in itself suggests that the stressors have been ongoing rather than discrete. This finding supports the argument posed by Straker (1987) that, in the context of violence in South Africa, it is more appropriate to speak of *continuous* traumatic stress rather than *post* traumatic stress which implies a discrete time limited trauma.

Garbarino, Kostelny and Dubrow (1991) differentiate between acute and chronic danger. They state that with exposure to acute danger (which is discrete and time limited), usually it is only specific situational adjustment which is required, but where danger is chronic (or continuous) developmental adjustment is required. This may result in changes in personality, patterns of behaviour and ideological interpretations of the world. Chronic danger or continuous and multiple stressors can therefore be expected to be associated with more pervasive changes and difficulties.

The finding of a high correlation between Life Event Scales also suggests the presence of many different types of trauma ranging from direct exposure to violence, to family problems, to stressors associated with poverty. On a theoretical level, this provides

support for a framework which recognises the interactive effect between a range of factors, and which conceptualises trauma in terms of the experience of a traumatic situation rather than as a consequence of a discrete event or series of events.

6.1.5 AREA

Groups of subjects from different schools were found have significantly different scores regarding exposure to violence but not regarding family stressors or other health- or poverty-related stressors. This finding is congruent with expectations. A historical review of events around the Pietermaritzburg area (Aitchison, 1993; Butler and Harley, 1993) revealed that even within relatively circumscribed geographic areas (eg. Imbali) there were differences in the extent of violence experienced from region to region. These regional differences parallel the differences found between schools regarding the extent of reported exposure to violence. However, problems relating to family violence and poverty and health problems tend to be more general in the township context, and are not confined to specific geographic locations.

6.1.6 AGE

Highly significant differences were found between the older children (13 years and above) and the younger children (8 to 12 years). As might be expected the older children reported greater numbers of negative events than the younger children. It is possible that this is simply a product of their cohort having been exposed to violence for longer and having been older at times of severe violence (eg. the period in early 1990). However it is likely that age is confounded by school standard. All subjects in the sample were drawn from Standards two and three. It follows that the older children in these classes might also be those children who missed more school through being displaced or in some way prevented from attending because of violence. Following this line of thought, it is likely that those children in the 8 to 12 year group who have been most exposed to violence were not captured in the sample at all, and might be found in lower standards at school, or not at school at all.

6.1.7 GENDER

Sex differences were also found, with boys reporting higher levels of exposure to violence than girls. This may reflect real differences associated with gender roles, where girls tend to be kept at home and boys are allowed to take part in community activities and therefore have a greater likelihood of directly experiencing violence. However it is also possible that this difference reflects a gender difference in reporting rather than in actual exposure. No significant differences were found between boys and girls regarding family-related stressors and/or violence.

6.2 REPORTED SYMPTOMS

6.2.1 SPECIFIC SYMPTOMS

Frequencies on the Symptom Checklist items show by far the most commonly reported symptom item was that of needing to watch out for danger all the time. This was reported by two thirds of the subjects. When seen in the context of the extent of exposure to violence discussed above, it is likely that this item reflects a very real need for vigilance rather than vigilance associated with an Anxiety Disorder. However this need for vigilance (whether realistic or not) is indicative of generally raised levels of anxiety. This finding again provides indirect support for recognising the concept of a continuous traumatic stress syndrome (Straker, 1987) as opposed to a syndrome *following* exposure to a discrete traumatic event.

Sleep disturbances and general somatic problems were also reported by more than half of the subject sample, as was the feeling of regret. Over 40% of the subjects also reported getting angry easily and feeling tired a lot of the time. Recurrent nightmares, recurrent intrusive negative recollections, and avoidance of places because of their association with negative incidents (all symptoms of PTSD) were also each reported by more than 40% of the children.

Another interesting finding was that of the percentage of children reporting suicidal ideation (12.4%). This is not generally reported in the studies of the effects of violence on children. However, studies cited by Barker (1988) indicate that this finding is comparable with rates of suicidal ideation found in schools in the United States in children between the ages of six and twelve from low socioeconomic status families. It is possible that this finding is associated with hopelessness of living in a poor and politically marginalised community rather than with overt violence; however this point clearly warrants further investigation.

On the low end of the scale, bed-wetting was only reported by 4.4% of the children. This is relatively low, particularly in the light of the prevalence of other stress-related symptoms, and when considering the literature on the effects of violence on children which often cites regression as a reaction to stress - particularly in younger children (eg. Allodi, 1980; Swenson and Klingman, 1993). The use of drugs and alcohol was also reported in a low number of cases (1.3%). This may reflect the age range of the sample but it is also likely that this may well have been a result of biases due to socially appropriate responding (even though the confidentiality of responses was guaranteed). It is possible that the group setting also affected the responses, as children may have been embarrassed that their peers might see their responses.

6.2.2 SYMPTOM SCALES, DEPRESSION & PTSD

The analysis focusing on the number of symptoms reported by each child (as distinct from the number of children reporting each symptom) provides further indication of the relatively high levels of symptoms reported by the subjects. A Total Symptom score revealed that every one of the subjects reported at least one symptom, with the average number of symptoms reported being between 8 and 9. The average number of symptoms of PTSD was 5 and the average number of symptoms of Depression was 4.

The calculated cut-off scores indicate 17.8% of the children to have emotional problems,

8.7% Depression and 12.9% PTSD[1]. These cut-off scores were calculated to be extremely conservative, therefore the percentage of subjects who may have been diagnosed using clinical criteria is likely to have been even higher. Bearing in mind that the sample represents a normal sample of black school children, the prevalence of symptoms is disturbing. Where many other studies have chosen samples of subjects exposed to particular stressors, this sample may be biased in the opposite direction in omitting the sub-sample of children who may have been exposed to the greatest stressors, that is the children who do **not** attend schools (eg. displaced children, street children).

A stark comparison to these findings is provided by studies of prevalence among certain "normal" European children. In the Isle of Wright Study (Rutter, Tizard and Whitmore, 1970, quoted in Barker, 1988) emotional disorders were detected in 2.5% of 10 and 11 year olds. Rutter, Cox et al 1973 (in Barker, 1988) found about 5% prevalence in their London study.

Comparative South African studies are few, with most having small samples and focusing on children exposed to specific stressors or traumas such as detention. Dawes, Tredoux and Feinstein's (1989) study of children whose families had been forcibly removed, found 9.2% of the sample (aged 2 - 17) to have PTSD and 32.4% to have symptoms but not PTSD. This is a lower prevalence than was found in this sample. It is important to note that only tentative comparisons can be made due the use of entirely different assessment strategies in the two studies.

Correlations between the symptom scales were all high positive. This confirms Martinez and Richters (1993) finding of high correlations between scores on Anxiety and scores on Depression found amongst a sample of children exposed to general crime-related violence. Seen more generally, this finding is also congruent with the research cited by McNally (1992) which demonstrates high rates of co-morbidity between PTSD and Depression. It

---

[1]These results are reported in diagnostic terms as this facilitates communication. However, they should not be taken to imply a lack of distress or effects amongst those children not reporting certain levels of symptoms. This is particularly important since behavioural (and other) manifestations of distress are not thoroughly explored.

also supports the observations of Burgin (1993) who noted the coexistence of PTSD with Anxiety and Depression in children. What is not clear, is whether this reflects the association of distinct clinical constructs or whether this observed coexistence is a by-product of the high symptom overlap. This finding could also be argued to challenge the validity of PTSD, Anxiety and Depression as underlying constructs.

6.2.3 AGE & DEVELOPMENTAL STAGE

A further issue which needs to be considered when attempting to understand the relatively high levels of symptomatology generally, and at clinical levels in particular, seen in this sample, is the developmental stage of the subject sample. While children in the middle-childhood range are better capable of understanding the threats to themselves and to others than younger children are, they still do not have the cognitive capacity of formal operations which enables them to understand the stressors and threats on an abstract level. They may also be particularly vulnerable to the loss of friends and family. Gibson (1989) cites various authors attesting to the particular vulnerability of this age group. Although developmental stage may have contributed to the overall prevalence of symptoms reported by the sample, comparisons between the older group and the younger group did not yield statistically significant results. As mentioned in the previous section looking at exposure to violence, it is possible that in this sample, age was confounded by educational lags and the additional vulnerabilities associated with this. Therefore it is likely that the older group did not emerge as less vulnerable than the younger group as these additional vulnerabilities outweighed any developmental advantage that the group may have had.

6.2.4 GENDER

Regarding gender differences, significant differences were found on the Depression Scale and the Emotional Problems Scale, where girls scored higher than boys. However the differences were not at a highly significant level. This finding is interesting when considered in the light of other research findings (eg. Dawes *et al*, 1989) which suggest that overall boys appear more vulnerable in early childhood while girls are more vulnerable by adolescence, particularly to symptoms of Depression. It would seem that in terms of

symptoms of PTSD, this sample may represent the "change over" between early male vulnerability to later female vulnerability in the lack of statistically significant differences.

The difference on Depression and general Emotional Problems may probably be ascribed to the emerging gender "appropriate" response to stress (Dawes, 1990) and to the differing coping strategies socially sanctioned for boys and girls. Gillis' (1991, in Rozensky *et al*, 1993) findings, which show a qualitative difference in symptom manifestation between male children and female children, suggest that the gender differences in this study may be a product of the type of symptoms assessed. The self- report Symptom Checklist used in this study probably biases towards children experiencing internalising type symptoms (such as fears and tearfulness), more frequently seen in female children, as opposed to externalising symptoms (such as oppositional behaviours), more frequently seen in male children.

6.2.5 OTHER ISSUES

Other issues which may relate to the high levels of symptoms reported, and which require further investigation, include the possible role of response bias as well as the role of symptom contagion (Terr, 1985). Existing evidence suggests that children's self-reporting of symptoms tends to be more accurate than the reporting by parents (Belter and Shannon, 1993; Martinez and Richters, 1993), however it is possible that the children in this sample were over-reporting symptoms. Ideally research of this type should utilize multiple methods of assessment. The role of symptom contagion as discussed by Terr (1985) also warrants further investigation through longitudinal studies.

Finally, it is important to note that the symptoms of distress reported in this study are by no means the only possible manifestation of distress related to traumatic experiences. Interpersonal and behavioural manifestations of trauma were not considered. Moreover, as argued by Becker (1992), it must not be assumed that simply because an individual does not present with symptoms s/he is not seriously affected.

6.2.6 FACTOR ANALYSIS

Factor analysis of the symptom items yielded four factors, which cumulatively accounted for about 30% of the variance. Examination of the symptoms which weighted highest on each of the factors suggested one strong factor (Factor 1) which loaded highest on most of the physiological and bodily manifestations of anxiety and emotionality. On this factor sleep problems, concentration and memory difficulties, eating problems, general bodily pains, emotional lability, tearfulness, hypervigilance, and enuresis were most strongly weighted. The second factor weighted on the more severe symptoms associated with Depression and PTSD: persistent sadness, suicidal ideation, regrets, avoidance behaviours, intrusive memories and other specifically mentioned problems (such as grief, anxiety and nightmares). Factor Three appeared to weight particularly on the items of a more anti-social type, while Factor Four seemed to weight on low self-esteem and social withdrawal.

Factor One (Emotional-Physiological) was found to be best predicted on the basis of a combination of indirect exposure to violence, family-related stressors, younger age and female sex. Factor Two (Depression-Trauma) was found to be best predicted on the basis of a combination of direct exposure to violence, family stressors and younger age. Factor Three (Externalising-Aggressive) was not significantly predicted by any of the independent variables, and Factor Four (Withdrawal-Low Self-esteem) was best predicted on the basis of a combination of older age and female sex.

These findings support the position posed above that the clinical diagnostic categories may not constitute distinct syndromes. Statistically the symptoms appear to be related to underlying constructs which overlap the diagnostic categories. Both Factor One (Emotional-Physiological) and Factor Two (Depression-Trauma) comprise symptoms of PTSD, Anxiety and Depression. Factor Two appears to reflect a grouping of more serious symptoms associated with direct exposure to violence and family problems, while Factor One appears to reflect more general emotional distress associated with a combination of stressors associated with violence and family problems. Both of these factors were linked to younger age, which is congruent with other research findings suggesting greater vulnerability amongst younger children. Factor One was also predicted by female sex. As

discussed above, the symptoms weighted on this factor are also those which have been referred to as "internalising", and which have been empirically associated with a qualitative gender difference in the manifestation of distress. Following from this argument, one would expect Factor Three (Externalising - Aggressive) to be predicted by male sex; however this factor was not found to be significantly predicted by any of the independent variables. This may be linked to the fact that this factor did not weight strongly on many symptoms. Externalising and aggressive symptoms were also not adequately measured in this study as it depended on self-reporting, and these symptom are best measured through observation.

6.3 DRAWINGS

6.3.1 LIFE EVENTS DRAWINGS

In response to a free-drawing task where children were simply asked to draw something that had happened to them, either something good or something bad, approximately 40% spontaneously drew pictures of an unpleasant event. Most of these pictures involved some form of violence. They ranged in content from a picture of a person who drowned, to someone being run down by a car, to pictures of people being shot or stabbed.

The percentage of pictures with violent or violence-related content (such as funerals) is somewhat less than that found by Gibson *et al* (1991, in Mendelson and Straker, 1993) in their study using drawings with children.

The results do indicate that the children who drew unpleasant scenes were also those who reported the highest degree of direct exposure to violence. In a regression analysis direct exposure to violence was found to be the only significant predictor of whether a child drew an unpleasant scene or not. It is likely that, as found by Pynoos and Eth (1985), these drawings reflect intrusive recollections of traumatic events.

This finding also provides indirect support for the consistency of the children's responses, as one would expect that those children who, when asked to draw something that had happened to them, drew a violent scene would also report direct exposure to violence when questioned about specific events.

6.3.2 HUMAN FIGURE DRAWINGS

Any conclusions drawn from the results of the Human Figure Drawings (HFD) must necessarily be tentative as this projective technique is intended to be used as part of an in-depth clinical assessment. Furthermore, according to Koppitz, "It is not possible to make a meaningful diagnosis or evaluation of a child's behaviour or difficulties on the basis of any single sign on a HFD" (Koppitz, 1968, p55). These cautions notwithstanding, some comments can be made.

The most frequently found indicators on the drawings were associated with impulsivity and immaturity (asymmetries, transparencies, no neck); insecurity, withdrawal and depression (tiny figures, omission of the nose); timidity and introversion (very short arms); inadequacy or guilt (hands cut off); and aggressiveness (teeth).

Koppitz (1983) reported that children whose drawings evidenced three or more emotional indicators usually had emotional problems. In this study it was found that one quarter of the subjects had at least three emotional indicators. No differences in the number of emotional indicators present in the HFD were found on the basis of age or sex. The presence of three or more indicators was also found to be independent of whether the child scored above or below the cut-off point on the Emotional Problems Scale, the Depression Scale or the PTSD Scale.

This finding indicates that there is no clear relationship between reported symptoms and emotional indicators seen on a projective drawing. From the perspective of psychodynamic theory this is to be expected as the drawing is viewed as a projective technique which taps more repressed conflicts and anxieties, while the Symptom Checklist is a self-report index which measures conscious, expressed symptoms. However from the

perspective of empirical research this result could simply indicate a lack of concurrent validity between human figure drawings and self-report checklists as measure of emotional difficulties or distress.

The results based on the number of emotional indicators present must be interpreted with extreme caution, as according to Koppitz (1983) the emotional indicator items are not meant to be added into a score but rather are clinical signs which point to underlying attitudes and characteristics.

6.4 THE RELATIONSHIP BETWEEN REPORTED SYMPTOMS AND OTHER VARIABLES

The results of this study clearly demonstrate a relationship between symptoms reported by subjects and the exposure to negative life events. High positive correlations were found between each of the Symptom Scales and the various Life Events Scales. Although these correlations do not imply causality, they do indicate that subjects who report many symptoms also report exposure to many negative events or stressors.

In the regression analysis the total number of symptoms reported and the weighted PTSD and Depression scales were all found to be best predicted by a combination of exposure to family-related stressors, direct exposure to violence and sex of the subject. This finding is congruent with much of the research reported on children and disasters and children and violence.

6.4.1 SYMPTOMS & FAMILY STRESSORS

The Family Stressors Scale in this study reflects items related to death of a parent and/or family member, arguments and/or violence within the family, separation from parents, and sibling rivalry. Many studies attest to the role of loss and separation as factors which significantly increase a child's vulnerability to emotional distress and longer-term

psychological sequelae (eg. Allodi, 1980; Arroyo and Eth, 1985; Dyregrov and Raundalen, 1987; Allodi, 1989; Straker and Moosa, 1990). This study provides further evidence of this relationship.

Few studies have specifically examined the role of family violence and conflict as factors exacerbating the impact of civil violence and war, although some studies do mention pre-traumatic family conflict as increasing long-term sequelae (eg. Kaffman and Elizur, 1983, in Swenson and Klingman, 1993;). The role of the family as a support system has also been noted (Zeidner, Klingman and Itzkovitz, 1992, in Swenson and Klingman, 1993). It may be hypothesised that families characterized by high levels of conflict and violence are not characterised by good coping, and are less likely to be perceived as supportive by the child. Therefore this finding may provide indirect support for the relationship between good parental coping and support, and better coping on the part of the child.

6.4.2 EXPOSURE TO VIOLENCE

The finding that greater direct exposure to violence is predictive of symptoms reported by subjects is supported by various studies which site the nature of the trauma and degree of exposure as factors influencing the degree of distress experienced (eg. Pynoos *et al*, 1987, in Rozensky, 1993; Punamaki, 1989; Swenson and Klingman, 1993;). Other studies have reported the importance of the child's appraisal of violence rather than actual violence levels (Cairns and Wilson, 1989). This may be reflected in this study as exposure to violence was based on reporting by the children themselves, and therefore must indicate some degree of subjectivity and personal appraisal. However this point requires further investigation.

The non-significance of indirect exposure to violence as a predictor of symptom scores was probably due to the high positive correlation between direct and indirect exposure to violence, meaning that once direct exposure to violence was included in the regression equation indirect exposure did not add significant variance. This is also likely for the fourth scale on which the health- and poverty-linked stressors were grouped. Because of the high positive correlation between the four Life Events Scale scores it is difficult to

separate out the effects of one type of trauma over another. In fact (as discussed above) this high positive correlation suggests exposure to multiple traumas.

This finding corroborates the findings of Michelson (1994) who also found that the effects of political violence were difficult to separate from the continuous distress related to conditions of poverty and other violence. Turton, Straker and Moosa (1991) came to a similar conclusion finding that more "ordinary" forms of violence appeared to be as distressing as "political" violence. It seems that in the context of the South African township, the distinction between political violence and other related trauma is artificial. In this study political violence is difficult to separate out from criminal violence or for that matter from the more pervasive and ongoing structural violence of oppression. Furthermore, as discussed above, family-related trauma is found to play a highly significant role in interaction with other forms of violence in predicting reported distress.

6.4.3 GENDER

The final significant predictor of symptom scores was sex, with female sex being predictive of higher symptom scores. As discussed above, this may very well reflect a qualitative difference in the manifestation of symptoms in boys and girls according to gender appropriate norms. This study did not investigate behavioural symptoms in any detail and therefore is weighted towards the internalising symptoms more typically seen in girls.

Another possible hypothesis could be that the higher levels of reported symptoms amongst female subjects reflects higher levels of exposure to family violence. It is estimated that about one girl out of every four and about one boy out of every nine is sexually abused as a child (Maurer, 1991). It is therefore likely that a significant number of the female children in this sample had been sexually abused. It is probable that this incidence manifested in symptoms of distress. The role of abuse (sexual, physical and emotional) requires more in depth investigation. Although this study suggests the importance of family-related trauma in the reporting of symptoms of distress, details of abuse were not investigated due to the nature of the assessment procedure.

6.4.4 SPECIFIC EVENTS

Specific Life Events items which were found to be predictive of the total number of symptoms reported were physical abuse by the parent(s), witnessing the killing of a friend and belonging to a political grouping, together with a number of other life events NOT being present. This finding indicates an interactive effect between a number of variables, which when taken alone are associated with higher symptom scores (as seen in the ANOVAs), but when taken in combination with certain other life events are not predictive of higher symptom scores. This supports a theoretical framework which acknowledges the interactive effect of variables.

It must be reiterated that there is a high correlation between many of the life events, and therefore it is likely that a number of life events which when taken alone are associated with higher symptom scores, but when entered into a regression equation do not add significant variance and therefore are not included.

One Life Events item which was found to be predictive of higher symptom scores, and which yielded a significant difference in symptom scores between those who did and did not report it, was belonging to a political group. This finding is particularly interesting, because contrary to findings reported by Dawes (1990) and Dowdall (1990), those children who did report strong political beliefs were found to report higher levels of distress.

It has been argued that strong political beliefs and a clear group identity may promote resilience by providing an ideological framework within which to explain the experience of violence (Dawes, 1990). In line with this argument it has been found that children with strong political beliefs are able to cognitively frame their experiences as part of a larger struggle against oppression and therefore are able to make better sense of it. In the current study this did not appear to be the case. However upon further analysis, it was also found that those children who reported belonging to a particular political group also reported much higher levels of exposure to violence, thus providing a possible explanation for the higher levels of reported symptoms. This finding is probably reflective of the particular

context of violence in KwaZulu-Natal, as distinct from other regions in South Africa. In this region violence has been closely linked to a political struggle between distinct political groups, whereas, for example, in the Western Cape where some of the other reported research was carried out, violence was more clearly related to direct oppression by State forces[2]. Situating the finding within the political and historical context of the region would suggest that a distinct identification with a political grouping may have increased the likelihood of a child being caught up in the conflict in the area, and any resilience which may have been gained from an ideological explanatory framework would have been offset by higher levels of exposure.

The specific Life Events items which were found to be predictive of greater number of symptoms of PTSD were the experience of violence at school, having witnessed a friend being killed, fighting between family members, and not having been prevented from going to school because of violence. This finding supports the more general finding of the importance of direct exposure to violence, such as witnessing a known person being killed, in association with family stressors (such as frequent conflict) and not being in a protective environment, seen in the combination of the experience of violence at school but not being prevented from attending. As with the previous findings relating to the total number of symptoms, when examined independently (in the Analysis of Variance) many more specific events are found to be significantly related to higher PTSD scores, however when taken together they do not all contribute significantly to the regression equation - probably because of high correlations between them.

A similar pattern was seen with the prediction of higher Depression scores. Arguments with parents and family conflict, together with the witnessing of murder, and assault or feared assault by security forces, and not having been prevented from going to school, not having been in hiding, and not having stayed in hospital, were found to be significant predictors of a greater number of reported symptoms. As with PTSD, Depression seems to have been best predicted by a combination of direct exposure to violence and not having been kept away from violence (eg. by moving or staying away from school).

---

[2]This is not to suggest that state forces have not been implicated in the violence in KwaZulu-Natal.

6.4.5 CONCLUDING COMMENT

In sum then, the findings suggest that higher reported distress is associated with a combination of violence-related trauma, and family stressors or trauma. The findings also suggest an interaction between different stressors, and the high correlations between different types of trauma indicate a high degree of co-existence of trauma. This supports Becker's (1992) argument that it is more appropriate to speak of a traumatic situation than to speak of a traumatic event. Such a traumatic situation can arise out of an accumulation of experiences which cumulatively and in interaction, result in some form of psychic disruption. When the high co-existence of the various types experiences reported by the children in this study are considered, together with the probable importance of experiences linked to societal and structural factors (which were not measured in this study), it must be concluded that for many children, growing up in a black township in the Pietermaritzburg area during the 1980s and early 1990s has in itself constituted a traumatic situation involving a myriad of interacting experiences.

CHAPTER SEVEN

CONCLUSIONS & RECOMMENDATIONS

7.1 SUMMARY & CONCLUSIONS

In conclusion, the following central points may be summarized from the findings of this study:

* Children reported high levels of exposure to a range of traumatic experiences, including direct exposure to overtly political violence, indirect exposure to violence, family violence and stressors, and other situational stressors.

* The findings indicate exposure to multiple stressors, and the co-existence of many different types of trauma, suggesting that the concept of a traumatic situation is more useful than that of discrete events. The findings also indicate an interactive effect between many specific types of events or stressors, thus providing implicit support for theoretical orientations which acknowledge the interaction between many factors.

* Children reported relatively high levels of symptoms. This finding is congruent with the overall conclusion drawn from other research that children do experience significant distress following the experience of violence or disaster.

* A high correlation was found between different symptom categories, suggesting either high levels of co-morbidity, or questioning the validity of the diagnostic categories as independent constructs.

* Gender differences were found in reported exposure to violence, and reported symptoms of distress. These differences suggest the importance of socially sanctioned gender roles in mediating both exposure and expression of distress.

* Higher levels of reported symptomatology were found to be strongly associated with higher levels of reported exposure to negative events. This finding corroborates the point drawn from previous research that distress is affected by the degree of exposure and personal threat.

* Family-related trauma and stressors were consistently found to be the most significant predictors of reported distress. This finding is also consistent with previous research which indicates the importance of parental loss and bereavement, parental coping, and family conflict.

On a more general level, this study highlights the importance of considering the social and historical context in which the research was situated. For example, the findings regarding gender differences and the role of political ideology both appeared initially to be discrepant with previous findings, but upon considering the context, they were plausibly explained. Particular mention must also be made of the role of family violence and structural violence. Although neither of these types of violence were assessed in any depth, the findings certainly point towards their importance, and attest to the complex interactions between different traumas which together and in interaction may constitute a traumatic situation.

7.2 RECOMMENDATIONS FOR FURTHER RESEARCH

Research in this field must consider several issues. The longitudinal progression of reactions to trauma is possibly one of the key issues which requires investigation. There is a need to explore the effects of exposure to trauma over time. While much has been written about the relatively short-term effects of exposure to trauma, little is known about the longer-term implications (not only in terms of symptoms, but also in terms of self-esteem, interpersonal relationships, social and moral development, and broader community functioning). The possible role of "sleeper effects", that is effects which may only emerge years after the trauma, also need to be explored. Research in this area may offer greater

insight on a theoretical level into consequences of traumatisation, as most of the theories predict a process by which reactions may emerge and resolve.

The role of developmental stage on the experience of trauma, and the manifestation of distress, also needs to be considered in more detail. This poses methodological difficulties as in cross-sectional studies comparing different groups of children, developmental stage in confounded by cohort. Similarly in longitudinal studies, cohort may be held constant but time and developmental stage become confounded. A combination of method therefore needs to be considered. Developmental studies may also offer useful insights into the validity of different theoretical formulations of trauma reactions. For example, the model based on Erikson's (1946, 1968; in Peterson *et al*, 1991) theory of psychosocial development proposes significant effects of trauma on development.

Related to both the role of developmental stage, and the longitudinal progression of reactions to trauma is the concept of coping. Clearly research investigating the effects and experience of trauma among children must be complimented by studies exploring both the quantitative and qualitative aspects of coping in the face of traumatic situations.

A number of hypotheses regarding gender differences have emerged from this study. These need to be explored through more in-depth studies which consider the function of gender roles, and which consider the hypothesised differences in the qualitative manifestation of distress. Following from this, the role of ideology and the meaning ascribed by children to different experiences, needs to be considered.

This study indicates the importance of considering the traumatic situation on a broader level. The role of structural violence requires further research, as does the interaction between various forms of violence. In particular family issues need to be further investigated, not only in terms of the effects of violence on parental effectiveness and the role of parental coping, but also the role of domestic violence and child abuse.

Finally, on a more general level the following points must be considered:

* There is a need to look beyond clinical symptoms, and to consider other consequences of traumatic situations. These could include the effects on the child's beliefs about self, others and the world, the child's willingness and ability to maintain affective relationships, and the child's social and moral development.

* Research also needs to consider the impact of violence on levels other than the individual one. This necessitates a shift away from the traditional clinical approach towards one which considers the interpersonal and community levels.

* Research, whether using positivist methodologies or not, needs to be situated within a broader paradigm which acknowledges the role of ideology, and the social and historical context out of which it emerges.

* Although interventions should ideally be founded on an in-depth understanding of the problem and the processes at work, the immediate needs of communities also need to be attended to. Therefore research must balance scientific rigour with social responsibility. This is not to say that relevance need replace excellence. As stated by Dawes and Donald (1994), relevant research differs only in that it is explicit about its value position.

7.3 CRITIQUE OF THE STUDY

The aim of this study was to provide a description of the levels of exposure to violence and the degree of reported symptomatology amongst a particular cohort of children. The purpose of conducting this epidemiological type study was to provide broad-based information to motivate for and to guide an intervention programme on the one hand, and to generate hypotheses for further investigation on the other. Given the exploratory approach of the study, it is fair to conclude that this study has been successful in achieving its aims. However there are some inherent problems with this type of research which warrant further discussion.

7.3.1 THE LIFE EVENTS APPROACH

The life events approach to stress research has focused on identifying particular life events perceived to be stressful and the associated expression of distress through psychological, behavioural or somatic manifestations. These studies usually use self- report life events schedules whose items can be easily summated into a broad measure of stress exposure. These measures are then typically correlated with measures of distress (Garmezy and Rutter, 1985). In broad terms the current study constitutes a type of life events research, and as such is subject to many of the methodological issues and criticisms discussed with regard to life events research. Garmezy and Rutter's (1985) discussion of these issues includes the following points:

The first problem typical of this type of research lies with the range of different items which are usually included on a life events scale. Items range from positive events (which may be experienced as stressful, for example getting married) to negative events (such as death of a family member). Items also range from trivial to crisis. Although items used on the life events scale in this research do range in perceived severity, the range is not nearly as broad as that typical of this type of research, and only negative events are included on the scale.

Life events research is also criticised because interactions between events may be obscured. Furthermore correlations between life events and signs of distress do not provide a clear indication of causality. Both may be related to some other factor, and even if this is not the case, it is not possible to conclude from this type of data whether it was the stressful event(s) that resulted in the signs of distress, or whether maladapted individuals tended to experience greater exposure to stressful events.

Finally, this type of research depends upon self-reporting of events, and this may be influenced by distortions in memory.

Life events research clearly has limitations, and results should be interpreted with caution. However these issues do not negate the usefulness of this type of study in providing a

descriptive base from which to develop further research. The strength of the life events framework includes its potential to generate predictive statements and to specify conditions under which a particular developmental outcome is likely to occur (Dawes, 1994a).

7.3.2 SPECIFIC METHODOLOGICAL ISSUES

Childhood is characterised by rapid growth and change; problems change over time and across different situations; there is a high co-morbidity of childhood disorders; and there is often a discrepancy between the reporting by parents, teachers and child (Robertson and Berger, 1994). Research into the incidence and prevalence of symptoms of distress and adjustment problems in children is therefore difficult at best. Some specific issues which require further discussion with respect to this study include the following:

The first issue which must be raised regarding the methodology used in this study is that of the assessment instruments used.

Given the large scale of this study, a group administered assessment method had to be selected. But no appropriate instruments exist for the assessment of black South African children, therefore a set of checklist-type questionnaires was developed specifically for the purposes of this study.

A positive feature of this approach is that the questionnaires were not simply translated versions of instruments developed for use in North America or Europe, but were specifically designed with black South African children in mind. Furthermore they were translated by people living in the region and checked by a black Zulu-speaking psychologist. The actual administration was also carried out by research assistants who lived in the area and had a good understanding of the context within which the children were living. These are all noted by Robertson and Berger (1994) as important in increasing the validity of research on prevalence. However, a criticism of the instruments used, must be the dependence on the American psychiatric classification system (DSM-IIIR, APA, 1987) in the design of the Symptom Checklist. The expression and experience

of emotional and behavioural problems is inextricably linked to the social and cultural context which defines what is, and is not, considered normal. Therefore the appropriateness of symptoms of distress drawn, at least in part, from a classification system based on research conducted primarily with American and European children, must be questioned. While this critique makes intuitive sense it clearly requires further investigation.

Following from this point is the more general question of the validity and reliability of the assessment procedure. A small-scale pilot study was conducted, and the findings did suggest an acceptable level of concurrent validity with clinical interviews. However from a psychometric perspective a much larger-scale study would be needed in order to properly establish the reliability and validity of the questionnaires used. Furthermore it can be argued that there is little established evidence for the validity or reliability of a clinical interview of this type (carried out through a translator), and therefore no set standard against which to measure the validity of a new instrument.

Regarding the reliability of the data, the questionnaires were of a self-report type and therefore the data used in this study is dependent upon the reliability of the children's responses. It is likely that subjects' responses may have been biased by selective recall and/or selective reporting (although anonymity was assured in an attempt to minimise this effect). While there is some information (for example Rutter and Graham, 1968) suggesting the reliability and validity of using the child interview as a diagnostic tool, there is little information regarding the reliability of responses on self-report schedules. Available research does document discrepancies on reported exposure to trauma and reported distress between parents and children. Martinez and Richters (1993) argue that the discrepancies between the reports of parents and children underscore the need to obtain information directly from the child, as parents tend to under-report on both exposure and distress. This provides indirect support for the method chosen in this study. The results of the pilot study, which indicated relatively high levels of agreement between information obtained through a child interview and through the reports of childminders, and information obtained through the self-report questionnaire, also suggest a reasonable level of reliability.

Ideally, what is necessary is a multi-method assessment procedure where a number of different methods are used to gather information about exposure and distress (Garmezy, 1982 in Benedek, 1985b). This should include interviews with parents and teachers, interviews with the child, and unintrusive measures such as play observation and drawing. Benedek (1985b) argues for the importance of multi-method assessment, saying that often a child may manifest difficulties on a behavioural level but not on a subjective psychological level and vice versa. This is clearly a shortcoming of this study as only subjective expression of distress is measured.

An attempt was made through the use of projective drawings to obtain some other indicator of distress. While the use and validity of children's drawings is well established, despite often inconclusive research results (Koppitz, 1983), this depends to a large extent upon the skill of the clinician interpreting the drawings. Furthermore projective drawings are intended as a part of a more in-depth clinical assessment, and are not meant to stand alone. The meaning of emotional indicators must be considered within the context of the entire drawing and of a broader personality assessment. Within the context of research of this type therefore, the Human Figure Drawings were of limited value as caution had to be exercised in the interpretation of the findings. Similarly with the Life Events Drawing, while useful in providing a broad interpretation of content, much of the richness of the drawings was lost through the method of analysis and through the large group administration, which did not facilitate in-depth discussion with each child about his/her drawing. Furthermore, on a more general level, projective techniques are criticised for a lack of demonstrated validity or reliability and an over dependency on the perception of the scorer (Garmezy, 1986). An attempt was made in this study to minimise these problems by compiling a standardised method for scoring the drawings.

7.3.3 THE FOCUS OF THE STUDY

This study focuses almost exclusively on individual symptoms or signs of distress. While information about the prevalence of psychiatric disorders and individual symptoms is necessary for planning services (Robertson and Berger, 1994), this focus has several potential pitfalls. A focus on symptoms of distress, if not clearly contextualised, can foster

a biomedical approach to the understanding of children's reactions to trauma. In this way the child may be seen as ill or disordered if he/she displays certain symptoms. Following this line of thinking it might be assumed that the absence of symptoms means that a child is unaffected. Furthermore with the focus on symptoms, the individual is central and the effects of trauma experienced at the interpersonal and community level are easily ignored. While looking at individual subjective reporting of distress does not preclude the acknowledgement of other levels of distress and other manifestations of the effects of violence, it is essential that these issues be noted.

An issue which is not often considered regarding research findings is that of the ideological implications of the study. The focus on symptoms, and the labelling of clusters of symptoms according to categories from a psychiatric classification system, has important consequences. Swartz and Levett (1989) note that the labelling of distress and problems which arise from political and structural violence in the terms of recognised syndromes (such as PTSD or Depression) can lend scientific credibility to protests against abuses. In this way the results of this study have been used to motivate for funds for prevention and rehabilitation programmes. However this labelling of the effects of violence in pseudo-medical terms can also be oppressive and serve to re-victimise the victim. The use of psychiatric terms may be seen to imply some kind of madness which must either be controlled or cured. This critique parallels Becker's (1992) critique of the concept of PTSD, where he argues for the inappropriateness of the term "disorder" in the context of reactions to human rights violations.

Regarding exposure to violence and trauma, again the focus of this study has necessarily been limited. The Life Events Scale assesses the numbers of different types of events reported by the children. There is no indication of when certain events happened, therefore it is not possible to establish whether the symptoms reported by the subjects are in fact short term- or long-term reactions. There is also no information about how often a child might have experienced a particular type of event. The subjective meaning of the different events is also not explored. Unfortunately, the use of a large sample and a self-report group-administered questionnaire necessitated that the questions be kept simple. This method of assessment also meant that it was particularly difficult to get information about

abuse by family members, other than in broad terms. Therefore the results can only be used to generate hypotheses about possible relationships and interactions.

The broad focus of this research clearly results in a number of limitations. The large sample necessitated a more superficial level of data collection and a focus on individual symptoms and exposure to specific life events. Consequently many questions are left unanswered. Furthermore the research design used, emerged from a positivist paradigm and therefore lends itself to a particular set of interpretations. However this study also serves a very useful exploratory purpose, and provides a good starting point from which to embark on other more specific studies. A number of conclusions have been possible and many hypotheses generated.

Given the cautions highlighted above, it is particulary important to explicate the framework within which this study is situated:

* Firstly, the findings of this study need to be understood within the social, political and historical context.

* Secondly, this research should not be viewed as an end in itself but rather as a part of a process of investigation.

* Thirdly, although this study chooses to focus on individual children and their reported symptoms, this must be seen as one of many levels.

It seems that a range of approaches are needed. As pointed out by Donald and Dawes (1994), one form of knowledge is not inherently superior to another. Research designs which have emerged from the positivist tradition can provide valuable information and insights. What is crucial is the frame of reference from which one interprets the findings.

REFERENCES

Aitchison, J.J.W. (1993) Numbering the Dead: the course and pattern of political violence in the Natal Midlands: 1987-1989, Unpublished Masters Thesis, Department of Political Studies, University of Natal.

Allodi, F. (1980) The psychiatric effects in children and familes of victims of political persecution and torture, Danish Medical Bulletin, 27(5), 229-232.

Allodi, F. (1989) The children of victims of political persecution and torture: A psychological study of Latin American refugee community, International Journal Of Mental Health , 18(2), 3-15.

American Psychiatric Association (1987) Diagnostic and Statistical Manual of Mental Disorders, Washington: APA.

Amnesty International (1992) South Africa: State of Fear - security force complicity in torture and political killings, 1990-1992, London: Amnesty International.

Arroyo, W. and Eth, S. (1985) Children traumatized by Central American warfare, in Eth, S. and Pynoos, R.S. (Eds) Post-traumatic Stress Disorder in Children, Washington: American Psychiatric Press.

Barker, P. (1988) Basic Child Psychiatry, Oxford: Blackwell.

Beck, A.T. (1972) Beck Depression Inventory, Depression Causes and Treatment, Philadelphia, University of Pennsylvania Press.

Becker, D. (1992) The Deficiency of the PTSD-concept when dealing with victims of human rights violations, Paper Presented at the ISTSS Conference "Trauma and Tragedy", Amsterdam, 1992.

Belter, R.W. and Shannon, M.P. (1993) Impact of natural disasters on children and families, in Saylor, C.F. (Ed) Children and Disasters, New York: Plenum.

Benedek, E.P. (1985a) Children and psychic trauma: a brief review of contemporary thinking, in Eth, S. and Pynoos, R.S. (Eds) Post-traumatic Stress Disorder in Children, Washington: American Psychiatric Press.

Benedek, E.P. (1985b) Children and disaster: Emerging issues, Psychoatric Annals, 15(3), 168-172.

Bluen, S.D. and Odesnik, J. (1987) Township unrest: development of the township life events scale, South African Journal of Psychology , 18(2), 51-57.

Bunk, D. (1993) The impact of psycho- and family-dynamic factors on the psychological development of children following severe traumatization, Paper Presented at the International Congress on Children War and Persecution Hamburg, 26-29 September 1993.

Burman, S. and Reynolds, P. (1986) Growing Up in a Divided Society, Illinois: Northwestern University Press.

Burgin, D. (1993) Psychic traumatisation in children and adolescents: a clinical and theoretical survey, Paper Presented at the International Congress On Children War and Persecution , Hamburg, 26-29 September 1993.

Butler, M. and Harley, A. (1993) Imbali, A Centre for Adult Education Study, University of Natal.

Cairns, E. and Wilson, R. (1989) Coping with political violence in Northern Ireland, Social Science and Medicine , 28(6), 621-624.

Cairns, E. and Wilson, R. (1989) Mental health aspects of political violence in Northern Ireland, International Journal Of Mental Health , 18(1), 38-56.

Chikane, F. (1986) The effects of the unrest on township children, in Burman, S. and Reynolds, P. (Eds) Growing Up in a Divided Society, Illinois: Northwestern University Press.

Chimienti, G. and Abu Nasr, J. (1993) Children's reactions to war-related stress: II. The influence of gender, age and the mother's reaction, International Journal of Mental Health, 21 (4), 72-86.

Coddington, P.D. (1981) Coddington Life Event Scale for Children, Clairsville, USA.

Cox, T. (1978) Stress, London: Macmillan.

Dawes, A. (1987) Security laws and children in prison: the issues of psychological impact, Psychology In Society, 8, 27-47.

Dawes, A. (1990) The effects of political violence on children: a consideration of South African and related studies, International Journal Of Psychology, 25, 13-31.

Dawes, A. (1994a) The emotional impact of political violence, in Dawes, A. and Donald, D. (Eds) Childhood and Adversity, Claremont: David Philip.

Dawes, A. (1994b) The effects of political violence on socio-moral reasoning and conduct, in Dawes, A. and Donald, D. (Eds) Childhood and Adversity, Claremont: David Philip.

Dawes, A. and Donald, D. (1994) Understanding the psychological consequences of adversity, in in Dawes, A. and Donald, D. (Eds) Childhood and Adversity, Claremont: David Philip.

Dawes, A.; Tredoux, C. and Feinstein, A. (1989) Political violence in South Africa: some effects on children of the violent destruction of their community, International Journal of Mental Health, 18(2), 16-43.

Dodge, C. and Raundalen, M. (1991) Reaching Children in War: Sudan, Uganda and Mozambique, Sigma Forlog A/S : Bergen, Norway.

Dowdall, T. (1990) Working with children and their families in civil conflict situations, in The Influence of Violence on Children, Cape Town: Centre for Intergroup Studies.

Dyregrov, A. and Raundalen, M. (1987) Children and the stresses of war - a review of the literature, in Dodge, C.P. and Raundalen, M (Eds) War, Violence, and Children in Uganda, Oslo: Norwegian University Press.

Earls, F. (1993) Public health, mental health and the child, Paper presented at The South African Association for Child and Adolescent Psychiatry & Allied Disciplines 9th National Congress, University of Cape Town, September 1993.

Eagle, G. and Friedman, M. (1994) Post-traumatic stress as a diagnostic category: Challenges posed through working in the South African context, Paper presented at the Psychology and Societal Transformation Conference, University of the Western Cape, January 1994.

Fairbank, J.A. and Nicholson, R.A. (1987) Theoretical and empirical issues in the treatment of post-traumatic stress disorder in Vietnam veterans, Journal of Clinical Psychology,43, 44-55.

Fraser, M. (1974) Children In Conflict, Harmondsworth: Penguin.

Furman, E. (1986) On Trauma: When is the death of a parent traumatic?, The Psychoanalitic Study of the Child, 41, 191-208.

Garbarino, J.; Kostelny, K. and Dubrow, N. (1991) What children can tell us about living in danger, American Psychologist, 46 (4), 376-383.

Garmezy, N. (1983) Stress, Coping and Development in Young Children, New York: McGraw-Hill.

Garmezy, N. (1986) Children under severe stress: critique and commentary, Journal of the American Academy of Child Psychiatry , 25, 384-392.

Garmezy, N. and Rutter, M. (1985) Acute reactions to stress, in Rutter, M. and Hersov, L. (Eds) Child and Adolescent Psychiatry : Modern approaches, Oxford: Blackwell.

Gibson, K. (1986) The Effects of Civil Unrest on Children: A Guide to Research, Unpublished Masters Thesis, University of Cape Town.

Gibson, K. (1987) Civil conflict, stress and children, Psychology In Society, 8, 4-26.

Gibson, K. (1989) Children in political violence, Social Science and Medicine, 28(7), 659-667.

Gibson, K. (1990) Case studies of children in political violence in The Influence of Violence on Children, Cape Town: Centre for Intergroup Studies.

Gibson, K. (1990) The epidemiology and clinical aspects of organised violence in South Africa, Paper delivered at the International Conference on the Consequences of Organised Violence in Southern Africa.

Gultig, J. and Hart, M. (1990) "The world is full of blood": Youth, schooling and conflict in Pietermaritzburg, 1987-1989, Perspectives in Education, 11, 1-19.

Hickson, J. (1992) Children at War, Elementary School Guidance and Counselling, 26 (4), 259-268.

John, V. (1990) Pietermaritzburg's refugees: A profile, South African Outlook, 120, 241-244.

Jones, J.C. and Barlow, D.H. (1990) The etiology of Posttruamatic Stress Disorder, Clinical Psychology Review, 10, 299-328.

Keane, T.A.; Wolfe, J. and Taylor, K.L. (1987) Post-traumatic Stress Disorder: Evidence for diagnostic validity and methods of psychological assessment, Journal of Clinical Psychology, 43, 32-43.

Kentridge, M. (1990) Pietermaritzburg under the knife, South African Outlook, 120 (1427), 233-245.

Kimaryo, S. (1993) State of South Africa's children: an agenda for action, Report From Unicef June 1993, 1-29.

Kinzie, J.D.; Sack, W.H.; Angell, R.H.; Manson, S. and Rath, B. (1986) The psychiatric effects of massive trauma on Cambodian children, Journal Of The American Academy Of Child Psychiatry, 25(3), 370-376.

Klaasen, E. (1990) The Impact Of Violence On Children South African Outlook, 120(1), 1-3.

Koppitz, E. (1968) The Pychological Evaluation of Children's Human Figure Drawings, New York: Grune and Stratton.

Koppitz, E. (1983) Projective drawings with children and adolescents, School Psychology Review, 12(4), 421-427.

Krell, R. (1985) Therapeutic value of documenting child survivors, American Academy Of Child Psychiatry , 24, 397-400.

Lancet Editorial (1988) Detention of schoolchildren in South Africa, The Lancet, March 19, 1988.

Lawyers Committee for Human Rights (1986) The war against children. South Africa's youngest victims , New York: Lawyers Committee for Human Rights.

Lorion, R. and Saltzman, W. (1993) Children's exposure to community violence : following a path from concern to research to action, Psychiatry : Interpersonal and Biological Processes, 56 (1), 55-65.

Lyons, H.A. (1979) Civil violence - the psychological aspects Journal Of Psychosomatic Research, 23, 373-393.

Martinez, P. and Richters, J. (1993) The NIMH Community Violence Project : II. Children's distress symptoms associated with violence exposure, Psychiatry: Interpersonal and Biological Processes, 56 (1), 22-35.

Maurer, R. (1991) Definitions, incidence and signs of child abuse and neglect in Willows, C. (Ed) Prevention of Child Abuse and Neglect, Pietermaritzburg: SASPCAN.

Mazali, R. (1993) Soldiers born: military service as initiation rite in Israeli society, Paper Presented at the International Congress on Children War and Persecution, Hamburg, 26-29 September 1993.

McNally, R. (1992) Psychopathology of Post-traumatic Stress Disorder (PTSD): Boundaries of the syndrome, in Basoglu, M. (Ed) Torture and it Consequences, Cambridge: Cambridge University Press.

McNeish, T. and Naglieri, J. (1993) Identification of individuals with serious emotional disturbance using the Draw-A-Person : Screening procedure for emotional disturbance, Journal of Special Education, 27 (1), 115-121.

McWhiter, L. (1983) The Northern Ireland "troubles": Current developmental research perspectives, Bulletin of The British Psychological Society, 36, 348-351.

Mendelsohn, M. and Straker, G. (1993) Experiences of violence among township youth: a follow - up study, Paper Presented at the International Congress on Children War and Persecution , Hamburg, 26-29 September 1993.

Michelson, C.L. (1994) Trauma, levels of distress, and coping, amongst displacees in the Pietermaritzburg area, Paper presented at the Psychology and Societal Transformation Conference, University of the Western Cape, January, 1994.

Milgram, R.M. and Milgram, N.A. (1976) The effects of the Yom Kippur war on anxiety levels in Israeli children, The Journal Of Psychology , 94, 107-113.

Norusis, M.J. (1985) SPSSx Advanced Statistics Guide, Chicago: SPSS Inc.

Nzimande, B. and Thusi, S. (1991) Children and War: The impact of political violence on schooling in Natal ,Durban: University of Natal, Education Projects.

Peterson, K.C.; Prout, M.F. and Schwarz, R.A. (1991) Post-traumatic Stress Disorder, Plenum: New York.

Piers, E.V. and Harris, D.B. (1969) The Piers-Harris Children's Self Concept Scale, Los Angeles: Western Psychological Services.

Punamaki, R. (1988) Historical -political and individualistic determinants of coping modes and fears among Palestinian children, International Journal of Psychology, 23(6), 721-739.

Punamaki, R. (1987) Content of and factors affecting coping modes among Palestinian children, Scandanavian Journal of Developmental Alternatives, 6(1), 86-98.

Punamaki, R -L. (1989) Factors affecting the mental health of palestinian children exposed to political violence, International Journal Of Mental Health, 18(2), 63-79.

Pynoos, R.S. and Eth, S. (1985) Children traumatized by witnessing acts of personal violence: homocide, rape or suicide behaviour, in Eth, S. and Pynoos, R.S. (Eds) Post-traumatic Stress Disorder in Children, Washington: American Psychiatric Press.

Pynoos, R. and Eth, S. (1986) Witness to violence: the child interview, Journal of the American Academy of Child Psychiatry, 25 (3), 306-319.

Pynoos, R. and Nader, K. (1990) Children's exposure to violence and traumatic death, Psychiatric Annals, 20(6), 334-344.

Rabinowitz, S.R. (1988) The impact of exposure to civil unrest on children's evaluations of violence, Unpublished MA (Clinical Psychology) thesis, University of Cape Town.

Raundalen and Dyregrov (1991) War experiences and psychological impact, in Dodge, C.P. and Raundalen, M. (Eds) Reaching Children in War: Sudan, Uganda and Mozambique , Bergen, Norway: Sigma Forlag.

Raviv, A. and Klingman, A. (1983) Children under stress, in Breznitz, S. (Ed), Stress in Israel , New York: Van Nostrand.

Reber, A. (1985) Penguin Dictionary of Psychology, London: Penguin Books.

Richters, J. and Martinez, P. (1993) The NIMH Community Violence Project : I. Children as victims of and witnesses to violence, Psychiatry : Interpersonal and Biological Processes, 56 (1), 7-21.

Robertson, B. and Berger, S. (1994) Child Psychopathology in South Africa, in Dawes, A. and Dondald, D. (Eds) Childhood and Adversity, Cape Town: David Philip.

Rozensky, R.H.; Sloan, I.H.; Schwarz, E.D. and Kowalski, J.M. (1993) Psychological responses of children to shootings and hostage situations, in Saylor, C.F. (Ed) Children and Disasters, New York: Plenum.

Rutter, M. and Graham, P. (1968) The reliability and validity of the psychiatric assessment of the child: i. Interview with the child, British Journal Of Psychiatry, 114, 563-579.

Rutter, M. (1985) Resilience in the face of adversity : protective factors and resistance to psychiatric disorder, British Journal of Psychiatry, 147, 598-611.

Saporta, J.A. and van der Kolk, B.A. (1992) Psychobiological consequences of severe trauma, in Basoglu, M. (Ed) Torture and its Consequences, Cambridge: Cambridge University Press.

Saylor, C.F. (1993) Children and disasters: Clinical and research issues, in Saylor, C.F. (Ed) Children and Disasters, New York: Plenum.

Setiloane, C.W.M. (1991) A study of attitudes towards and tolerance of violence by a group of school children, Social Work, 27(1), 59-66.

Shaffer, D. (1985) Developmental Psychology, Monterey, California: Brooks/Cole.

Shmukler, D. (1990) Growing up in violent situations - the South African situation, Southern African Journal of Child and Adolescent Psychiatry, 2(1), 7-12.

Stadler, A. (1987) The Political Economy of Modern South Africa, Cape Town: David Philip.

Straker, G. (1987) The continuous traumatic stress syndrome - the single therapeutic interview, Psychology In Society, 8, 48-79.

Straker, G. (1993) The pychological significance of violence, South African Journal of Child and Adolescence Psychiatry, 5(1), 1-40.

Straker, G. and Moosa, F. (1990) Post Traumatic Stress Disorder: a reaction to state-supported child abuse and neglect, in The Influence of Violence on Children, Cape Town: Centre for Intergroup Studies.

Straker, G. (1992) Faces in the Revolution: the Psychological Effects of Violence on Township Youth in South Africa, Cape Town: David Philip.

Swartz, L. and Levett, A. (1989) Political repression and children in South Africa : The social construction of damaging effects, Social Science and Medicine, 28 (7), 741-750.

Swenson, C. and Klingman, A. (1993) Children and war, in Saylor, C.F. (Ed) Children and Disasters, New York: Plenum.

Terr, L. Cagan (1985) Children traumatized in small groups, in Eth, S. and Pynoos, R.S. (Eds) Post-traumatic Stress Disorder in Children, Washington: American Psychiatric Press.

Turton, R.W., Straker, G. and Moosa, F. (1991) Experiences of violence in the lives of township youths in "unrest" and "normal" conditions, South African Journal Of Psychology, 21(2), 77-85.

Weisenberg, M.; Schwarzwald, J.; Waysman, M.; Solomon, Z. *et al.* (1993) Coping of school-age children in the sealed room during scud missile bombardment and postwar stress reactions, Journal of Consulting and Clinical Psychology, 61 (3), 462-467.

World Health Organisation (1978) International Classification of Diseases: Mental Disorders, Ninth Revision, Geneva: WHO.

Yorke, C. (1986) Reflections on the problem of psychic trauma, The Psychoanalytic Study of the Child, 41, 221-236.

Yule, W. (1993) Technology related disasters, in Saylor, C.F. (Ed) Children and Disasters, New York: Plenum.

Zea, M.C. (1994) Risk and protective factors for Central American children exposed to political violence, Paper presented at the Psychology and Societal Transformation Conference, University of the Western Cape, January, 1994.

Ziv, A.; Kruglanski, A. and Shulman, S. (1974) Children's reactions to wartime stress, Journal of Personality and Social Psychology , 30, 24-30.

APPENDICES

INSTRUCTIONS FOR RESEARCH ASSISTANTS

1. Introductions:

Introduce yourself and the researcher/ other assistants. Tell the children that we are interested in finding out about them, the things that have happened to each of them and how they feel. Emphasise that what we will be doing is not any sort of test and that there are no right or wrong answers. What they write or say will be treated as confidential, that is, we will not tell their teachers or their parents or friends etc. what they say. Explain that the reason we want to find out all these things from them is to see if there are any difficulties that they might have that we could help with. Check if there are any questions from the children.

2. Drawings:

Hand out questionnaires and pencils. Ask the children not to look at the questions yet. Ask them to turn to the first blank page.

"I would like you each to draw some pictures for me. Using the paper and pencil which I have given to you, I would like you to draw a picture of something that has happened to you. It might be something good or something bad. It is up to you to decide..... Are there any questions? Remember .... draw a picture of something that has happened to you in your life."

The important thing here is that each child draw their own picture. It is best if they don't look at each others pictures or discuss what they are drawing. I want them to draw something that has happened to them - an event - they can each choose what to draw. You might also need to reassure them that we are not concerned with how well they draw but rather with what they draw. Try not to give any examples as this might give them an idea of what to draw. I want each child to decide for themselves what to draw.

Once they have had a few minutes to get started, check that they are all managing. Go around the room, stop at each child, ask him/her about the picture and what s/he is drawing. Make a note of what the child says, together with the number on the questionnaire on the spare paper provided. When doing this, try to create as little disruption as possible. Go about it quietly and approach each child in an interested rather than a questioning/judgemental manner. If it is not clear what the child means, ask for more detail - it is important for us to know what the child drew and what is happening in the picture.

Once you have spoken to each child (or if you can see that many are finished early then you can give these instructions sooner), ask them to turn over the page to the back of the one that they have just drawn on.

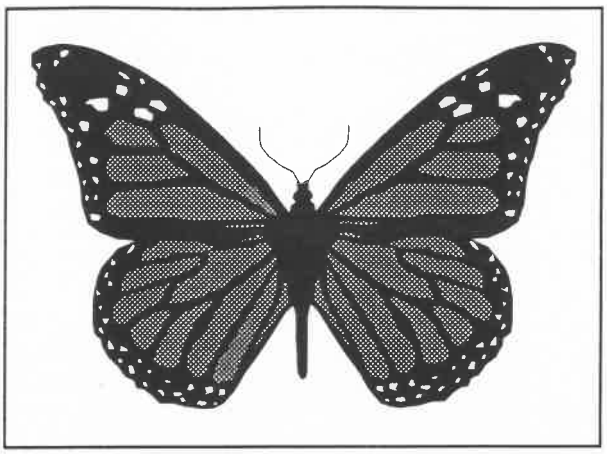
Say: "Now that you have finished that picture I would like you to draw another. This time I want you to draw a person, a whole person, any person ..... the best picture of a person that you can draw." If they ask who they must draw or how, say that it is up to them to choose.

When they are finished allow them to go to the toilet if they need to before continuing with the questionnaire.

3. Questionnaire:

Ask each child to look at the questionnaire in front of them. Read out the instructions slowly and ask if anyone has any questions. Then ask them all to turn to the first page. Again read the instructions and remind them to ask you for help if they have difficulty with answering the questions. Proceed through the questionnaire in this manner, reading each question one at a time and checking that each child has answered it. Every time the questionnaire requires the children to write, offer to help them with writing down the answer. Where indicated on your copy of the questionnaire - Explain what the question means or give an example.

QUESTIONNAIRE FOR CHILDREN



INSTRUCTIONS

These pages have some questions for you to answer. There are some questions about who you are and where you live. There are some questions about things that might have happened in your life. There are also some questions about how you feel inside and any difficulties that you might have. **This is not a test.** There are no right or wrong answers. You must just say how **you** feel. It is important that you try to answer the questions as honestly as possible. If there is anything which you don't understand please ask for help.

"WHO I AM"

Here are some questions about you, your family and where you live. Please answer the questions in the spaces or tick the correct answer. Remember, if you are not sure what to write or how to write the answer, ask the assistant for help.

NAME: _____

1. What standard are you in? _____

2. How old are you? _____

3. Are you a boy or a girl?

BOY ____
GIRL ____

4. Where do you live? _____

5. Who lives in your house with you?

MOTHER ____
FATHER ____
BROTHERS ____
SISTERS ____
GRANDMOTHER ____
GRANDFATHER ____
STEPMOTHER ____
STEPFATHER ____
AUNT ____
UNCLE ____
COUSINS ____
OTHER PEOPLE ____

6. Who looks after you? _____

"WHAT HAS HAPPENED TO ME"

Here are some questions about things that might have happened to you. Please draw a circle around the correct answer.

Example: Have you ever been to school?

YES NO

---

1. Have you ever repeated a year at school? **YES NO**

---

2. Have you found that life is dangerous in the townships? **YES NO**

---

3. Have you ever been very sick? **YES NO**

---

4. Do you sometimes have no food in the house? **YES NO**

---

5. Have you ever seen a person being killed? **YES NO**

---

6. Have you ever had to live outside? **YES NO**

---

7. Have you ever had no house to go to? **YES NO**

---

8. Are both your parents (mother and father) alive? **YES NO**

---

9. Has your house ever been attacked or burned? **YES NO**

---

10. Have any houses in your area been attacked or burned? **YES NO**

---

11. Have you stayed in hospital? **YES NO**

---

12. Has anyone in your family died (eg. mother, father, brother, sister, cousin)? **YES NO**

---

13. Have you ever been frightened by vigilantes? **YES NO**

---

14. Have you ever been frightened by the security forces (eg. police or army)? **YES NO**

---

15. Have you ever been arrested? **YES NO**

---

16. a.Has anyone in your family been arrested? **YES NO**

b.If they have, were you there when it happened? **YES NO**

---

17. a.Have any of your friends been arrested? **YES NO**

b.If they have, were you there when it happened? **YES NO**

---

18. a. Has anyone in your family been killed in the violence? **YES NO**

b.If they have, were you there when it happened? **YES NO**

---

19. a.Have any of your friends been killed in the violence?
YES NO

b.If they have, were you there when it happened?
YES NO

---

20. Is there often fighting between members of your family?
YES NO

---

21. a.Has anyone in your family been attacked in the past?
YES NO

b.Did you see it happen? **YES NO**

---

22. Do you and your parents often argue about things?
YES NO

---

23. Do you belong to a political group? **YES NO**

---

24. Have you ever been attacked before? **YES NO**

---

25. Has your mother had another baby since you were born?
YES NO

---

26. Were you pleased that your mother had another baby?
YES NO

---

27. Have you ever been assaulted by the security forces (eg. police or army)? **YES NO**

---

28. Have you had to move to a different house, so that you would be safe? **YES NO**

---

29. Have you attacked people yourself? **YES** **NO**

---

30. Do you live with your own family? **YES** **NO**

---

31. Have you ever killed a person? **YES** **NO**

---

32. Have you ever been part of a group that has killed a person? **YES** **NO**

---

33. Have you ever had to leave your family and go and live with other people? **YES** **NO**

---

34. Have you ever been in gaol? **YES** **NO**

---

35. Have any of your family or close friends ever gone missing? **YES** **NO**

---

36. Have any members of your family gone into hiding? **YES** **NO**

---

37. Has your house ever been raided by security forces? **YES** **NO**

---

38. Do your parents or the people who you live with often beat you or physically harm you? **YES** **NO**

---

39. Has there ever been any violence at your school? **YES** **NO**

If the answer is **"YES"** write down the things which happened in the space below. If you have any difficulty writing it down put up your hand for help:

_____

_____

_____

_____

40. Have you ever been prevented from going to school because of the violence? **YES NO**

---

41. Have you ever seen a person being assaulted (eg. attacked or stabbed)? **YES NO**

---

42. a. Have you been in any other situations where you were harmed or were afraid that you might be harmed?

YES NO

b. If your answer is **"YES"** write down these situations in the space below, or put up your hand for help:

_____

_____

_____

---

43. a.Are there any other things or situations which make you feel bad or unhappy? **YES NO**

b. If your answer is **"YES"** please write down these things in the space below, or put up your hand for help:

_____

_____

_____

_____

"MY DIFFICULTIES AND MY FEELINGS"

Here are some questions about how you feel inside and about some of the difficulties and worries that you might have. Answer "YES" or "NO" to the questions. Put a circle around the correct answer. If there is anything which you do not understand please ask the assistant for help.

---

1. Do you fall asleep easily at night when you get into bed? **YES NO**

---

2. Do you feel sad a lot of the time? **YES NO**

---

3. Do you like playing games with other children? **YES NO**

---

4. Do you feel cross or irritable most of the time? **YES NO**

---

5. Are you able to enjoy yourself in your spare time? **YES NO**

---

6. Do you have frightening dreams nearly every night? **YES NO**

---

7. Do you often wish that you were dead or that your life would end? **YES NO**

---

8. Do you think that you are a good person? **YES NO**

---

9. Are there many things that you wish you had done or had not done? **YES NO**

---

10. Are there places or things that you avoid because they remind you of bad or frightening things? **YES NO**

---

11. Do you wake up in the middle of the night or the early morning and then find that you can't go back to sleep? **YES NO**

---

12. Do you sometimes urinate in your bed at night? **YES NO**

---

13. Do you get into a lot of fights with other children? **YES NO**

---

14. Do you feel frightened a lot of the time? **YES NO**

---

15. Are there some horrible things which have happened to you that you think about all the time even if you try not to think about them? **YES NO**

---

16. Do you often feel sick or feel pains in your body? **YES NO**

---

17. Do you have problems with eating (eating too much or not wanting to eat at all)? **YES NO**

---

18. Do you feel tired a lot of the time? **YES NO**

---

19. Do you find it difficult to sit and keep one thing on your mind? **YES NO**

---

20. Do you have difficulties remembering things? **YES NO**

---

21. Do you feel happy one minute and then suddenly feel sad for no particular reason? **YES NO**

---

22. Do you get angry easily? **YES NO**

---

23. Do you feel that you must watch out for danger all the time? **YES NO**

---

24. Do you often feel like crying? **YES NO**

---

25. Do you use drugs (like dagga, glue etc.) and/or alcohol?

YES NO

---

26. Do you find that you sometimes have no feelings inside?

YES NO

---

27. Are here things, places or situations that you avoid because they make you feel very afraid? **YES NO**

28a. Are there any other problems or bad feelings that you have that have not been asked about in this list of questions?

YES NO

b. If your answer was "YES" please write down these problems in the space below: (Remember to ask for help if you have problems with writing down the answer)

_____

_____

_____

_____

_____

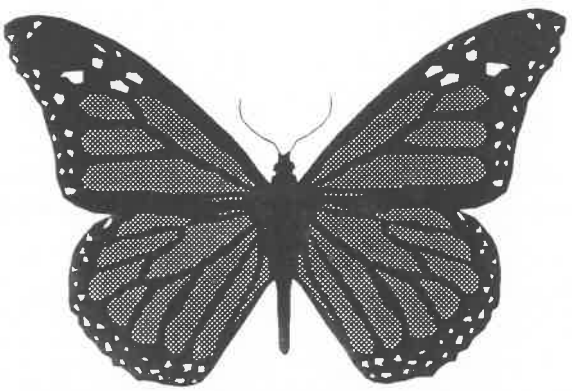
_____

_____

_____

THANK YOU FOR ANSWERING THESE QUESTIONS

INHLOLOMBUZO YABANTWANA



Lawa amakhasi anemibuzo ekufanele uyiphendule. Kunemibuzo ngokuthi ungubani kanye nokuthi uhlala kuphi. Kuneminye futhi imibuzo emayelana nezinto ekungenzeka ukuthi zake zenzeka empilweni yakho. Eminye futhi kulemibuzo emayelana nokuthi uzizwa unjani ngaphakathi kuwena kanye nobunzima okungenzeka ukuba unabo. Lokhu akusikona ukukuvivinya. Ayikho impendulo engalungile noma ephambukile. Kufanele usho lokho okucabangayo mayelana nombuzo ofananelo. Kubalulekile ukuthi uphendule imibuzo ngeqiniso. Uma kukhona into ongayiqondi kahle siza ucele usizo.

"NGINGUBANI"

Lapha kunemibuzo emayelana nawe, umndeni wakho nalapho uhlalakhona. Uyacelwa ukuba uphendule imibuzo ezikhaleni ezifanele, noma ufake uphawu ( ) empendulweni efanele. Khumbula, uma ungenaso isiqiniseko ngalokhu okubhalayo noma ibhalwa kanjani impendulo, buza umsizi ngosizo.

IGAMA: _____

1. Ufunda ubani manje? _____

2. Uneminyaka emingaki? _____

3. Ungumfana noma intombazane?
   UMFANA ____
   INTOMBAZANE ____

4. Uhlalakuphi? _____

5. Uhlala nobani ekhaya kini?
   UMAMA ____
   UBABA ____
   ABAFOWENU ____
   ADADEWENU ____
   UGOGO ____
   UMKHULU ____
   UMAMA OMUSHA ____
   UBABA OMUSHA ____
   UMALUMEKAZI ____
   UMALUME ____
   OMZALA ____
   ABANYE ABANTU ____

6. Ubhasobhwe ngubani? _____

"KWENZEKE INI KUMINA"

Lapha enye yemibuzo imayelana nezinto okungenzeka ukuthi sezike zenzeka kuwena. Uyacelwa ukuba udwebe isiyingi empendulweni ekuyiyona efanele.

Isibonelo: Usake waya esikoleni? **YEBO** **CHA**

---

1. Usake waliphinda ibanga esikoleni? **YEBO** **CHA**

---

2. Usake wakuthola ukuthi impilo iyingozi emalokiskini? **YEBO** **CHA**

---

3. Usake wagula kakhulu? **YEBO** **CHA**

---

4. Kukekwenzeke kwesinye isikhathi ningabi nakho ukudla ekhaya? **YEBO** **CHA**

---

5. Usake wambona umuntu ebulawa? **YEBO** **CHA**

---

6. Ngabe senake nabaleka nashiya izindlu nayohlala ngaphandle? **YEBO** **CHA**

---

7. Usake wangaba nalo ikhaya ozoya kulo? **YEBO** **CHA**

---

8. Ngabe abazali bakho bobabili (umama noma ubaba) basaphila?

YEBO **CHA**

---

9. Ngabe usake wahlaselwa noma washiswa umuzi wakini?

YEBO CHA

---

10. Ngabe ikhona imizi esake yahlaselwa noma yashiswa endaweni yangakini?

YEBO CHA

---

11. Usake walaliswa esibhedlela? **YEBO CHA**

---

12. Ngabe ukhona osewashona emndenini wakho (isibonelo: umama, ubaba, udadewenu, umfowenu, umzala)?

YEBO CHA

---

13. Ngabe usake wathuswa ngababulali?

YEBO CHA

---

14. Ngabe usake wathuswa ngabombutho wezokuphepha (isibonele: amaphoyisa noma amasosha)?

YEBO CHA

---

15. Usake waboshwa? **YEBO CHA**

---

16. a.Ngabe ukhona osake waboshwa emndenini wakho?

YEBO CHA

b.Uma ekhona, wawukhona ngenkathi kwenzeka?

YEBO CHA

---

17. a.Ngabe ukhona umngani wakho osake waboshwa?

YEBO CHA

b.Uma ekhona, wawukhona ngenkathi kwenzeka?

YEBO CHA

---

18. a.Ngabe ukhona owomndeni wakho owashona odlameni?

YEBO CHA

b.Uma ekhona, wawukhona ngenkathi kwenzeka?

YEBO CHA

---

19. a.Ngabe ukhona umngani wakho owashona odlameni?

YEBO CHA

b.Uma ekhona, wawukhona ngenkathi kwenzeka?

YEBO CHA

---

20. Ngabe kujwayelekile ukulwa bodwa abomndeni wakho?

YEBO CHA

---

21. a.Ngabe ukhona owomndeni wakho osake wahlaselwa esikhathini esedlule? **YEBO CHA**

b.Wakubona kwenzeka? **YEBO CHA**

---

22. Ngabe wena nabazali bakho nike niphikisane ngezinto?

YEBO CHA

---

23. Ngabe kukhona iqembu lombusazwe ongaphansi kwalo?

YEBO CHA

---

24. Usake wahlaselwa esikhathini esiphambili?

YEBO CHA

---

25. Ngabe umama wakho usake wamthola omunye umntwana emva kwakho?

YEBO CHA

---

26. Ngabe wawujabule yini ukuthi umama wakho wathola omunye umntwana?

YEBO CHA

---

27. Ngabe usake wahlukunyezwa abombutho wokuvikela (amaphoyisa noma amasosha)? **YEBO CHA**

---

28. Ngabe senake nathuthela komunye umuzi, ukuze nivikeleke na? **YEBO CHA**

---

29. Usake wabahlasela abanye abantu wena uqobo?

YEBO CHA

---

30. Ngabe uhlala nomndeni wakho uqobo? **YEBO CHA**

---

31. Usake wambulala umuntu? **YEBO CHA**

---

32. Usake waba ingxenye yeqembu elake labulala umuntu?

YEBO CHA

---

33. Usake wawushiya umndeni wakini wahamba wayohlala nabanye abantu?

YEBO CHA

---

34. Usake waba sejele? **YEBO CHA**

---

35. Ngabe usake walahleka omunye womndeni noma umngani wakho na?

YEBO CHA

---

36. Ngabe akhona amanye amalunga omndeni wakho ake ahamba aya ukuyocasha?

YEBO CHA

---

37. Ngabe umuzi wakini usake wahlaselwa abombutho wokuvikela bebheka izikhali?

YEBO CHA

---

38. Ngabe abazali bakho noma abantu ohlala nabo bajwayele ukukushaya noma ukukuhlukumeza?

YEBO CHA

---

39. Ngabe selwake lwaba khona udlame esikolweni sakho?

YEBO CHA

Uma impendulo kungu **"YEBO"** bhala phansi zonke izinto ezake zenzeka kulesisikhala esingezansi. Uma unenkinga ekukubhaleni phansi phakamisa isandla ucele usizo:

_____

_____

_____

_____

---

40. Usake wavimbeleka ukuthi ungayi esikoleni ngenxa yodlame?

YEBO **CHA**

---

41. Usake wamubona umuntu ehlaselwa (<u>isibonelo</u> eshaywa noma egwazwa)?

YEBO **CHA**

---

42. a.Usake wazithola ukwesinye isimo lapho walimala noma wawusaba ukuthi kungase kwenzeke ulimale?

YEBO **CHA**

b.Uma impendulo yakho ithi **"YEBO"** bhala phansi uchaze isimo esikhaleni esingezansi, noma uphakamise isandla sakho ucele usizo:

_____

_____

_____

---

43. a.Ngabe zikhona ezinye izinto noma izimo ezikwenza uzizwe umubi noma ungajabule?

YEBO **CHA**

b.Uma impendulo yakho ithi **"YEBO"** siza ubhale phansi lezizinto esikhaleni esingezansi, noma uphakamise isandla ucele usizo:

_____

_____

_____

_____

_____

_____

_____

Appendix 3

"UBUNZIMA BAMI KANYE NEMIZWA YAMI"

Lena eminye yemibuzo emayelana nemizwa yakho ngaphakathi kanye neminye yobunzima nokuphatheka kabi okungase kwezeke ukuba unayo. Phendula uthi "YEBO" noma "CHA" embuzweni. Faka isiyingi uzungeze ekuyiyona yona mpendulo. Uma kukhona enye into ongayiqondisisi siza ucele usizo.

---

1. Ngabe usheshe uzumeke kalula ebusuku uma ungena embhedeni? **YEBO** **CHA**

---

2. Ngabe avamise ukuzizwa ulusizi esikhathini esiningi? **YEBO** **CHA**

---

3. Ngabe uyathanda ukudlala imidlalo nabanye abantwana? **YEBO** **CHA**

---

4. Ngabe ujwayele ukudinwa noma ungxame esikhathi esiningi? **YEBO** **CHA**

---

5. Ngabe uyakwazi ukuzijabulisa ngesikhathi sakho? **YEBO** **CHA**

---

6. Ngabe ujwayele ukuba namaphupho athusayo cishe bonke ubusuku? **YEBO** **CHA**

---

7. Ngabe uke ufise sengathi sewafa noma sengathi ungavele ufe? **YEBO** **CHA**

---

8. Ngabe uke ucabange ukuthi ungumuntu okahle?

YEBO **CHA**

---

9. Ngabe zikhona yini izinto oke ufise sengathi wazenza noma awuzenzanga? **YEBO** **CHA**

---

10. Ngabe zikhona izindawo noma izinto ozigwemayo ngoba zikukhumbuza izinto ezimbi noma ezithusayo?

YEBO **CHA**

---

11. Kukekwenzeke ukuthi uphaphame phakathi kwamabili noma ekuseni kakhulu uthole ukuthi awusakwazi ukuphinda uzumeke?

YEBO **CHA**

---

12. Ngabe kukekwenzeke kwesinye isikhathi uzichamele embhedeni ebusuku? **YEBO** **CHA**

---

13. Ngabe ujwayele ukuthi ulwe nezinye izingane?

YEBO **CHA**

---

14. Ngabe uzizwa uthukile esikhathini esiningi?

YEBO **CHA**

---

15. Ngabe zikhona yini izinto ezithusayo ezenzeka kuwena ohlala ucabanga ngazo sonke isikhathi nakuba uzama ukuthi ungacabangi ngazo? **YEBO** **CHA**

---

16. Ngabe ujwayele ukuzizwa ugula noma uzwe ubuhlungu emzimbeni wakho? **YEBO** **CHA**

---

17. Ngabe unenkinga yokuthi udle (ukudla kakhulu noma kungavumi ukuthi udle)? **YEBO** **CHA**

---

18. Ngabe ujwayele ukuzizwa ukhathele esikhathini esiningi?

YEBO **CHA**

---

19. Ngabe ukuthola kunzima ukuthi uhlale bese ucabanga ngento eyodwa enqondweni? **YEBO** **CHA**

---

20. Ngabe unobunzima ekutheni ukhumbule izinto?

YEBO **CHA**

---

21. Ngabe ukuke uzizwe ujabule umzuzu owodwa bese kuthi gwiqiqi usuzizwa udangele ngaphandle kwesizathu esithize?

YEBO **CHA**

---

22. Ngabe uyushesha ukudinwa? **YEBO** **CHA**

---

23. Ngabe ujayele ukuzizwa sengathi ungabhasobha ingozi ngasosonke isikhathi? **YEBO** **CHA**

---

24. Ngabe ujwayele ukuzizwa sengathi ungakhala?

YEBO **CHA**

---

25. Ngabe uyazisebenzisa izidakwamizwa (insangu, i"glue" nokunye) kanye/noma utshwala? **YEBO** **CHA**

---

26. Ngabe uke uthole ukuthi awuzwa muzwa ngaphakathi ku wena?

YEBO CHA

---

27. Ngabe kukhona izinto, izindawo noma izimo ozigwemayo ngoba zikwenza ube nokwesaba okukhulu?

YEBO CHA

28a. Ngabe unazo ezinye izinkinga noma ukuphatheba kabi kodwa okungazange kubuzwe kuloluhla lwemibuzo?

YEBO CHA

b. Uma impendulo kube u "YEBO" siza ubhale phansi lezozinkinga esikhaleni esingezansi: (Khumbula ukucela usizo uma unenkinga ekubhaleni phansi impendulo)

_____

_____

_____

_____

_____

_____

_____

_____

SIYABONGA NGOKUPHENDULA LEMIBUZO

SCALE WEIGHTS FOR ITEMS ON THE SYMPTOM CHECKLIST

Symptom Checklist Items	Emotional Problems Scale	PTSD Scale	Depression Scale
Symptom 1[1]	2.4	2.6	2.8
Symptom 2	2.1	1.7	3.0
Symptom 3	2.6	1.6	2.7
Symptom 4	2.3	1.9	2.2
Symptom 5	2.3	2.0	3.3
Symptom 6	3.0	3.8	1.5
Symptom 7	3.3	2.3	3.8
Symptom 8	2.8	1.7	2.9
Symptom 9	1.6	1.8	1.6
Symptom 10	2.6	3.8	0.6
Symptom 11	2.4	2.3	3.6
Symptom 12	2.9	1.8	1.1
Symptom 13	2.8	1.4	1.4
Symptom 14	2.9	3.1	1.1
Symptom 15	2.4	3.8	1.1
Symptom 16	2.4	1.4	2.2
Symptom 17	2.0	1.4	3.0
Symptom 18	1.7	1.9	3.3
Symptom 19	2.3	2.9	2.6
Symptom 20	2.0	2.7	2.4
Symptom 21	2.7	3.0	1.8
Symptom 22	2.6	2.0	1.1
Symptom 23	2.3	3.8	0.9
Symptom 24	2.7	2.6	3.4
Symptom 25	2.8	1.7	2.2
Symptom 26	2.7	2.8	2.9
Symptom 27	2.4	3.7	0.9

[1]Each symptom item corresponds with the question on the Symptom Checklist with the same number. Symptom items were coded as presence or absence of the symptom.

Appendix 5.1 : Correlation Matrix Life Events Scale Scores

	LE Total	LE Scale 1	LE Scale 2	LE Scale 3	LE Scale 4
LE Total	1.0000	0.8386*	0.8732*	0.5431*	0.6553*
LE Scale 1	0.8386*	1.0000	0.6639*	0.2460*	0.4172*
LE Scale 2	0.8732*	0.6639*	1.0000	0.2972*	0.4370*
LE Scale 3	0.5431*	0.2460*	0.2972*	1.0000	0.2924*
LE Scale 4	0.6553*	0.4172*	0.4370*	0.2924*	1.0000

* = 2-tailed significance $p < 0.001$

Appendix 5.2 : Correlation Matrix Symptom Scale Scores

	Total Symptom Score	PTSD Scale	Depres-sion Scale	Emot-ional Probs$^{(w)}$	PTSD Scale$^{(w)}$	Depres-sion Scale$^{(w)}$
Total Symptom Score	1.0000	0.9089*	0.8855*	0.9968*	0.9835*	0.9718*
PTSD Scale	0.9089*	1.0000	0.7561*	0.9143*	0.9425*	0.8401*
Depression Scale	0.8855*	0.7561*	1.0000	0.8784*	0.8264*	0.9474*
Emotional Problems Scale$^{(w)}$	0.9968*	0.9143*	0.8784*	1.0000	0.9835*	0.9698*
PTSD Scale$^{(w)}$	0.9835*	0.9425*	0.8264*	0.9835*	1.0000	0.9330*
Depression Scale$^{(w)}$	0.9718*	0.8401*	0.9474*	0.9698*	0.9330*	1.0000

* = 2-tailed significance $p < 0.001$

$^{(w)}$ = weighted scale

Appendix 5.3 : Correlation Matrix Emotional Indicator Score by Life Events Scores

	Total LE Score	LE Scale 1	LE Scale 2	LE Scale 3	LE Scale 4
Emotional Indicator Score	-0.0460	0.0032	-0.0645	-0.0337	-0.0536

Appendix 5.4 : Correlation Matrix Emotional Indicator Score by Symptom Scores

	Total Symptom Score	PTSD Scale	Depres-sion Scale	Emotion-al Probs.$^{(w)}$	PTSD Scale$^{(w)}$	Depress-ion Scale$^{(w)}$
Emotional Indicator Score	0.0373	0.0133	0.0315	0.0363	0.0223	0.0569

$^{(w)}$ = weighted scales

SUMMARY OF ANALYSIS OF VARIANCE RESULTS - SYMPTOM SCORES BY LIFE EVENTS ITEMS

LIFE EVENTS	TOTAL SYMPTOM SCORE			EMOTIONAL PROBLEMS SCALE			PTSD SCALE			DEPRESSION SCALE		
	Group means	F	P	Group means	F	P	Group means	F	P	Group means	F	P
Frequent arguments with parents Group 1 (n=40) Group 0 (n=244)	9.68 (1) 8.25 (0)	3.888	0.050 Sig	23.06 19.55	3.984	0.047 Sig	24.35 21.18	2.824	0.094 N/S	20.5 17.12	4.743	0.030 Sig
Fighting (verbal/physical) between members of family Group 1 (n=78) Group 0 (n=206)	10.7 (1) 7.6 (0)	33.711	0.000 H/S	25.44 18.0	32.53	0.000 H/S	27.42 19.43	32.585	0.000 H/S	22.27 15.83	30.934	0.000 H/S
Parents/care-giver physically harms child Group 1 (n=47) Group 0 (n=0)	10.96(1) 7.96 (0)	20.954	0.000 H/S	26.26 18.82	21.827	0.000 H/S	27.93 20.37	19.370	0.000 H/S	22.76 16.58	19.047	0.000 H/S
Sometimes have no food at home Group 1 (n=65) Group 0 (n=219)	9.95 (1) 8.01 (0)	10.881	0.001 H/S	23.7 18.96	10.925	0.001 H/S	25.6 20.44	11.239	0.001 H/S	20.93 16.61	11.543	0.001 H/S
Had to live outside before because no house to go to Group 1 (n=54) Group 0 (n=229)	9.98 (1) 8.12 (0)	8.645	0.004 H/S	23.73 19.24	8.495	0.004 H/S	25.51 20.78	8.168	0.005 H/S	21.0 16.85	9.258	0.003 H/S

LIFE EVENTS	TOTAL SYMPTOM SCORE			EMOTIONAL PROBLEMS SCALE			PTSD SCALE			DEPRESSION SCALE		
	Group means	F	P	Group means	F	P	Group means	F	P	Group means	F	P
Life is dangerous in the townships Group 1 (n=149) Group 0 (n=132)	8.87 (1) 8.03 (0)	2.77	0.10 N/S	21.02 19.06	2.527	0.113 N/S	22.47 20.82	1.543	0.22 N/S	18.69 16.43	4.287	0.039 Sig
Seen a person being killed Group 1 (n=77) Group 0 (n=207)	10.0 (1) 7.87 (0)	14.938	0.00 H/S	23.89 18.62	15.383	0.000 H/S	25.79 20.08	15.66	0.00 H/S	21.18 16.27	17.067	0.000 H/S
One or both parents dead Group 1 (n=48) Group 0 (n=235)	9.77 (1) 8.20 (0)	5.536	0.02 Sig	23.22 19.44	5.421	0.021 Sig	25.38 20.89	6.635	0.01 H/S	20.28 17.09	4.913	0.03 Sig
Family member(s) died Group 1 (n=163) Group 0 (n=121)	9.26 (1) 7.37 (0)	14.343	0.00 H/S	21.95 17.49	13.502	0.00 H/S	23.79 18.7	15.363	0.00 H/S	19.14 15.53	11.173	0.001 H/S
Family or friends gone missing Group 1 (n=41) Group 0 (n=243)	10.5 (1) 8.11 (0)	11.395	0.00 H/S	24.84 19.24	10.661	0.00 H/S	26.67 20.77	10.253	0.00 H/S	21.7 16.91	9.939	0.00 H/S
Family members gone into hiding Group 1 (n=27) Group 0 (n=256)	11.2 (1) 8.17 (0)	13.14	0.00 H/S	26.77 19.36	13.053	0.00 H/S	29.04 20.86	13.828	0.00 H/S	23.6 16.97	13.305	0.00 H/S
House attacked or burned Group 1 (n=46) Group 0 (n=236)	10.0 (1) 8.19 (0)	7.151	0.01 H/S	23.77 19.41	6.978	0.01 H/S	25.56 20.96	6.776	0.01 H/S	20.92 17.02	7.124	0.01 H/S
Houses in area attacked or burned Group 1 (n=178) Group 0 (n=103)	9.13 (1) 7.24 (0)	13.338	0.00 H/S	21.65 17.16	12.707	0.00 H/S	23.39 18.46	13.339	0.00 H/S	19.01 15.10	12.265	0.00 H/S
Been frightened by vigilantes Group 1 (n=51) Group 0 (n=233)	10.8 (1) 7.95 (0)	19.616	0.00 H/S	25.76 18.8	20.274	0.00 H/S	27.72 20.29	20.035	0.00 H/S	16.57 22.29	17.285	0.00 H/S
Been frightened by security forces Group 1 (n=52) Group 0 (n=232)	10.4 (1) 8.03 (0)	13.463	0.00 H/S	24.75 18.99	13.784	0.00 H/S	26.38 20.56	12.168	0.00 H/S	21.86 16.64	14.450	0.00 H/S

LIFE EVENTS	TOTAL SYMPTOM SCORE			EMOTIONAL PROBLEMS SCALE			PTSD SCALE			DEPRESSION SCALE		
	Group means	F	P	Group means	F	P	Group means	F	P	Group means	F	P
Anyone in family arrested before Group 1 (n=110) Group 0 (n=174)	9.19 (1) 7.99 (0)	5.49	0.02 Sig	21.86 18.9	5.608	0.02 Sig	23.42 20.49	4.768	0.03 Sig	19.21 16.58	5.626	0.02 Sig
Witnessed arrest of family member Group 1 (n=42) Group 0 (n=242)	10.1 (1) 8.17 (0)	7.532	0.01 H/S	24.0 19.36	7.353	0.01 H/S	25.91 20.88	7.544	0.01 H/S	20.88 17.03	6.444	0.012 H/S
Family member attacked before Group 1 (n=51) Group 0 (n=233)	9.67 (1) 8.19 (0)	5.143	0.024 Sig	23.01 19.4	5.183	0.024 Sig	24.64 20.96	4.658	0.032 Sig	19.97 17.08	4.209	0.041 Sig
Witnessed attack on family member Group 1 (n=22) Group 0 (n=262)	11.0 (1) 8.24 (0)	8.809	0.003 H/S	26.19 19.53	8.653	0.004 H/S	28.27 21.07	8.804	0.003 H/S	22.22 17.21	6.192	0.013 Sig
House raided by security forces Group 1 (n=93) Group 0 (n=191)	9.3 (1) 8.04 (0)	5.590	0.019 Sig	22.1 19.05	5.537	0.019 Sig	23.85 20.54	5.662	0.018 Sig	19.29 16.78	4.791	0.029 Sig
Witnessed a person being assaulted Group 1 (n=129) Group 0 (n=153)	10.2 (1) 6.96 (0)	47.284	0.000 H/S	24.2 16.48	45.322	0.000 H/S	26.05 17.84	44.419	0.000 H/S	21.24 14.47	44.532	0.000 H/S
Presence of violence at school Group 1 (n=69) Group 0 (n=212)	9.33 (1) 8.19 (0)	3.814	0.052 N/S	22.2 19.4	3.85	0.051 N/S	23.88 20.92	3.746	0.054 N/S	19.63 16.98	4.382	0.037 Sig
Violence prevented from going to school Group 1 (n=193) Group 0 (n=90)	8.78 (1) 7.68 (0)	4.194	0.042 Sig	20.75 18.34	3.381	0.067 N/S	22.49 19.57	4.321	0.039 Sig	18.19 16.16	3.057	0.081 N/S
Ever been very sick Group 1 (n=169) Group 0 (n=114)	9.01 (1) 7.67 (0)	6.906	0.009 H/S	21.34 18.21	6.316	0.013 Sig	23.01 19.66	6.322	0.012 Sig	18.73 15.99	6.236	0.013 Sig
Ever stayed in hospital Group 1 (n=98) Group 2 (n=186)	9.01 (1) 8.16 (0)	2.580	0.109 N/S	21.36 19.35	2.435	0.120 N/S	22.89 20.96	1.958	0.163 N/S	19.11 16.8	4.107	0.044 Sig

Rotated Factor Matrix:

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
SYM1[1]	-.07877	.05453	.00906	.05499
SYM2	.22499	.42228	.11940	.03598
SYM3	-.10926	.03480	.18224	.59520
SYM4	.13782	.21824	.57006	.26294
SYM5	.01766	.06814	-.15116	.56847
SYM6	.51601	.23344	.10303	-.07101
SYM7	.14189	.48425	.16151	.09625
SYM8	-.00446	-.04064	.01347	.46086
SYM9	.08411	.36923	.23998	-.34746
SYM10	.13495	.58811	-.37451	.13501
SYM11	.34610	.07222	-.24447	.09137
SYM12	.22560	-.15314	.14456	-.17880
SYM13	.22374	.22447	.47962	-.16770
SYM14	.55967	.10949	.11224	.00494
SYM15	.33217	.51756	.02660	.08676
SYM16	.56516	-.10967	-.02402	.20207
SYM17	.46106	.25735	-.10699	.05185
SYM18	.62183	-.00632	.03881	-.09265
SYM19	.43843	.31914	.12647	.09811
SYM20	.45885	.03292	-.25586	-.16195
SYM21	.59059	.22378	.15913	.01193
SYM22	.36379	.14732	.22923	.36796
SYM23	.26806	.03093	-.38807	-.13593
SYM24	.49052	.23186	.05569	-.14381
SYM25	.07672	-.03988	.34693	-.04331
SYM26	.47722	.12444	.31037	-.05384
SYM27	.03589	.58323	-.30864	-.01103
SYM28A	-.10313	.48750	.19641	-.24338

Factor Transformation Matrix:

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
FACTOR 1	.82881	.53112	.17542	.01453
FACTOR 2	-.23196	.08207	.80243	.54366
FACTOR 3	-.18453	.45299	-.55535	.67256
FACTOR 4	.47457	-.71132	-.13010	.50188

---

[1]Sym1 to Sym28a refer to the questions on the Symptom Checklist coded on the basis of presence (1) or absence (0) of the symptom.