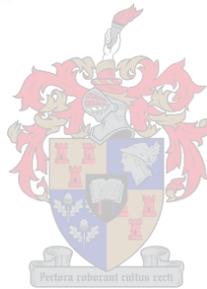


**PREVALENCE, SOCIO-DEMOGRAPHIC RISK FACTORS AND  
CONSEQUENCES OF EXPOSURE TO VIOLENCE AMONG ADOLESCENTS IN  
THE MACASSAR COMMUNITY**

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**Thesis presented in partial fulfilment of the requirements for the degree of  
Master of Arts (Clinical Psychology) at the University of Stellenbosch**



**Supervisor: Dr. C. Nortje**

**March 2002**

## **DECLARATION**

**I, the undersigned, hereby declare that the work contained in this thesis is my own original work, and that I have not previously in its entirety or in part submitted it at any university for a degree.**

## STATEMENT OF DEPARTMENT

**This work is the result of a research project, which is of the same extent as that required for a master's thesis.**

**It is a rule of the Department of Psychology that the report of the research may take the form of an article, which is ready for submission for publication to a scientific journal.**

## ABSTRACT

The goals of this study were to determine (1) the prevalence of exposure to non-sexual interpersonal violence in a random sample ( $N=203$ ) of adolescents (14-20 years) from a disadvantaged, relative low socio-economic coloured community, (2) the prevalence ratio of the number of participants who were only witnesses (witnesses) versus the number who were victims (of which some might occasionally also have been witnesses) of non-sexual interpersonal violence, (3) the relationship between certain socio-demographic variables and exposure to non-sexual interpersonal violence in order to identify potential risk factors, and (4) to determine whether victims differed significantly from witnesses with regard to the incidence of post-traumatic stress disorder symptoms (PTSDS) and post-traumatic stress symptoms (PTSS) that do not meet the criteria for post-traumatic stress disorder.

The sample consisted of Afrikaans-speaking coloured boys ( $n=101$ ) and girls ( $n=102$ ) between the ages of 14 and 20 years predominantly from low-income families who lived in municipal sub-economic housing, and who attended two high schools in Macassar.

The measuring instruments comprised a customised socio-demographic questionnaire, the Child Exposure to Community Violence Scale which measures exposure to non-sexual interpersonal violence as witnesses and victims and the Child and Adolescent PTSD Checklist to assess the incidence of PTSDS and PTSS.

In order to identify potential risk factors for exposure to violence, the relationship between exposure to violence and the socio-demographic variables of age, gender and presence/absence of a parent as primary caretaker was investigated. It was found that all participants were exposed to non-sexual interpersonal violence as either witnesses (37.9%) or victims (62.1%). In contrast to findings of other studies, the majority of participants were victims themselves and not only witnesses. Older adolescents (17-20 years) were, in comparison with younger ones (14-16 years), significantly more exposed to non-sexual interpersonal violence as both witnesses and as victims. Older adolescents were thus more at risk for exposure to interpersonal violence. No statistically significant relationship was found between exposure to non-sexual interpersonal violence, either as witness or as

victim, and the variables of gender and presence or absence of a parent as a primary caregiver.

The incidence of reported PTSDs and PTSS, which was significantly related to exposure to non-sexual interpersonal violence, was relatively high. Thirty adolescents (15%) met the diagnostic criteria for post-traumatic stress disorder, 131 (65%) presented with one or more prominent PTSDs and a further 186 (90%) reported PTSS. Victims reported significantly more PTSS than witnesses.

## OPSOMMING

Die doelstellings van hierdie studie was om (1) die voorkoms van blootstelling aan nie-seksuele interpersoonlike geweld by 'n ewekansige steekproef ( $N=203$ ) adolessente (14 tot 20 jaar oud) van twee plaaslike hoërskole in 'n benadeelde, relatief lae sosio-ekonomiese Kleurlinggemeenskap te bepaal, (2) die voorkomsratio van die aantal deelnemers wat slegs waarnemers was (waarnemers) versus die aantal wat slagoffers was (van wie sommige per geleentheid ook waarnemers kon gewees het) van nie-seksuele interpersoonlike geweld te bepaal, (3) die verband tussen sekere sosio-demografiese veranderlikes en blootstelling aan nie-seksuele interpersoonlike geweld te bepaal ten einde potensiële risiko-faktore te identifiseer, en (4) om vas te stel of waarnemers beduidend van slagoffers verskil het ten opsigte van die voorkoms van post-traumatische-stresversteuring-simptome (PTSVS) en post-traumatische-stres-simptome (PTSS) wat nie voldoen aan die kriteria van post-traumatische-stresversteuring nie.

Die steekproef het bestaan uit Afrikaanssprekende kleurlingseuns ( $n=101$ ) en -dogters ( $n=102$ ) tussen 14 en 20 jaar oud uit oorwegend lae-inkomste gesinne in sub-ekonomiese munisipale behuising en wat leerders was aan twee hoërskole in Macassar.

Die meetinstrumente het 'n doelmatige sosio-demografiese vraelys, die Child Exposure to Community Violence Scale om blootstelling aan nie-seksuele interpersoonlike geweld as waarnemers en as slagoffers te meet, en die Child Adolescent PTSD Checklist om die voorkoms van PTSVS en PTSS te bepaal, ingesluit.

Ten einde potensiële risiko-faktore vir blootstelling aan geweld te identifiseer, is die verband tussen blootstelling aan geweld en die sosio-demografiese veranderlikes van ouderdom, geslag en die teenwoordigheid/afwesigheid van 'n ouer as primêre versorger ondersoek. Daar is bevind dat al die deelnemers, hetsy as waarnemers (37.9%) of slagoffers (62.1%), aan nie-seksuele interpersoonlike geweld blootgestel was. In teenstelling met die bevindings van ander studies was die meerderheid van die deelnemers self slagoffers van geweld en nie net waarnemers daarvan nie. Ouer adolessente (17-20 jaar) was, in vergelyking met jongeres (14 tot 16 jaar), beduidend meer aan

interpersoonlike geweld, beide as waarnemers en as slagoffers, blootgestel. Ouer adolessente was dus 'n hoër risikogroep vir blootstelling aan interpersoonlike geweld. Geen statisties beduidende verband is tussen die veranderlikes van geslag en die teenwoordigheid van 'n ouer as primêre versorger en blootstelling aan nie-seksuele interpersoonlike geweld as óf slegs waarnemer óf slagoffer gevind nie.

Die voorkoms van gerapporteerde PTSVS en PTSS, wat 'n beduidende verband met blootstelling aan nie-seksuele interpersoonlike geweld getoon het, was relatief hoog. Dertig adolessente (15%) het voldoen aan die diagnostiese kriteria van post-traumatische stresversteuring, 131 (65%) het met een of meer prominente PTSVS gepresenteer en 'n verdere 186 (90%) het PTSS gerapporteer. Slagoffers het beduidend meer PTSVS en PTSS as waarnemers gerapporteer.

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## **LITERATURE REVIEW, AIM AND HYPOTHESES**

### **Introduction**

Exposure to violence is increasingly recognised as a major public health problem in the world (Cooley-Quille, Turner, & Beidel, 1995; Richters & Martinez, 1992). Nevertheless, there seems to be a sparsity of comprehensive research and data about adolescents who have been exposed to community violence in South Africa. Thus far, political violence has received a fair amount of attention in psychological research in South Africa (Rudenberg, Jansen & Fridjhon, 1998; Turton, Straker, & Moosa, 1991). Political violence affected 8737 deaths and injuries during 1993. Children constituted 874 (10%) of these victims (Human Rights Commission, 1993a, 1993b). Between 1991 and 1994, 26 790 children were displaced due to conflict in 36 areas in KwaZulu-Natal. As many as 1 395 of these children were physically traumatised according to the National Children's Rights Committee (NCRC, 1994). For the period 1989 to 1991, the total number of deaths in South Africa due to violence were 29 500. Only 11% of these deaths were attributed to overt political violence (Bundy, 1992). The homicide rate in South Africa decreased from almost 70 per 10000 of the population in 1994 and stabilised at 60 per 10000 of the population in 1998. That rate is, however, still ten times higher than the national rate in the United States of America (Peden, 1999). These figures indicate that South Africa is one of the most violent countries in the world. Turton et al. (1991) emphasised the need for more comprehensive research of community violence, which has been neglected, despite high levels of violence in historically disadvantaged communities (Dawes, 1990; Ensink, Robertson, Zissis, & Leger, 1997).

Several previous studies focused on the prevalence of sex related violence or on a combination of sexual and physical violence (Ackerman, Newton, McPherson, Jones, & Dykman, 1998; Kinard, 1995; Schaaf & McCanne, 1998). Ackerman et al. (1998) and Kinard (1995) emphasised that gender and age apparently play a role in determining the type of violence to which children are exposed. They reported that the incidence of young males who were physical abused was twice that of young females but that the tendency was reversed for sexual abuse. In view of the already well researched domain of sexual abuse, the focus of this study is on non-sexual physical interpersonal violence. Shifting the focus to a specific category of interpersonal violence will contribute to narrow the focus in the planning, refinement and implementation of prevention and treatment programmes.

Studies clearly suggests that, whether a victim or a witness to violence, young people who have been exposed to violence are at an increased risk of experiencing a myriad of problems. Few studies have, however, examined the prevalence and consequences of exposure to violence in non-clinical samples of young persons representing a whole range of age groups. Secondly, no similar research has been done in a low socio-economic, deprived community such as South Africa.

The decision to focus on a traditionally coloured community was based in two considerations. Firstly, there is a paucity of South African research in such communities despite indications of a relatively high incidence of violence, according to the station commander of the South African Police in Macassar (Capt. J. Niemand, personal communication, June 20, 1999). The second consideration is related to the fact that the prevalence and effects of violence in specific ethnic groups from socio-economical disadvantaged African-American communities has been investigated. This naturally prompted the need for comparative research with South African populations.

In the following discussions conceptualisations of the key concepts used in the current study are presented. Thereafter, the theoretical framework of the study, namely social constructionism, will be presented. A discussion of international (mainly American) and the limited number of South African studies and statistics about exposure to violence will follow. In addition, the relationship between gender, age and exposure to violence, as well as the consequences of exposure to violence and the role of mediating (buffering) factors, will be discussed. The aim, objectives and research methodology of the study will be presented. This will be followed by a summary of the research results and a discussion. The study will be concluded by the presentation of some critical comments, as well as recommendations for future research.

### **Conceptualisation of key concepts**

#### Community violence

At present, "community violence" appears as an omnibus construct in which the conceptual and operational boundaries have yet to be clearly forged between violence and threat, between physical and psychological damage and their relatively high weightings and also between discrete violent events and more chronically dangerous and stressful living

circumstances (Guterman, Cameron & Staller, 2000; Hill & Madhere, 1996). In many studies reporting on the exposure of adolescents to violence, "community violent acts" included events such as rape, assault, knifing and gunshooting (Bell, Hildreth, Jenkins & Levi, 1988; Gladstein, Slater Rusonis & Heald, 1992). For the purpose of the present study, and in agreement with the views of Guterman et al. (2000), the term "community violence" will be used to refer to the "where" and also the "who" (the specific community) of violent experience. The "where" refers to the specific setting in which violence takes place, which might include the home: school, route to school (either by foot or by bus) and neighbourhood (Hastings & Kelly, 1997).

#### Non-sexual interpersonal violence

For the purpose of the present study, "non-sexual interpersonal violence" refer to violent acts (and or events) between people, in which a participant could have been a victim, a witness or both (Campbell & Schwartz, 1996). Any form of sexually related violent acts such as rape, were excluded. In correspondence with the investigation of Guterman et al. (2000), threatening behaviour and perceived danger such as simply hearing gun shots, were also regarded as violence. Non-sexual interpersonal violence included events such as being chased, being assaulted, receiving a threat to be killed, receiving a threat to be stabbed, seeing someone being arrested by the police, seeing someone being assaulted, hearing gun shots, seeing someone getting shot, witnessing grown-ups in their houses shouting at each other (Richters, 1990). No differences in terms of the relative weighting of the intensity of violent events were distinguished in the present study. Events such as hearing gun shots and seeing someone get shot for example, carried the same weight.

#### Witnesses and Victims of Violence

For the purpose of the present study "witnesses of violence" refer to those participants who reported having witnessed violence to someone else and who reported no exposure to violence as a victim themselves (for the previous year). "Victims of violence" refer to those participants who reported having personally experienced exposure to violence (personally victimised). Some of these victims might have been witnesses on other occasions as well.

### **Social Constructionism: a theoretical framework for understanding interpersonal violence**

The social constructionism paradigm holds the position that what the majority of people call reality, is in fact a consensus world view that develops through interaction or interchange (Gergen, 1985). This means that what we believe, think, experience or understand about the world, and the concepts and language to describe and understand these thoughts, beliefs and experiences, are understood to be constructed and re-constructed from one contextual situation to another. If interpersonal violence is understood as a socially determined construction, then one should try to understand it within its historical, sociological and social psychological context rather than in exclusive individualistic terms. The way a person constructs interpersonal violence is therefore determined by his or her culture and social context. Each individual's construction of violence will therefore remain relatively unique, and perhaps sometimes subjective, to him or her (Campbell & Schwartz, 1996; Gladstein et al., 1992).

In order to enhance understanding of social constructionism as theoretical framework for a broad psychological context, a brief discussion of the emergence and development of this paradigm will be provided in this paragraph. Social constructionism is not a homogenous and singular theoretical framework. It refers to different perspectives that have been influenced by and, in turn, have also influenced many disciplines. Social constructionism can in the first place be understood as a critique of traditional psychology. It opposes the idea of a single truth and a paramount theory incorporating the ultimate truth. Every theory is seen as a way of creating meaning. Destroying any one theory would mean silencing a way of creating meaning. The social constructionist framework (orientation), even includes empiricist research as long as such research does not claim a universal truth (Durrheim, 1997).

Social constructionism encourages researchers to broaden the range of interpretation available to the psychological discipline (Durrheim, 1997). Gergen (1985) argued that social constructionism also encourages the search for ways to facilitate people's psychological well-being, in stead of focussing on psychopathologies. This orientation also offers assistance to understanding of human experiences. It further focuses on micro social processes which contribute to understanding human behaviour, and was therefore selected

as the theoretical framework and point of departure in understanding the phenomenon of interpersonal violence in a marginalized community.

### **Exposure to violence**

Apparently, the most comprehensive studies about the prevalence and consequences of violence has been done and reported in the United States of America (USA). According to community leaders (mr. R. Julies, personal communication, September 21, 1999) and members of the local police, (Capt. Niemand, personal communication, June, 1999), the prevalence of violence in Macassar, a predominantly low-income community near Somerset West (Republic of South Africa), might be similar to the reported high levels of violence in the underprivileged communities in the USA. Due to the restricted number of relevant South African studies, studies and statistics from the USA will dominate the discussion that follows.

#### *Exposure to violence: South African studies and statistics*

Cape Town has for a long time been known as the homicide centre of South Africa. Figures of deaths due to assaults increased from 209 in December 1998 to 255 in December 1999 in Cape Town. The trauma assaults included stabbing, gunshots and attacks with blunt objects (Caelers, 2000).

A survey conducted by Graneli (2001) at ten mortuaries in five major urban areas in South Africa, showed that the death of one out of four South Africans is violence related. It was also found that 79% of the victims were male and that they were therefore more likely than females to meet with a violent end. Sixty nine percent of the victims were black, 17% were coloured, 11% white and 3% indian. The finding further indicated that young people were most at risk of a traumatic death with 36% of the potential victims between the ages of 15 and 29 years.

Ensink et al. (1997) investigated exposure to violence in a sample of 60 children from Khayalitsha in the Western Cape, aged between 10 and 16 years. It was reported that 57 (95%) of the children had witnessed violence and that 34 (56%) were victims. Twenty-four (40%) met the criteria for one or more DSM-III-R diagnosis and 13 (27,7%) met the criteria for post-traumatic stress disorder (PTSD). In another survey of 500 adolescents

from the Cape Flats 94% reported experiences of violent crimes as a witness or victim (Schoeman, 1998).

In order to identify indicators of violence in the Macassar community, violent crime statistics were obtained from the police station geographically closest to the two schools (Macassar Police Station) from which the participants were drawn. The violent crimes that were identified as the most commonly occurring types, were murder, attempted murder, assault with the intention to inflict grievous bodily harm, common assault, armed robbery, rape and attempted rape. The statistics for the years 1998 to 2000, reflect that the number of relevant violence offences at this police station alone were 498 for 1998, 590 for 1999 and 620 for 2000, respectively (Crime Information Management Centre, SAPS, 2000). These results clearly indicate an increase in the number of relevant violent crimes in this community. Statistics indicate that between March 2001 and September 2001, more than 98 families from Macassar had reported and received counselling for incidence of domestic violence (National Institute of Crime Prevention and Reintegration of Offenders (NICRO), 2001).

#### *Exposure to violence: International studies and statistics*

Violent crime and victimisation of the youth reached alarming levels in the early nineties in the United States (Fitzpatrick & Boldizar, 1993). A recent National Crime Survey (NCS) reported rates of violence for young persons between 12 and 18 years of age to be twice as large as those reported for adults of 25 years and older (Bureau of Justice Statistics, 1986). Increasing violent crime rates had become a given in a number of large United States central cities, murder, rape, robbery and aggravated assault rose by nearly 10% for the nation as a whole in the first half of 1992. As a consequence, in addition to being victims, young people were increasingly becoming witnesses to violence in their communities, schools and homes (Campbell & Schwartz, 1996; Finkelhor & Dzinba-Leatherman, 1994; Fitzpatrick & Boldizar, 1993; Hill & Madhere, 1996; Weaver & Clum, 1995).

#### *Witness versus Victim*

Several studies indicated that children were significantly more likely to report having witnessed violence than to have been victimised themselves (Ensink, et al., 1997; Fitzpatrick & Boldizar, 1993; Kim et al., 2000; Richters & Martinez, 1992). According to

Richters and Martinez (1992) it is only logical to expect that the likelihood of witnessing violence should be more than being personally victimised. They (Richters & Martinez, 1992) operationally defined witnessing violence in their study as witnessing a dead body, witnessing a killing, witnessing somebody carrying a weapon, hearing a gunshot, witnessing someone being beaten up, witnessing muggings and hearing threats of physical harm.

#### The relationship between age and exposure to violence

A recent study with a sample of 165 children in a specific Washington DC community reported that both younger (60%) and older children (72%) were significantly more likely to have witnessed violence directed at someone else than to have been victimised themselves. Moreover, these children witnessed community violence two to four times more often than having experienced victimisation. In contrast, older children were significantly more exposed to violence as victims than younger children. In contrast with the 32% of the older children that had been victimised, only 19% of the younger children had been victimised (Richters & Martinez, 1992). In another survey of 1000 Chicago middle and high school students, 23% reported witnessing the murder of a familiar person. Forty percent of those victims were family, friends, neighbours or fellow students (Shakoor & Chalmers, 1989). A similar study of 539 Chicago elementary school children reported that 17% had witnessed parents and other relatives fighting, 33% had witnessed a shooting, 31% a stabbing, and 84% had seen someone being beaten up (Dyson, 1990). Facts like these highlight youth involvement in violence and the increasing need to systematically examine the sequelae of their violent experiences.

#### The relationship between gender and exposure to violence

Ackerman et al., (1998) and Kinard (1995) emphasised that both age (see previous paragraph) and gender is related to exposure to various types of violence. In both studies it was reported that twice as many young males as young females are physically abused and twice as many young females as young males are sexually abused. Fitzpatrick and Boldizar (1993) similarly suggest that males were more likely than females to be both victims and witnesses of violent acts. Results of a cross-cultural study among Chinese and Korean students suggest that being male and being with violent peers, increased the likelihood of exposure to violence (Kim, et al., 2000).

### Different levels (intensities) of exposure to violence

Children often suffer physical injury (Fitzpatrick & Boldizar, 1993). Although most attacks result in minor injuries to victims, nearly 20% of the injuries of older teenagers between 16 and 19 years of age are serious. The injuries of those in the study included broken bones, internal injuries, loss of consciousness. Some injuries required hospitalization of up to 3 days (Bureau of Justice Statistics, 1986). The majority of the participants in several studies (Fitzpatrick & Boldizar, 1993; Richters & Martinez, 1992; Shakoor & Chalmers, 1989) were victims of milder forms of violence such as being smacked or pushed by someone.

### Sequelae of violence

In addition to the physical consequences of violence, the psychological impact associated with the youth's exposure to violence are becoming more progressively apparent (Bell & Jenkins, 1990; Dyson, 1990; Fitzpatrick & Boldizar, 1993; Kilpatrick et al., 1985; Lurigio, 1987; Pynoos & Nader, 1987; Resick, 1987; Shakoor & Chalmers, 1989). Subsequently, a panoply of investigations confirmed that exposure to high magnitude threats (e.g., abuse, accidents, war, urban violence, or disaster) reliably predict later psychopathology in young people (Amaya-Jackson & March, 1993).

Recent clinical evidence suggests that children exposed to violence are more likely than those not exposed to suffer from a variety of social and emotional problems. These include low self-esteem, learned helplessness, anger and aggression, as well as scholastic, academic and adjustment problems which impair relationships with peers and family (Fitzpatrick & Boldizar, 1993). Many of these studies reported PTSS in children (Pynoos & Nader, 1987). Both chronic and acute sequelae of exposure to violence have been linked to PTSD; it was particularly true for younger persons (Dyson, 1990; Figley, 1989; Pynoos & Nader, 1987). Post-traumatic stress disorder (PTSD) is according to the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) of the American Psychiatric Association (APA, 1994) a clinical syndrome that may develop following extreme traumatic stress. A traumatised person tends to present with significant emotional, behavioural, cognitive, social and physical symptoms.

The symptoms of PTSD fall into three main clusters. Firstly, there may be a re-experience of the traumatic event. This may occur during children's play, nightmares and bad dreams. It may manifest with intrusive thoughts. The second cluster of symptoms includes

avoidance of cues associated with the traumatic event, general withdrawal, emotional numbing, limited affect. It also tends to include a shortened future perspective. The third group of symptoms is related to physiological lower thresholds for arousal, for sensitisation and may manifest as hypervigilance, impaired sleep, concentration difficulties, irritability, anxiety and cardiovascular reactivity (DSM-IV, APA, 1994).

### **Mediating factors**

Not all children who are exposed to traumatic events, develop PTSD (Cuffe et al., 1998; Ensink et al., 1997; Kilpatrick & Williams, 1998). A major research focus has been the identification of mediating factors that are associated with resilience against the development of PTSD following exposure to traumatic events (Cuffe et al., 1998). Rutter, Izard and Read (1985) speculated about the nature of some of the resilience factors playing a protective role in some low socio-economic status populations. Frequent exposure may desensitise youth which enables them to maintain a certain level of resistance against the impact of a variety of negative life circumstances and the development of post-traumatic symptoms. The experience of moderate social and psychological support from parents or other caregivers may also help develop strategies to cope with adverse environmental stimuli. On the other hand it was found that children exposed to a variety of traumatic events displayed a much higher incidence of post-traumatic stress symptoms than the general population (Pfefferbaum, 1997). Resilience against the development of PTSD appears to decrease. Factors demonstrated to be associated with increased risk for developing PTSD can be summarised in three broad categories. The first is related to the characteristics of the child and include certain subjective beliefs such as those associated with perceived threat of life, a history of previous traumatic exposures, different coping styles, general level of anxiety, gender and age. The second factor concerns the characteristics of the activating event, such as whether it can cause physical harm. It also concerns the duration and intensity. The third concerns the characteristics of the child's family or other social systems. The absence of a supportive, calm and nurturing environment and the presence of a chaotic family, characterized by distant, absent and anxious family members were demonstrated to be risk factors for the development of post-traumatic stress related symptoms (Briggs & Joyce, 1997; Fergusson & Harwood, 1998; Kilpatrick & Williams, 1998; Pfefferbaum, 1997; Rudenberg et al., 1998; Stuber et al., 1997).

### Social support

Netshiombo (1993) and Swartz and Levett (1989) indicated that children who can rely on support from their parents and their siblings when exposed to incidents of violence appear to be more resilient than those who do not enjoy such support. Dawes and Tredoux (1990) however, cautioned that the presence of primary caregivers do increase children's resilience, but that the quality of such support is an equally, if not more important factor determining how children cope with violence.

### Gender

According to several researchers, females appear to be more vulnerable to the development of emotional post-traumatic stress symptoms, while males seem more likely to develop behaviour and cognitive related symptoms (Cuffe et al., 1998). In a recent study about exposure to violence with a sample of 490 adolescents aged between 16 and 22 years, a semi-structured interview was used to explore the presence of PTSD symptoms and factors related to these symptoms. The results indicated that 2% more girls than boys met the DSM-IV criteria for PTSD (Cuffe et al., 1998). Girls, however appeared more likely than boys to seek social support. Male gender was considered to be a protective factor (Rudenburg et al., 1998).

### Primary caretakers

In a study with a sample of 221 children aged between 7 and 18 years, socio-demographic factors such as the presence of primary caregivers, irrespective of whether they were male or female, had no significant effect on the incidence of PTSD symptoms. There were some indications that older children and those living with both parents or at least one primary female figure, reported fewer symptoms than did younger children or those living in households without the presence of primary females (Fitzpatrick & Boldizar, 1993).

For the purpose of the present study, a distinction was made between post-traumatic stress symptoms (PTSS) and post-traumatic stress disorder symptoms (PTSDS) on the basis of the persistence of symptomatology during the preceding year. PTSS were regarded as symptoms that occurred "sometimes" and the PTSDS were symptoms that occurred "often" (and which thus were regarded as "persistent"). The procedure that were followed in order to distinguish between PTSS and PTSDS are described in detail in the section where the Child and Adolescent PTSD Checklist are described (page 17).

## **Aim**

The aim of the study is to determine the prevalence, risk factors and sequelae of exposure to violence in a sample of non-clinical adolescents (14-20 years) in a peri-urban school going deprived community over a period of one year.

The study had the following objectives:

Some specific objectives were defined. It was to determine

- (a) the incidence of non-sexual interpersonal violence,
- (b) to what extent involvement was as witness or as victim,
- (c) its covariation with demographic variables age, gender and presence of primary caretaker, and
- (d) whether victims differ significantly from witnesses with regard to (a) post-traumatic stress symptoms (PTSS) and (b) post-traumatic stress disorder symptoms (PTSDS).

## **Hypotheses**

From these objectives the following hypotheses were formulated:

### **Prevalence of Exposure**

**Hypothesis 1** : A significant proportion of the participants would have been exposed to non-sexual interpersonal violence as witnesses during a one year period.

**Hypothesis 2** : A significant proportion of the participants would have been exposed to non-sexual interpersonal violence as victims during a one year period.

**Hypothesis 3** : There would have been significantly more participants that were exposed to non-sexual interpersonal violence as witness than participants who had been victims themselves.

### **Socio-demographic Risk Factors**

**Hypothesis 4** : Boys would have been significantly more exposed to non-sexual interpersonal violence than girls as (a) witnesses and (b) victims.

**Hypothesis 5** : Older adolescents (17 - 20 years) would have significantly more often been exposed to non-sexual interpersonal violence than younger ones (14 - 16 years) as (a) witnesses, and (b) victims.

**Hypothesis 6** : Children from households without a father as a primary male or mother as a primary female figure, would have been significantly more often exposed to non-sexual interpersonal violence than children with such a primary care-taking figure as (a) witnesses and (b) victims.

#### **Traumatic Sequelae**

**Hypothesis 7** : Members of the victim group would have been more inclined to suffer from PTSS than members of the witness group.

**Hypothesis 8** : Members of the victim group would have been more inclined to suffer from PTSDS than members of the witness group.

## **METHOD**

### **Participants**

The participants were male and female, predominantly Afrikaans speaking coloured adolescents between the ages of 14 and 20 years and attended the (only) two high schools in the Macassar community in the Western Cape metropole. The sample (N=203) comprised of 101 boys and 102 girls from different age groups, consisting of 114 younger ones between 14 and 16 years; and 89 older (17-20) ones. The aim was to compare a group of young school going adolescents with a group of older ones. The grade eight and twelve learners, arguably the ideal groups for comparison purposes, were, according to the school headmaster, not available. Their full academic schedule was given as one of the reasons for their unavailability. The grade nine and grade eleven learners were therefore chosen as the sample groups. Class lists of these grades were used to make a random selection of the participants. The participants were unscreened for diagnosis according DSM-IV (APA, 1994). The biodemographic characteristics of the participants appear in Table 1.

Table 1  
The Biodemographic Characteristics of the Respondents (N=203)

Variable	Response categories	<u>n</u>	Percentage (%)
Age	14-16	114	56.2
	17-20	89	43.8
Gender	Male	101	49.8
	Female	102	50.2
Grade at school	Grade 9	102	50.2
	Grade 11	101	49.8
Caretaker(s) with which adolescents live	Both parents	122	60
	Mother/Father	59	29.1
	Guardian	22	10.8
Parent(s) Absent	Mother	29	14.3
	Father	73	35.9
Work status of parent/guardian*	Employed:		
	Females	75	36.9
	Males	126	62.1
	Unemployed:		
Females	69	33.9	
Males	14	6.9	
Families depending on welfare grant		32	17.2

\*12% of the respondents did not indicate their parents'/guardian's work status

The sample represented youth from municipal sub-economic housing, from low-income families. Sixty percent of the respondents stayed with both parents in the same household, 35.9% of the respondents did not have fathers that stayed with them in the same house, and 17.2% depended on a monthly welfare grant. The respondents reported that for the previous twelve months 35% of their parents experienced big financial problems, 11% of their parents had lost their jobs, 13% of their parents experienced work-related stress problems, 14% of their mothers had started working and that they were alone at home during the day, after school. A further 30% of the respondents reported having a sister whom had an unwanted pregnancy during the preceding twelve months. Only 36 respondents indicated the monthly income of their families. It appeared that those respondents whose parents earned a reasonable salary, were more inclined to report their household income. Furthermore, a fair proportion of those that did not indicate an amount, probably did not know the answer.

Because the determination of the prevalence of PTSD symptomatology was not specifically one of the goals of the present study, but its presence did form part of the some of the goals, it was decided to report on the occurrence of the PTSDS and PTSS in the present section. The number of respondents reporting PTSDS, PTSS, and no stress related symptoms, as measured by the Child and Adolescent PTSD Checklist (CAPC) (Amaya-Jackson, Davis & Yamania, 2000), appear in Table 2.

Table 2

Number of Respondents Reporting PTSS, PTSD and no Symptoms (N = 203)

PTSD Symptoms (DSM-IV)	PTSDS		PTSS		No symptoms	
	%	<u>n</u>	%	<u>n</u>	%	<u>n</u>
<b>Recurrence/ re-experiencing</b>						
<i>Intrusive thoughts of trauma</i>	8.3	17	38.4	78	53.2	108
<i>Recurrent dreams of trauma</i>	14.7	30	11.8	24	73.4	149
<i>Flashbacks</i>	6.0	12	18.2	37	75.8	154
<i>Emotional reactivity to trauma cues</i>	14.8	30	36.4	74	48.8	99
<i>Physiological reactivity to trauma cues</i>	11.3	23	21.2	43	67.5	137
<b>Avoidance/ Numbing</b>						
<i>Avoiding thoughts of trauma</i>	24.7	49	25.1	51	50.7	103
<i>Avoiding reminders of trauma</i>	21.6	44	23.6	48	54.1	110
<i>Inability to recall aspects of trauma</i>	8.9	18	24.6	50	66.5	135
<i>Loss of interest</i>	11.6	23	35.9	73	52.7	107
<i>Detachment</i>	23.1	47	27.1	55	49.8	99
<i>Restricted affect</i>	24.1	49	24.1	49	51.2	104
<i>Sense of foreshortened future</i>	12.8	26	31.5	64	55.7	113
<b>Hyper-arousal</b>						
<i>Sleep disturbance</i>	8.9	18	28.1	57	62.6	127
<i>Increased irritability</i>	18.7	38	46.3	94	34.9	71
<i>Concentration difficulties</i>	15.3	31	27.1	55	57.6	117
<i>Hypervigilance</i>	14.3	29	37.9	77	47.8	97
<i>Excessive startle response</i>	9.4	19	36.9	75	53.7	109

It is clear from Table 2 that there was a fair amount of variation in the number of post-traumatic stress disorder symptoms (PTSDS) (DSM-IV, APA, 1994), as well as the number of respondents reporting them respectively. The majority of the respondents that reported symptoms, indicated that they often avoided thoughts, situations or reminders of trauma, and that they experienced feelings of detachment and a loss of interest. There were fewer participants who exhibited hyper-arousal symptoms. It is also clear from Table 2 that the reports about increased irritability and concentration problems were also relatively high.

Of the 203 respondents who completed the CAPC, 131 (65%) presented with one or more prominent PTSDS, and 30 (15%) met all three symptom-related DSM-IV PTSD diagnostic criteria. A further 186 (90%) of the respondents reported post-traumatic stress symptoms

(PTSS) which did not meet the DSM-IV criteria. Only 17 (8.3%) of the 203 respondents indicated that they never presented with post-traumatic stress symptoms during the previous month.

### **Measuring Instruments**

#### Socio-demographic Questionnaire

The nature of the research was explorative and therefore information regarding several socio-demographic variables potentially related to the exposure to and effects of violence was obtained with a socio-demographic questionnaire in which gender, age, the presence of primary support systems (parents, grandparents and siblings) and the socio-economic status of the family were coded. The presence of familial support was coded as interval-level variables, where: 0 = neither parent or sibling present, 1 = only mother present, 2 = both parents present and, 3 = only father present.

#### Child Exposure to Community Violence Scale (CECVS) (Richters, & Martinez, 1992)

The Child Exposure to Community Violence Scale (CECVS) distinguish between exposure to violence as victims and witnesses. The victim and witness scale consisted of 16 items in total with the witnesses sub-scale consisting of 11 items (e.g., I saw someone being assaulted, I saw someone get shot) and the victim sub-scale consisting of 5 items (e.g., I have been assaulted: kicked, smacked). Some of the items also included sub-scale items (statements) such as whether the participant or somebody else had been beaten up by a family or non-family member. For the purpose of the present study the participants were also asked to indicate the location of their exposure to violence, that is, whether it occurred at school, near the school, in their own home, neighbourhood, or in places other than Macassar. All the participant's responses concerned events occurring during the preceding twelve months. The total number of "yes" responses is indicative of amount of exposure to violence as either witnesses or victims. The CECVS is a reliable measuring instrument with a Cronbach's  $\alpha$  of 0.81 (Richters, & Martinez, 1992).

#### Child and Adolescent PTSD Checklist (CAPC) (Amaya-Jackson, et al., 2000)

Post-traumatic stress symptomology, that is, post-traumatic stress disorder symptoms (PTSDS) and post-traumatic stress symptoms (PTSS), was assessed with the Child and Adolescent PTSD Checklist (CAPC)(Amaya-Jackson, et al., 2000). The CAPC is a 17-

item self-report questionnaire that assesses the severity of PTSD symptoms and assists in the diagnoses of PTSD according to DSM-IV criteria (APA, 1994). Participant responses are categorised in three major diagnostic groupings that mirror the DSM-IV PTSD criteria groups (APA, 1994). These groupings were recurrence/re-experiencing, avoidance/numbing, and hyper-arousal. To meet the diagnostic criteria of PTSD according to the DSM-IV (APA, 1994), respondents have to report the presence of at least one symptom in the "recurrence/re-experience" category, three symptoms in the "avoidance/numbing" category, and at least two symptoms in the "hyper-arousal" category (APA, 1994).

The range of the CAPC questions focuses for example on symptoms including reliving memories of the past, expecting possible danger, experiencing trouble with sleep (due to nightmares), avoidance of, or withdrawal from trigger situations. Subjects were asked to report only symptoms (PTSS/PTSDS) that they had experienced in the previous month. PTSS and PTSDS differ with regard to the persistency with which the symptoms had been experienced by the respondents. According to the DSM-IV the occurrence of the three clusters of PTSD symptoms should be "persistent" (APA, 1994, p. 428) in order to meet the PTSD criteria. Symptoms that occurred "sometimes" (i.e., not often) were, for the purpose of the present study, regarded as post-traumatic stress symptoms (PTSS). The CAPC was used to distinguish between PTSDS and PTSS. The potential responses to the CAPC questions ranged from 1 (not at all) to 4 (all the time), that is, ratings on a 4-point scale (1=not at all, 2=sometimes, 3=most of the time, 4=all the time). For the purpose of the present study, the scores were collapsed into three categories, namely a score of 1 = absence of symptoms, a score of 2 = less persistent presence of symptoms and a score of 3 or 4 = persistent presence of symptoms. PTSS were obtained from rating of "2" and PTSDS were obtained from ratings of "3" and "4". Thus, PTSS were less persistent and occurred less frequent than PTSDS.

Two total scores (PTSS and PTSDS) for each participant were obtained irrespective of the possibility that they might also have been part of the 15% with PTSD or not. This also means that any specific participant could have been a member of both the PTSS and the PTSDS groups.

The CAPC is very reliable with a Cronbach  $\alpha$  of 0.959 (Amaya-Jackson, et al., 2000).

All the instruments, including the socio-demographic questionnaire, were translated into Afrikaans by a bilingual linguist and translated back into English by a bilingual researcher.

### **Procedure**

The researcher contacted, by means of written correspondence, the appropriate officials of the Department of Education (including the headmasters of the two schools) requesting permission to carry out the research with learners of the Macassar community. The researcher visited each of the two high schools where the instruments were group-administered to 203 Afrikaans speaking adolescents (14-20 years old) from grade 9 and 11. Learners from grade 9 and 11 were selected as respondents, because grade 8 and 12 learners were not available and it was believed that the ages of the learners in these grades would be representative of the range of the youths in high schools (14-20 years). Class lists of all the pupils in these grades were used to make a random selection. The participants were physically separated from one another in order to give them private space to complete the questionnaires. Participants were reminded that the answers would be treated as confidential. Ample time was given for participants to complete the questionnaires. Clarification was dealt with on a one-to-one basis. For those questions dealing with exposure to violence, respondents were reminded several times that they should report only personal victimisation and actual witnessing of violence and not respond to the questions based on what they had heard or seen in movies or the media.

### **Statistical Methods**

Statistical analysis was done by means of the Statistical Package of the Social Sciences, version 9.0.1 (SPSS)(George & Mallery, 1999), and involved frequency distributions, t-tests for independent samples to assess the difference between groups of respondents and the z-test to assess the significance of the difference between two proportions of respondents.

## RESULTS

### Prevalence as exposure to violence as witnesses and/or victims

In order to investigate Hypotheses 1 and 2 (respectively related to the amount of witnesses and victims who were exposed to violence) a frequency distribution is presented in Table 3.

Table 3

#### Incidence of Experience of Violence as Witnesses and Victims of Violence

Group	Percentage(%)	n
Witnesses	37.9	77
Victims	62.1	126

As reflected in Table 3, 77 (37.9%) of the respondents indicated to have been exposed to violence as witnesses and a majority of 126 (62.1%) of the respondents were exposed to violence as victims themselves. These results indicate that all the participants ( $N=203$ ) have been exposed to violence during the year prior to the measurement phase of the present study.

The results presented in Table 3 should be viewed in conjunction with Figures 1 and 2, as well as the response distribution of the CECVS items in Table 4 (p. 21), in order to enhance a better understanding of the exposure to violence as witnesses or as victims. The items presented in Figure 1 refer to situations in which the respondents could have been exposed to violence as witnesses or as victims, whereas the items on Figure 2 only refer to situations in which the respondents could have been exposed as victims.

In order to facilitate comprehension of Figures 1 and 2, a description of the items of the CECVS, as well as a response distribution, are presented in Table 4.

Table 4

Number of Respondents Reporting Exposure to the Items of the CECVS

CECVS items	Witnesses (n=77)	Victims (n=126)
1. I heard gun shots	83%	92%
2. I saw someone being arrested by the police	82%	90%
3. I feel safe when I am at home	85%	89%
4. I saw someone being assaulted	61%	85%
5. The grown-ups in our house shout at each other	52%	63%
6. I saw someone get shot or stabbed in our house	11%	14%
7. I saw someone get shot	16%	41%
8. I saw a gun / fire-arm in our house	7%	39%
9. I feel safe when I am at school	76%	74%
10. The grown ups in my house hit each other	9%	16%
11. I saw a corpse (dead body) close to our house	13%	28%
12. I have been assaulted (e.g. someone hitting you, kicked or smacked you, pushed you)	-	72%
13. Someone threatened to kill me	-	73%
14. Someone threatened to stab you	-	24.6%
15. Someone threatened to shoot you	-	7.2%
16. Grown ups in our house threatened to shoot or stab each other	3%	8%

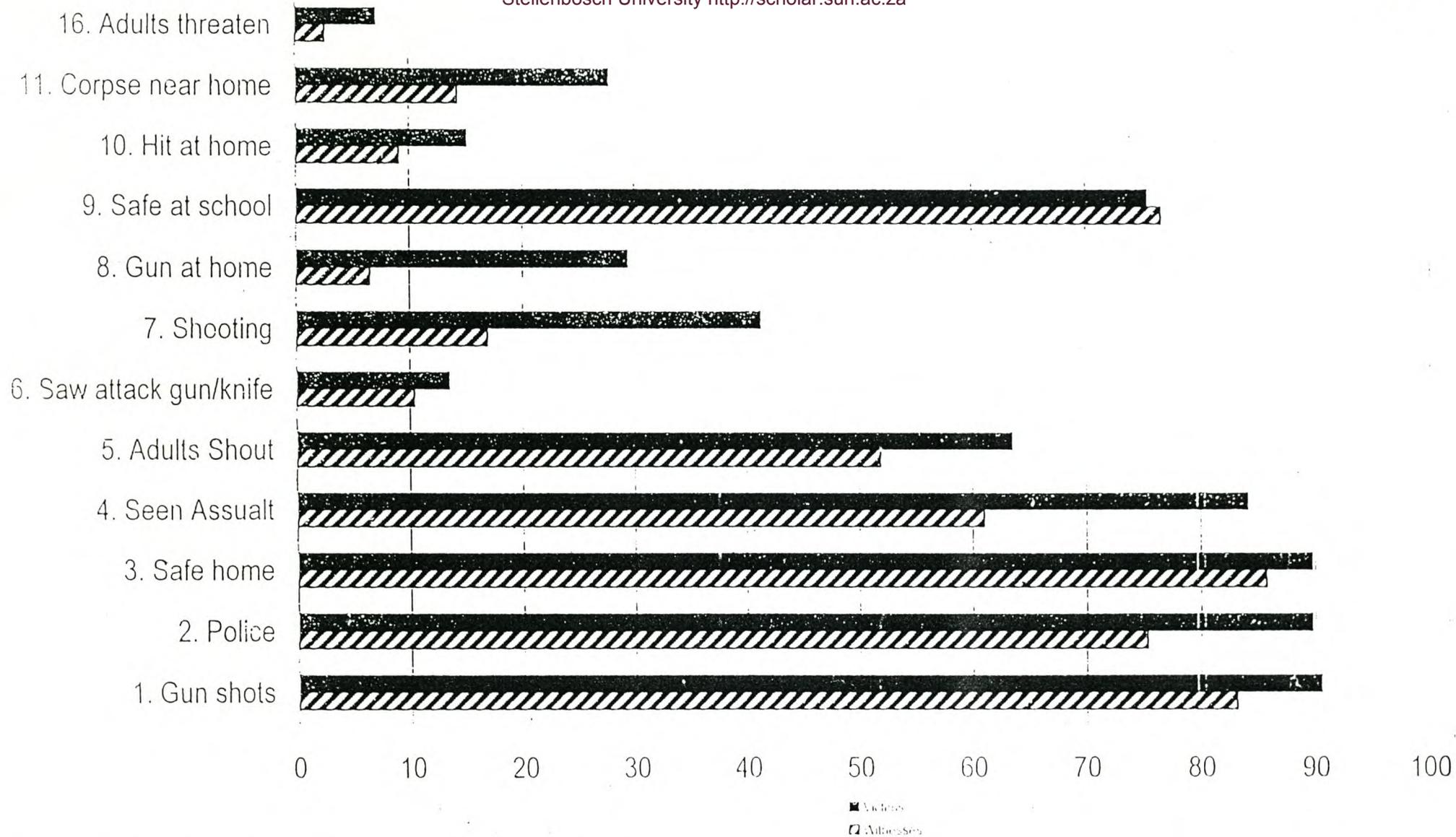


Figure 1. CECVS items and exposure to violence: Percentage of Witnesses and Victims

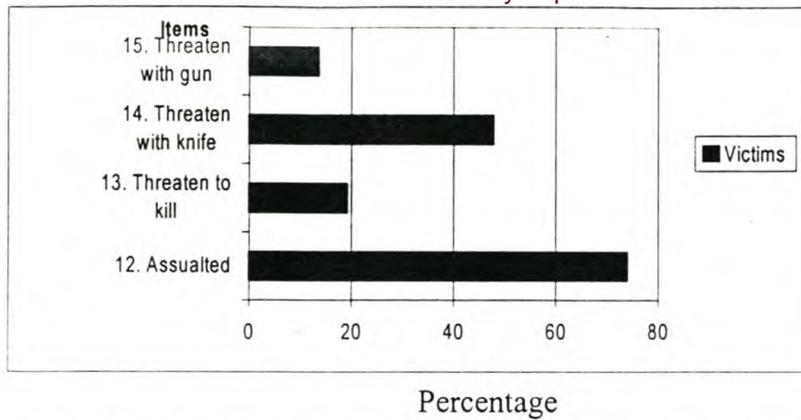


Figure 2. CECVS items and exposure to violence: Percentage of Victims

The type of violence that the witnesses and victims had experienced (see Figures 1 and 2) varied, such that, for example, 73% of the children in the victim group ( $n=126$ ) were assaulted, and 24.6% were threatened with a knife. Only 1% of the respondents indicated being threatened at least once a month during the preceding year, 7.2% were threatened to be shot, 92% had heard gunshots, 42% saw someone else being shot, 85% of the victim group and 61% of the witness group witnessed someone else being assaulted, 90% of the victim group and 82% of the witness group witnessed the police arresting someone, 28% of the children in the victim group and 13% of the witness group had seen at least one dead body close to their homes, 16% of the children in the victim group and 9% of the children in the witness group had witnessed adults in their house hitting each other. In terms of location of exposure to violence as victims, 14.6% of the exposure took place in the victim's own home, 15.7% at the victim's school, 21.3% in the victim's neighbourhood, and 47.2% at another place outside the Macassar community. These results mean that almost half of the victims were victimised outside their own community. This could also be an indication that most of the disadvantaged communities near Macassar are characterised by the significant occurrence of violence. Most of the participants (89% of the victim group and 85% of the witnesses group), reported that they felt safe at home and a further 74% of the victim group and 76% of the witnesses group reported that they felt safe at school. This means that at least 24% of the respondents did not feel safe at school and about 10%-15% of the respondents did not feel safe at home. There is thus enough evidence supporting Hypotheses 1 and 2, indicating that both hypotheses should not be rejected.

### **Risk of exposure to violence: Comparison of witnesses and victims**

In order to test Hypothesis 3, the magnitude of differences of two groups (witnesses and victims) were compared by means of a z-test for differences. The results are summarised in Table 5.

Table 5

Significance of Differences Between the Size of the Witness (n=77) and Victim (n=126) Groups

Group	<u>n</u>	Percentage (%)	<u>z</u>	<u>p</u>
Witnesses	77	37.9	-3.29	0.001
Victims	126	62.1		

It is clear from Table 5 that significantly more respondents were exposed to interpersonal violence as victims (n=126) than as witnesses (n=77). The difference between the magnitudes of the two groups was significant, the z-test for differences between the groups being highly significant (p=0.001). The results thus indicate that a significantly bigger proportion of the respondents were victims of violence, rather than being merely witnesses. Hypothesis 3 should therefore be rejected.

### **Socio-demographic risk factors and exposure to violence: Witness and victim groups investigated separately.**

#### Gender and exposure to violence

In order to investigate whether boys were significantly more exposed to violence than girls (Hypothesis 4) the amount of exposure of the boys was compared with that of the girls by means of a t-test for independent samples. The results are summarised in Table 6.

Table 6

Comparison of Gender With Regard to Incidence of Exposure to Violence

Group	<u>n</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>p</u>
<i>Witnesses</i>	77				
Boys	29	6.17	2.47	-0.76	0.94
Girls	48	6.20	1.68		
<i>Victims</i>	126				
Boys	72	7.95	1.75	0.14	0.88
Girls	53	7.90	2.35		

As shown in Table 6, girls ( $\underline{M}=6.2$ ) were more exposed than boys ( $\underline{M}=6.17$ ) as witnesses, but the difference was not statistically significant,  $t(75) = -0.76$ ,  $p=0.94$ . However, boys ( $\underline{M}=7.95$ ) were more exposed than girls ( $\underline{M}=7.90$ ) as victims, and this difference was also statistically not significant,  $t(123) = 0.14$ ,  $p=0.88$ . These results thus do not support Hypothesis 4 and it should therefore be rejected.

Age and exposure to violence

In order to investigate whether older children (17-20 years) were significantly more exposed to violence than younger children (14-16 years)(Hypothesis 5) a t-test for independent samples was applied. The results are summarised in Table 7

Table 7

Comparison of Age Groups With Regard to Amount of Exposure to Violence

Groups	<u>n</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>p</u>
<i>Witnesses</i>	77				
Older children	30	6.86	1.65	-2.597	0.01
Younger children	47	5.69	2.07		
<i>Victims</i>	126				
Older children	58	8.41	1.87	-2.585	0.01
Younger children	68	7.50	2.06		

It is evident from Table 7 that older children were significantly more exposed to violence than the younger children both as witnesses and as victims. The difference between the extent of exposure between older ( $\underline{M}=6.86$ ) and younger children ( $\underline{M}=5.69$ ) who were witnesses was statistically significant,  $t(74) = -2.597$ ;  $p=0.01$ . Differences between amount of exposure between older ( $\underline{M}=8.41$ ) and younger ( $\underline{M}=7.50$ ) children who were victims were also statistically significant,  $t(74) = -2.585$ ;  $p= 0.01$ . These results supported Hypothesis 5 and should therefore not be rejected.

Presence of a parental caretaking figure and exposure to violence

In order to investigate whether children from households without a father as a primary caretaking male figure or a mother as a primary caretaking female figure were significantly more exposed to violence than children with such primary caretaking figures (Hypothesis 6), t-tests for independent samples were done. The results are summarised in Table 8 (for the witnesses) and Table 9 (for the victims).

Table 8

Comparison of Witnesses With and Without Presence of Parental Care With Regard to Amount of Exposure to Violence

Variable/Risk factor	<u>n</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>p</u>
<i>Presence of caretaking female</i>					
Mother present	65	5.83	1.94	-0.67	0.50
Mother absent	12	6.26	2.02		
<i>Presence of caretaking male</i>					
Father present	51	6.19	1.93	-0.008	0.99
Father absent	26	6.20	2.05		

As shown in Table 8, the presence or absence of a primary caretaking mother and/or father figure had no significant effect on the extent of exposure to violence as witnesses. The difference between children whose primary caretaking mother figures were present in the household and those without such a figure compared with regard to amount of exposure to violence as a witness, was not statistically significant,  $t(75) = -0.67$ ,  $p=0.50$ . The difference with regard to the presence or absence of a father as a primary caretaking figure was also statistically insignificant,  $t(124) = -0.008$ ,  $p=0.99$ .

Table 9

Comparison of Victims With and Without Presence of Parental With Regard to Amount of Exposure to Violence

Group	<u>n</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>p</u>
<i>Presence of caretaking female</i>					
Mother present	109	7.83	1.93	1.21	0.23
Mother absent	17	8.47	2.55		
<i>Presence of caretaking male</i>					
Father present	79	7.67	1.81	1.81	0.72
Father absent	47	8.34	2.29		

As reflected in Table 9, the difference between children with a mother as a primary caretaking figure present ( $\underline{M}=7.83$ ) and those without such a figure ( $\underline{M}=8.47$ ) compared with regard to amount of exposure to violence as a victim, was not statistically significant,  $t(124) = 1.21, p=0.23$ . The difference between children with a father as a primary caretaking figure present ( $\underline{M}=7.67$ ) and those without such a figure in the household ( $\underline{M}=8.34$ ) compared with regard to exposure to violence as a victim, was also not statistically significant,  $t(124) = 1.81, p=0.72$ .

The results in Tables 8 and 9 indicate that the presence or absence of a primary caretaking mother or father figure had no significant effect on exposure to violence for either the witness or victim groups. Hypothesis 6 should therefore be rejected.

### **Comparison of witnesses and victims with regard to PTSS and PTSD**

#### Comparison of witnesses (n=77) and victim (n=126) groups with regard to PTSS

In order to investigate whether victim group members suffer more from PTSS than the witness group (Hypothesis 7), a t-test for independent samples was done. The results are summarised in Table 10.

Table 10

#### Comparison of Witness (n=77) and Victim (n=126) Groups With Regard to PTSS

Group	<u>n</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>p</u>
Witnesses	77	6.86	4.92	3.14	0.002
Victims	126	9.28	5.47		

As reflected in Table 10, a significant difference between the two group was found,  $t(198)=3.14, p=0.002$ . The group of victims ( $\underline{M}=9.28$ ) suffered significantly more from PTSS than the group of witnesses ( $\underline{M}= 6.86$ ). These results indicate that Hypothesis 7 should not be rejected.

Comparison of witness (n=77) and victim (n=126) groups with regard to PTSD

In order to investigate whether victims would suffer more from PTSD than the witness group (Hypothesis 8), a t-test for independent samples was done. The results are summarised in Table 11.

Table 11

Comparison of the Witness (n=77) and Victim(n=126) Groups With Regard to PTSD

Group	<u>n</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>p</u>
Witnesses	77	2.72	3.95	2.24	0.026
Victims	126	4.33	5.40		

It is evident from Table 11 that the group of victims ( $\underline{M}= 4.33$ ) suffered significantly more from PTSD than the group of witnesses ( $\underline{M}= 2.72$ ). A significant difference between the two groups was found,  $\underline{t}(198)=2.24$ ,  $\underline{p}=0.026$ . These results indicate that Hypothesis 8 should not be rejected.

## DISCUSSION

The expectation that a significant proportion of the participants would have been exposed to non-sexual interpersonal violence (Hypotheses 1 and 2) was supported. All the participants were exposed to violence as either witnesses, victims or both. This is in accordance with previous studies that found that the majority of the children living in predominantly low socio-economic (disadvantaged) communities were exposed to various forms of violence (Ensink et al., 1997; Fitzpatrick & Boldizar, 1993).

However, unlike previous studies, the present study revealed that most of the participants were victims of interpersonal violence rather than being merely witnesses. These findings support Hypothesis 2, namely that a significant proportion of the children were victims of violence. A minority of the participants thus reported having only witnessed violence to someone else, without having been a victim. As mentioned, these results are in contrast with previous research (Ensink et al., 1997; Fitzpatrick & Boldizar, 1993, Kim et al., 2000; Richters & Martinez, 1992) and also do not support Hypothesis 3, although it should be kept in mind that several victims of violence in the present study were witnesses of violence as well. One possible explanation for the finding that most participants were victims could be the fact that a large number of the participants were exposed to less severe forms of violence such as smacks and pushes. The questionnaire did not distinguish between different exposure levels, that is, different intensities of exposure to violent experiences. Being pushed for example, carried the same weight as being shot. It should thus be noted that some of the items tapped very low intensity levels of violence. Results, in view of the scales should be interpreted with caution. Several researchers (Fitzpatrick & Boldizar, 1994; Richters & Martinez, 1992; Shakoor & Chalmers, 1989) indicated that most of the exposure to violence reported by victims in their studies was of a less severe nature (e.g., being smacked, hit, pushed by a family member or someone else). It is therefore still not clear why the results of the present study differ from the findings of these studies.

More than half of the participants of the victim group have had personal experience of being aggressively kicked, hit, smacked and/or pushed by someone else. There was a difference in terms of location of violence exposure. A relatively equal amount of exposure

to violence as victims took place at school, near the school and in the house, but more than half of the exposure took place away from the immediate neighbourhood, not in the households of the victims themselves and at places outside the Macassar community. This might be an indication that the surrounding communities are also areas of increased risk for exposure to violence.

In contrast with what was expected, the results indicated that there was no statistically significant difference between boys and girls with regard to the amount of exposure to violence whether as witnesses or as victims. This finding contrasts with other studies which suggest that being male increases the risk of exposure to violence (Ackerman et al., 1998, Fitzpatrick & Boldizar, 1993; Kim et al., 2000; Kinard, 1995). A possible explanation for the fact that no significant difference between the genders was found, may also be associated with the lack of a clear distinction between different levels (intensities) of violence experiences referred to earlier. It is theoretically possible that a larger number of girls than boys were exposed to less severe forms of violence (e.g., witnessing grown-ups shouting at each other, being pushed) and/or that girls were more likely to report such less severe forms of violence exposure than boys. This implicates that boys might have been more inclined to report only exposure to more severe forms of violence such as seeing someone getting stabbed or being assaulted, and that girls might be more sensitive to less severe forms of violence and thus notice, remember and report them more readily than boys. This is, of course, in accordance with traditional gender stereotyping, but does not fully explain the differences with the findings of other studies. It does, however, emphasise the need to distinguish and to investigate, the relationship between different forms, intensity levels and frequencies of exposure to violence experiences in future research.

The present study also revealed, as was expected, that older children will be more likely than younger children to be at risk for exposure to interpersonal violence as witnesses and as victims. This hypothesis was supported in that older children (ages 17-20 years) were significantly more exposed to interpersonal violence than younger children (ages 14-16 years) as witnesses, as well as victims. The results of the present study is in accordance with the findings of Richters & Martinez (1992) who found that older children were more likely to be at risk for exposure to interpersonal violence especially exposure as victims. It

may well be that younger children are more protected against violence than older ones, and that older ones are less considerate of certain safety limits than younger ones.

It was expected that the absence of a primary male (father) or female (mother) caretaking figure in the household would have been significantly related to the amount of exposure to interpersonal violence as witnesses and as victims. The present study, however, revealed that the presence or absence of a primary caretaking figure, irrespective of gender had no significant effect on results. The majority of the findings reported in the literature, however suggest that the presence of supportive parents is a resilience factor that assist children in developing strategies for screening out the negative effects of exposure to violence (Briggs & Joyce, 1997; Fergusson & Harwood, 1998; Kilpatrick & Williams, 1998; Pfefferbaum, 1997; Rudenberg et al., 1998; Rutter et al., 1985; Stuber et al., 1997). However, according to the present study the presence of supportive parents did not protect or minimise the children's chance of being exposed to violence. It is possible that future studies, focusing on the relationship of different levels and forms of exposure to violence, might demonstrate the absence of a primary caretaking parent figure to be a risk factor for certain types or intensity of exposure to violence. It may be possible that children of the 2000's function relatively independent in schisms between generations which form the legacy of the mid seventies and early eighties in South African communities.

It was found in the present study, as hypothesised, that the group of victims suffered significantly more from PTSS than the group of witnesses. This is in accordance with the findings of Amaya-Jackson and March (1993). It was similarly demonstrated that the victims suffered significantly more than the witnesses from PTSDS.

The current results evidence that not all the adolescents exposed to non-sexual interpersonal violence develop post-traumatic stress disorder (PTSD). A significant proportion of the participants presented at least with PTSS, or with one or more PTSDS. It might well be that there were, for at least some of the children, certain resilience factors, such as social support and firm family ties, that decreased the risk of developing significant social and emotional problems such as PTSD (Cuffe et al., 1998; Rutter et al., 1985). The presence and role of such potentially protecting factors in the development of PTSD, PTSDS and PTSS warrant further investigations in the future.

The present study, unlike most previous studies, revealed for example that the majority of participants were victims and witnesses of non-sexual interpersonal violence, and that gender and the presence or absence of primary caretakers had no significant effect on the reported results. This finding could be understood in terms of the social constructionism paradigm. As explained in a previous section, this paradigm holds the position that beliefs, experience and acts of interpersonal violence should be understood as a socially determined contextual construction. One should therefore try to understand it within its historical, sociological and social psychological context, rather than in exclusive individualistic terms. Constructs and experiences of interpersonal violence is therefore mediated by frames of reference which included cultural specificity.. It is therefore theoretically possible that a significant proportion of the reported exposure to violence in the present study, the product of the specific items content and the way in which it was measured, with self- report questionnaires, might not have been regarded by some of the respondents as a serious transgression of individual rights. This can, of course, apply for both the witnesses and victims, and could have had a significant effect on the reported prevalence, as well as effects, of the measured interpersonal violence. In future, an in-depth qualitative investigation would probably supply clearer answers to the implicated questions and hypotheses generated by the social constructionism theory.

### **Critical comments :**

The study emphasised the prevalence, effects, types, and potential risk factors of exposure to non-sexual interpersonal violence, thus providing information that may contribute to the development of an efficient preventative mental health program for adolescents who are at risk in disadvantaged communities like Macassar. It also emphasised the incidence of untreated violence-related symptoms characteristic of psychological disorders such as PTSD, as well as the need for its treatment.

The sample of the present study was limited to high school children, while the local media continuously report on primary school children who had been exposed to violence in disadvantaged communities in the Cape Metropole (especially in areas known as the Cape flats such as Elsiesriver, Bonteheuwel, Mannenburg and Hanover Park) which are rated amongst the most violent and gang-inhabited areas in the Western Cape and South Africa ("Geweld in die Kaapse Vlakte", 2001). The prevalence and effects of violence in other age groups should also be investigated in future. The present study was further limited by

the fact that the CAPC and the CECVS were not developed and standardised solely on South African populations. The CECVS did not distinguish between types and intensity levels of exposure. Instrument development appears indicated. It will be a useful tool in the planning of intervention programmes aimed at addressing trauma caused by exposure to violence.

Sexual violence against the youth, a type of violence not investigated in the present study, is such an important phenomenon that it warrants a separate and comparative study. The present study emphasised the need for more research on the prevalence, socio-demographic risk factors and the wide range of potential consequences of exposure to violence in the disadvantaged communities of South Africa. This, in turn, may emphasise the need for efficient prevention and treatment programs and also contribute to its development and refinement. Ensink et al (1997) suggests that, trauma centers, where information, support and group interventions are available, should be developed in communities where there are high levels of violence. The prevention, identification and treatment of violence-related problems should become one of the main priorities in our country and comprehensive research could play an important role in speeding up and refining such projects.

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