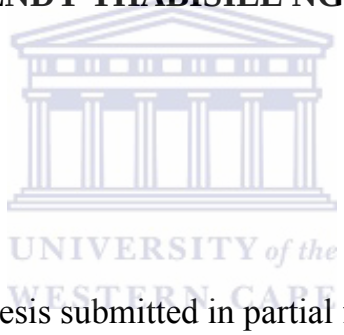
The Relationships between Exposure to Community Violence and the Development of Psychopathology in Treatment-Seeking Adolescents in a Trauma Clinic in the Western Cape

WENDY THABISILE NGIDI



A mini-thesis submitted in partial fulfilment
of the requirements for the degree of
Masters in Psychology in the Department of Psychology
at the University of the Western Cape

Primary Supervisor : Professor S. Seedat

Co-Supervisor : Professor P. Naidoo

October 2010

DECLARATION

I, Wendy Thabisile Ngidi, declare that *The Relationships Between Exposure to Community Violence and the Development of Psychopathology in Treatment-Seeking Adolescents in a Trauma Clinic in The Western Cape* is my own work, that it has not been submitted before for any degree or examination at any other university, and all the sources I have used or quoted have been indicated and acknowledged as complete references. I declare that the current study uses secondary data from a conglomeration of research projects within a research clinic in the Western Cape.

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Wendy Thabisile Ngidi Date

DEDICATION

This work is dedicated to my late parents who instilled in me the value of education and afforded me opportunities to pursue my goals without limits.

ACKNOWLEDGEMENTS

I would like to thank God for giving me the opportunity to pursue this task and for the resilience to overcome many challenges to see it to completion.

Thank you to my Supervisors, Professors S. Seedat and P. Naidoo, for your patience and guidance.

I thank the NRF and Oppenheimer Memorial Trust for financial assistance, without which this work would have not been possible.

I thank my daughter, Ntando, for her sacrifices during this process.

Thank you to my family and friends for all their support and especially to my partner, Monametsi, for support and motivation.

Lastly, my gratitude goes to the participants of the study for their contribution.

KEYWORDS

Community Violence Exposure

Psychopathology

Adolescents

Childhood Trauma

Stressful Life Events

Treatment-seeking

Western Cape

South Africa

ABSTRACT

Studies that have examined the psychological impact of community violence exposure on adolescents have mainly focused on post traumatic stress disorder (PTSD) as a single outcome. The current study examines a broader spectrum of psychological outcomes including mood, anxiety and psychotic disorders. The current study analyses secondary data from a larger conglomeration of research projects within a research clinic in the Western Cape. The main aim of the current study is to examine the relationship between community violence exposure and the development of psychopathology and examine the relationship between community violence exposure and other types of trauma, that is, childhood trauma and stressful life events. It was hypothesised that exposure to community violence will have a high correlation with development of psychological disorders such as mood and anxiety and psychotic disorders. The main study employed a quantitative research design in order to determine the relationship between PTSD in children and adolescents. The current study used secondary data to measure the correlation between exposure to community violence and the development of psychopathology. The data for this study was collected from 132 consecutive referrals between the ages of 13 to 19 (mean age = 15.4, SD = 1.6) from a youth stress clinic at a university in the Western Cape. Findings indicated that community violence prevalence was higher than previous South African studies but lower compared to American studies. There was generally a high prevalence of PTSD and major depressive disorder (MDD) in this sample compared to previous South African studies. An unexpected outcome was that even though there was a high prevalence of PTSD, there was no relationship between community violence exposure and PTSD in this sample, rather, community violence exposure was related to MDD. Furthermore, MDD and not PTSD was related to experiences of childhood trauma. Stressful life events were related to acute stress disorder (ASD).

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LIST OF ACRONYMS AND ABBREVIATIONS

ADHD	Attention Deficit Hyperactivity Disorder
ASD	Acute Stress Disorder
CECV	Child Exposure to Community Violence Checklist
CTQ	Childhood Trauma Questionnaire
CTQ	Childhood Trauma Questionnaire
CVE	Community Violence Exposure
DSM-IV- TR	Diagnostic and Statistical Manual of Mental Disorders, fourth edition
GAD	General Anxiety Disorder
ISS	Institute for Security Studies
K-SADS-PL	Kiddie-Schedule for Schizophrenia and Affective Disorders
LEQ	Life Events Questionnaire
MDD	Major Depressive Disorder
OCD	Obsessive Compulsive Disorder
PTSD	Post Traumatic Stress Disorder
SA	South Africa
SAPS	South African Police Services
SPSS	Statistical Package for the Social Sciences
UNODC	United Nations Office on Drugs and Crime
USA	United States of America
UWC	University of the Western Cape

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY AND STATEMENT OF THE PROBLEM

The current study is part of a larger research project that is located within a youth stress clinic at an academic hospital in the Western Cape. Several studies have been published from the larger research project. Two of the outcome studies of the larger research project are: *Trauma and Posttraumatic stress disorder in South African adolescents: a case-control study of cognitive deficits* (Schoeman, Carey & Seedat, 2009) and *Risk indicators and psychopathology in traumatized children and adolescents with a history of sexual abuse* (Carey, Walker, Rossouw, Seedat & Stein, 2008). The current study examines the relationships between exposure to community violence and the development of psychopathology in treatment-seeking adolescents from the trauma clinic.

South Africa (SA) has been ranked tenth out of sixty countries for the highest number of total crimes per capita by the United Nations Office on Drugs and Crime (UNODC, 2000). The most recent crime statistics, as reported by the South African Police Services (SAPS) indicate that there is a general increase of two per cent in the incidents of violent crime in the country (SAPS, 2009). Data on violent crime include murder, attempted murder, rape, assault with intent to do grievous bodily harm, indecent assault, common assault, common robbery, car hijacking and robbery at residential premises (Centre for Justice and Crime Prevention, 2009).

Thomson (2004) argues that homicide statistics are the most accurate way to measure the prevalence of violence because homicide is most likely to be reported than other crimes. The current homicide statistics in SA stand at 37.3 per 100 000, which shows a decrease of 3.4 per cent from the previous year (SAPS, 2009) However, an increase of ten per cent has been reported for sexual offences while robbery with aggravating circumstances has increased by 0.8 per cent (SAPS, 2009). The Institute for Security Studies (ISS, 2001) points out that the crime statistics in SA reflect similar trends of crime in developing countries although SA stands out because of the very violent nature of the crimes committed.

Furthermore, statistics by the SAPS (2009) point to an increase in crimes committed against children (citizens that are 18 years old and younger). The SAPS (2009) reports that the majority of the crimes against children affect adolescents from the age between 15 and 17 years old. The statistics show that 54.9 per cent of those murdered in the reporting period, between 2008 and 2009 were eighteen years and younger (SAPS, 2009). Attempted murder affected 59.6 per cent of adolescents between 15 and 17 age group while 70.8 per cent were assaulted with intent to afflict grievous bodily harm, 63.1 per cent experienced common assault and 39.5 per cent reported sexual offences (SAPS, 2009). The Annual report of the South African Police Service (2007, p.239) also indicates a marked increase in the murder of children. These figures indicate that even though the levels of violence are reported to be decreasing in SA (SAPS, 2009), violent crime is still a problem and most criminal acts affect the youth.

1.2 DEFINING COMMUNITY VIOLENCE EXPOSURE (CVE)

Community violence has not been consistently defined (Buka, Stichick, Birdthistle & Earls, 2001; Brandt, Ward, Dawes & Flisher, 2005). Most scholars define community violence as "deliberate acts intended to cause physical harm against a person in the community. These include gang violence, being chased, threatened, beaten up, robbed, mugged, raped, shot, stabbed or killed"

(Buka *et al*., 2001, p.299). Some authors include household violence and violence at schools in the definition of community violence, for example (Osofsky, 1998).

For the purposes of this study, community violence is defined as directly witnessing or experiencing serious violation such as a robbery, gang related violence, stabbing, shooting, rape and other violent crimes in the community as measured by the data collection tools, the Child Exposure to Community Violence Checklist (community violence exposure) and Childhood Trauma Questionnaire (CTQ) (Buka *et al*., 2001; Cooley-Quille, Boyd, Frantz & Walsh, 2001; Gorman-Smith, Henry & Tolan, 2004).

In the literature, a distinction is made between direct and indirect exposure to community violence. Direct exposure, also referred to as victimisation, is defined as intentional acts initiated by another person to cause harm; violence that is directly targeted at the individual (Buka *et al*., 2001). Indirect exposure is defined as witnessing an event that involves death, injury or threat to the physical integrity of another (Buka *et al.,* 2001). Buka *et al.* (2001) further advocate for the use of levels of violence exposure with primary exposure defined by direct victimisation, secondary exposure characterised by witnessing, either visually or auditory and tertiary exposure characterised by hearing or learning about a violent death or serious injury of another person.

Research indicates that the youth are frequently involved either as witnesses, victims or perpetrators of violence (Cooley-Quille *et al.,* 2001). There is also a consensus among scholars that exposure to violence has adverse mental health outcomes for adolescents. Most research of exposure to community violence and its impact on mental health of adolescents has been conducted on inner city African American youths with studies reporting community violence exposure prevalence that ranges from 60 per cent to 98 per cent in their samples (Bell & Jenkins, 1993; Fehon, Grilo, Lipschitz, 2001; Gorman-Smith, Henry & Tolan, 2004; Mathews, Dempsey & Overstreet, 2000; Mc Cabe, Lucchini, Hough, Hazen & Yeh, 2005). In Europe, particularly in Belgium, a study by

Vermeiren, Ruchkin, Leckman, Deboutte and Schwabb-Stone (2002) reported a prevalence of community violence exposure that ranges from 20 per cent to 45 per cent which is relatively lower than that of American Studies.

Research in SA indicates a high prevalence of community violence exposure. Seedat, Nyamai, Njenga, Vythilingum and Stein (2004) reported rates of community violence exposure in adolescents that ranges between 67 per cent and 95 per cent. This study by Seedat *et al*., (2004) also explored the prevalence of community violence exposure in a sample of adolescents in Kenya and found higher rates of violence exposure. The studies, therefore, indicate that community violence exposure is a serious problem for inner-city African American, Kenyan and South African adolescents. It is thus important to explore the history and trends of violence in SA where community violence is endemic.

1.3 DEFINING PSYCHOPATHOLOGY

Psychopathology is defined as disturbance of the normal functioning of cognition, emotion and behaviour (Louw & Edwards, 1997). The current study's definition of psychopathology is based on the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV- TR) (APA, 2000). Psychopathology is defined as "a clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g. painful symptom) or disability (i.e. impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom. In addition, this syndrome or pattern must not be an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one. Whatever its original causes, it must currently be considered a manifestation of behavioural, psychological or biological function in the individual. Neither deviant behaviour (e.g. political, religious, or sexual) nor conflicts that are

primarily between the individual and society are mental disorders unless the deviance or symptom is a dysfunction in the individual, as described above" (APA, 2000, p.xxxi).

The DSM-IV-TR categorises psychopathology into broad categories. The most common psychopathology that is diagnosed in children and adolescents are Intellectual Disability, Learning Disorders, Motor Skills Disorders, Communication Disorders, Attention Deficit and Disruptive Behaviour Disorders, Conduct Disorders, Oppositional Defiant Disorders, Tic Disorders, Elimination Disorders, Substance related Disorders, Schizophrenia, Mood Disorders and Anxiety Disorders (APA, 2000; Sadock & Sadock, 2007). The relevant disorders that have been found to be associated with exposure to community violence will be defined and discussed in detail in Chapter two.

1.4 DEFINING ADOLESCENCE

Adolescence is defined as a period of rapid growth and transition, characterised by many aspects of development including cognitive, emotional, biological and social (Rickel & Becker, 1997; Rogers, 1985; Sadock & Sadock, 2007; Steinberg, 1985). Adolescence is divided into three stages; early adolescence (from age 13 to 14 years); middle adolescence (from age 14 to 16 years) and late adolescence (from age 17 to 19 years) (Sadock & Sadock, 2007; Steinberg, 1985). The onset of adolescence is puberty which is characterised mostly by biological changes (Rogers, 1985). The behavioural changes associated with puberty are the shift in interest from family relations to peer relations; cognitive reasoning is observed at this stage with more independent thinking emerging (Steinberg, 1985). According to Stevens and Lockhart (2003), identity formation is the most important developmental task in adolescence.

From these studies one can deduce that adolescence is a critical stage of human development. Furthermore, Sullivan, Farrell, Kliewer, Vulin-Reynolds and Valois (2007) argue that adolescents are vulnerable to the effects of violence because violence exposure may alter the timing of typical

developmental trajectories. As it has been shown above, higher prevalence of violent crimes in SA makes it pertinent to explore how exposure to community violence affects the typical development course of adolescents with reference to psychopathology, which will be examined in the current study.

1.5 HISTORY OF VIOLENCE IN SOUTH AFRICA

Researchers in SA (Emett & Butchart, 2000; Simpson, 1993; Stevens, Seedat & Van Niekerk, 2003) have stated that it is important to locate current manifestations of violence in the country's history and political context of oppression and racism. Experts report that SA is one of the most violent countries because the system of apartheid was based on violence (Stevens, Seedat & van Niekerk, 2003). The violence included forced removals, torture, poverty, limited access to health and education and lack of adequate housing (Emett & Butchart, 2000). Thomson (2004) proposes that violence is a result of the alienation created by apartheid that has prompted people to create their own rules about how to behave, such behaviour include gang activities which give young males a sense of belonging. Barbarin, Richter and deWet (2001) argue that violence played a role of maintaining political power and bringing about political freedom. The on-going socio economic inequalities, social fragmentation, and individual socialisation patterns have been found to be the causal factors in the persisting prominence of violence in SA (Emmet & Butchart, 2000).

The current study is part of a larger unpublished study that examined Post Traumatic Stress Disorder (PTSD) in children and adolescents. This study specifically examines psychopathology as a possible outcome for adolescents who have been exposed to violence in the community. Most studies that have examined the psychological impact of community violence on adolescents have mainly focused on PTSD as a single outcome of exposure to community violence. However, the current study examines a broader spectrum of psychopathology including mood, anxiety, psychosis and behavioural disorders.

1.6 RATIONALE FOR THIS STUDY

In a country, such as SA, where community violence is a common occurrence, it becomes necessary to examine the psychological impact of such violence. Research thus far has focused on anxiety disorders, mostly PTSD as an outcome of exposure to violence (Ward, Flisher, Zissis, Muller & Lombard, 2001). Furthermore, studies have examined the relationship between exposure to community violence and symptoms of psychopathology and not specific diagnosable disorders. There is value in assessing the relationship between exposure to community violence and the development of a wider spectrum of psychopathology including mood disorders, anxiety disorders, behavioural disorders and psychotic disorders. Establishing the relationship between community violence and the development of psychopathology could be important in order to understand the impact of community violence on the etiology of psychopathology in South African adolescents. A better understanding of the effects of community violence is significant in order to inform mental health interventions at community level.

The outcomes of this study will therefore provide mental health practitioners with crucial information to aid in caring for the mental health needs of vulnerable and often disadvantaged adolescents in South Africa. The present study thus seeks to answer the following research question: What is the relationship between exposure to community violence and the development of psychopathology in treatment-seeking adolescents.

1.7 AIMS AND OBJECTIVES

The aims of the study are as follows:

The primary aim is to examine the relationships between, socio-demographic factors, community violence exposure and the development of psychopathology in treatment-seeking adolescents.

The secondary aim is to examine the relationships between socio-demographic factors, stressful life events, childhood trauma and the development of psychopathology in treatment seeking adolescents.

The objectives in relation to the primary aim of this study are:

1. To establish the prevalence of trauma experience (community violence exposure, childhood trauma and stressful life events).
2. To examine the relationships between community violence exposure, experience of childhood trauma, stressful life events and the development of psychopathology.

In essence it is hypothesised that increased exposure to community violence is positively associated with the development of psychopathology amongst treatment-seeking adolescent using a public health-care facility.

1.8 STRUCTURE OF THIS THESIS

Chapter two of this thesis outlines the theoretical overview and the review of the literature. The chapter outlines the understanding of community violence exposure and its relationship to the development of psychopathology in adolescents from the ecological-transactional approach. The chapter also outlines the review of the relevant literature, detailing the findings of other studies. Chapter three comprises of the methodology. In Chapter four the results of the research are presented. In Chapter five, the results presented in Chapter four are discussed and recommendations made in light of the results obtained. The limitations of the study and recommendations for future research are also presented in Chapter five.

CHAPTER TWO

THEORETICAL FRAMEWORK AND A REVIEW OF THE LITERATURE

2.1 INTRODUCTION

This chapter outlines the theoretical framework on which the study is based and a review of the literature. The main concepts that have been introduced in the previous chapter such as community violence and psychopathology are discussed further, incorporating the theory that underpins the study. The review of literature outlines some studies that have examined community violence exposure, their findings, and the relevance of their findings to the current study.

2.2 DEVELOPMENT IN ADOLESCENTS

Adolescence and psychopathology have been briefly defined in Chapter one. In this chapter, adolescence and psychopathology are discussed in more detail. It is important to outline the range of normal development in order to contextualise the development of psychopathology in adolescents. Sadock and Sadock (2007, p.36) define normal development in adolescence as "psychological adaptation that is achieved while navigating the hurdles and meeting the milestones characteristic of this developmental stage". The primary task that the adolescent must negotiate is the development of congruence between self-image, and role expectations of the environment, including independent judgment, emotional independence, assurance of economic independence, preparation for occupational and family life, social responsibility and ethical systems (Carr, 2006).

The process of adolescence has been divided into three stages, that is, early, middle and late adolescence, each characterised by a different set of developmental tasks (Carr, 2006). Normal development encompasses physical development, cognitive development, emotional development, moral development and social development which are briefly outlined.

Physical development

As discussed in Chapter one, adolescence is characterised by physical change that occurs through a process of puberty. Puberty is defined as a process by which adolescents develop physical and sexual maturity and also an ability to reproduce (Sadock & Sadock, 2007). The first signs of puberty are increased height and weight, for both girls and boys. For girls, puberty begins around the age of ten years. Important changes that signify puberty in girls are menarche and the development of breasts and pubic hair (Sadock & Sadock, 2007). For boys puberty normally begins later, at age 12 to 13 years. Puberty in boys is marked by rapid increase in height, genital maturity and pubic hair development (Sadock & Sadock, 2007).

Two studies have found that the timing of pubertal development was related to psychopathology (Graber, Lewinsohn, Seeley & Brooks-Gunn, 1997; Susman, Nottlemann, Inoff-Germain, Dorn, Cutler, Lariaux & Chrousos, 1985). Graber *et al.* (1997) investigated whether the timing of puberty was related to psychopathology in both girls and boys. The Kiddie-Schedule for Affective Disorders and Schizophrenia was administered to a large sample (n = 1709) of high school learners.

The results indicated that early maturing girls and late maturing boys showed more evidence of psychopathology (Graber *et al.,* 1997). Another study by Susman *et al.* (1985) examined the relation of hormonal levels, physical development and social-emotional behaviour in adolescents aged between 9 to 14 years. The results indicated that high for age hormone levels and early puberty was associated with psychopathology (Susman *et al*., 1985). Both studies therefore indicate that the timing of physical development plays a critical role in healthy development of adolescents.

Cognitive development

In adolescence, cognitive development encompasses a shift from concrete thinking to more abstract reasoning, that is, an ability to draw more logical conclusions from interacting with the environment (Werner & Kerig, 2005).Through increased cognitive ability, and the adolescent is able to apply self

observation and self regulation. Adolescents also become aware of their individual talents at this stage; however, a practical application of these talents is usually applied at a later stage of life. According to Piaget (1951), cognitive adaptation in adolescence is mostly shaped by peer relations.

Emotional development

During adolescence, individuals acquire an awareness of complex emotional cycles such as feeling guilty about feeling angry or feeling ashamed for feeling frightened (Carr, 2006). Complex strategies to individually manage emotions are also applied at this stage. These self regulations are informed by moral principles, beliefs about what is right and good and what is wrong and evil (Carr, 2006). Adolescents also become increasingly aware of the emotional exchanges that need to happen in order to make and maintain friendships. Difficulties in regulation of emotions such as anger, fear and sadness are the commonly associated with psychopathology.

Moral development

Morality is defined by Sadock and Sadock (2007, p.39) as 'a set of values and beliefs about codes of behaviour that conform to those shared by others in society'. According to Sadock and Sadock (2007), adolescent behaviour patters are moulded by family, educational environments, peers and adults whom they admire. Piaget (1951) described moral development as a gradual process parallel to cognitive development with expanded abilities in differentiating the best interests for society from those of individuals occurring during late adolescence.

Kohlberg (1981) developed the theory of moral development from Piaget's theory of cognitive development (Sadock & Sadock, 2007). Kohlberg described three stages of moral development. The first level is pre-conventional morality, in which punishment and obedience to the parent are the determining factors. The second level is morality of conventional role-conformity, in which children try to conform to gain approval and to maintain good relationships with others. The third and highest level is morality of accepted moral principles, in which children voluntarily comply

with rules on the basis of a concept of ethical principles and make exceptions to rules in certain circumstances.

Gilligan (1982) introduced the concept gender differences in moral development and emphasised the impact of the social context. Gilligan (1982) asserted that, in women, compassion and the ethics of caring are dominant features of moral decision making, whereas, for men, predominant features of moral judgments are related more to a perception of justice, rationality and a sense of fairness. Gilligan (1982) further identified social conditions that influence the pathological pattern in moral development (Sadock & Sadock, 2007).

Social development

The most important social developmental skill in adolescence is the ability to develop a sense of belonging to a peer group together with the ability to conform to the activities of that group (Sadock & Sadock, 2007). Development of good self esteem results from being perceived as socially competent by peers. During early adolescence the focus shifts from family to peers, normally, the adolescent begins to challenge previously accepted family values and prefers the company of peers, who become highly influential in behaviour (music, role models, and idols).

Adolescents typically express a strong desire for autonomy by challenging authority of teachers' parents and rules (Butcher, Hooley, Mineka & Carson, 2004). Adolescents usually begin to experiment with alcohol, cigarettes and marijuana (Butcher *et al*., 2004). Greater awareness of appearance and style also occurs at this stage. A new awareness of sexuality may be displayed by increased awareness of the opposite sex.

Good health and absence of genetic vulnerabilities, easy temperament and a high level of intellectual ability have been found to be factors that lessen the chances the probabilities for an individual to develop psychopathology. On the other hand, there are a number of factors that can

contribute to an individual's development of psychopathology. As a starting point, overviews of the different theoretical perspectives for understanding of the development of psychopathology are briefly outlined. There is a large body of scholarship on theories of psychopathology, however only a few, relevant theories are briefly outlined due to the boundaries of the current study.

2.3 THEORETICAL UNDERSTANDING OF THE DEVELOPMENT OF PSYCHOPATHOLOGY

2.3.1 The Psychodynamic perspective of psychopathology

The psychodynamic perspectives of psychopathology have mostly been adapted from Freud's (1920) theory of personality development (Corey, 2005). The psychodynamic theories posit that psychopathology is a result of intrapsychic conflict. Freud's psychodynamic theory emphasises the impact of the unconscious on behaviour, the importance of early childhood experiences in later personality adjustment and the importance of sexual factors in human behaviour and psychopathology (Butcher *et al*., 2004).

According to Freud's theory, the ego defence mechanisms play a crucial role in the development of psychopathology. The ego defence mechanisms are defined as 'mechanisms that prevent an individual from being overwhelmed' (Corey, 2005, p.59). Ego defence mechanisms are normal reactions to stressful situations but may become pathological when used as a way of life that prevents an individual from reality (Corey, 2005). Some of the ego defence mechanisms are that are commonly used by adolescents are; *repression*, threatening thoughts and feelings are excluded from awareness; *denial,* a way of consciously distorting what an individual feels and perceives in a traumatic situation; *projection,* attributing to others, one's own unacceptable desires and impulses; and *regression,* going back to an earlier stage of development (Corey, 2005).

Another relevant theory that stems from Freud's theory is Erikson's theory (1950). Erikson's theory holds that development occurs in sequential, clearly defined stages and an individual has to

complete the developmental tasks of one stage to move to the next stage (Erikson, 1950). Psychopathology and maladjustment result from failure to resolve developmental requirements of a relevant stage (Sadock & Sadock, 2007). According to Erikson's theory, the task for adolescents is to resolve a crisis between identity and role confusion. A failure to establish identity results in delinquency, gender-related identity disorders and borderline psychotic disorders (Sadock & Sadock, 2007). Early psychodynamic theories have been criticised for not being empirically based (Corey, 2005).

Psychodynamic theories have evolved over the years and have become more contemporary. Attachment theories, for example, the works of John Bowlby (1982) and Donald Winnicott (1987) focus on the individual's early infant relationships as the foundation for later functioning throughout childhood, adolescence and adulthood. According to Winnicott (1987), psychopathology arises, primarily as a result of deficiencies in care during the earliest stages of self–formation. The general notion is that through the mothering experience, the baby's anxieties are managed as the baby learns to interact with the world, when there are deficiencies in the mothering, the anxieties surface in later life as psychopathology (Butcher *et al*., 2004).

Much like Winnicott's (1987) theory, Bowlby's (1982) theory is based on the quality of attachment with the mother figure in early life. "Bowlby's theory of anxiety holds that a child's sense of distress during separation is perceived and experienced as anxiety and is the prototype of anxiety" (Sadock & Sadock, 2007, p.139). When attachment goes awry, the disorders that may arise as a result of maternal deprivation include separation anxiety disorder, depressive disorders, avoidant personality disorder, delinquency and academic problems (Sadock & Sadock, 2007).

2.3.2 Cognitive perspective of psychopathology

The cognitive perspective (Beck, 1967) is based on the notion that different forms of psychopathology are characterised by different maladaptive schemas that have developed as a

function of adverse early learning experiences and that lead to the distortions in thinking that are characteristic of certain disorders such as anxiety (Butcher *et al*., 2004). "A schema is an underlying representation of knowledge that guides the current processing of information and often leads to distortions in attention, memory and comprehension." (Butcher *et al*., 2004, p.83). The fundamental idea that underpins this theory is that the way in which individuals interpret events and experiences determines their emotional reactions to them. The Cognitive perspective posits that psychopathology arises from processes such as faulty thinking, making incorrect inferences on the basis of incorrect or inadequate information and failing to distinguish between fantasy and reality (Corey, 2005).

Examples of cognitive distortions are; *arbitrary inferences,* which involves making conclusions without supporting and relevant evidence, *selective abstraction,* consists of forming conclusions based on isolated detail of an event, *overgeneralization*, a process of holding extreme beliefs on the basis of a single incident and applying them inappropriately to dissimilar events and *polarized thinking*, involves thinking and interpreting in all or nothing terms (Corey, 2005).

The cognitive perspective has been criticised for focusing on the power of positive thinking, being technique oriented and not considering unconscious and underlying causes of psychopathology (Corey, 2005).The cognitive-behavioural perspective (Bandura, 1925) cited in Corey (2005) posits that human beings regulate their behaviour through thoughts. According to the cognitive-behavioural theory, psychopathology arises when information processing becomes distorted which leads to maladaptive emotions and behaviour. The cognitive-behavioural perspective is based on empirical evidence and has further illuminated the mechanisms that are involved in maintaining some psychopathology, for example, depression has been linked to negative thoughts (Butcher *et al*., 2004).

2.3.3 The humanist perspective

The fundamental principles of the humanist perspective (Rogers,1987), posits that people are trustworthy, resourceful, capable of self understanding and self directing, able to make constructive changes and are able to live effective and productive lives (Corey, 2005). "The humanistic perspective views human nature as basically good. The theory emphasises present conscious processes and places strong emphasis on people's inherent capacity for responsible self-direction" (Butcher *et al*., 2004, p.73). According to the Humanist view, psychopathology is the locking or distortion of personal growth and the natural tendency toward mental and physical health.

2.4 Development of psychopathology

A risk is any condition or circumstance that increases the likelihood that psychopathology will develop (Wenar & Kerig, 2005). The development of psychopathology in adolescents is influenced by many factors which may be present from pre-natal stage right through to adolescence. These factors can be divided into individual, family and contextual factors. The individual factors are further divided into biological factors and psychological factors. The family factors include parent-child factors, exposure to family problems in early life and stresses in early life. The contextual factors include poverty, social class, race and ethnicity and community violence.

2.4.1 Biological risk factors

The biological risk factors involve a number of organic factors that play a role in the development of psychopathology. These factors include genetics, brain chemistry, brain structure, neurological and neuropsychological functioning, prenatal and peri-natal factors, head injuries, temperament and physical deprivation.

Butcher *et al*. (2004) state that there is sufficient evidence in the literature to suggest that some psychopathology such as depression, schizophrenia and alcoholism have genetic origins. The

authors further argue that the relationship between genetics and psychopathology is a complex one because behaviour is not exclusively determined by genetic influence. According to Carr (2006), pre-natal and peri-natal factors play an important role in the development of psychopathology later in life. Maternal age, smoking, alcohol use and drug use may affect the foetus. The most common birth difficulty associated with later psychopathology is low birth weight (Carr, 2006). Head injuries in childhood are associated with the development of cognitive impairment, disinhibition and behaviour problems (Carr, 2006). Quay and Werry (1986) reviewed a few studies that looked at the relationship between brain damage and psychopathology; they concluded that brain damage increases the risk of psychopathology significantly.

Temperament is another factor that has been linked to the development of psychopathology. Research indicates that extremely shy temperament and extremely difficult temperament increase children's vulnerability to the development of psychopatholgy. Caspi, Elder and Bem (1988) propose that this there is continuity and consistency of childhood temperament into adulthood. Caspi, Elder and Bem (1988) further propose that this happens through 'interactional continuity' which is the way that an individual interacts with others which in turn informs how other people respond to the individual. Physical deprivation such as sleep deprivation and prolonged food deprivation also may also contribute to the development of psychopathology later in life (Butcher *et al*., 2004). Severe malnutrition impairs growth and brain development and has been linked to psychopathology. Gorenstein (1992) argues that it is important to keep in mind that biological risk factors play a role in the development of psychopathology. However, other risk factors such as psychological risk factors are also just as important to consider.

2.4.2 Parent – child relationship

According to Butcher *et al*. (2004), parenting styles can have profound impact on an individual's ability to cope with life's challenges and can thus create a vulnerability to psychopathology.

Parenting has been identified as a potential mediator of the effects of community violence and child and adolescent development (Buka *et al*., 2001). The vulnerability of youngsters to developing psychological problems is influenced by specific features of the parent-child relationship, exposure to ongoing family problems and specific stresses (Friedman & Chase-Lansdale, 2002).

According to Spano, Rivera, Vazsonyi and Bolland (2008), the absence of adequate parental support poses a major threat to the child's needs for safety, care, control and intellectual stimulation which may predispose the child to developing psychological problems in later life. Four parenting styles have been identified. The authoritative style is associated with the most positive developmental outcomes. Authoritarian style parenting is characterised by high control and low warmth. Children tend to be conflicted, moody. When followed in adolescence, children with authoritarian parents tend to have negative outcomes, particularly in social and cognitive skills (Butcher *et al*., 2004). Permissive and indulgent parents have high warmth and little control. Indulgent parenting has been associated with impulsive, aggressive and antisocial behaviour in children. Children tend to have a sense of entitlement. The neglectful-uninvolved parenting style is associated with disturbances in attachment. Children of uninvolved parents display low self-esteem, disturbed peer relations and also show poor academic performance.

Parental psychopathology also increases the risk of offspring developing psychopathology later in life. According to research, children with parents who have psychopathology are at a higher risk of developing psychopathology. This relationship goes beyond genetic vulnerability (Butcher *et al*., 2004) and may be linked to paucities in the attachment relationship between parent and child.

Butcher *et al*. (2004) state that divorce is a risk factor for the development of psychopathology in adolescents. Divorce, according to experts, is associated with feelings of insecurity and rejection in children because they often have to choose loyalties between parents. Divorce has been found to be related to a range of psychopathology that has been found to endure into adulthood.

Spano *et al*. (2008) conducted a longitudinal study of 348 African American youth to examine the impact of exposure to violence on parenting over time. The findings of their study indicated that violence exposure increased the probability that youth were in families with declining parental monitoring.

Major stressful life events such as parental unemployment, serious illness or bereavement are factors that can contribute to the development of psychopathology (Carr, 2006). In SA, a significant positive correlation between stressful life events and anxiety, depression and PTSD symptoms was indicated in a study by Suliman, Mkabile, Fincham, Ahmed, Stein, and Seedat (2009). Some of the stressful life events that were examined were failing at school, death of a parent and pregnancy (for girls). The researchers reported that 'stressful life events were the most robust factor for depression' (Suliman *et al*., 2009, p.125). Furthermore, the researchers reported significantly higher levels of depression in those who indicated losing a parent, sibling or friend. In another South African study however, Seedat *et al*. (2004) found that negative life events were not significantly associated with PTSD.

2.4.3 Childhood trauma

"Psychological trauma is defined as a life experience that overwhelms ones ability to cope and results in cognitive, affective and behavioural changes in the individual" (Rickel & Becker, 1997, p.59). Trauma in childhood can be presented in various forms of emotional, physical and sexual abuse. According to Butcher *et al*. (2004), the impact of childhood trauma may never be completely overcome because abuse disturbs the attachment patterns of children. Children who have been physically and or sexually abused often present with disorganised and atypical attachments which further leads to withdrawal and isolation. Physical abuse has been found to be related to psychopathology such as anxiety, depression and personality disorders (Butcher *et al*., 2004).

Margolin and Gordis (2000) argue that exposure to multiple types of violence may increase the risk

of developing psychological distress because it tends to be associated with higher frequency of exposure and increased seriousness of violence. Further, studies indicate that youth who are exposed to one type of violence are more likely to be exposed to other types of violence as well (Rosario, Salzinger, Feldman & Ng-Mak, 2008; Dong, Anda, Dube, Giles & Felitti, 2002). According to Howard (1996), youth who witness violence between their parents or caregivers in their own home experience an erosion of their parent's ability to protect them from harm.

Margolin and Gordis (2000) further indicate that child maltreatment or abuse is the most distressing form of violence exposure because it directly threatens the individual in an environment that is expected to be most secure, the home. Butcher *et al*., (2004) argue that a large proportion of parents who abuse their children have themselves been victims of parental rejection. Follette, Polusny, Bechtle and Naugle (1996) conducted a study that investigated the relationship between trauma symptoms and a history of child sexual abuse, adult sexual assault and physical assault by a partner as an adult. Their sample consisted of 210 adult females with a mean age of 23.5 years. The results indicated that 73 per cent of the women in the sample reported at least one type of victimisation during childhood and 49 per cent indicated a history of child sexual abuse.

A South African study by Dong, Anda, Dube, Giles and Felitti (2002) assessed the relationship of childhood sexual abuse to nine other categories of adverse childhood experiences including childhood abuse, neglect, and multiple types of household dysfunction. Data was collected from a large sample of 17, 337 adults who responded to a survey questionnaire. Childhood sexual abuse was reported by 25 per cent of women and 16 per cent of men. Children who were sexually abused were more likely to experience various forms of abuse, neglect and household dysfunction.

2.4.4 Poverty

According to Bornstein and Bradley (2004), children and adolescents who grow up in poor families are at an increased risk of developing a range of behavioural, emotional and academic problems.

Poverty may exert its effects on the development of psychopathology through a number of mechanisms; for example, adolescents from poor neighbourhoods are exposed to high rates of violence, drug dealing and models of antisocial behaviour. The homes of children reared in poverty are crowded, unsafe, noisy and poorly maintained. Murry, Bynum, Brody, Willet and Stephens (2001) argue that even though poverty plays a significant role in the development of psychopathology, poverty does not necessarily cause psychopathology. According to Murry *et al*. (2001), there are many resilience factors, such as parental support which have been found to buffer the impact of poverty and protect individuals from developing psychopathology.

Research by Patel and Kleinman (2003) indicates that the causal relationship between poverty and psychopathology is weak. The researchers (Patel & Kleinman, 2003) reviewed eleven journals from six countries, including Lesotho and Zimbabwe to determine the association between poverty and common psychopathology. The results indicated a low association between metal health disorders and income level. The results also indicated a high association between low levels of education and the risk of violence as some of the factors that explain the vulnerability of the poor to common mental disorders.

A qualitative study by Ward, Martin, Theron and Distillers (2007) explored youth's experiences of living in communities with high levels of gang activities from four communities in Cape Town, SA. The study employed a focus group methodology and interviewed a total of 282 youth in grades 11, 9 and 6 (the ages were not specified). Results from this study revealed a high prevalence of violence and crime in the communities. The researchers also observed that extreme poverty was a significant risk factor for engagement in gangs and exposure to community violence. Some protective factors such as school support and conventional after-school activities involvement were also noted in the study.

2.4.5 Community violence

Exposure to community violence is one of the risk factors for the development of psychopathology. Although not much attention has been paid to community violence exposure as a risk factor for the development of psychopathology in the past, there is a growing body of research which has examined the different aspects of the relationship between community violence exposure and the development of psychopathology (Barbarin, Richer & deWet, 2001; Bell & Jenkins, 1993; Buka *et al*, 2001; Cooley-Quille *et al*., 2001; Fehon, Grillo, Lipschitz, 2001). There is sufficient evidence in the literature to support the hypothesis that exposure to community violence increases the risk of psychopathology (Bailey, Hannigan, Delaney-Black, Cavigton & Sokol, 2006; Barbain, Richter & deWet, 2001; Cooley-Quille*, et al.,* 2001). Previous studies have mostly confined research to the relationship between community violence exposure and the development of post traumatic stress disorder or psychopathology symptoms rather than diagnosable disorders (Kliewer, Leopore, Oskin & Johnson, 1998; Latzman & Swisher, 2005; Sullivan, Farell, Kliewer, Vulin-Reynolds & Valois, 2007). The current study examines a wider spectrum of clinically diagnosable psychopathology. Other factors such as experiences of childhood trauma and the impact of stressful life events are examined in relation to community violence exposure.

The ecological-transactional model of community violence, a theory that was introduced by Cichetti and Lynch (2003) is one of few that explain the complex relationship between community violence exposure and the development of community violence. A brief overview of the theory is outlined.

2.4.5.1 Ecological-Transactional model of community violence

The conceptual framework offered by the ecological-transactional model has been applied to understanding the relationship between community violence exposure and its impact on children. The model is based on how community violence disturbs the normal trajectory of development and therefore still provides a relevant framework for understanding the relationship between community

violence exposure and its impact on the development of psychopathology in adolescents. Furthermore, Spano *et al*. (2008) have partially tested the Ecological-Transactional model on a sample of youth with ages ranging between 9 and 19 years and their results were found to be consistent with the ecological-transactional model of community violence.

Several scholars concur that the complexities of understanding people's responses to traumatic events, such as community violence are best addressed through the integration of social, personality and clinical theories of human adaptation (Buka *et al*., 2001; Howard, Feigelman, Li, Cross & Rachuba, 2002; Saakvitne, Tennen & Affleck, 1998).

The ecological-transactional model of community violence proposed by Cicchetti and Lynch (1993) is a framework for understanding community violence and the associated outcomes of exposure to community violence. The scholars emphasise the need to identify interactions, transactions and relationships among factors within the individual, family and community, to reach an understanding of the impact of community violence on the development of the adolescent (Cicchetti & Lynch, 1993).

The model proposes that exposure to violence is a considerable vulnerability factor that has potential for direct and indirect impact on the developing adolescent (Cicchetti & Lynch, 1993). Exposure to community violence directly impacts the adolescent through a number of mechanisms such as stress, anxiety and fear and may obstruct the accomplishment of normal developmental tasks such as development of trust and a sense of safety, emotional regulation, exploration and mastery of the environment and the ability to form relationships out of the family (Cicchetti & Lynch, 1993).

Exposure to community violence is also thought to indirectly impact adaptation of the adolescent by acting as a potential factor for disturbances within other contexts, such as the family, which, can

have direct negative effects on the adolescent and exacerbate the negative effects of exposure to community violence (Cicchetti & Lynch, 1993). The scholars, Cicchetti and Lynch (1993) also found that exposure to community violence increased the risk of child maltreatment within the family and that both exposure to community violence and maltreatment within the family were related to multiple indicators of children's adaptation.

2.5 REVIEW OF THE LITERATURE

2.5.1 Prevalence of community violence exposure

It is important to compare the extent of community violence in other parts of the world to South Africa (SA). According to Vermeiren, Ruchkin, Leckman, Deboutte and Schwabb-Stone (2002), there are few studies, including their study, that have examined the prevalence of violence exposure in adolescents in European communities. One of the aims of their study was to investigate the prevalence of community violence in a sample of urban adolescents in a Belgium, which is a European country (Vermeiren *et al*., 2002). Data for the study was collected from eight schools from participants with age ranges from 12 to 18 years. The results indicated that the prevalence of victimisation ranged between five per cent and ten per cent. Witnessing violence in this sample ranged from 20 per cent to 45 per cent while being wounded or seriously hurt was reported to be between two per cent and five per cent. The presence of community violence was relatively high but not higher than rates reported in the United States (Bell & Jenkins, 1993; Hurt, Malmud, Brodsky & Giannetta, 2001).

American researchers, Bell and Jenkins (1993), Sadock and Sadock (2007) and Rickel and Becker (1997), report that homicide is the leading cause of death for young male and female African Americans. A study by Hurt *et al*. (2001) of inner-city youth revealed 75 per cent had heard gunshots, 60 per cent had seen drug deals, 18 per cent had seen a dead body and 10 per cent had seen a shooting or stabbing in the home.

A study by Bell and Jenkins (1993) was conducted on three inner city schools in America. In their study, Bell and Jenkins (1993) examined exposure to violence, self-reports of aggression and possible interventions. The sample comprised of youth with ages ranging from 10 to 19 years. The results indicate that a third had witnessed a robbery, stabbing, shooting and or killing 26 per cent reported having seen someone shot and 30 per cent witnessed a stabbing. Witnessing stabbing or shooting was associated with more fighting.

In SA, Ward *et al*. (2001) examined exposure to violence and its relationship to psychopathology in adolescents. One of the aims of this study was to establish the prevalence of adolescents' exposure to violence in the South African context. The sample comprised of 104 students from four schools in Cape Town. In this sample, 68 per cent of the participants were male. The results indicated that majority of the participants (81%) had witnessed at least one type of violence and 30.8 per cent had been victims of violence.

Seedat, van Nood, Vythilingum, Stein and Kaminer (2000), conducted a survey of grade 10 adolescents in Cape Town schools. One of the aims of the study was to examine adolescent's exposure to violence and multiple traumas. The results indicated that the most traumatic experience for the sample was witnessing violence on the street which was reported by 62.9 per cent of the sample, 31 per cent reported being robbed or mugged and 30 per cent reported witnessing a family member being hurt or killed. Only 12.4 per cent reported being sexually assaulted (Seedat *et al*., 2000).

2.5.2 Prevalence of psychopathology

In South Africa, there seems to be a paucity of current national data on the prevalence of psychiatric disorders in the adolescent population. The national and provincial data for the adult population is presented to give a depiction of psychopathology in the South African context.

A study by Stein, Seedat, Herman, Moomal, Heeringa, Kessler and Williams (2008) examined the lifetime prevalence of psychiatric disorders in South Africa. The researchers indicate that prior to their study, no previous studies with nationally representative data were undertaken to indicate the prevalence of Psychiatric disorders in South Africa (Stein *et al*., 2008). Their study included 1 351 adult South Africans and reported a 15.8 per cent prevalence of anxiety disorders, 9.8 per cent mood disorders, 13.4 per cent substance use disorders and 30.3 per cent prevalence of other disorders.

Another study by Kleintjies, Flisher, Fick, Railoun, Lund, Molteno and Robertson (2006) report an overall regional prevalence of psychiatric disorders in the adult population that ranged between 17 per cent and 25 per cent in the Western Cape. The most prevalent disorder was nicotine use (48%), followed by alcohol dependence (15%). The prevalence of anxiety disorders and major depressive disorder was six per cent.

2.6 COMMUNITY VIOLENCE EXPOSURE AND PSYCHOPATHOLOGY

A number of scholars have given attention to researching aspects of exposure to community violence and its relation to the development of psychopathology in adolescents in the United States (Cooley-Quille, *et al*., 2001; Latzman & Swisher, 2005; Osofsky, 1997; Skybo, 2005). A study by Fehon, Grilo and Lipschitz (2001) examined a sample similar to the current study. Their sample comprised of hospitalised youth with ages that ranged between ages 12 and 18 years (the mean age was 15.5 years). The researchers administered similar tools as the current study (child exposure to community violence checklist and childhood trauma questionnaire). The aim of the study was to examine the correlates of community violence exposure in hospitalised adolescents. The results indicated that 52 per cent experienced one or more incidents of serious violence. The most frequently witnessed violence was seeing someone pull a knife on another person (43%), followed by witnessing a stabbing (38%), seeing someone threatened with a gun, 36 per cent and 23 per cent

of the participants reported witnessing a homicide (Fehon, Grilo & Lipschitz, 2001).The results further indicated that 61 per cent of the participants reported being direct victims of community violence, 46 per cent were threatened with homicide at least once, 39 per cent had been beaten up and 36 per cent had been threatened with a weapon. Being stabbed or shot at least once was reported by 12 per cent of the sample. Being the victim of sexual assault was reported by 31 per cent of the sample and 8 per cent had perpetrated one instance of sexual assault. Having perpetrated an assault was reported by 44 per cent of the sample and 33 per cent reported using a weapon as a means of assault. Patients that were exposed to community violence reported significantly more PTSD symptoms and drug use than those who were not exposed to community violence. Childhood maltreatment was also significantly related to community violence exposure.

Another study by the same authors, Fehon, Grilo and Lipschitz (2005) examined 130 psychiatrically hospitalised adolescents and compared those with a history of perpetrating violence with those without a history of perpetrating violence and found that those who perpetrated violence were significantly more likely to have been a victim or witness of family and community violence. The perpetrators reported significantly more psychopathology than non-perpetrators. The results reported significantly higher impulsivity, dissociation, and PTSD were associated with more severe violence.

A few authors have conducted comprehensive reviews of the literature (Brandt, Ward, Dawes & Flisher, 2005; Buka *et al*., 2001; Mc Donald & Richmond, 2008; Stein, Jaycox, Kataoka, Rhodes & Vestal, 2003) to consolidate the knowledge and to draw common concepts and identify the gaps in literature available of the empirical studies that have quantified different aspects of the relationship between community violence exposure and psychopathology. Firstly, McDonald and Richmond (2008) reviewed 26 empirical studies between 1997 and 2007 that assessed the relationship between community violence exposure and mental health symptoms in adolescents; 17 out of 26 studies had samples of greater than 50 African American adolescents. Out of the 26 studies 4 were conducted

on predominantly Hispanic populations and almost all the studies were conducted with adolescents from disadvantaged areas. The researchers concluded that a positive relationship between community violence exposure and mental health symptoms was indicated by the studies, specifically PTSD and aggression.

The second study by Stein *et al*. (2003) reviewed 43 articles that were published between 1991 and 2002 to examine the prevalence of child and adolescent exposure to community violence. They found that boys were at greater risk of exposure to community violence (with the exception of sexual assault) (Singer, Anglin, Song & Lunghofer, 1995). The researchers concluded that American adolescents are exposed to many types of community violence and further established that socio-economic factors such as gender, age, race, and socio-economic status were associated with higher rates of exposure. The researchers argued that there is a dearth of longitudinal studies which limits information about the long-term effects of community violence exposure.

Overstreet (2000) also integrated findings across disciplines and reviewed studies to make general conclusion regarding rates and impact of community violence exposure. Denson, Marshall, Schell and Jaycox (2007) examined the predictors of post traumatic stress after exposure to community violence. The researchers found that the characteristics that most predict PTSD are demographics such as age, pre-traumatic history for example, a recent history of depression, injury severity and reactions to the traumatic event such as peri-traumatic dissociation or self blame.

Other researchers (Howard *et al*., 2002) examined general distress symptoms following witnessing violence. Their sample consisted of 349 youth between the ages of 9 to 15 years from low income public housing communities. The results indicated witnessing violence was related to youth reports of intrusive thoughts and feelings, difficulties with concentration and avoidant behaviour.

Two South African Studies examined exposure to more general trauma that included, but was not

limited to community violence. A study by Seedat *et al*. (2004) used a survey method to examine trauma exposure, post traumatic stress symptoms and gender differences in two African countries. The sample comprised of 1140 South African students and 901 Kenyan students. Their mean age was 15.8 years. The results indicated that more than 80 per cent of the participants had been exposed to trauma. In the whole group, 14.5 per cent met the full criteria for PTSD. Furthermore, 22 per cent of the South African group had a full PTSD diagnosis compared to five per cent of Kenyan adolescents.

The researchers (Seedat *et al*, 2004), found that boys were more likely to witness community violence than girls (67% v 60%). The researchers further found no significant differences in PTSD diagnoses by gender. An examination of depression in the sample revealed depression scores that were in the mild range. The researchers report however, that South African girls reported more depressive symptoms and had significantly higher scores on the Beck depression Index (Seedat *et al*., 2004).

Lastly, a recent study by Suliman *et al*. (2009) conducted a survey on 922 grade 10 learners between the ages of 14 and 18 from nine Cape Town schools. The aim of the study was to examine the effect of multiple traumas on symptoms of PTSD, anxiety and depression in adolescents. The results indicate that 23.6 per cent endorsed symptoms suggesting a possible PTSD diagnosis and 7.3 per cent endorsed symptoms of suggesting severe levels of depression, additionally, 61.3 per cent demonstrated high levels of anxiety (Suliman *et al*. 2009). The researchers established that females reported significantly higher levels of depression, anxiety and PTSD. The researchers further found no significant differences between ethnic groups or in between participants from higher and lower socioeconomic school settings. None of the empirical studies that have been reviewed have established a link between Schizophrenia and other psychotic disorders and community violence exposure.

2.6.1 Exposure to community violence and anxiety disorders

According to experts, fear and anxiety are normal and adaptive responses to a threat of danger (Wenar & Kerig, 2005). A few distinguishing factors between normal fear and anxiety disorders are the intensity, which is out of proportion for the situation; the poor adaptation and the persistence of the fear (Wenar & Kerig, 2005, p.216). Anxiety disorders are therefore defined as a group of disorders that are characterised by intense, persistent and maladaptive fear (Wenar & Kerig, 2005). Some of the most common anxiety disorders that are diagnosed in adolescence are general anxiety disorder (GAD), social phobia, obsessive compulsive disorder (OCD) and post traumatic stress disorder (PTSD) (Sadock & Sadock, 2007).

A review of empirical studies indicates that of all the anxiety disorders, PTSD has been strongly associated with community violence exposure. A study by Berman, Kurtines, Silverman and Serafini (1996) examined the extent and nature of PTSD symptoms following exposure to violence in a sample of high school learners, in Miami, Florida. Their sample comprised of (n = 96) participants, with ages ranging from 14 to 18 years. The culturally diverse participants were mostly from low income, inner city neighbourhoods with high prevalence of crime and violence. The results from their study (Berman *et al*., 1996) indicated that 34.3 per cent of the sample that had been exposed to violence showed mild symptoms of PTSD, 44.3 per cent showed moderate PTSD symptoms and 18.6 per cent showed severe PTSD symptoms. Furthermore, 34.5 per cent met the DSM III criteria for PTSD, 48.8 per cent were symptomatic but did not meet the full PTSD criteria while only 16.7 per cent were asymptomatic (Berman *et al*., 1996).

A South African study by Ward *et al*. (2001) examined the exposure to community violence in four schools in Cape Town. Self report questionnaires were administered to n = 104 grade 11 pupils. The results indicated that 81.7 per cent had witnessed violence, 5.8 per cent were likely to meet criteria for PTSD while more than 20 per cent had post traumatic symptoms but did not meet the full

criteria for diagnosis. This study did not investigate gender differences and it was limited to private schools.

2.6.2 Exposure to community violence and mood disorders

There is an indication from researchers that "there is a dramatic rise in depression between the ages of 13 and 15, a peak at the ages 17 and 18 and a decline in adult levels." (Wenar & Kerig, 2005, p.251). An explanation for this phenomenon is based on the adolescent's capability to experience intense sadness, coupled with their growing cognitive ability for self evaluation (Wenar & Kerig, 2005).

Studies report a positive relationship between community violence and depression. For example, Latzman and Swisher (2005) examined the interactive association between exposure to street violence, adolescent violence and depression. The researchers generally found a positive relationship between community violence exposure and depression. In addition, the researchers reported the age of onset of depression to have decreased over the years with about 8.3 per cent to 2.5 per cent of adolescents and children diagnosed with this illness (Latzman & Swisher, 2005).

Kliewer *et al*. (1998) examined the association of community violence exposure and psychological wellbeing in a sample of 99 youth aged between 8-12 years (mean age = 10.7, SD = 1.27). The researchers interviewed both the participants and their care-givers. The results indicated that both witnessing and being a victim of community violence was positively associated with intrusive thoughts, depression and anxiety. The results further indicated that participant's depressive and anxious symptoms were predicted by their exposure to community violence and by their intrusive thoughts in response to witnessed and experienced violence.

A recent South African study by Shields, Nadasen and Pierce (2009) examined whether PTSD would act as a mediating variable in the relationship between violence exposure, both at school and

in the community and the presence of symptoms of depression. Their sample included 247 participants from five township schools in Cape Town. The participants' ages ranged between 8 and 13 with a mean age of 10.7. The majority of the sample (61%) were coloured and 39 per cent were black. The findings of their study indicated that PTSD acted as a mediator in the relationship between exposure to school violence and depression however there was no indication of mediation for neighbourhood victimisation and depression. Not all studies have found a significant relationship between community violence exposure and depression. Two studies found no significant relationship between community violence exposure and depressive symptoms (Overstreet, Dempsey, Graham, & Moely, 1999; Cooley-Quille *et al.*, 2001).

2.6.4 Community violence exposure and disruptive behavioural disorders

The literature indicates that disruptive behaviour disorders are the most common reason for referrals to psychiatric services for adolescents (Carr, 2006). This is further confirmed by Mc Cabe, Lucchini, Hough, Hazen and Yeh (2005) who add that Conduct Disorder is the most costly mental disorder in the United Sates. The behaviour disorders are also generally referred to as 'externalizing symptoms' (McCabe *et al*., 2005) or 'antisocial' behaviours (Miller, Wasserman, Neugerbauer, Gorman-Smith & Kamboukos, 1999). The broad category of disruptive behaviour disorders comprises of two types of disorders, that is, conduct disorder and oppositional defiant disorder (Sadock & Sadock, 2007).

Studies that have examined the relationship between disruptive behavioural disorders and community violence exposure indicate a positive relationship between community violence exposure and Conduct Disorder and more generally, aggression. A study by McCabe *et al*. (2005) tested the hypothesis that exposure to community violence, intimate partner violence and child maltreatment independently contribute to the prediction of conduct problems. A random sample of 423 youth between the ages 12 and 17 years was selected for the study. The results indicated that

community violence significantly predicted conduct disorder. Additionally, exposure to community violence contributed to the development of conduct disorder even when exposure to child maltreatment and intimate partner violence was controlled (McCabe *et al*., 2005).

A longitudinal study by Miller, Wasserman, Neugebauer, Gorman-Smith and Kamboukos (1999) was conducted on a sample of n = 97 youth to examine the relationship between community violence exposure and antisocial behaviour. The results indicated that increased exposure to community violence was related to more antisocial behaviour.

2.6.5 Community violence exposure and substance related disorders

The statistics based on UK and American surveys as reported by Carr (2006, p.678), indicate that approximately 80 per cent of teenagers have drunk alcohol, 60 per cent have tried cigarettes, 50 per cent have used cannabis, 20 per cent have tried other drugs and 5 to 10 per cent have drug problems, serious enough to require clinical intervention. A South African study by Sullivan *et al*. (2007) found that 35 per cent of sixth graders reported that they had used drugs (cigarettes, alcohol or marijuana). Other researchers (Wenar & Kerig, 2005; Sadock & Sadock, 2007) report gender differences in the prevalence of adolescent substance use, with males being more likely to use substances than females. According to Sadock and Sadock (2007), alcohol is the most popular substance that is abused by adolescents. A study by Sullivan *et al*. (2007) examined the relationships between self-restraint and exposure to violence in predicting increased frequencies of aggression and drug use. The data for this study was collected from (n = 319) pre-adolescents from rural schools. The results indicated that increased violence exposure predicted drug use and aggression. A study by Fehon, Grilo and Lipschitz (2001) also supports these findings. In the South African context, Seedat *et al*. (2004) found that South African adolescents reported smoking 10 or more cigarettes a day (5.3%) and using cannabis (10.6%). The study found no significant correlation between substance use and PTSD.

Chapter summary

In this chapter, an overview of the normal adolescent development trajectory was outlined. The theories for understanding the development of psychopathology were presented as well as the risk factors for developing psychopathology in adolescence, highlighting community violence as the focus of this study. A theoretical model that encompasses the developmental, psychological and social perspectives of the relationship between community violence and the development of psychopathology was presented as a model for the current study. Previous studies that have examined the relationship between exposure to community violence and the development of psychopathology were also reviewed.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter outlines the method used to answer the following research question: What is the relationship between exposure to community violence and the development of psychopathology in treatment-seeking adolescents. The chapter further presents the hypotheses of this study, a description of the research instruments and their psychometric properties as well as the characteristics of the sample. The research procedure and methods of data analysis as well as the ethical considerations are also detailed.

3.2 HYPOTHESES

Based on the research question, the following hypotheses were tested in this study:

1. There is a relationship between exposure to community violence and the development of psychopathology in treatment-seeking adolescents.
2. Experiencing childhood trauma is associated with the development of psychopathology.
3. Experiencing stressful life events is associated with the development of psychopathology.

3.2 RESEARCH DESIGN

The current study analyses secondary data from a main study that examined PTSD in children and adolescents. The main study was located within a quantitative methodological framework. Quantitative research follows a deductive research process and involves the collection and analysis of quantitative data to identify statistical relations of variables (Babie & Mouton, 2006). The data for the main study was collected through a survey method of data collection where several self–report questionnaires were used to examine PTSD in children and adolescents for the main study. The main study is on-going and data for the current study was collected between 2000 and 2008.

The current study uses secondary data from the main study to examine the relationship between exposure to community violence and the development of psychopathology in treatment-seeking adolescents.

3.3 POPULATION AND SAMPLING

A non-random, convenience sampling was used for the main study. The sample consisted of consecutive referrals from the youth stress clinic at an academic hospital in Cape Town, SA. The clinic is situated within a tertiary academic centre, and specialises in trauma research service, offering free evaluation, treatment and referral of children and adolescents exposed to violent traumas. Most of the patients come from a low socio-economic background, marked by high levels of poverty, unemployment and violence. The participants were included in the study if they had been exposed to a traumatic event as defined by the DSM-IV (criteria A1 for PTSD), were treatment-seeking, and were male or female adolescents between the ages 12 and 18. Further criteria were that participants should be able to read and write English and or Afrikaans, without history of head injury. Participants were excluded if they were diagnosed with mental retardation.

3.4 PARTICIPANTS

Data was collected from a total of 132 adolescents who had presented at the youth stress clinic after exposure to trauma. There were missing data for several of the analyses that were run. The sample comprised of both male and female adolescents with females as majority of the sample (68.9%). The minimum age was 13.0 years and maximum age was 19.0 years, the mean age was 15.6 years, SD = 1.6. The characteristics of the sample are presented in Table 3.1 below.

Table 3.1: Demographic characteristics of the sample

Variable	N	%	Mean	SD
Age				
Min	13		15.4	1.6
Max	19			
Gender n = 132				
Male	41	31.1	33.9	18.4
Female	91	68.9	37.6	19.8
Ethnicity n = 127				
African	14	11		
Coloured	106	83.5		
White	7	5.3		
Grade n = 122				
Grade 5-8	53	43.4		
Grade 9-12	69	56.6		
Parental Marital Status n = 126				
Married/living together	57	45.2		
Divorced/separated/widowed	69	54.7		
Parental Employment				
Mother unemployed/Housewife (n = 116)	30	34.5		
Substance use				
Using alcohol (n = 127)	20	15.7		
Smoking cigarettes (n = 127)	40	31.5		
Using Dagga/cannabis (n = 125)	5	4		

Table 3.1 indicates that the majority of the participants (83.5%) were coloured (a term used to define people of mixed race in SA). More than half of the sample (56.6%) was between grades 9 and 12. A considerable number (55%) of the participants came from families where parents are divorced, separated or widowed. The participants reported that 34.5 per cent of their mothers and 7.1 per cent of their fathers were unemployed. Alcohol use was reported by 15.7 per cent of the

participants, while cigarette smoking was reported by 31.5 per cent of the participants and 4 per cent of the participants reported using cannabis.

3.5 PROCEDURE

Data for the main study was collected was collected from consecutive referrals at the Youth Stress Clinic from adolescents who were seeking treatment after exposure to trauma in the period between the years 2000 and 2008. Participants were referred from clinics, schools and social welfare services. Possible participants were initially contacted and screened telephonically for eligibility. A research psychologist conducted initial telephonic screening interviews. Eligible participants were invited for a face-to-face interview with a parent or legal guardian. At this interview, written informed consent was obtained from the parent or legal guardian. In addition assent was obtained from the adolescent prior to the administration of study procedures for the main study. All interviews were conducted in a consultation room that ensued privacy. An assessment battery was administered by a clinical psychologist. For the current study, permission to use secondary data was granted by the Research Grants Committee of the Community and Health Science Faculty at the University of the Western Cape (UWC). The relevant data set was computed by a researcher at the trauma clinic and was made available to the researcher of the current study once the proposal and ethical considerations had been approved.

3.6 ETHICAL CONSIDERATIONS

The main study was approved by the University of Stellenbosch Ethics Committee (ethics number: 98/030). Ethical Clearance to carry out the current study was approved by the Senate Research Committee of the University of the Western Cape. The value of the study and benefits to the general population were discussed with the participants prior to data collection for the main study. The participants were informed that the data would be published. The participants were assured that strict confidentiality and anonymity would be maintained throughout the study and for any

published work. Participants were informed that they could withdraw at any stage. No harm was done to participants. There was sufficient counselling and support services provided by the trauma clinic for participants who were traumatised by the data collection procedure.

3.6 DATA COLLECTION TOOLS

The data collection tools for the current study include a socio-demographic questionnaire, Child Exposure to Violence Checklist (CECV), Kiddie Schedule for Schizophrenia and Affective Disorders (K-SADS-PL), Child PTD Checklist, Childhood Trauma Questionnaire (CTQ) and Life Events Questionnaire (LEQ). The data collection tools are outlined below.

3.6.1 Demographic Questionnaire

The demographic questionnaire used for the main study was designed by the researchers. The questionnaire probed demographic information such as age, gender, ethnicity, grade and parental marital and employment status among other social and demographic variables. The demographic questionnaire further probed for substance use and a brief psychiatric history.

3.6.2 Child Exposure to Community Violence Checklist (CECV)

The CECV is a 33 item, self-report checklist that assesses levels of witnessing community violence and other victimisation of children and adolescents. The checklist is adapted from Richters and Martinez (1993) "Things I've seen and Heard" and contains items of different types of violence that is heard about, witnessed or experienced. Examples of the types of violence that the subjects are asked to rate are shootings, stabbings, sexual assault, muggings, drug deals, arrests and murders (Fehon, Grilo & Lipschitz, 2001). The checklist also includes items involving being a victim of physical and or sexual assault and being a perpetrator of physical and or sexual assault. Responses are coded on a 5-point Likert scale ranging from "never" to "more than 10 times"; with 0 = never, 1

= once, 2 = twice, 3 = 3 to 10 times and 4 = more than 10 times. The scores range from 0 to 132. Total scores are obtained with higher scores indicating higher levels of violence exposure.

3.6.3 Kiddie–Schedule for Affective Disorders and Schizophrenia (K-SADS-PL) present and lifetime version

The K-SADS-PL is a semi structured diagnostic interview used to assess the severity of symptoms as well as the present and lifetime status of 32 DSM-IV child and adolescent psychiatric disorders (Kaufman, Birmaher, Brent, Rao & Rylan, 1997). The K-SADS-PL is the 'gold standard' for the diagnosis of PTSD and was used to evaluate the presence of other psychiatric disorders (present and lifetime) for the main study. The items in the K-SADS-PL are scored using a 0-3 point rating scale. Scores of 0 indicate no information is available; 1 = symptom not present; 2 = sub-threshold levels of symptomatology and 3 = definite diagnosis (Kaufman *et al*., 1997). For the purposes of this study, sub-threshold symptoms and lifetime diagnoses were not included, only definite, current diagnoses were included. The K-SADS-PL has been shown to have excellent inter-rater reliability and concurrent validity (Kaufman *et al*., 1996). In a study by Lauth, Levy, Juliusdottir, Ferrari and Petursson (2008) of Iceland adolescents, the researchers aimed to evaluate the impact of implementing the K-SADS on in-patient youth between the ages 12 to 17 years. The researchers reported a satisfactory reliability for most diagnostic categories (Kappa = .44 to 1.1) except for mania (.31). A Pearson's correlation also indicated satisfactory results (r = .76 to 1.00).

3.6.4 Childhood Trauma Questionnaire-Short Form (CTQ)

The CTQ (Bernstein & Fink, 1998) is a brief self-report questionnaire that assesses childhood abuse experiences among adolescents and adults. The short form consists of 28 items designed to assess five types of negative childhood experiences: emotional neglect (for example, 'I felt loved'), emotional abuse (for example, 'people in my family said hurtful or insulting things to me'), Physical neglect (for example, 'I didn't have enough to eat'), Physical abuse (for example, 'I was

punished with a belt, a board, a cord or some other hard object') and sexual abuse (for example, 'Someone tried to make me do sexual things or watch sexual things') (Scher, Stein, Gordon, Asmundson, McCreary & Forde, 2001). The five types of experiences are each assessed by five items; three additional items assess the tendencies of respondents to minimise or deny abuse experiences. Respondents rate each item on a 1-5 Likert scale from never true to very often true. The score ranges from 5 to 25 for each of the abuse types (Bernstein & Fink, 1998). Scher *et al*. (2001) reported acceptable internal consistency of the overall CTQ and four of five subscales in their sample. Normative data was collected from 1007 male and female residents of the metropolitan Memphis, Tennessee are between the ages 18 and 65 years. Reported reliability estimates ranged from .58 to .94 in their sample. Excellent internal consistency (α = .70) was reported in a South African study by Suliman *et al*. (2009) with a sample of 922 youth between the ages of 14 to 18 who had been exposed to serious traumatic events.

3.6.5 Life Events Questionnaire, Adolescent Version (LEQ)

The LEQ (Mastens *et al*., 1994) is a 45 item checklist describing events that happened over the past year which can happen in the life of any adolescent or in any family and requires respondents to indicate yes or no to a particular event. A total score is computed, with yes = 1 and no = 2, therefore a higher score indicated less events. The checklist measures both negative and positive life events. Some of the life events measured include having a new sibling born, death of a close family member, parents divorce, being a victim of violence, becoming pregnant (females) or making someone pregnant (males), being arrested and breaking up with girlfriend or boyfriend. In a SA study by Suliman *et al*. (2009), the researchers reported excellent internal consistency of the LEQ (α=.76).

3.7 DATA ANALYSIS

The data was analysed by employing descriptive and inferential statistics. Descriptive statistics is a method of presenting large quantities of data in a manageable form (Babbie & Mouton, 2006). Inferential tests are statistical tests used to infer whether differences or relationships between samples of data are significant, whether they reflect real effects in the population. More specifically, these tests help to decide whether the difference or the relationship between data could plausibly have occurred if there is no real effect in the population (Coolican, 1999).

The Statistical Package for the Social Sciences (SPSS) 17.0 version was used to perform the statistical analyses for the study. The first step was to run frequency tests to characterise the sample in terms of their socio-demographic characteristics (gender, age, ethnicity, education, parental status and substance use. T-tests, analysis of variance and correlations were applied to examine the relationships between mean community violence exposure scores and a diagnosis of K-SADS diagnoses that had a four per cent and higher prevalence in this sample. Bivariate analyses were also used to examine key socio-demographic variables in relation to community violence exposure total scores. A correlational analysis, Spearan's Rho was used to examine the association of community violence exposure scores to other types of trauma exposure endorsed on the Childhood Trauma Questionnaire and Life Events Questionnaire. A Linear regression analysis was applied to examine the association of key demographic, trauma-related and clinical variables to community violence exposure scores with community violence exposure as the dependent variable.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

This chapter divided into three sections. In section one, the descriptive statistics are presented, that is, the frequencies of community violence exposure, psychopathology, childhood trauma experiences and stressful life events. The second section presents the relationships between socio-demographic factors and community violence exposure. The relationships between psychopathology and community violence exposure, childhood trauma and stressful life events are also tabled. In section three, the results from a logistic regression analysis are presented.

4.2 PREVALENCE OF COMMUNITY VIOLENCE EXPOSURE, CHILDHOOD TRAUMA, LIFE EVENTS AND PSYCHOPATHOLOGY

As discussed in Chapter three, the sample comprised of 132 participants with ages ranging between 13 and 19 with a mean age of 15.6. Most of the participants were classified racially as coloured and the majority of the sample was females. The result in the tables below outline the prevalence of community violence exposure, prevalence of childhood trauma, the frequency of life events and the most commonly diagnosed psychopathology in the sample. Table 4.2.1 presents the prevalence of community violence exposure in the sample. N presents the actual number of community violence experiences of the sample and the percentages are presented in brackets.

Table 4.2.1: Witness, Victim or Perpetrator of violence (CECV)

N = 132	Never	Once	Twice	3-4 times	Total CVE
Witness of community violence	N (%)	N (%)	N (%)	N (%)	N (%)
Heard gunshots	12(9.1)	21(15.9)	13(9.8)	86(65.2)	120(90.9)
Seen drug deals	64(48.5)	12(9.1)	14(10.6)	42(31.8)	68(51.5)
Seen someone beaten	37(28.0)	15(11.4)	25(18.9)	55(41.7)	95(72.0)
Seen someone murdered	92(69.7)	29(22.0)	5(3.8)	6(4.5)	40(30.3)
Seen shooting	85(64.4)	22(16.7)	10(7.6)	15(11.4)	47(35.7)
Seen stabbing	59(44.7)	27(20.5)	20(15.2)	26(19.7)	73(55.4)
Seen gangs	33(25.0)	9(6.8)	16(12.1)	74(56.1)	99(75.0)
Seen someone pull a gun on another	71(53.8)	21(15.9)	18(13.6)	22(16.7)	42(46.2)
Seen someone pull a knife on another	44(33.3)	36(27.3)	17(12.9)	35(26.5)	88(66.7)
Victim of physical assault					
Someone threatened to kill	86(62.5)	27(20.5)	12(9.1)	7(5.3)	46(34.9)
Threatened with stabbing/shooting	92(69.7)	23(17.4)	10(7.6)	7(5.3)	40(30.3)
Shot or stabbed	124(93.9)	7(5.3)	1(0.8)	_	8(6.1)
Witness of family violence					
Felt unsafe at home	40(30.3)	19(14.4)	20(15.2)	53(40.2)	92(69.8)
Heard adults yell at each other	33(25.0)	18(13.6)	22(16.7)	59(44.7)	99(75.0)
Seen a gun at home	86(65.2)	17(12.9)	10(7.6)	19(14.4)	46(34.9)
Seen someone stabbed or shot at home	104(78.8)	20(15.2)	3(2.3)	5(3.8)	28(21.3)
Seen adults hit each other at home	61(46.2)	21(15.9)	11(8.3)	39(29.5)	71(53.7)
Victim of sexual assault					
Family member touched or kissed uncomfortably	106(80.3)	12(9.1)	3(2.3)	11(8.3)	26(19.7)
Someone outside family touched/kissed uncomfortably	84(63.6)	30(22.7)	8(6.1)	10(7.6)	48(36.4)
Family forced to do something with genitals	119(90.2)	5(3.8)	-	8(6.1)	13(9.9)
Non family member forced you to do something with genitals	103(78.0)	16(12.1)	6(4.5)	7(5.3)	29(21.9)
Perpetrator of physical assault					
Hurt someone badly	87(65.9)	27(20.5)	9(6.8)	9(6.8)	45(34.1)
Used a weapon to hurt/ scare someone	107(81.1)	14(10.6)	8(6.1)	3(2.3)	25(19.0)
Perpetrator of sexual assault					
Made another do something with genitals	(130)98.5	2(1.5)	-	-	2(1.5)

A high number (96%) of the sample (n = 127) had been exposed to community violence. Hearing gunshots was the most frequently witnessed form of community violence, with 90.9 per cent of the sample reporting one or more disorders. Seeing gangs was the next most frequent observed form of community violence (75%) followed by witnessing someone being beaten (72%) and witnessing someone pull a knife on another (66.7%). Witnessing a stabbing was reported by 55.3 per cent and witnessing a murder was reported by 30.3 per cent of the sample.

The prevalence of childhood trauma experiences is presented in Table 4.2.2 below. N presents the actual number of childhood trauma experiences in the sample and the percentages are presented in brackets.

Table 4.2.2: Prevalence of Childhood Trauma (CTQ)

Childhood Trauma (N = 132)	Never	Rarely	Sometimes	Often	Very Often
Physical neglect					
Didn't have enough to eat	79(59.8)	11(8.3)	21(15.9)	12(9.1)	9(6.8)
had someone to protect me	67(50.8)	14(10.6)	19(14.4)	14(10.6)	18(13.6)
Emotional Abuse					
People in my family said hurtful things	52(39.4)	20(15.2)	21(15.9)	15(11.4)	24(18.2)
I was emotionally abused	69(52.3)	16(12.1)	17(12.9)	13(9.8)	17(12.9)
Emotional Neglect					
My family was a source of strength & support	43(32.6)	16(12.1)	30(22.7)	24(18.2)	19(14.4)
I felt loved	53(40.2)	23(17.4)	28(21.2)	12(9.1)	16(12.1)
Physical abuse					
I was hit hard by a family member	114(86.4)	7(5.3)	4(3.0)	4(3.0)	3(2.3)
I had bruises & marks	92(69.7)	10(7.6)	11(8.3)	7(5.3)	12(9.1)
I was punished with belt, chord, board	71(53.8)	18(13.6)	24(18.2)	8(6.1)	11(8.3)
Sexual abuse					
I was touched in a sexual way	82(62.1)	15(11.4)	13(9.8)	8(6.1)	14(10.6)
Molested	87(65.9)	13(9.8)	9(6.8)	5(3.8)	18(13.6)
Sexually abused	85(64.4)	5(3.8)	13(9.8)	7(5.3)	22(16.7)

Emotional abuse was the most frequent form of childhood trauma with 47.7 per cent reporting that they were emotionally abused. Physical abuse, such as being punished with a belt or a hard object was reported by 46.2 per cent, followed by physical neglect, such as not having enough to eat (40.2%). About 40.2 per cent reported emotional neglect such as never feeling loved and 35.6 per cent reported sexual abuse.

The prevalence of stressful life events experienced in the past 12 months in the sample is presented in Table 4.2.3 below. N presents the actual number of stressful life events experiences in the sample and the percentages are presented in brackets.

Table 4.2.3: Frequency of negative and positive the life events that were experienced in the past 12 months (LEQ)

N = 132	N	(%)
I have a new brother or sister	12	(9.1)
Family moved to a new home	20	(15.2)
Sibling became seriously ill or injured	36	(27.3)
Parent became seriously ill or injured	36	(27.3
I was a victim of violence	60	(45.5)
At least one parent died	17	(12.9)
Sibling died	14	(10.6)
Grand parent died	36	(27.3)
Close friend died	31	(23.5)
Parents separated	35	(26.5)
Parents divorced	25	(18.9)
One parent re-married	22	(16.7)
I did much worse than I expected in an exam	78	(59.1)
Failed a grade or held back	39	(29.5)
I had an outstanding personal achievement	45	(34.1)
Got pregnant (females)	7	(5.3)
Made someone pregnant (males)	0	(0)
Family financial position was difficult	77	(58.3)
One parent lost a job	28	(21.2)
Had many arguments with parents	78	(59.1)
I went to jail	4	(3)
Parent arrested	14	(10.6)
Broke up with girlfriend/boyfriend	40	(30.3)

The most frequent life events (59.1%) was doing worse than expected in an important exam and having arguments with parents. More than half (58.3%) of the participants reported that their family financial position was difficult in the preceding 12 months. Losses of a significant loved one were also indicated with 12.9 per cent reporting the death of at least one parent, more than a quarter (27.3%) indicating the loss of a grandparent, 14.6 per cent losing a sibling and 23.5 per cent losing a close friend. In addition, 26.5 per cent reported that their parents separated while 18.9 per cent indicated that their parents divorced and 30.3 per cent reported breaking up with a girlfriend or boyfriend. Close to a third (29.5%) of the participants reported failing a grade in the past year.

The most commonly diagnosed psychopathology in the sample, that is, disturbance of the normal functioning of cognition, emotion and behaviour are presented in Table 4.2.4 below. The K-SADS is an extensive measure of psychopathology and it would not be possible to table the extensive results, therefore only the diagnoses that had a prevalence of 4 per cent and above are presented in the table below. N presents the actual number of individuals who were diagnosed with the applicable psychopathology experiences in the sample and the percentages are also presented concurrently.

Table 4.2.4: most common K-SADS 'Current' Diagnoses

Diagnosis	**N**	**%**
Major Depressive Disorder		
Diagnosis Present	39	31.2
Diagnosis not present	86	68.8
PTSD		
Diagnosis present	74	56.1
Diagnosis not present	58	43.9
Separation Anxiety Disorder		
Diagnosis present	5	4.3
Diagnosis not present	109	94.8
Specific Phobia		
Diagnosis present	12	10.3
Diagnosis not present	103	88.8
Social Phobia		

Diagnosis Present	5	4.4
Diagnosis not present	109	95.6
General Anxiety Disorder		
Diagnosis present	6	5.2
Diagnosis not present	109	94.0
Acute Stress Disorder		
Diagnosis present	19	17.3
Diagnosis not present	90	81.8
Attention Deficit Hyperactivity Disorder		
Diagnosis present	5	4.3
Diagnosis not present	110	95.7
Conduct Disorder		
Diagnosis present	5	4.3
Diagnosis not present	111	95.7

The most common K-SADS 'current' diagnoses (occurring at a frequency of ≥ 4% in the sample) were: Post Traumatic Stress Disorder (PTSD) (56.1%), Major Depressive Disorder (31.2%), Acute Stress Disorder (17.3%), Specific Phobia (10.2%), Oppositional Defiant Disorder (6.0%), General Anxiety Disorder (GAD) (5.2%), Social Phobia (4.4%), Separation Anxiety Disorder (4.3%), Attention Deficit Hyperactivity Disorder (ADHD) (4.3%) and Conduct Disorder (4.3%).

4.3 THE RELATIONSHIP BETWEEN SOCIO-DEMOGRAPHIC FACTORS AND COMMUNITY VIOLENCE EXPOSURE, CHILDHOOD TRAUMA, LIFE EVENTS AND PSYCHOPATHOLOGY

Bivariate analyses were applied to examine key socio-demographic variables in relation to community violence exposure total score, childhood Trauma, Life events and psychopathology, that is, disturbance of the normal functioning of cognition, emotion and behaviour. The relationship between socio-demographic factors and community violence exposure is presented in Table 4.3.1 below. N presents the actual number of participants.

Table 4.3.1: The Relationship between Socio-demographic factors and Community Violence Exposure

Variable	*N*	*P* value
Age	132	.086
Gender	132	.947
Ethnicity	126	.912
Parent's Marital Status	125	.174
Alcohol use	120	.015*
Cigarette smoking	120	.001**
Dagga/cannabis use	118	.660

* Significant at 0.05 level

** Significant at .001 level

There were significant group differences between adolescents who used alcohol and those who did not use alcohol in the amount of community violence exposure. Similarly, there were significant differences between adolescents who used cigarettes and adolescents who did not use cigarettes in the amount of community violence exposure. The results thus suggest that adolescents who used alcohol and adolescents who smoked cigarettes were exposed to more community violence in the sample. There are no significant differences ($\alpha = .947$, $p > 0.05$) between males and females, ethnic groups; F (2. 124) = 0.092, p > 0.01; or between participants with parents who are married (Mean = 34.03, s = 15.19, n = 58) with those whose parents are divorced, single, separated or widowed (Mean = 38.81, s = 22.50, n = 67); (t = .174) in the amount of community violence exposure as measured by the CECV total score. There is no significant correlation (r = .150, p > 0.05) between age and community violence exposure. This indicates that there is no difference between younger and older adolescents with regards to the amount of community violence exposure.

A Spearman's rho Correlation was applied to determine whether there is a correlation between age and CTQ total score. One sample t-tests (Mann Whitney Test) and Chi-square tests were conducted to determine whether there is a difference between key socio-demographic factors and CTQ sub-

scores and CTQ total score. Table 4.3.2 presents these results. N presents the actual number of participants.

Table 4.3.2: The relationship between socio-demographic variables and Childhood Trauma (*P* values)

Socio-demographic Variable	N	Physical neglect	Emotional abuse	Emotional neglect	Physical abuse	Sexual abuse	CTQ total Score
Age	125	.837	.044*	.873	.950	.875	.061
Gender	125	.388	.000**	.052	.000**	.000**	.000**
Race	120	.037*	.535	.580	.872	.266	.752
Parent's Marital Status	118	.297	.240	.060	.056	.062	.033*
Alcohol use	120	.943	.027*	.567	.173	.081	.084
Cigarette Smoking	120	.225	.013*	.160	.014*	.002*	.007*
Cannabis use	118	.798	.187	.152	.271	.274	.209

** Significant at 0.01 level

* Significant at 0.05 level

The results presented in Table 4.3.2 indicate a positive correlation between age and emotional abuse ($r = .180$; $p = .044$). There were significant gender differences in the amount of physical abuse ($z = -3.588$), emotional abuse ($z = 4.754$) and sexual abuse ($z = -4.073$) between males and females as measured by the CTQ sub-scales, with females indicating more emotional abuse, emotional neglect, physical abuse and sexual abuse than males. There were significant gender differences in the amount of childhood trauma between males and females as measured by the CTQ total score ($z = -4.512$). Females reported more childhood trauma than males. With regard to racial groups, the results indicate significant differences in the amount of physical neglect between the racial groups ($x^2 = 6.588$). The African group endorsed more physical neglect ($n = 14$) than white or coloured group. There were no racial differences in the amount of physical abuse, emotional abuse, sexual abuse and emotional neglect between different racial groups. With regards to parental marital status,

there were significant differences in the amount of childhood trauma between adolescents with parents who were single, divorced and widowed and adolescents whose parents were married or living together as measured by the CTQ total score (z = -2.126). The adolescents with parents who were single, divorced or widowed endorsed more childhood trauma than adolescents with parents who were married or living together. With regards to alcohol use, there were significant differences in the amount of emotional abuse between adolescents who used alcohol and adolescents who did not use alcohol (z = -2.210). Adolescents who reported more emotional abuse used more alcohol.

With regards to cigarette smoking, there were significant differences in the amount of childhood trauma between adolescents who smoked and those who did not smoke (z = -2.678). There were significant differences in the amount of physical abuse (z = -2.466), emotional abuse (z = -2.481) and sexual abuse (z = -3.141) between adolescents who smoked and adolescents who did not smoke. Adolescents who smoked cigarettes reported more emotional abuse, emotional neglect, physical abuse, sexual abuse and overall childhood abuse than adolescents who did not smoke cigarettes. There were no significant differences in the amount of childhood trauma between adolescents who used marijuana and adolescents who did not use marijuana (z = -1.101).

A Spearman's rho Correlation was applied to determine whether there is a correlation between age and stressful life events total score. One sample t-tests (Mann Whitney Test) and Chi-square tests were conducted to determine whether there is a difference between key socio-demographic factors and stressful life events total score. Table 4.3.3 presents these results. N presents the actual number of participants.

Table 4.3.3: The relationship between socio-demographic factors and stressful life events

Variable	***N***	***P* value**
Age	125	.780
Gender	125	.087
Ethnicity	120	.254
Parent's Marital Status	118	.655
Alcohol use	120	.055
Cigarette smoking	120	.005*
Dagga/cannabis use	118	.055

** Significant at 0.01 level

* Significant at 0.05 level

There was no significant correlation between age and the number of positive and negative life events (r = .025). The results indicate one significant relationship between the number of life events and cigarette smoking (z = -2.815). There were no significant differences in the number of life events between males and females, racial groups, adolescents who used alcohol and those who did not, adolescents who used cannabis and those who did not or adolescents with parents who are married and living together and those with parents who are single, divorced or widowed.

Chi-square tests and Spearman correlational tests were used to determine whether there was a significant relationship between socio demographic factors and psychopathology. The results are presented in Table 4.3.4. N presents the actual number of participants; the P values are presented concurrently.

Table 4.3.4: The relationship between socio-demographic factors and psychopathology (*P* values)

Psychopathology	Age	Gender	Ethnicity	Parents marital status	Alcohol use	Cigarette smoking	Cannabis Use
Major Depressive Disorder	N=125 .723	(N=125) .019*	(N=120) .130	(N=119) .504	(N=120) .729	N=120 .069	(N=118) .017*
PTSD	(N=125) .659	(N=125) .283	(N=120) .749	(N=119) .311	(N=120) .164	(N=120) .989	(N=118) .851
Separation Anxiety Disorder	(N=108) .450	(N=112) .552	(N=108) .613	(N=107) .924	(N=108) .358	(N=108) .567	(N=107) .697
Specific Phobia	(N=113) .747	(N=113) .064	(N=109) .409	(N=108) .649	(N=109) .837	(N=109) .749	(N=108) .368
Social Phobia	(N=107) .450	(N=112) .526	(N=108) .613	(N=107) .819	(N=108) .358	(N=108) .691	(N=107) .697
General Anxiety Disorder	(N=111) .943	(N=111) .158	(N=107) .675	(N=106) .971	(N=107) .410	(N=107) .890	(N=106) .728
Acute Stress Disorder	(N=108) .608	(N=108) .244	(N=104) .751	(N=103) .113	(N=104) .678	(N=104) .947	(N=103) .419
Attention Deficit Hyperactivity Disorder	(N=113) .122	(N=113) .184	(N=109) .000**	(N=108) .000**	(N=109) .678	(N=109) .096	(N=108) .699
Conduct Disorder	(N=113) .534	(N=113) .737	(N=109) .186	(N=108) .966	(N=109) .552	(N=109) .030*	(N=108) .022*
Oppositional Defiant Disorder	(N=113) .101	(N=113) .388	(N=109) .344	(N=108) .949	(N=109) .184	(N=109) .027*	(N=108) .084

** Significant at 0.01 level

* Significant at 0.05 level

Age and Psychopathology

There was no significant relationship between age and psychopathology in the sample.

Gender and Psychopathology

The obtained chi-square value ($x^2 = 5.50$; $p < 0.05$) was statistically significant for gender and major depressive disorder and an analysis of observed and expected frequencies indicated that females were more likely to be diagnosed with major depressive disorder than males.

Race and psychopathology

The obtained chi-square value (x^2 = 15.273; p < 0.05) was statistically significant for race and ADHD. An analysis of observed and expected frequencies indicated that white participants were more likely than black or coloured participants to be diagnosed with ADHD.

Parental marital status and Psychopathology

The obtained chi-square value (x^2 = 21.880; p < 0.01) was statistically significant for parental marital status and ADHD. An analysis of observed and expected frequencies indicated that participants from family backgrounds where parents were single, divorced or widowed were more likely to be diagnosed with ADHD.

Cigarette Smoking and Psychopathology

The obtained Chi-square value was statistically significant for Conduct disorder (x^2 = 4.692; p < 0.05) and Oppositional Defiant Disorder (x^2 = 4.877; p < 0.05) and cigarette smoking. An analysis of observed and expected frequencies indicated that participants who smoked cigarettes were more likely to be diagnosed with conduct disorder and oppositional defiant disorder.

Cannabis use and Psychopathology

The obtained chi-square value was statistically significant for major depressive disorder (x^2 = 4.877; p < 0.05) and Conduct Disorder (x^2 = 5.282; p < 0.05) and cannabis use. An analysis of observed and expected frequencies indicated that participants who used cannabis were more likely to be diagnosed with Major depressive disorder and conduct disorder.

4.4 THE RELATIONSHIPS BETWEEN COMMUNITY VIOLENCE EXPOSURE, CHILDHOOD TRAUMA, LIFE EVENTS AND PSYCHOPATHOLOGY

To examine the relationships between exposure to community violence exposure, childhood trauma, life events and the development of psychopathology in treatment-seeking adolescents, t-tests were

applied to examine the association between mean community violence exposure total score, mean CTQ score and sub scores and mean LEQ score between those who had a Definite Diagnosis to those who did not have a Definite Diagnosis (as measured by the KSADS). The relationship between community violence exposure and psychopathology is presented in Table 4.4.1.

Table 4.4.1 The relationship between Community Violence Exposure and Psychopathology

	N	Mean	SD	t	df	Sign.*(2-tailed)*
Major Depressive Disorder						
Diagnosis Present	39	43.5	19.1	-2.783	123	.006*
Diagnosis not present	86	33.3	18.9			
PTSD						
Diagnosis Present	74	39.3	17.6	-1.909	130	.059
Diagnosis not present	58	32.8	21.0			
Separation Anxiety Disorder						
Diagnosis Present	5	38.60	11.4	-.296	112	.768
Diagnosis not present	109	35.91	20.1			
Specific Phobia						
Diagnosis Present	12	34.3	18.7	.341	113	.374
Diagnosis not present	103	36.4	19.9			
Social Phobia						
Diagnosis Present	5	34.0	14.3	.246	112	.806
Diagnosis not present	109	36.2	20.1			
General Anxiety Disorder						
Diagnosis Present	6	39.62	12.2	-.441	113	.660
Diagnosis not present	109	35.9	20.1			
Acute Stress Disorder						
Diagnosis Present	19	35.8	18.1	-.069	107	.941
Diagnosis not present	90	35.5	20.4			
Attention Deficit Hyperactivity Disorder						
Diagnosis Present	5	30.0	11.4	.696	113	.488
Diagnosis not present	110	36.3	20.1			
Conduct Disorder						
Diagnosis Present	5	47.8	7.0	-1.329	114	.187
Diagnosis not present	111	35.8	20.0			
Oppositional Defiant Disorder						
Diagnosis Present	7	49.4	9.0	-1.825	114	.071
Diagnosis not present	109	35.5	19.9			

*Significant at 0.05 level

There was a significant difference in the amount of community violence exposure between adolescents who were diagnosed with MDD and those who were not, as measured by the CECV. There were no significant differences in the amount of community violence exposure between adolescents who were diagnosed with PTSD, Separation Anxiety Disorder, Specific Phobia, Social Phobia, General Anxiety disorder, Acute Stress Disorder, ADHD, Conduct Disorder and Oppositional Defiant Disorder and those who were not.

The relationship between childhood trauma and psychopathology is presented in Table 4.4.2. The P values are presented in the table. N presents the actual number of participants.

Table 4.4.2: The Relationship between childhood trauma and psychopathology (*P* values)

Diagnosis	N	Physical neglect	Emotional abuse	Emotional neglect	Physical abuse	Sexual abuse	CTQ total score
Major Depressive Disorder	125	.097	.041*	.009*	.007*	.000**	.000**
PTSD	125	.341	.197	.657	.764	.055	.091
Separation Anxiety Disorder	112	.645	.265	.714	.628	.268	.735
Specific Phobia	113	.289	.433	.444	.461	.683	.911
Social Phobia	112	.994	.719	.450	.195	.712	.468
General Anxiety Disorder	111	.981	.383	.763	.722	.514	.406
Acute Stress Disorder	108	.492	.352	.007*	.362	.294	.351
Attention Deficit Hyperactivity Disorder	108	.037*	.576	.284	.189	.155	.099
Conduct Disorder	113	.650	.493	.178	.304	.084	.200
Oppositional Defiant Disorder	113	.333	.094	.366	.127	.090	.052

** Significant at 0.01 level

* Significant at 0.05 level

There was a significant difference in the amount of exposure to childhood trauma between adolescents who were diagnosed with MDD and those who were not, as measured by the CTQ total score. Significant differences were found in the amount of emotional abuse, physical abuse, sexual abuse and emotional neglect between adolescents who were diagnosed with MDD and those who were not. There was no significant difference in the amount of physical neglect between adolescents who were diagnosed with MDD and those who were not.

There were no significant differences in the amount of childhood trauma between adolescents who were diagnosed with PTSD and other anxiety disorders and those who were not. There was a significant difference in the amount of emotional neglect between adolescents who were diagnosed with acute stress disorder and those who were not. There was no significant difference in the total amount of childhood trauma between adolescents who were diagnosed with ADHD and those who were not however; there was a significant difference in the amount of physical neglect between those who were diagnosed with ADHD and those who were not. There was no significant difference in the amount of childhood trauma between adolescents who were diagnosed with conduct disorder or oppositional disorder (behavioural disorders) and adolescents who were not diagnosed with behavioural disorders.

The relationship between stressful life events and psychopathology is presented in Table 4.4.3.

Table 4.4.3: The Relationship between stressful life events and psychopathology

Psychopathology	N	Mean Rank	Mann Whitney U	z	Sign (2-tailed)
Major Depressive Disorder					
Diagnosis Present	39	61.74			
Diagnosis not present	86	63.57	1628.0	-.262	.794
PTSD					
Diagnosis Present	70	62.91	1919.0	-.030	.976
Diagnosis not present	55	63.11			
Separation Anxiety Disorder					
Diagnosis Present	5	47.50	222.5	-.635	.525
Diagnosis not present	107	56.92			
Specific Phobia					
Diagnosis Present	12	53.79	567.5	-.359	.719
Diagnosis not present	101	57.38			
Social Phobia					
Diagnosis Present	5	62.50	237.5	-.424	.672
Diagnosis not present	107	56.22			
General Anxiety Disorder					
Diagnosis Present	4	57.00			
Diagnosis not present	107	55.96	210.0	-.063	.949
Acute Stress Disorder					
Diagnosis Present	19	40.34	576.5	-2.175	.030*
Diagnosis not present	89	57.52			
Conduct Disorder					
Diagnosis Present	4	65.75	183.0	-.545	.586
Diagnosis not present	109	56.68			
Oppositional Defiant Disorder					
Diagnosis Present	6	70.08			
Diagnosis not present	107	56.27	242.5	-1.007	.314

*Significant at 0.05 level

There was a significant relationship in the amount of stressful life events between adolescents who were diagnosed with Acute Stress Disorder and adolescents who were not diagnosed with Acute

Stress Disorder. There were no significant differences in the amount of stressful positive and negative life events between adolescents who were diagnosed with MDD, PTSD and other anxiety disorders and behavioural disorders and adolescents who were not diagnosed.

4.5 PREDICTORS OF PSYCHOPATHOLOGY

To measure the strongest predictor of psychopathology, the significant socio-demographic variables, Community Violence Exposure and Childhood Trauma were entered as independent variables in a logistic regression equation to examine the relationship between Exposure to community violence and psychopathology. The dependent variable was Major Depressive Disorder (current diagnosis) as it was the only diagnosis that had a significant relationship with community violence exposure. The results of the logistic analysis are presented in Table 4.5. B presents coefficient constant or intercept in the null model. Wald is the chi-square test that tests the null hypothesis that the constant equals zero. Df is the degrees of freedom for the Wald chi-square test. EXP (B) is the exponentiation of the B coefficient, which is an odd ratio.

Table 4.5: Logistic Regression Analysis

	B	Wald	Df	Significance	Exp (B)
CECV	.017	1.896	1	.169	1.017
CTQ	.021	1.866	1	.172	1.021
Gender	-.692	1.521	1	.217	.501
Cannabis use	-2.269	3.297	1	.069	.103

Community violence exposure, childhood trauma, gender and cannabis use were not independently predictive of Major Depressive Disorder.

Summary of results

Hearing gunshots and seeing gangs were the most frequently witnessed forms of community violence exposure in the sample with 90.9 per cent and 75 per cent of the sample reporting one or more experiences respectively. Emotional abuse was the most prevalent form of childhood trauma reported in the sample with 47.4 per cent participants reporting that they were emotionally abused. The most prevalent life event in the past 12 months was doing worse than expected in an important examination, which was reported by 59.1 per cent of the sample. Having arguments with parents also had a high prevalence with 58.3 per cent reported in the sample. The most frequent K-SADS diagnosis was PTSD with 56.1 per cent prevalence in the sample. Major depressive disorder was the second most frequent diagnosis with a prevalence of 31.2 per cent in the sample. Even though there was a high prevalence of PTSD in the sample (56.1%), the results indicated that there is no relationship between community violence exposure and PTSD. There was a significant relationship between community violence exposure and MDD.

There were no age or gender differences in the amount of community violence exposure. Adolescents who smoked cigarettes and used alcohol were found to be exposed to more community violence in the sample. Females experienced more childhood trauma than males, specifically, emotional abuse, emotional neglect, physical abuse and sexual abuse. The African group

experienced more physical neglect than white or coloured group. The adolescents with parents who were single, divorced or widowed reported more childhood trauma than adolescents with parents who were married or living together. Adolescents who reported more emotional abuse used more alcohol. Adolescents who smoked cigarettes experienced more emotional abuse, emotional neglect, physical abuse, sexual abuse and overall childhood abuse than adolescents who did not smoke cigarettes.

A high number of life events were related to cigarette smoking. There were no significant differences in the number of life events between males and females, racial groups, adolescents who used alcohol and those who did not, adolescents who used cannabis and those who did not or adolescents with parents who are married and living together and those with parents who are single, divorced or widowed. There was no significant relationship between age and psychopathology in the sample. Females were more likely to be diagnosed with major depressive disorder than males. White participants were more likely than black or coloured participants to be diagnosed with ADHD. Participants from family backgrounds where parents were single, divorced or widowed were more likely to be diagnosed with ADHD. Participants who smoked cigarettes were more likely to be diagnosed with conduct disorder and oppositional defiant disorder. Participants who used cannabis were more likely to be diagnosed with Major depressive disorder and conduct disorder.

Childhood trauma, specifically, emotional abuse, physical abuse, sexual abuse and emotional neglect were found to be related MDD. There were no significant differences in the amount of childhood trauma between adolescents who were diagnosed with PTSD and other anxiety disorders and those who were not. There was a significant difference in the amount of emotional neglect between adolescents who were diagnosed with acute stress disorder and those who were not. There was a significant relationship in the amount of stressful life events between adolescents who were diagnosed with acute stress disorder and adolescents who were not diagnosed with acute stress disorder. In the regression analysis, MDD was entered as a dependent variable because there was a

significant relationship between community violence exposure and MDD. The socio-demographic factors, childhood trauma and community violence exposure were independent factors. None of the independent factors were independently predictive of Major Depressive Disorder.

CHAPTER FIVE

DISCUSSION

5.1 INTRODUCTION

The discussion reflects on the findings of this study in relation to existing literature. The value of the current study, its limitations and recommendations for future research are also presented.

5.2 CHARACTERISTICS OF THE SAMPLE

The sample comprised of 132 participants from the Cape Town Metropole. The mean age of the participants was 15.6 years (SD = 1.6). The sample comprised of both male and female adolescents with females as majority of the sample (68.9%). The majority of the participants (83.5%) were coloured (a term used to define people of mixed race in SA). The number of coloured participants is representative of the demographic characteristics of the Western Cape, where coloured people constitute half the population. The percentage is however higher than the general Cape Town population where coloured people constitute 48.13 per cent (Community Survey, 2007). More than half (55%) of the participants came from families where parents are divorced, separated or widowed, and 15 per cent of the participants reported using alcohol. Cannabis use was reported by five per cent of the sample.

5.3 PREVALENCE OF COMMUNITY VIOLENCE EXPOSURE, CHILDHOOD TRAUMA AND STRESSFUL LIFE EVENTS

One of the aims of this study was to examine the prevalence of community violence exposure, childhood trauma and stressful life events in the sample under study. The findings with regards to prevalence of community violence exposure in the current study are compared to findings of a cross-sectional study that used a similar checklist (CECV) to examine the prevalence of community violence. Fehon, Grilo and Lipschitz (2001) examined the psychological and behavioural correlates

of community violence exposure in their sample of 89 adolescents who were admitted in a short-term in-patient unit of a psychiatric hospital in New Heaven, Connecticut. Their sample comprised of 57 per cent females and 43 per cent males with age ranges between 12 and 18 (M = 15.5 years). In the current sample 72 per cent of participants witnessed somebody being beaten, slightly lower when compared to a study by Fehon, Grilo & Lipschitz (2001) which indicated that 88 per cent of the sample had witnessed a beating.

Witnessing a murder in the current study (30.3%) was slightly higher than the reported findings by Fehon, Grilo and Lipschitz (2001), who found that (23%) of their sample witnessed somebody being killed by another. A higher number (55.4%) of the current sample witnessed somebody getting stabbed compared to 38 per cent reported by Fehon, Grilo and Lipschitz (2001). Witnessing a shooting was consistent with findings from Fehon, Grilo & Lipschitz (2001); 35.7 per cent versus 36 per cent witnessed somebody getting shot and 30.3 per cent participants of the current study were threatened to be shot or stabbed compared with 46 per cent reported by (Fehon, Grilo & Lipschitz, 2001). In the current sample 6.1 per cent of the participants had been shot or stabbed compared to (12%) in a study by Fehon, Grilo and Lipschitz (2001). Finally, 15.5 per cent of the current study sample indicated that they had used a weapon to hurt or scare someone whereas 33 per cent in a study by Fehon, Grilo and Lipschitz (2001) reported using a weapon to hurt or scare someone. When comparing these two studies it was found that the current study is largely consistent with the study by Fehon, Grilo and Lipschitz (2001). The biggest difference was that witnessing a stabbing was more frequent in the current study and perpetrating violence, by hurting or scaring someone with a weapon was higher in the American sample. This could be due to contextual differences.

In the South African context, a cross-sectional study by Ensink, Robertson, Zissis and Leger (1997) used a different assessment tool to the current study (Survey of Exposure to Community Violence) to measure community violence exposure. Brandt *et al*. (2005) argue that using different measuring

tools limits the comparability of studies. This limitation should therefore be considered when comparing the two samples. In their sample (Ensink *et al*., 1997) included 60 Xhosa speaking youth aged between 10 and 16, 60 per cent boys and 40 per cent girls from Khayelitsha in Cape Town. Ensink *et al*. (1997) found that 95 per cent of their sample had witnessed violence, 34 per cent had witnessed violence directed at them, 45 per cent witnessed at least one killing, 55 per cent witnessed a stabbing, shooting, violent fight or attack, 33 per cent had seen at least one dead body and 40 per cent had heard gun shots. The findings of the study by Ensink *et al*. (1997) are largely similar to the findings of the current study, except for higher prevalence of hearing gunshots, and slightly lower prevalence of witnessing a killing in the current sample. The findings of the current study are largely consistent with previous studies with regards to the prevalence of community violence. Thomson (2004, p.13) argues that violence in the Western Cape is related to the long history of unemployment, inadequate housing and high rates of alcohol use and family dislocation.

The findings of the current study indicate that males were just as likely as females to witness community violence. The results indicate no significant correlation between exposure to community violence and age, ethnicity or gender. The findings are consistent with findings from a study by Fehon, Grilo and Lipschitz (2005) who indicated no significant differences between patients with or without a history of community violence exposure with respect to age, gender or ethnicity as shown in Table 4.3.1. These findings are contrary to findings from other studies, for example, Seedat *et al*. (2004) found significant gender differences in community violence exposure in their sample. In a study by Rosario *et al*. (2008), boys were more likely than girls to be victims and witnesses of community violence. O'Keefe (1997) found that boys experienced more serious incidences of community violence. Rosario *et al*. (2008) attribute the gender differences to assigned societal gender roles. The authors argue that boys are allowed much more freedom than girls which exposes them to more danger in the community.

5.3.2 Prevalence of childhood trauma

Emotional abuse was the most prevalent form of childhood trauma in the current sample, with 47.4 per cent of the sample reporting that they were emotionally abused. Sexual abuse was reported by 35.6 per cent of the sample. The findings of the current study are in keeping with the findings from an international survey of 19 countries, including South Africa by Finkelhor (1994) which reported prevalence ranging between 7 per cent to 36 per cent for women and 3 per cent to 29 per cent for men. Follette *et al*. (1996) reported a 49 per cent prevalence of childhood sexual abuse in their sample, which is slightly higher that the findings in the current sample.

5.3.3 Prevalence of stressful life events

The most frequent life events (59.1%) was doing worse than expected in an important exam and having arguments with parents. More than half 58.3 per cent of the participants reported that their family financial position was difficult in the past 12 months. loss of a significant loved one were also indicated with 12.9 per cent reporting the death of at least one parent, more than a quarter (27.3%) indicating the loss of a grandparent, 14.6 per cent losing a sibling and 23.5 per cent losing a close friend. Furthermore, 26.5 per cent reported that their parents separated, while 18.9 per cent indicated that their parents divorced and 30.3 per cent reported breaking up with a girlfriend or boyfriend. Close to a third, 29.5 per cent of the participants reported failing a grade in the past year.

In summary when comparing current findings with American studies, the findings indicate a high prevalence of community violence exposure, childhood trauma and stressful life events both in American and South African samples. There is an indication that violent crimes which involve using a weapon such as stabbing are more prevalent in South Africa. This is consistent with a report by the Institute for Security Studies (ISS, 2001), which indicates that SA crime statistics are similar to those of developing countries. However, the very violent nature of crime sets SA apart from other countries. As discussed in Chapter one, South African researchers (Emett & Butchart, 2000;

Simpson, 1993; Stevens, Seedat & van Niekerk, 2003) have argued that violent crime in South Africa is related to our country's history of colonialism and apartheid, and is further perpetuated by poverty and inequality. Most of the research on community violence has been predominantly carried out in American inner cities that are characterised by high violence and poverty (McDonald & Richmond, 2008). Similar conditions of poverty exist in South African urban areas where crime is ubiquitous.

5.3.4 Prevalence of Psychopathology

There are limited studies that have investigated nationally representative prevalence of psychopathology in SA (Stein *et al*., 2008). The challenge with comparing the findings of the current study and that of other studies is that psychopathology has not been uniformly assessed in South Africa; that is, while other studies (Ensink *et al*., 1997; Kaminer, Seedat & Stein, 2005; Suliman *et al*., 2009) including the current study have used clinician administered assessment tools such as the K-SADS to make a formal DSM-IV classified diagnoses, other studies (Shields *et al*., 2009; Ward *et al*., 2001) have administered self-reports which indicate symptomatology and not diagnoses. This limitation should therefore be taken in consideration when comparing the finding of the current study to that of other studies.

South African studies that have examined psychopathology in the adolescent population report a high prevalence of PTSD and other anxiety disorders as well as major depressive disorder (Seedat *et al*., 2004; Suliman *et al*., 2009 & Ward, Flisher & Lombard, 2001). The most prevalent psychopathology in the current sample was post traumatic stress disorder (56.1%), major depressive disorder (31.2%), acute stress disorder (17.3%), specific phobia (10.2%), oppositional defiant disorder (6.0%), general anxiety disorder (5.2%), social phobia (4.4%), separation anxiety disorder (4.3%), attention deficit hyperactivity disorder (4.3%) and conduct disorder (4.3%). The prevalences of PTSD and major depressive disorder in this study are higher than those presented in

previous studies (Ensink *et al*., 1997; Seedat *et al*., 2004; Suliman *et al*., 2009; Ward, Flisher & Lombard, 2001).

Higher prevalence of psychopathology was reported in studies with samples that have been exposed to community violence (Seedat *et al*., 2004; Suliman *et al*., 2009; Ward, Flisher & Lombard, 2001) compared to the general population (Kleintjies *et al*., 2006; Stein *et al*., 2008). In a study by Suliman, Kaminer, Seedat and Stein (2005), 19 per cent of the participants were diagnosed with PTSD using the same diagnostic tool as the current study, the clinician administered, K-SADS. This may give support to the well established argument that community violence exposure increases the likelihood of developing psychopathology.

In a study by Kleintjies *et al*. (2006) the estimated PTSD and MDD prevalence in the general adolescent and child population in the Western Cape was eight per cent. In another study by Suliman *et al*. (2009), 23.6 per cent reported symptoms suggestive of PTSD and 7.3 per cent reported symptoms suggestive of severe depression, 61.3 per cent reported high levels of anxiety. In a study by Ward, Flisher and Lombard (2001), 5.8 per cent of the sample met criteria for PTSD diagnosis and fewer experienced depressive symptoms although many more experienced anxiety. The prevalence of psychopathology in this sample is therefore much higher than prevalence reported in previous South African studies.

5.4 THE RELATIONSHIP BETWEEN COMMUNITY VIOLENCE EXPOSURE AND PSYCHOPATHOLOGY

5.4.1 PTSD and Major Depressive Disorder

The primary aim of this study was to examine the relationship between exposure to community violence and the development of psychopathology. The findings of the current study indicate that there is a significant relationship between community violence exposure and major depressive disorder. These findings are consistent with those from previous studies (Singer, 1995; Gorman-

Smith, Henry & Tolan, 2004; Latzman & Swisher, 2005). A surprising finding of the current study; in light of the high prevalence of PTSD is that there was no significant relationship between community violence exposure and PTSD as shown in Table 4.4.1. In previous international studies, adolescents exposed to community violence, reported significantly more PTSD symptoms (Berman, Silverman & Kurtines, 1996; Fehon, Grilo & Lipschitz, 2001; Fehon, Grilo & Lipschitz, 2005; Fitzpatric & Boldizair, 1993; Hurt, Malmud & Brodsky, 2001; Mathews, Dempsey & Overstreet, 2009). South African studies have also reported a significant relationship between PTSD and community violence exposure (Ward *et al*, 2001; Shields, Nadasen & Pierce, 2009; Sulliman *et al*., 2009).

An important factor to evaluate is the reason why community violence exposure was significantly related to major depressive disorder rather than PTSD in the current sample. A possible explanation of the current findings is that there may be other types of trauma, other than community violence exposure, childhood trauma or stressful life events, that have not been examined by the current study that account for the high prevalence of PTSD in the sample.

Another potential rationale is presented by Mazza and Reynolds (1999) who propose from their study that PTSD mediated the relationship between community violence exposure and depression, that is, exposure to violence resulted in symptoms of PTSD, which in turn led to depression and suicidal ideation. Mazza and Reynolds (1999) suggested that the unique aspects of PTSD, that is re-experiencing traumatic events, intrusive thoughts and avoidance may lead to feelings of helplessness and loneliness, which might in turn result in depression and suicidal ideation. Shields, Nadasen and Pierce (2009) also found that PTSD mediated the effects of exposure to violence on depression. Their study further found that body image, self esteem and negative stressful life events mediate the relationship between gender and depressive symptoms during adolescence.

The symptoms of depression in adolescents are characterised by depressed or irritable mood, loss of interest or pleasure, fatigue or loss of energy, psychomotor agitation or retardation, feelings of worthlessness or inappropriate guilt, diminished ability to think or concentrate and recurrent thoughts of death (Sadock & Sadock, 2007, p.1260). Loss is an important predisposing factor for MDD (Carr, 2006). It is important to note the prevalence of loss or death of significant relations in the current sample; 12.9 per cent (n = 17) participants lost at least one parent in the past 12 months as measured by the life events questionnaire, 10.6 per cent (n = 14) experienced the death of a sibling, 27.3 per cent (n = 36) experienced the loss of a grandparent and 23.5 (n = 31) experienced the death of a close friend. Furthermore, 26.5 per cent (n = 35) had their parents separate and 18.9 per cent (n = 25) had their parents' divorce. Loss may therefore be a vulnerability factor for depression in the sample. As previously discussed in Chapter two, females are more likely to develop MDD than males, the gender composition in this sample that is, predominantly female, therefore may be a predisposing factor to developing major depressive disorder as a result of community violence exposure.

5.4.2 Substance related disorders

The socio behavioural factors that were found to have a significant relationship with community violence exposure were substance use, that is, cigarette smoking and alcohol use. The results indicate that ten per cent of the participants in this study reported using alcohol. However, only 1.7 per cent was diagnosed with alcohol abuse and only one per cent of the sample was diagnosed with alcohol dependence. The results indicate that even though the extent of alcohol use was not significant enough to warrant a psychiatric diagnosis (alcohol abuse), alcohol use was a significant factor in exposure to community violence. Similarly, smoking was reported by 22 per cent of the sample; however, only one per cent of the sample was diagnosed with substance abuse and substance dependence.

Comparison of substance use in the current study with previous studies indicates that the prevalence of cigarette smoking was higher in the current sample (22%) compared to 5.3 per cent reported in a study by Seedat *et al*. (2004). In an American study, Sullivan *et al*. (2007) reported similar prevalence of cigarette smoking (19%). However, the prevalence in the South African Study and American study seem to be lower than the reported prevalence from UK study which report alcohol consumption prevalence (80%), cigarette smoking (60%) and cannabis use (50%) (Sadock & Sadock, 2007). Fehon, Grilo and Lipschitz (2001) concluded from the findings of their study that violence exposure predicted increased substance use and aggression.

The researchers indicate that there is still a dearth of knowledge with regards to the specific links between violence exposure and behaviours such as substance abuse (Sullivan *et al*., 2007). One theory proposed by Kuther and Wallace (2003) is that adolescents use substances as a coping mechanism, to alleviate emotional distress and vulnerability in response to violence exposure. According to Sadock and Sadock (2007), 17 per cent adolescents first receive medical attention for substance abuse and only after detoxifying the psychiatric symptoms are correctly diagnosed.

Another explanation for the relationship between substance use and psychopathology is proposed from a study by King, Flisher, Mallett, Graham, Lombard, Rawson, Morojele and Muller (2003) who examined the community influences on adolescent tobacco use in Cape Town, found that smoking in adolescents was associated with adult smoking and community affirmation. In a study on the general population in the Western Cape (Kleintjies *et al*., 2006), nicotine use was the most prevalent psychiatric diagnosis (48%) in a general population in the Western Cape, followed by alcohol dependence (15%). The current high prevalence of alcohol and nicotine use in Cape Town may be related to the colonial system of paying the farm workers with alcohol, nicotine and bread for their services in lieu of wages, known as the *dop* system (London, 1999). According to London (1999), this system was an important factor of exercising control over the indigenous people of the

Western Cape. The *dop* system has been eradicated in South Africa, however the ramifications continue to impact psychosocial trends in the Western Cape.

5.4.3 Behavioural disorders and other disorders

Behavioural disorders such as conduct disorder have been found to be significantly related to community violence exposure in previous studies, (Mc Cabe, 2005; Miller, 1999). The current study did not ascertain similar findings, there was no significant relationship between community violence exposure and conduct disorder in the current sample. The prevalence of psychotic disorders was very low in the current sample, that is, less than four per cent. The current study therefore did not establish a relationship between community violence exposure and psychotic disorders. None of the studies that have been reviewed for the current study have established a relationship between community violence exposure and psychotic disorders.

5.5 THE RELATIONSHIP BETWEEN SOCIO-DEMOGRAPHIC FACTORS AND PSYCHOPATHOLOGY

Differences in demographic factors such as age, gender and parental factors have been found to impact community violence exposure and the development of psychopathology. The findings of the current study indicate that there was no significant relationship between age and psychopathology as shown in Table 4.3.4. Females were more likely than males to present with depression. Marcotte *et al*. (2002) and Nolen-Hoeksema (1994) argue that during early adolescence, girls and boys present equal levels of depression, but by mid-adolescence girls present with more depressive symptoms than boys. In a cross sectional study by Marcotte *et al*. (2002), the objective was to examine gender differences in depressive symptoms in adolescents. Their sample included 547 white, middle class French speaking adolescents from Canada with ages ranging from 11 to 18 (M = 14.46 years). Their findings indicated the presence of a higher level of depressive symptoms in girls in comparison to boys. In addition, adolescents who had a negative body image, low self-

esteem and who had experienced a high number of stressful life events reported more depressive symptoms.

A plausible explanation that accounts for more depressive symptoms in girls rather than boys is presented by Nolen-Hoeksema (1994) who argues that girls tend to be more passive and prone to helplessness compared to boys when presented with a stressful or traumatic event. The helplessness contributes to depressive symptoms. Another factor that may account for the discrepancy in male and female depression is, according to Noele-Hoekskema (1994), the ruminative, self-focused response that girls apply to manage their periods of distress. The author further proposes that sexual abuse is higher in girls than in boys, and is a significant contributing factor in the development of depression. The findings of the current study support the latter argument; there was a significant relationship between sexual abuse and MDD.

With regards to ADHD, the current study findings indicate that there were significant racial differences with white adolescents more likely to present with ADHD than black or coloured adolescents, furthermore, adolescents with parents who were single, divorced or widowed presented with more ADHD than adolescents whose parents were married or living together as indicated in Table 4.3.4. According to Carr (2004), 75 per cent of the etiological contribution of ADHD is genetic. It does not seem that any South African studies have examined the racial differences and parental factors in the prevalence of ADHD in the adolescent population. The findings of the current study are therefore not accounted for in the literature. The findings of the current study therefore warrant further investigation into the socio-demographic factors that are related to the development of ADHD in South African adolescents.

5.6 THE RELATIONSHIP BETWEEN CHILDHOOD TRAUMA AND PSYCHOPATHOLOGY

Childhood trauma, specifically, emotional abuse, physical abuse, sexual abuse and emotional neglect were found to be related MDD in the current study as shown in Table 4.2.2. These findings are concurrent with previous studies (Dong *et al*., 2002; Finkelhor, 1994; Suliman *et al*., 2009) which found that childhood abuse was positively correlated with MDD. Suliman *et al*. (2009) also found a positive correlation between childhood abuse and PTSD which is contrary to findings of the current study.

Females experienced significantly more childhood trauma than males in the current sample, as shown in Table 4.3.2. There was a significant difference in the amount of emotional neglect between adolescents who were diagnosed with acute stress disorder and those who were not. The findings of this study are consistent with the findings of a study by Fehon, Grilo and Lipschitz (2001) which indicated a strong association between childhood trauma and psychopathology.

With regards to parental marital status, the findings of the current study indicates significant differences in the amount of childhood trauma between adolescents with parents who were single, divorced and widowed and adolescents whose parents were married or living together. The adolescents with parents who were single, divorced or widowed experienced more childhood trauma than adolescents with parents who were married or living together. The findings of the current study are consistent with the findings of the study by Carey et al. (2008) who found that gender (female) and single-parent families were significant predictors of childhood sexual abuse. South African researchers (Makoae, Dewes, Loffell & Ward, 2008) indicated in their report of the Children's Court inquiries in the Western Cape that the factors that were associated with child maltreatment were alcohol and substance abuse, single parenting, parental psychiatric problems and poverty, as well as poor living conditions. A recent newspaper article (Naidoo, 2010) reported on the link between the faltering economic conditions and child abuse and neglect, based on the trends

from Childline, which is a free telephonic counselling service for children in South Africa Naidoo (2010) reports, after consulting with the director of Childline; that children are vulnerable to abuse when parents are stressed by finances, the author further highlights that the risk increases for children with younger and single parents. Financial stress in the household, according to Naidoo (2010), is also linked to domestic violence. It is important to note that more than half of the current sample (58.3%) indicated that their family financial position was difficult. The findings of this study corroborate that growing in a single parent home and financial stress in the family are related to more experiences of childhood trauma.

5.7 THE RELATIONSHIP BETWEEN LIFE EVENTS AND PSYCHOPATHOLOGY

Stressful life events such as parental unemployment, serious illness or bereavement are factors that can contribute to the development of psychopathology (Carr, 2006). There was no significant relationship between stressful life events and PTSD or MDD in the current study. There was a significant relationship in the number of stressful life events between adolescents who were diagnosed with acute stress disorder and those who were not. Acute stress disorder develops within one month after an individual experiences or sees an event involving a threat or actual death, serious injury or physical violation to the individual or others. A diagnosis of acute stress disorder usually leads to a diagnosis of PTSD when symptoms persist for longer than one month after a traumatic event (Sadock & Sadock, 2007). The significant relationship between acute stress disorder and stressful life events points to the traumatic nature of the life events that are prevalent in the sample. According to Margolin and Gordis (2000), intra-familial violence, child abuse and community violence exposure usually coexist, which may be the case in the current sample.

A South African study by Seedat *et al*. (2004) found that negative life events were not significantly associated with PTSD. However, another South African study by Suliman *et al*. (2009, p.125) found that life events were 'the most robust factor for depression'. It is important to note that the

most reported stressful life event was doing worse than expected at school (59%) and a third (29.5%) of the sample reported that they had failed a grade in the past 12 months. This is not surprising in light of the findings of high prevalence of both PTSD and MDD. Post traumatic stress and depressive symptoms that result from community violence exposure have been linked to poor academic outcomes for adolescents (Mathew, Dempsey & Overstreet, 2009). In their sample, they found that post-traumatic stress symptoms such as intrusive thoughts, and flashbacks, avoiding reminders of community violence events and increased arousal in the form of difficulty concentrating, irritability and anger and difficulty sleeping contribute to students' poor performance on schoolwork and tests. A study by Schoeman, Carey and Seedat (2009) examined the impact of PTSD on various neurocognitive functions in South African adolescents. The findings indicate that PTSD rather than trauma exposure was associated with cognitive deficiencies in attention, visual memory and nonverbal concept formation.The outcomes of community violence exposure are therefore far reaching and they have potential for long-term effects.

Summary and conclusion

The current findings support the ecological-transactional model of community violence exposure (Cicchetti & Lynch 1993) which proposes that interactions, transactions and relationships within the individual, family and community are important factors that determine the impact of community violence exposure. The individual factors that characterise this sample, that is, gender, alcohol and substance use and a history of childhood trauma were related to the development of psychopathology. The family factors such as stressful life events in the home, especially loss and single parent families may also be related to the development of psychopathology. The community factor that impacted the development of psychopathology was the high prevalence of community violence exposure and the socio-economic conditions in the community.

The findings of the current study are in general keeping with previous studies that have examined the relationship between community violence exposure and the development of psychopathology.

The prevalence of community violence in the current study was higher than previous South African based studies but lower compared to American samples. This may be because American samples comprise of mostly African American participants from very violent-inner city neighbourhoods, whereas the Cape Metropolis, from which the current sample was drawn, is mostly mixed in terms of socio-economic conditions. There was generally a high prevalence of PTSD and MDD in this sample compared to previous studies. Anxiety and behavioural disorders were present in the sample but they were not significantly related to community violence exposure. Other disorders, such as Schizophrenia, had a low prevalence in the sample. It was therefore not possible to test their relationship with community violence exposure. An unexpected outcome was that even though there was a high prevalence of PTSD, there was no relationship between community violence exposure and PTSD in this sample, rather, community violence exposure was related to MDD. Furthermore, MDD and not PTSD were related to experiences of childhood trauma. This could possibly mean that either community violence exposure may not have accounted for the high prevalence of PTSD in this sample, that is, other traumatic experiences that have not been examined by the current study may account for the high prevalence of PTSD in the current sample.

5.8 RECOMMENDATIONS FOR FURTHER STUDIES

The findings of the current study indicate that there are factors other than community violence that account for the high prevalence of PTSD in this sample. It is thus important for further studies to examine the factors that account for the high prevalence of PTSD in treatment seeking adolescents. Further studies should also explore the specific life events that are related to acute stress disorder. In light of the high prevalence of PTSD and MDD, the impact of psychopathology on schooling should also be investigated. The preponderance of ADHD in white adolescents should be examined further. The direction of the relationship between substance use and the development of psychopathology also warrants further examination.

5.9 LIMITATIONS

The data was collected only from adolescents who were presenting for treatment therefore the outcomes of the study may not be generalised to the general population of adolescents in the Cape Metropolis. The sample for the current study was relatively small and thus limiting. The current study did not examine domestic violence, which may account for some of the psychopathology in the sample. The data collection instruments for the current study were developed in the United States of America (USA). Brandt *et al*. (2005) argue that even though attention has been paid to this when adapting instruments to non-US populations, challenges arise when instruments are not used in the population for which they were developed.

5.10 VALUE OF THE CURRENT STUDY

The current study has added to the body of research that has examined the prevalence of psychopathology in the adolescent population. The study has also contributed in the understanding of the factors that contribute to the development of psychopathology in the treatment-seeking, trauma exposed, adolescent population in Cape Town.

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LIST OF APPENDICES

DEMOGRAPHIC QUESTIONNAIRE

KSADS-PL

CECV

LIFE EVENTS QUESTIONNAIRE

UNIVERSITY of the
WESTERN CAPE