The Contribution of Different Forms of Violence Exposure to Internalising and Externalising Symptoms in Young South African Adolescents

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ABSTRACT

Studies conducted in high income countries have increasingly recognised that youth who are violently victimised are often victimised across more than one life domain, a pattern of violence exposure termed poly-victimisation. Further, poly-vicimisation has been associated with a greater severity of internalising and externalising symptoms than single types of exposure. However, there is a dearth of studies on the rate and impact of poly-victimisation among youth in South Africa. The current study assessed the rate of exposure of younger adolescents (N = 616; mean age 12.8 years) in a high-violence, low-income community in Cape Town to domestic, community, school and sexual violence either as victims or witnesses. It further explored the independent and relative contributions of each different type of violence exposure, and of poly-victimisation, to the severity of depression, aggression and conduct problems. Participants in Grade 7 at nine schools completed questionnaires measuring demographic variables, violence exposure, and symptoms of depression, aggression and conduct problems. Almost all of the participants (98.9%) had witnessed violence in their neighbourhood, 40.1% were victims of violence in their neighbourhood, 58.6% had been victims of violence in their homes, 76% had witnessed interpersonal violence in their homes, 75% had been exposed to school violence, and 8% reported experiences of sexual abuse. The median number of violence types participants were exposed to was four, with poly-victimisation being extremely prevalent: 93.1% of the sample were exposed to more than one type of violence, with 75% having been exposed to more than three different types. In a multivariate analysis, female gender, being a victim of domestic violence and poly-victimisation each made a significant independent contribution to levels of depression; being a victim of domestic violence, witnessing community violence, being a victim or witness of school violence and being sexually violated each made a significant independent contribution to levels of aggression; and being both a victim and witness of violence in the home

and in the neighbourhood, together with male gender, each made a significant independent contribution to conduct problems. Poly-victimisation did not contribute significantly to levels of aggression or conduct problems. Being a victim of violence at home conferred the most risk for depression, aggression and conduct problems. The findings indicate that for the young adolescents in this study, violence exposure can be viewed as a condition as opposed to a discrete event, and that in this context of high rates of poly-victimisation, domestic victimisation stands out as the strongest risk factor for both internalising and externalising symptoms. Intervention implications and recommendations for future research are discussed.

Keywords: *poly-victimisation, violence exposure, depression, aggression, conduct problems, adolescents*

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CHAPTER 1

INTRODUCTION AND MOTIVATION FOR THE STUDY

Many revolutionary struggles leave in their wake a sense of upheaval and high rates of violence (Scheper-Hughes, 2004). The political violence of the apartheid-era in South Africa has transformed into high rates of domestic, sexual and criminal violence (Kaminer, Grimsrud, Myer, Stein, & Williams, 2008; Seedat, van Niekerk, Jewkes, Suffla, & Ratele, 2009) and this continued cycle of violence in South Africa is facilitated by the social dynamics born out of the apartheid era (Seedat, Van Niekerk, Jewkes, Suffla, &Ratele 2009). By the 1990's in South Africa the term "culture of violence" had become a common phrase used to describe a society in which the use of violence had become a way of life (Hamber, 2000), and where "there appears to be a widespread 'banalisation' and normalisation of violence which is seen as a legitimate form of conflict resolution" (Burton, 2008, p. 75).

This culture of violence is reflected in national crime statistics. For example, South Africa has been ranked as having the highest per capita rate of rape, and the second highest rate of murder and assault globally (Nationmaster, 2010). The murder rate in South Africa for 2005 was 40 per 100 000, (Altbeker, 2007), which is markedly higher than the rate of five per 100 000 found in the United States of America (USA) and the equally low murder rates found in Eastern Europe, China and India (Altbeker, 2007). These crime statistics support the popularly held belief that South Africans are particularity vulnerable to violent victimisations in comparison to individuals from most other countries. However, high national crime statistics often obscure the fact that not all communities are equally at risk for violence exposure. National South African Police statistics indicate violence of all kinds to be more prolific in communities comprising previously disadvantaged individuals (South African Police Service, 2009). Among the communities that are at a high risk for violence exposure in South Africa, it has been shown that the Western Cape is affected by particularly high levels of violence, especially in communities historically classified as 'coloured[1]' under apartheid laws, where there are currently high levels of gang activity (Prinsloo, Matzopoulos & Sukhai, 2003; Shields, Nadasan, & Pierce, 2008) and elevated rates of homicide compared to the national average (Abrahams et al., 2009; Groenewald et al.,

[1] The term 'coloured' was used as a racial classification category under the Population Registration Act of the previous dispensation and is still commonly used in South Africa today to refer to individuals who are of mixed race (Adhikari, 2009).

2008). The homicide rate in Cape Town is 88 per 100 000, whereas the national average is 40 per 100 000 (Matzopoulos, 2002). In 2001, homicide accounted for 51.6% of all non-natural deaths in Cape Town, of which 41% were committed with firearms (Prinsloo, Matzopoulos, & Sukhai, 2003), indicating the importance of gaining a comprehensive understanding of exactly what types of violence exposures are prolific in specific areas in South Africa.

In addition to certain communities' disproportionate exposure to violence, certain groups of individuals within these particular communities are found to be more vulnerable. In Cape Town significantly more males than females die by firearm related injuries, and youths between fifteen and twenty four years of age are significantly more at risk (Prinsloo, Matzopoulos, & Sukhai, 2003). In Cape Town homicide is the second leading cause of death for children aged ten to fourteen years, and the leading cause of death for youths between the ages of fifteen and nineteen years (Groenewald et al., 2008). In addition to the direct victims of this violence there are also likely to be many witnesses to these homicides and gang activities.

Locally the recent National Youth Victimisation Study found South African youth to be twice as likely to be victimised as adults (Burton, 2006). Similarly, internationally adolescents are more frequently exposed to violent victimisations than adults, and are also more likely to witness various forms of violence than younger children (Finkelhor et al., 2005*a*). According to the National Youth Victimisation Survey conducted in the USA, adolescents are two to three times more at risk for aggravated assault, robbery and rape, compared to adults and younger children (Finkelhor, 2008). Furthermore, it has increasingly been noted that most children who are exposed to violent victimisations are exposed to more than one type of victimisation across multiple contexts, this phenomenon has recently come to be identified by scholars as poly-victimisation (Finkelhor, Turner, & Ormrod, 2007*b*). Children who are poly-victims may experience physical abuse at home and witnessing violence in the community. Poly-victimisisation is informed by a cumulative risk model based on the assumption that mental health stability decreases with each added adversity experience (Sameroff as cited in Boxer & Terranova, 2008).

Local and international studies have found violence-exposed youth to be at risk for the development of poor mental health and behavioural problems including anxiety, depression, post traumatic stress disorder (PTSD), conduct disorder, elevated levels of aggression, substance

abuse, risky sexual behaviour and re-victimisation (Cuevas, Finkelhor, Clifford, Ormrod, & Turner, 2010; McAloney, McCrystal, Percy, & McCarton, 2009; Mrug, Loosier, & Windle, 2008; Sternberg, Baradan, Abbott, Lamb, & Guterman, 2006). However, the majority of existing international and local research on the psychological impact of violence exposure amongst youth has either examined the relationship between levels of overall violence exposure and levels of symptomatology, or has explored the independent relationships between specific types of violent victimisations (for example, community violence or domestic violence; direct victimisation or witnessing) and psychological outcomes. Although poly-victimisation is common amongst youth, few studies take this clustering of violent victimisations into consideration (Finkelhor, Ormrod, & Turner, 2007*a*); the trend to date has been to study the mental health effects of single violent victimisation exposures types only.

The conclusions that can be drawn from this kind of research regarding the mental health consequences of violence exposure are limited (Turner, Finkelhor, & Ormrod, 2006). Without controlling for different co-occurring victimisation types, previous studies may have over-estimated the effect of a specific type of violent victimisation and overlooked the association among different types of violent victimisations (Finkelhor, Ormrod, & Turner, 2007*a*). Without taking into account the full victimisation profile of individuals, those who are chronically, and multiply, victimised may go unnoticed (Finkelhor, Ormrod, & Turner, 2007*a*); it is these individuals who may need to be the focus of specialised intervention and prevention efforts. This method of studying violence exposure is relatively unexplored in South Africa, yet it is particularly important in the South African context where individuals who live in violent communities have little relief from the violence taking place in their neighbourhoods and homes (Benjamin & Crawford-Brown, 2010).

1.1 Objectives of the Current Study

The present study aims to describe the different types of violence that younger adolescents residing in a high violence community in the Western Cape are exposed to and to examine which violence exposure types carry the most risk for depression, aggression and conduct problems when different forms of exposure and demographic variables are controlled for. In addition, young adolescents' exposure to poly-victimisation, and the psychological outcomes, will also be explored. Identifying the types of exposures, or combinations of exposures, that may prove to be

specifically toxic for mental health outcomes, is an important step in addressing the cycle of violence in South Africa. Most studies conducted on youths' exposure to violence in the Western Cape have focused on PTSD, however the recent Youth Risk Behaviour Survey (YRBS) found that youths in the Western Cape are at an increased risk for both suicidality and behaviour problems compared with their counterparts in other provinces in South Africa (Reddy et al., 2010); for this reason the current study focuses specifically on the outcomes of depression, aggression and conduct problems which have received relatively little attention by South African researchers when compared with PTSD. This study is an exploratory endeavor to assess if poly-victimisation is a relevant and important concept in assessing the mental health effects of violent victimisation among children in South Africa.

1.2 Structure of Dissertation

The dissertation is organised into five chapters. The Introduction will lay the foundation for the motivation for and relevance of the study while the literature review in Chapter 2 will outline children and adolescents' exposure to violence both locally and internationally. The contribution of these violence exposure types to poor mental health particularly depression, aggression and conduct problems, will also be explored. The Medthod chapter will present the methodological approach utilised in the current study. The Results chapter will report on the descriptive, bivariate and multivariate analyses that were conducted to explore the research questions. Finally, a discussion of the participants' exposure to violence and the effects on their levels of depression, aggression and conduct problems will be offered, along with a consideration of the limitations of the study and of recommendations for future research, policy and practice.

CHAPTER 2

LITERATURE REVIEW

Historically, many studies have documented the prevalence of single types of violence exposures among children and adolescents, and the mental health sequalae thereof. Recently, however, there is an increasing recognition that most children who are victimised are exposed to more than one type of violence. Researchers have began to document the combined effects of these multiple violence exposures on child and adolescent mental health, as well as the independent and relative contributions that each type of exposure, or combinations of exposures, make to poor mental health. The review will start with a review of the prevalence of domestic violence, community violence, child sexual abuse and exposure to school violence, followed by a review of the effects of these specific violence exposures on child and adolescent mental health. Even though the conclusions reached in these single type victimisation studies are limited, they are nonetheless central to our understanding of the field of adolescent victimisation, considering that the work on multiple victimisations has only begun to emerge in the past five to ten years. The latter part of this chapter will review existing research on the prevalence and impact of poly-victimisation among youth.

2.1 Prevalence of Child and Adolescent Exposure to Specific Types of Violence

2.1.1 Domestic violence

Domestic violence includes violence between adults and/or children. Historically research has focused on violence between intimate partners, referred to as intimate partner violence. Intimate partner violence between adults can be defined as "violence against a current or former intimate partner with whom the abuser shares, or has shared, a domicile" (Jouriles, McDonald, Smith Slep, Heyman, & Garrido, 2008). This violence may include physical and/or sexual assault (Holt, Buckley, & Whelan, 2008), as well as psychological and economic abuse (Kaminer & Eagle, 2010) with homicide being the most extreme consequence (Abrahams et al., 2009).

However it has been increasingly recognized that children are more likely than not to be present in homes where domestic violence proliferates (Bedi & Goddard, 2007; Knutson, Lawrence,

Taber, Bank, & DeGarmo, 2009; Renner, & Shook Slack, 2006), indicating that previous research on domestic violence possibly overlooked the extent to which children are exposed to violence in the home, either as witnesses or victims. Youth exposure to violence in the home is not homogenous; it can range from children being aware of the sequalae of domestic violence between caregivers, to observing the acts, or trying to intervene physically or verbally and in this way becoming direct victims themselves (Evans, Davies, & DiLillo, 2008; Wolfe, Crooks, Lee, McIntyre, & Jaffe, 2003). When they are intentionally the targets of violence, this is often referred to as child physical abuse or child maltreatment.

Violence against intimate partners is considered a global problem (Jouriles et al., 2008). A World Health Organization survey conducted in fifteen different societies found the lifetime prevalence of women's exposure to domestic violence to fall between 30% and 60% (Garcia-Moreno, Jansen, Ellsberg, & Watts, 2006). It is noteworthy that these exposures were likely to be part of a pattern of abuse, as opposed to once-off incidents (Garcia-Moreno et al., 2006). In light of the estimates that children are present in households more than half the time (Fantuzzo & Fusco, 2007), it could be inferred that between 15 and 30% of children are exposed to seeing or hearing intimate partner violence between adults in their home.

In high income countries young children have been shown to be present in about half of domestic violence events (44%) and of these children an estimated 81% are directly exposed by seeing or hearing the violence (Fantuzzo & Fusco, 2007). In stark contrast to these high prevalence figures for younger children, studies which made use of samples consisting of older children (age 12-17 years) both in economically developed (Zinzow et al., 2009) and developing societies (Chan, 2011) found a prevalence rate of witnessed parental violence of 9%. This lower prevalence rate may be to some extent methodologically determined since the researchers made use of a national probability sample. Another possible explanation for the increased presence of younger children during domestic violence events is that they are more likely to be at home with their caregivers owing to the higher levels of care they require in comparison to older school-aged children (Holt Buckley, & Whelan, 2008).

Globally prevalence rates of physical abuse of children in the home are heterogeneous, with a number of methodological and cultural factors influencing the reported rates (Knutson et al., 2009). In a nationally representative American study, 87% of three to seven year olds were

physically aggressed against by one of their caregivers and 59% by both their caregivers, and of these respondents 13% reported violence by their caregivers that would be considered as child physical abuse (Smith Slep & O'Leary, 2005). In a study conducted in a Bedouin-Arab community in Israel the physical abuse of adolescent girls within the home was found to be 90% (Elbedour, Abu-Bader, Onwuegbuzie, Abu-Rabia, & El-Aassam, 2006). This high rate may be the result of the use of a broad definition of physical abuse, for example, corporal punishment such as spanking by a parent and physical fights with siblings were included in the scale measuring physical abuse (Elbedour et al., 2006). Furthermore, a number of cultural and political factors in this particular context may go some way in accounting for this high rate of physical abuse. For example, urbanisation, political oppression, polygamy, the marginal status of women, sexual shame and the power of family honour together pose an increased possibility of interpersonal violence, particularly directed at women and children (Elbedour et al., 2006).

In China 14.6% of children aged 12 to 17 years reported exposure to physical abuse in their lifetime while 44% reported exposure to corporal punishment, which is a normative form of discipline in China (Chan, 2011). The prevalence rate in Chan's study may be lower than the rates found by Elbedour and colleagues (2006), since it did not include as broad a definition of physical abuse. It is apparent from these findings that broader definitions of physical abuse, which include sibling rivalry and corporal punishment, yield higher prevalence figures than studies which included narrower definitions of physical abuse. When narrower definitions are used rates of child physical abuse appear to be similar in economically developed (13%: Smith Slep & O'Leary, 2005) and developing societies (14.6%: Chan, 2011).

Various patterns of co-occurrence between child physical abuse and inter-parental aggression have emerged in the literature (Bedi & Goddard, 2007; Clément & Bouchard, 2005; Fantuzzo & Fusco, 2007). In Jouriles and colleague's (2008) meta-analytic review of the co-occurrence of child physical abuse and spousal abuse, prevalence rates fluctuated according to definitions used. For example, studies using narrow definitions of child physical abuse, that is, definitions including severe parental aggression, found a broad range of co-occurrence rates ranging from 18% - 67% (Jouriles et al., 2008). Studies using broader definitions of child physical abuse, which include for example, spanks and slaps, have found higher rates of child physical abuse in domestically violent households ranging from 40-97% (Jouriles et al., 2008). Other reviews have found co-occurrence rates of child physical abuse and domestic violence to range between 45-

70% (Holt, Buckley, & Whelan, 2008). In economically developing societies it has also been shown that after child and parent factors have been controlled for, violence between caregivers generally enhances the odds of the physical abuse of children (Chan, 2011).

The literature indicates that both low socioeconomic status, often indicated by minority status, as well as single-parent households are risk factors for the co-occurrence of child physical abuse and witnessing domestic violence (Holt, Buckley, & Whelan, 2008). Although boys and girls have been found to be victims of domestic violence at equal rates in some studies (Cummings, Pepler, & Moore, 1999) meta-analyses indicate that boys are more at risk for being victims of parental aggression in domestic violence contexts (Jouriles et al., 2008).

In stark contrast to the international body of literature, there is a paucity of South African research investigating the prevalence of children's exposure to domestic violence either as witnesses or victims (Idemudia & Makhubela, 2011). Local researchers have tended to focus on domestic violence between adults without considering children's exposure (Abrahams et al., 2008, 2009; Dunkle, Jewkes, & Brown et al., 2004). Like elsewhere, official statistics are not reliable indicators of the prevalence of the problem of domestic violence in South Africa since most incidents go unreported (Burton, 2006), For example, it has been found that women in South Africa suffer an average of 39 assaults before they seek assistance (Idemudia & Mkahubela, 2011).

Community based studies in South Africa have found adult women's exposure to domestic violence to range from 14-50% (Abrahams, Jewkes, & Laubscher et al., 2006; Dunkle et al., 2004; Jewkes, Levin, & Penn-Kekana, 2002). Some researchers have found South Africa to have one of the highest incidences of domestic violence worldwide (Abrahams, Jewkes, & Laubsher et al., 2006). Death of adult women due to domestic violence in South Africa is 8.8 per 100 000, which is twice as high as the American domestic violence mortality rate (Abrahams et al., 2009). The rate of intimate partner homicide where women are the victims is 24.7 per 100 000 which is six times higher than the global rate (Abrahams et al., 2008). This suggests that rates of witnessing domestic violence amongst South African children are likely to be higher than in many other countries.

In local studies examining children's exposure to various types of violence, few researchers have disaggregated witnessing from direct victimisation. However, researchers who have made distinctions between different types of violence exposure have found prevalence rates of children witnessing domestic violence to be between 30% and 40% (Seedat, Nyamai, Njenga, Vythilingum, & Stein, 2004; Seedat, Van Noord, Vythilingum, Stein, & Kaminer, 2000; Suliman, Kaminer, Seedat, & Stein, 2005), while 14% of children reported being the direct victims of family violence (Seedat et al., 2004). In the 2005 National Youth Victimisation Survey, 8% of adolescents in the Western Cape reported exposure to domestic violence (Burton, 2006). These rates are similar to international figures, however these rates are possibly an underestimation owing to a culture of not reporting exposure to assaultive violence in South Africa.

In keeping with international research, a local study found most children who were treated in hospitals for physical injuries as a result of physical abuse were under the age of five years (Dawes, Alexander, Ward, & Long, 2006) suggesting that in South Africa, as elsewhere, younger children are more at risk for physical abuse than older children. In this study 40% of mothers reported using an instrument like a strap or stick to beat their child under the age of three years (Dawes et al., 2006) calling attention to the fact that corporal punishment is a normative disciplinary technique among many parents in South Africa (Morrell, 2001).

In conclusion, despite the inconsistencies in prevalence rates, an agreement exists, firstly, that children are more likely to be present in homes where domestic violence occurs than not and, secondly, that these children are more likely to suffer from child physical abuse than children who do not live in homes marred by spousal abuse (Holt, Buckley, & Whelan, 2008; Osofsky, 2003). The international literature, both from economically developed and developing societies, indicate that younger children (below the age of six years) are at a higher risk for both witnessing and direct victimisation by violence in the home than older children (12 years and older). It is important to note that violence between spouses and child physical abuse also exist independently of each other, which is an indication that they are qualitatively different and their impact on child development may be different (Bedi & Goddard, 2007).

Regardless of the scarcity of information on children's exposure to domestic violence locally, South African children have indicated that the home is the most likely site in which they will be

victims of violence, and the second most likely place where they will witness violence (Ward, Martin, Theron, & Distiller, 2007). Despite the scarcity of studies on children's exposure to domestic violence in South Africa, it may be possible to conclude the following: given the high prevalence rates of women's exposure to violence in the home, together with the knowledge that children are more likely than not to be present in homes where domestic violence prevails, the possibility exists that children's exposure to domestic violence in South Africa may be far more commonplace than among their counterparts in many other countries.

2.1.2 Community violence

Children's exposure to community violence has been extensively studied over the past three decades (Brandt, Ward, Dawes, & Flisher, 2005). The majority of studies have been conducted in high-income countries such as the United States, with a predominant focus on ethnic minorities (Chen, 2009; Yen et al., 2008). Children's exposure to community violence has also received considerable attention in South Africa, mainly in the form of school-based, cross-sectional surveys (Cluver, Fincham, & Seedat, 2009; Seedat et al., 2004; Suliman et al., 2005).

Studies indicate that exposure to low intensity community violence is a common experience for adolescents living in poor urban areas in both low and high income societies. A smaller, but still considerable, portion of American and South African adolescents are exposed to more serious, high intensity violence such as witnessing shootings, stabbings and assaultive violence (Gorman-Smith, Henry, & Tolan, 2004; Seedat et al., 2000). Rates of exposure have been reported by various researchers to remain stable over time, that is, the extent to which children and adolescents are being exposed to community violence has not increased over the years (Gorman-Smith, Henry, & Tolan, 2004; Lambert, Ialongo, Cooley, & Boyd, 2005).

In this body of research the definition of 'community' (referring to the site of the victimisation) appears to be unclear (Brandt et al., 2005). Some studies include items that are linked only to victimisation in the neighbourhood, while other studies include a child's school and home as sites for exposure to 'community' violence (Mrug, Loosier, & Windle, 2008; Richters & Martinez, 1993). Brandt et al. (2005, p. 327) emphasise the importance of definitional consensus regarding the term 'community violence' since this will result in "sound instrumentation".

Having valid and reliable instrumentation and good operational definitions will allow for comparisons between studies, which would lead to the identification of trends that could inform prevention and intervention measures.

In addition to issues of definition, direct comparisons of studies are made problematic by other methodological differences. Firstly, the reference periods for violence exposure differs, with some studies enquiring about exposure in the past year and others about lifetime exposure. Secondly, samples are differently composed, with some studies including very young children as well as older children (Chen, 2009; Cooley-Strickland et al., 2009; Kliewer et al., 2004) while others comprise both younger and older adolescents (Bradshaw, Rodgers, Ghandour, & Garbarino, 2009; Kilpatrick et al, 2003; Self-Brown et al., 2006). Studies have shown that exposure rates and the impact of community violence may be mediated by age, therefore it is advised that samples are comprised of children that are developmentally similar (Saunders, 2003). Despite the methodological differences between existing studies, the results are useful in indicating the extent to which adolescents are exposed to various types of violence.

Internationally rates of community violence exposure of any kind, either in the form of witnessing or victimisation, have been found to range widely from 36% to 83% (Chen, 2009; Gorman-Smith, Henry, & Tolan, 2004; Lambert, Copeland-Linder, & Ialongo, 2008; McAloney, McCrystal, Percy, & McCarton, 2009; Ozer & McDonald, 2006). Community violence exposure figures have revealed that children are exposed to higher levels of witnessing community violence compared to direct victimisation (McAloney et al., 2009; Ozer & Weinstein, 2004; Self-Brown, et al., 2006). Mrug, Loosier and Windle (2008) found witnessing violence in the community and at school to be four times more likely to occur than direct victimisation, while the likelihood of witnessing violence and direct victimisation at home were equal. Rates of witnessing community violence range from 37% to 96% (Bradshaw et al., 2009; Lambert, Ialongo, Boyd, & Cooley, 2005; McAloney et al., 2009; Mrug, Loosier, & Windle, 2008; Self-Brown et al., 2006; Sullivan, Kung, & Farrell, 2004), while direct community victimisation exposure rates range from 6.1% to 45% across studies in high-income countries. (Gorman-Smith, Tolan, & Henry, 2004; Lambert et al., 2005; McAloney et al., 2009; Mrug, Loosier, & Windle, 2008; Self-Brown et al., 2006). The differences in prevalence rates could be accounted for by the use of different study designs and methodologies. Studies indicate that boys are more likely than

girls to be both witnesses (Bradshaw et al., 2009; Chen, 2009; Lambert et al., 2008; Wilson, Rosenthal, & Battle, 2007) and direct victims of community violence (Ozer & Weinstein, 2004; Schwab-Stone et al., 1999).

Following international trends, youth in the Western Cape are more likely to witness than to be directly victimised by community violence (Shields, Nadasan, & Pierce, 2008; Suliman et al., 2005; Ward et al., 2001). Rates of witnessing community violence have been found to vary between 28.12 % (Ward et al. 2001) and 92.9 % (Shields, Nadasan, & Pierce, 2008). The disparity may be owing to Shields and colleagues'use of face-to-face interviews as opposed to Ward et al's (2001) survey questionnaire; face-to-face interviews are known to yield higher prevalence rates of child maltreatment than anonymous survey questionnaires (Wyatt & Doyle Peters, 1986).

Direct victimisation rates among youths in the Western Cape have been shown to be: 1.33% (Ward et al., 2007), 10.3% (victim of violent crime; Suliman et al., 2005), 31.6% (Seedat et al., 2000), 30.8% (being a victim of violence by a stranger) and 48.1% (being a victim of violence by a known person) (Ward et al., 2007). Again, the variability in rates likely reflects methodological differences between the studies. Ward and colleagues' rate is low in comparison to the other reported prevalence figures, which may be accounted for by their use of younger children (Grade 6, approximately 12 years old) in comparison to the other studies, which made use of high school students. Furthermore, Ward and colleagues only made use of five questions about direct victimisation. Suliman et al's (2005) lower rate in comparison to Seedat et al (2000) and Ward et al (2007) may be attributable to their use of a small sample (n=67), as well as that their measure of direct community violence included only violent criminal act.

The high levels of neigbourhood violence in the Western Cape could be attributed in part to the proliferation of gang activity in the province. Half of the adolescents in a Cape Town study had witnessed gang members push, kick or hit another person, while 40.4% had witnessed individuals being injured with a sharp weapon by a gang member and 43.1% had seen someone being shot at in gang related incidents (Shields, Nadasan, & Pierce, 2008). Overall, internationally and locally, the witnessing of community violence by children is more

commonplace than being a direct victim and boys appear to be more at risk for both witnessing and direct victimisation.

2.1.3 Child sexual abuse

The bulk of research on child sexual abuse has taken place in high income societies although there are a sufficient number of studies to indicate that child sexual abuse is prevalent in most societies (Chen, Dunne, & Han, 2004; Elbedour et al., 2006; Haj-Yahia & Tamish, 2001; Pereda, Guilera, Forns, & Gómez-Benito 2009*a*). Prevalence rates have been found to vary greatly between studies (Stoltenborgh, Van Ijzendoorn, Euser, & Bakermans-Kranenburg, 2011). Therefore, reviewing recent meta-analyses of children's exposure to child sexual abuse appears to be more useful, since these studies take account of the heterogeneity in the methodologies of reviewed studies and emphasise the role of moderator variables on prevalence rates (Pereda et al., 2009*b*).

Three meta-analytic reviews, which reviewed studies from a range of different countries, found prevalence rates of CSA to be below 10% for males and between 10% and 20% for females (Finkelhor, 1994; Pereda et al., 2009*a*; Stoltenborgh et al., 2011) indicating that girls are more likely to be victimised in this way than boys. However, one meta-analytic review found the prevalence rate of boys to fall within the 10 to 20% range (Pereda et al., 2009*b*). Rates of child sexual abuse have been found to be higher in low and middle income contexts such as Sub-Saharan Africa in comparison to high income contexts such as Europe (Finkelhor, 1994; Pereda et al., 2009*a*; Pereda et al., 2009*b*; Stoltenborgh et al., 2011), pointing to the possibility that children across the globe may not be equally vulnerable to CSA. Both Finkelhor (1994) and Pereda et al's (2009*a*) meta-analytic reviews found 30% of the studies to have prevalence rates of child sexual abuse of 30% and above (Pereda et al., 2009*a*).

Data on child sexual abuse in African countries are scarce.The East, Central and Southern Africa Health Community (ECSA – HC, 2011) completed an extensive literature review of studies investigating the prevalence and effects of child sexual abuse in Sub-Saharan Africa. This review highlights the complexities involved in making comparisons across studies, particularly as related to the definition of child sexual abuse used by researchers. For example, some studies

made use of terms such as 'sexual harassment' which included verbal harassment and spanks on the buttocks, a forced first sexual experience (which the victims do not necessarily classify as rape), penetrative rape and fondling (ECSA-HC, 2011). Other studies reviewed in this analysis focused on less commonly researched types of sexual abuse such as the commercial sexual exploitation of children (child trafficking), child marriage and Female Genital Mutilation (FGM). The prevalence of penetrative rape (including forced first sexual experiences) across five Sub-Saharan African countries ranged widely from 1.5% to 38% (ECSA-HC, 2011). In most studies reviewed, girls in Sub-Saharan Africa appear to be more at risk for sexual abuse than boys. The rates of child sexual abuse in Sub-Saharan Africa are slightly higher than rates found by the recent meta-analytic reviews which reviewed studies across the globe (Pereda et al., 2009*a*; Stoltenborgh et al., 2011). The review of child sexual abuse in Sub-Saharan Africa found that children who are orphaned, or who reside with step-parents, extended family members or with a single parent are at a significantly increased risk for sexual abuse compared to children who live with both biological parents (ECSA-HC, 2011) .

CSA has not been a central focus of South African violence exposure studies. Most South African studies on children's exposure to violence are school-based cross-sectional surveys. It is particularly challenging to enquire about sexual abuse in these kinds of settings in the form of self-report questionnaires (Chen, Dunne, & Han, 2004). In a national study, 4.5% of adolescents reported being raped or sexually assaulted in some way in the preceding 12 months (Burton, 2006). This rate is low compared to international figures, however Burton (2006, p. 4) offers the caveat that "victim surveys are notoriously weak for measuring incidents such as these"; he predicted the real figure to be three or four times higher. Burton's (2006) study is an incidence study (tallying new incidents which occurred in a specific time period, usually 12 months) as opposed to a prevalence study (which enquires about lifetime exposure), therefore directly comparing his results to prevalence studies is not viable.

Where CSA has been explored in South African cross-sectional school-based surveys, lifetime prevalence rates have been found to vary between the studies for example, 5.8% (for completed rape) (King et al., 2004), 8.6 % (Suliman et al., 2005), 12% (Seedat et al., 2000) and 14% (Seedat et al., 2004,) with one study's rates being much higher at 54.3% (Madu & Peltzer, 2000).

A study which made use of retrospective accounts of university student's experiences of child sexual abuse before the age of 17 years found a prevalence rate of 25.6% (Madu, 2003). A careful inspection of the studies points to underlying possibilities for the range of findings. Madu and Peltzer's prevalence figure towers above those found by other South African studies and international studies from high income societies. This high rate may be attributable to their very specific and inclusive definition of sexual abuse which incorporated sexual kissing, sexual touches as well as penetrative sex (anal, vaginal and with objects). Studies that made use of less specific definitions (for example, Seedat and colleagues (2004) defined sexual abuse as "any unwanted and forceful sexual experience that made you feel uncomfortable") found a lower prevalence rate. In a study which utilised behaviourally specific questions about sexual abuse the majority of sexually abused victims (86.7%) initially perceived themselves not to have been victims of sexual abuse (Madu & Peltzer, 2001). In another study behaviorally specific questions about sexual abuse were significantly more endorsed (32%) than broad questions (9%) (Fricker, Smith, Davis, & Hansen, 2004). Further, Seedat et al's. (2000) lower figure (in comparison to meta-analyses findings and other South Africa studies) of 12% (10.3 % for girls and 2.4% for boys) may be attributable to the fact that 67% of their sample comprised adolescents from a high income area. Literature indicates low socioeconomic status to be a risk factor for child maltreatment of all kinds including sexual abuse (King et al., 2004). Suliman and colleague's sample was small, comprising only 67 respondents, which may have contributed to the low rate of CSA of 8.6%.

Some South African communities have qualitative differences which may contribute to higher prevalence rates. Migrant labour, which results in children being left either unattended or with non-family members, the common presence of step-fathers and the fact that children suffering under the hardships of poverty may accept gifts and monetary remuneration for performing sexual acts may go some way in explaining high prevalence rates of child sexual abuse in certain communities (King et al., 2004; Madu & Peltzer, 2000). It appears that South Africans from previously disadvantaged backgrounds are at a higher risk for sexual abuse, for example in King et al's., (2004) study coloured adolescents were more at risk for attempted rape and black African adolescents for being raped than their white contemporaries. Being previously disadvantaged in South Africa is known to correspond with low socio-economic status, with the

majority of black and coloured individuals being of a lower socioeconomic status than their fellow white citizens.

Findings from South Africa, as well as other African countries, are in accordance with international studies which indicate that girls are more at risk for child sexual abuse than boys (Dawes et al., 2006; ECSA-HC, 2011; King et al., 2004; Seedat et al., 2000) with only a few studies suggesting that boys are more at risk for victimisation in this way (Madu & Peltzer, 2001; Seedat et al., 2004). When comparing South African boys' and girls' sexual abuse rates with figures from other international studies it is apparent that the local rates, particularly for boys, are higher. For example, as mentioned above, meta-analytic reviews state that the rate of sexual abuse for boys globally is 10% below, with only some studies reporting rates ranging between 10 and 20%. In South Africa the rate of the sexual abuse of boys have mostly been higher than 10%, for example 19% (Seedat et al., 2004), 21.7% (Madu, 2003) and 60 % (Madu & Peltzer, 2000). For girls the rates of sexual abuse in South Africa have been found to be 6% (King et al., 2004), 10.3% (Seedat et al., 2000), 13% (Seedat et al., 2004), 23.7% (Madu, 2003) and 53.2% (Madu & Peltzer, 2001) indicating that most are closer to and above the percentage range of 10 and 20% found globally.

From the reviewed literature three trends are apparent: it appears that child sexual abuse has occurred at a fairly constant rate in the past decade, that it is universal, and that girls are more at risk than boys globally. The literatures shows that children in Sub-Saharan African countries are more at risk for exposure to sexual abuse than children in high income countries, however more research is required to substantiate such findings. Furthermore, low socio-economic status and family structures which include only one parent or non-family members may put children at a significantly higher risk to be sexually abused.

2.1.4 School violence

School is popularly thought of as the place where children are safe from the harms that present in their homes and communities, and the place where they can practice their role as citizens in the community (Burton, 2008). However, international and local studies indicate that school violence is a common experience for many children, both on the school grounds and at school-

related locations (Liang, Flisher, & Lombard, 2007; Nansel, Craig, Overpeck, Saluja, & Ruan, 2004). For example, in an American study children indicated that school was the most likely place where they would be exposed to violence, with 72.2% witnessing threats of violence and 22.3% being victims of violence at school (Mrug, Loosier, & Windle, 2008).

Violence in schools takes many forms, such as bullying (physical and emotional), peer-to-peer assaults, sexual harassment and rape by peers, sexual and physical abuse by teachers and gang related violence. Traditionally, studies have focused on bullying. However, it has been suggested that "a strong argument exists for a more comprehensive approach that uses behaviourally specific measures that both include and differentiate between a wide variety of peer perpetrated offences" (Turner, Finkelhor, Hamby, Shattuck, & Ormrod, 2011, p. 1052). Even though consensus is lacking with regards to the definition of 'bullying' (Ebenson & Carson, 2009), it is commonly accepted that a distinction exists between bullying behaviour, which is often repeated and involves either psychological or physical victimisation (Ttofi & Farrington, 2008), and delinquent behaviour which includes peer victimisations such as property crime and sexual harassment (Turner et al., 2011). It is important in the South African context to differentiate between bullying and other types of violence exposure at school given the elevated rates of various types of violence in schools, including gang violence. Teacher perpetrated violence is also commonplace in South Africa in the form of physical abuse, sexual harassment and rape (Prinsloo, 2005).

Bullying can be defined as "aggressive behaviour, engaged in repeatedly, by an individual peer or a group of peers with more power than the victim (Winsper, Lereya, Zanarini, & Wolke, 2012). Involvement in bullying, either as a victim, a bully or a bully-victim, has been found to range from 9 - 54% globally with an average of 11% being victims, 10% being bullies and 6% being bully-victims (Nansel et al., 2004).

In studies from high income societies boys are more likely to be victims of physical assault and threats with a weapon at school (Felix, Furlong, & Austin, 2010), whereas girls are at a significantly increased risk for sexual assault (especially in the 14 to 17 year age range) (Felix, Furlong, & Austin, 2010; Turner et al, 2011). Boys are generally involved in more violence related behaviour than girls with rates for boys' involvement in school violence ranging between 13 – 23% compared with 4 - 11% for girls (Nansel et al., 2003). Children's abuse in any form at

the hands of educators or gangs has not received much attention in studies from high income societies.

Given the elevated levels of violence in South Africa in various contexts, victimisation in varying forms at schools can be expected to be commonplace too (Liang, Flisher, & Lombard, 2007). Anecdotal evidence from news reports and public discourse point to an increasing awareness of widespread violence in South African schools in low socioeconomic neighborhoods (Media Tenor, 2009). However, few studies in South Africa have specifically examined bullying, and generally "little is known about bullying in developing countries" (Liang, Flisher, & Lombard, 2007, p. 161).

One of the first local studies that explored rates of bullying in South Africa in Durban and Cape Town among high school learners found 8.2% of learners to be bullies, 19.3% to be victims and 8.7% to be bully-victims (Liang, Flisher, & Lombard, 2007). These figures are similar to those reported by Nansel and colleagues in an American study (2004). Similar to international studies, bullying in South Africa is related to other forms of fighting and weapon carrying (Liang, Flisher, & Lombard, 2007). More boys than girls were found to be involved in bullying (42.1% and 32.9% respectively) and bully-victims were significantly more likely to carry a weapon than controls (Liang, Flisher, & Lombard, 2007). Thirty three percent of learners in Durban and 41% of learners in Cape Town were found to be involved in bullying as victims, bullies or bully-victims, and 61% of learners in Tshwane had been victims (Neser, Ovens, Van Der Merwe, Morodi, & Ladikos, 2003). South African rates fall toward the high end (and above) of international studies which have reported global rates of bullying of between 9-54% (Liang, Flisher, & Lombard, 2007; Nansel et al., 2004).

The National Schools Violence Study (NSVS) undertaken by the Centre for Justice and Crime Prevention in 2008 was the first national study documenting the extent of school violence in South Africa (Burton, 2008). Unlike the majority of American studies, this national study took a broader perspective on violence in schools, not focusing solely on bullying but also taking other peer perpetrated offences into account. The rates of exposure documented by the study are as follows: 15.3% of learners were exposed to some sort of violence at school; 12.8% were

threatened with physical violence; 5.8% were actually assaulted at school and 2.3% were sexually victimised at school (Burton, 2008). Sexual violence was reported to be higher in high schools than primary schools and high school girls were more at risk than high school boys of being victims of sexual violence. High school boys were found to be more at risk than girls of being physically assaulted. These findings are in accordance with international findings which place adolescent girls in the highest risk category for sexual violence in schools (Turner et al., 2011). Interestingly, primary school aged boys were more at risk for sexual victimisation at school than primary school aged girls (Burton, 2008). Thirty percent of learners reported knowing a fellow learner who has brought a weapon to school. Burton (2008) concludes that there is a strong relationship between living in a community with high levels of violence and experiencing violence at school.

Sexual violence is relatively pervasive in South African schools (Prinsloo, 2005). Both fellow learners and teachers are reported to be responsible for sexual harassment, sexual abuse and rape incidents. South African girls interviewed by Human Rights Watch reported routine sexual harassment in schools, as well as psychological coercion by teachers to engage in "dating relationships"(Human Rights Watch, 2001). School teachers have been found to be the most common rape perpetrators, with 33% of reported rapes in South Africa being found to be perpetrated by teachers (Jewkes, Levin, Mbananga, & Bradshaw, 2002). In addition to sexual abuse, the rate of corporal punishment by teachers is high in South African schools despite it being an illegal practice (Prinsloo, 2005). In the NSVS (Burton, 2008), one in four school principals reported that educators at their schools make use of corporal punishment but seven in ten primary school children and one in two high school children reported being the recipients of corporal punishment. The reviewed literature suggests that schools are not necessarily safe havens from home and community violence, rather the violent events children are exposed to in their communities and homes are mirrored at school.

2.1.5 Summary of prevalence studies

Various methodological issues in research on children's exposure to violence limit comparisons between studies, as well am making it difficult to reliably comment on exact exposure rates.

Overall, the reviewed literature indicates that both globally and in South Africa children's exposure to domestic, community, sexual and school violence is highly pervasive, with a higher proportion of children being exposed as witnesses as opposed to being direct victims. Exposure to the various violence types were found to vary by age, gender, socioeconomic status, family structure and country.

With regards specifically to the Western Cape, available statistics indicate that violence exposure across different sites is a normative part of adolescents' daily life experience. However, evidence from international and local studies suggests that 'normative' violence, while commonplace and ordinary in one sense, is far from neutral in its impact on the psychological well-being of children. A review of the impact of these various types of violence on children's mental health and behaviour follows below.

2.2 The Effects of Different Types of Violence Exposure on Adolescent Mental Health

Outcome studies on the effects of violence exposure amongst youth have tended to focus on single victimisation types and their effects, resulting in a considerable amount of confidence being placed in simple bivariate analysis (Finkelhor, Ormrod, &Turner, 2007*a*). These individual violence exposure types have been linked to many different kinds of outcomes, such as PTSD, depression, anxiety, poor academic attainment, aggression and conduct problems. Saunders (2003, p. 357) notes that "a comprehensive list of all the psychological, psychiatric, social, behavioural and medical problems found to be associated with a history of childhood exposure to violence would be difficult to construct at this point." Despite the array of mental health outcomes that are associated with violence exposure, many studies assessing the effects of violence exposure on youth in South Africa have focused on PTSD, and to some extent depression. However, PSTD is but one of an array of mental health outcomes which could develop as a result of exposure to violence. There is a particular shortage of local literature on the effects of violence exposure on externalising symptoms and behaviours, such as aggression and conduct problems.

Since few studies have controlled for various types of violence exposure that co-occur, it has not been possible to draw conclusions about the relative contributions of the different types of

violence exposure to mental health problems. Studies using a multivariate approach, such as the more recent poly-victimisation studies by Turner, Finkelhor and Ormrod (2006) and Turner et al. (2011), have begun to uncover the unique and relative risks associated with different types of violence exposures. This topic will be returned to shortly in the section on poly-victimisation. However, to date single victimisation studies have formed the basis of our knowledge of the mental health effects of violence exposure in childhood, therefore it is essential to review these findings. What follows is a review of the literature on the effects of exposure to domestic violence, community violence, school violence and sexual abuse, followed by a review of the prevalence and effects of poly-victimisation on levels of depression, aggression and conduct problems.

2.2.1 Domestic violence

Exposure to domestic violence has been found to compromise children's cognitive, social, behavioural and emotional functioning and to be related to symptoms of depression, aggression and conduct problems. As previously noted, witnessing domestic violence and child physical abuse have been found to be highly correlated, however these two types of violence exposure also exist independently of each other suggesting that their impact on child development may be different (Bedi & Goddard, 2007). Further, when assessing the impact of domestic violence exposure, age, gender and family structure have been found to be significant moderating factors.

Research findings have been inconsistent with regard to which types of domestic violence exposures are more pathogenic, and which mental health outcomes are more likely. Some studies have shown that exposure to domestic violence as a witness, or as a victim, are both associated with depressive symptomatology. For example, studies show that violence exposure in the home as a witness, or as a victim, are both associated with an increase in depressive symptomatology and that witnessing domestic violence has been found to be sufficient in the absence of physical abuse to contribute to significant levels of depressive symptomatology (Evans, Davies, & DiLillo, 2008; Russell, Springer, & Greenfield, 2010; Wolfe et al., 2003). Not only have meta-analyses indicated that both witnessing and direct victimisation are associated with depression,

but also that victims exposed to either type of violence report similar levels of depressive symptomatology (Kitzmann et al., 2003).

The intensity of early exposure to domestic violence appears to determine the consistency of poor mental health over the lifespan. Longitudinal studies that keep track of children's mental illness trajectories over time, have found that American children who are exposed to witnessing high levels of domestic violence early on in their lives evidence stable levels of depression during the course of their lives as opposed to children who initially witnessed lower levels of domestic violence, who showed decreasing levels of depression (Kennedy, Bybee, Sullivan, & Greeson, 2010, p. 294). This has been confirmed in a recent mega-analytic study (Sternberg et al., 2006). Russell, Springer and Greenfield's (2010) longitudinal study further confirmed that early exposure to witnessing domestic violence resulted in depression in later life. A possible explanation for the detrimental effect of intense early exposure to domestic violence could be that young children have underdeveloped coping strategies and cognitive capacities, which have been found to mediate the relationship between exposure to domestic violence and mental health outcomes (Bedi & Goddard, 2007).

Similar to findings about internalising symptoms, a meta-analytic review which reviewed the mental health effects of witnessing domestic violence, direct victimisation by physical abuse, or both found rates of externalising problems to be comparable across the three groups (Kitzmann et al., 2003). Recent reviews have found that violence exposure in the home as a witness or as a victim both positively predict overt aggression and delinquency (Evans, Davies, & DiLillo, 2008; Mrug, Loosier, & Windle, 2008). Conversely (and in keeping with a cumulative risk model), another meta-analysis has found that child physical abuse increases the risk associated with exposure to domestic abuse as a witness for both behavioral and emotional problems (Wolfe et al., 2003). Similarily, a longitudinal study found that children between the ages of 12 and 17 years of age who were exposed to spousal abuse at Time 1, did not exhibit increased externalising symptoms and did not demonstrate an increase in the diagnosis of Conduct Disorder two years later at Time 2 (McCabe, Lucchini, Hough, Yeh, & Hazen, 2005). Only those children who were themselves victims of domestic violence at Time 1 had sufficient symptoms to meet a clinical diagnosis of Conduct Disorder at Time 2 (McCabe, Lucchini, Hough, Yeh, & Hazen 2005). Another American longitudinal study found that being dually exposed to both

witnessing and being a victim of domestic violence as a young child resulted in a significant chance of becoming involved in delinquent behaviour as an adolescent (Sousa et al., 2011). Findings from these longitudinal studies indicate that direct exposure may increase the risk for behaviour problems.

Meta-analysis are not necessarily the most fitting manner in which to determine the subtle mental health differences between various exposure groups. Alternatively, a mega-analyses which makes use of raw scores, has a few advantages over meta-analysis namely: "greater power, greater precision and reliability of the parameter estimates, greater flexibility with the hypothesis that can be tested, and greater flexibility with regards to the analytic techniques that can be applied to the data" (Sternberg et al., 2006, p. 93). Sternberg and colleagues' mega-analysis indicated that witnesses and victims of domestic violence did not differ in their levels of externalising behaviour. However, children who are both victims and witnesses are 187% more likely than non-exposed children to suffer from clinically significant internalising problems, are 117% more likely to have clinically significant internalising difficulties compared to those who are directly victimised but who did not witness inter parental violence, and 38% more likely to have such problems compared to witnesses who were not directly victimised (Sternberg et al., 2006), indicating that each added violence exposure may prove to be increasingly toxic.

Other authors have argued that higher exposure to domestic violence in the home may be accompanied by other adversities such as low levels of social support, poverty, single-parent headed households or alcohol abuse which could contribute to higher levels of symptomatology (Kennedy et al., 2010; Mrug, Loosier, & Windle, 2008; Yen et al., 2008). However, studies which have controlled for family characteristics found witnessing of domestic violence (Russel, Springer, & Greenfield, 2010), as well as physical abuse in domestic violence contexts (McDonald, Jouriles, Tart, & Minze, 2009), to make independent contributions to levels of depression regardless of family structure (Russel, Springer, & Greenfield, 2010), family income and other forms of violence (McDonald et al., 2009). Family structures, such as those headed by a single parent or a step-parent, have been found to explain only a limited portion of the heightened possibility for depression for children who have witnessed domestic violence (Russel, Springer, & Greenfield, 2010). More research needs to be conducted examining the effects of

socioeconomic factors and family structure in moderating the effects of violence exposure on the mental health of youth.

Gender has been found to moderate the relationship between exposure to domestic violence and mental health in children. Meta-analyses have shown that witnessing domestic violence is sufficient in the absence of physical abuse in contributing to significant levels of depressive symptomatology for girls (Clements, Oxtoby, & Ogle, 2008; Evans, Davies, & DiLillo, 2008; Wolf et al., 2003) while boys who witness domestic violence are more likely than girls to display externalising symptoms (Evans, Davies, & DiLillo, 2008; Wolf et al., 2003). Age is also a moderating factor since adolescent boys may respond with more externalising behaviour problems than younger pre-adolescent and pre-school boys (Cummings, Peppler, & Moore, 1999). There is a need for more work to be done on exploring the moderating effect of gender on mental health outcomes in response to domestic violence in order for reliable conclusions to be drawn (Evans, Davies, & DiLillo, 2008).

A number of explanations have been offered for the discrepancy in the findings regarding the mental health effects of witnessing and being a direct victim of domestic violence. One critique, which is of importance to the current study, is the neglect by researchers to investigate the independent and relative effects of multiple victimisations (Saunders, 2003). For example, if researchers only enquire about witnessing domestic violence, without controlling for being a victim of domestic violence, the researchers may be studying two phenomena in one sample without being aware of it. In studies where precautions have been taken against such methodological flaws, for example in Kitzmann and colleagues'(2003) study, no significant differences in mental health effects were found between victims and witnesses of domestic violence. A recent study took into account the independent and relative effects of direct paternal –child aggression, direct maternal-child aggression, direct partner-child aggression and witnessing inter-parental aggression and found unique contributions of all four to poor adolescent mental health (McDonald et al., 2009). Parent-child aggression and partner-child aggression were found to be the most toxic (McDonald et al., 2009), suggesting that direct victimisation is more pathogenic. In another study witnessing domestic violence was found to make independent contributions to levels of depression when exposure to physical and sexual abuse were controlled for (Russell, Springer, & Greenfield, 2010). These studies indicate that

various forms of violence exposure do make independent contributions to poor mental health and, further, that direct exposure in the form of physical abuse may be more toxic. More studies such as these are needed in order to make reliable decisions about the relative toxicity of various types of domestic violence exposures.

Studies have indicated that emotional abuse and emotional neglect make independent and unique contributions to negative mental health outcomes even when non-abuse risk factors and various types of abuses are controlled for (Egeland, 2009). However, this topic is not examined in details since it is not the focus of the present study which considered exposure to physical violence.

The reviewed literature alludes to the multifinality of child development, that is, that child development is influenced by an array of factors that may covary with exposure to domestic violence and physical abuse to compound the effects. A shortcoming of the meta-analytic reviews mentioned thus far is that when examining the effects of domestic violence researchers fail to disaggregate the effects of domestic violence according to age, and sparing attention is afforded to gender as a moderating factor. Regardless of some findings that being a witness or a victim of domestic violence are equally pathogenic, a recent mega-analysis (which produces more reliable findings), as well as recent studies which disaggregate the effects of various violence exposures, support a cumulative risk model where being a direct victim in addition to witnessing domestic violence is the most pathogenic in terms of depression, followed by direct victimisation and then witnessing. Although some studies indicate girls to be prone to internalising responses whereas boys are more likely to respond with externalising difficulties, no gender differences with regards to the effects of domestic violence on externalising problems either in the form of witnessing or direct exposure have been found in both meta and mega-analyses (Kitzmann et al., 2003; Sternberg et al., 2006; Wolfe et al., 2003). It is important to note that the findings from the mentioned mega analysis found that the majority of children exposed to domestic violence did not have clinically significant internalising or externalising problems, suggesting that most children are resilient in the face of familial violence exposure (Sternberg et al., 2006).

2.2.2 Community violence

Although a few researchers have found little or no evidence in support of the relationship between community violence exposure and poor mental health (Farrell & Bruce, 1997; Ng-Mak, Salzinger, Feldmad, & Stueve, 2004), the majority have found compelling evidence in support of this relationship (Fowler, Tomsett, Braciszewski, Jaques-Tiura, & Baltes, 2009; Gorman-Smith, Henry, & Tolan, 2004; Lambert, Ialongo, Boyd, & Cooley, 2005; McAloney et al., 2009; McMahon, Felix, Halpert, & Petropoulos, 2009). Owing to the methodological heterogeneity employed by researchers, the size of the relationship between community violence exposure and poor mental health outcomes varies, which tends to "confuse the pattern of findings" (Fowler et al., 2009, p. 228). Despite these methodological differences, some patterns have emerged regarding the effect of community violence exposure on levels of depression, aggression and conduct problems among children.

Many studies on community violence exposure (Chen, 2009; Gorman-Smith, Henry, & Tolan, 2004; Kliewer et al., 2004; Lambert, Copeland-Linder, & Ialongo, 2008; McCart et al., 2007; McMahon et al., 2009; Mrug, Loosier, & Windle, 2008; Ozer & McDondald, 2006; Ozer & Weinstein, 2004; Tinsley, Nussbaum, & Richards, 2007) fail to distinguish between the effects of direct victimisation and witnessing separately; the two sub-types of violence exposure are commonly collapsed into one cumulative exposure score. However, some studies have investigated the differential impact of direct victimisation, witnessing and or hearing about events (Farrell & Bruce, 1997; Hammack, Richards, Luo, Edlyn, & Roy, 2004; Kilpatrick et al., 2003; Lambert, Ialongo, Boyd, & Cooley, 2005; McAloney et al., 2009; Schwab-Stone et al., 1999; Zinzow et al., 2009). The following sub-sections review studies which have conflated the effects of victimisation and witnessing of community violence and studies which have separated the effects of these two types of exposure.

2.2.2.1 Effects of exposure to community violence either as a witness or a victim

Many studies which have combined community victimisation with witnessing and hearing about events into a cumulative exposure score have reported a relationship between community violence exposure and depression, aggression and conduct problems. Increased levels of

community violence exposure have been shown to be positively associated with delinquent behaviour and the perpetration of violence among adolescents (Kliewer, et al., 2004; Mrug, Loosier, & Windle, 2008; Ozer & McDonald, 2006; Tinsley, Nussbaum, & Richards, 2007), an indication that violence exposure may feed a cycle of violence. An increase in exposure to violence has been linked to an increase in the risk of aggressive behaviour (Kliewer, et al., 2004; McMahon et al., 2009), and higher rates of exposure to community violence in early adolescence has been linked to an increased likelihood of aggressive behaviour in later adolescence (Gorman-Smith, Henry, & Tolan, 2004; Schwab-Stone et al., 1999).

In addition to externalising difficulties, higher rates of exposure to community violence have consistently been linked to higher levels of internalising symptoms (Chen, 2009; Kliewer et al., 2004; Mrug, Loosier, & Windle, 2008; Ozer & McDonald, 2006; Schwab-Stone, et al., 1999; Tinsley, Nussbaum, & Richards, 2007; Wilson, Rosenthal, & Battle, 2007). Longitudinal studies indicate that exposure to community violence in grade six (12 years of age) positively predicts depression one year later, and suicidal ideation a year after that for both genders (Lambert, Copeland-Linder, & Ialongo, 2008). Even when controlling for variables such as daily hassles, community violence exposure still uniquely predicts depression (Ozer & McDonald, 2006). The effect sizes for depression for young children exposed to community violence have been found to be higher than for adolescents (Fowler et al., 2009; Schwab-Stone et al., 1999), suggesting that younger children have less developed strategies which they can employ in order to cope with this type of violence exposure.

Some studies have found depression to level off after some time, even with further increasing levels of exposure to community violence (Farrell & Bruce, 1997; Mrug, Loosier, & Windle, 2008). This is known as the desensitisation effect (Fowler et al., 2009). However, not all researchers have found support for such an effect (McCart et al., 2007). This trend has only been found with adolescents, not with younger children, indicating that the relationship between community violence exposure and mental health may be moderated by age. This desensitisation effect has been explained as an adaptive reaction to violence exposure: as adolescents are exposed to more community violence over time they learn to cope with it and therefore display fewer internalising symptoms compared to younger children (McCart et al., 2007). However, it has been argued that this kind of adaption to violence, while it may serve a protective function

initially by numbing the internalising effects, could result in an increased likelihood for the perpetration of violence in the long term (Ng-Mak et al., 2004).

In accordance with findings from a few international studies, a local study also found evidence for the desensitisation effect; for a sample of Western Cape adolescents witnessing murder was not related to psychological distress in the form of depressive symptoms (Shields, Nadasan, & Pierce, 2008). This indicates that a possible numbing effect may take place not only in the face of cumulative violence, but also in response to extreme forms of violence exposure, or it may alternatively indicate that the adolescents become symptomatic in another way.

2.2.2.2 Community violence studies which differentiate between the effects of witnessing and direct victimisation by community violence

A number of studies have investigated whether the witnessing of and direct victimisation by community violence may have differential effects on child mental health. Either being a witness or being a direct victim of a violent event have both been found to have significant positive relationships with depression, aggression and delinquent behaviour, such as drug and alcohol misuse (McAloney et al., 2009; Schwab-Stone et al., 1995; Sullivan, Kung, & Farrell, 2004). Aggressive behaviour has been found to be positively associated with current witnessing of violence for both sexes as well as resulting in more exposure to violence as witnesses for girls after the initial exposure event (Lambert et al., 2005), indicating that psychological distress, as well as maladaptive behaviour, may result in continued violence exposure. Zinzow and colleagues (2009) found that witnessing violence independently contributed to substance use and delinquent behaviour among adolescents while controlling for their direct exposure to violence as victims.

A linear relationship has been found in most studies, indicating that as violence exposure increases, either in the form of witnessing or direct victimisation, so do depression symptoms, aggressive behaviour and conduct problems (Kliewer et al., 2004; McAloney et al., 2009; McCart et al., 2007; McMahon et al., 2009; Mrug, Loosier, & Windle, 2008; Zinzow et al., 2009, Ozer & Weinstein, 2004) offering support for viewing violence exposure from a cumulative risk model perspective. A recent meta-analytic study, which reviewed close to forty community

violence studies, found direct victimisation to be more pathogenic than witnessing and hearing about violence, while no significant difference was found between witnessing and hearing about a violent event (Fowler, et al., 2009). This review also found externalising behaviour, such as aggression and delinquent behaviour, to be more consistently associated with direct community violence exposure for adolescents than internalising symptoms such as depression. Externalising behaviour was more common in response to repeated exposure over long periods of time, whereas internalising was a more immediate response (Fowler, et al., 2009). This may be an indication of how those who are continuously victimised come to adopt violent behaviour as a coping strategy in the face of an unrelenting threatening environment. Community violence was also found to have a greater effect on adolescents than on younger children (Fowler, et al., 2009). This could be as a result of the possibility that adolescents are exposed to more community violence as opposed to younger children who spend more time at home with their caregivers and have been shown to be more at risk for domestic violence exposure. The recent meta-analytic study could not draw any conclusions about the moderating effect of gender since very few studies included gender as a variable (Fowler et al., 2009).

The bulk of local studies on community violence have examined the relationship between community violence exposure and PTSD (Cluver, Fincham, & Seedat, 2009; Fincham, Altes, Stein, & Seedat, 2009; Seedat et al., 2000; Suliman et al., 2005) with fewer studies focusing on other internalising symptoms such as those related to depression, and externalising behaviour, such as aggression and conduct problems. The relative neglect by local researchers of studying the effects of violence exposure on externalising problems is surprising for a country that is burdened with significant levels of interpersonal violence, especially among youth.

A few local studies have found evidence for the relationship between community violence exposure and symptoms of depression, aggression and conduct problems. Witnessing violence has been found to be associated with depression, while being a victim of violence has been associated with both depressive symptoms and conduct problems (Ward et al., 2007). One study found both hearing and seeing community, police and gang violence to contribute to levels of distress (a composite scale was used to measure PTSD, depression and fear) (Shields, Nadasan, & Pierce, 2008). However, in accordance with international literature, Ward et al. (2007) found victimisation to be more likely to result in externalising behaviour than depression in

adolescents. Higher levels of overall trauma exposure have been related to higher levels of depression (Suliman et al., 2009), suggesting a positive linear relationship between violence exposure and depression. Witnessing community violence has been found to be related to aggression (Van der Merwe & Dawes, 2000), whereas being directly victimised positively predicts oppositional behaviour (Barbarin, Richter, & DeWet, 2001) and conduct problems (Ward et al., 2007).

In summary, findings from international and local literature point toward direct victimisation in the community being more pathogenic than witnessing only. Direct victimisation increases the risk of depression for younger children, while externalising is a more common response among adolescents over time. Externalising difficulties are far more commonplace than internalising difficulties in response to exposure to community violence as a victim, even though adolescents who witness violence only also suffer from these mental health effects. There is evidence for a dose response relationship, with higher levels of exposure resulting in higher levels of symptomatology. Hearing about other's exposure to violence was not found to contribute significantly to children's internalising and externalising difficulties. Some studies have indicated that girls report more depressive symptomatology than boys in the face of community violence exposure, however more work is called for in this regard before conclusions can be made regarding the moderating role of gender on the effects of community violence.

2.2.3. Child sexual abuse

Studies have consistently found a relationship between exposure to child sexual abuse and childhood depression (Chen, Dunne, & Han, 2004; Haj-Yahia & Tamish, 2001; Newcomb, Munoz, & Carmona, 2009), anger and hostility (Newcomb, Munoz, & Carmona, 2009), and suicidal ideation and suicide planning for both boys and girls (Chen, Dunne, & Han, 2004; Evans; Hawton, & Rodham, 2005). A dose response relationship has been found, where an increase in the severity or number of abuses results in an increase in the severity of suicidal ideation and planning (Evans, Hawton, & Rodham, 2005). Research in the field of child sexual abuse has become increasingly rigorous over the past decade however, "despite these advances, there continues to be a skepticism regarding the extent to which childhood abuse constitutes a

unique contributor to poor mental health when in company with socioeconomic disadvantage, family dysfunction, and other environmental and contextual factors that could serve as potential confounds" (Noll, 2008, p. 603). Few studies have examined the independent mental health effects of sexual abuse on childhood mental health relative to other experiences of violence.

Child sexual abuse has been found to be significantly correlated to socioeconomic, family and individual factors such as "child physical punishment, paternal education, family standard of living, changes of parents, parents history of illicit drug use, parental attachment and gender" (Fegusson, Bowden, & Horwood, 2008). However, Fergusson and colleagues (in their longitudinal study looking at the retrospective accounts of sexual abuse of young adults in New Zealand) found that it remained a unique contributor to depression and conduct behavior problems despite the presence of these contextual and co-morbid abuse factors. Individuals exposed to child sexual abuse were 2.4 times more likely to present with depressive symptomatology and conduct problems than their non-abused counterparts when controlling for the abovementioned contextual factors (Fergusson, Bowden, & Horwood, 2008).

A recent meta-analysis has shown that even though child sexual abuse is a significant contributor to depression, it is a nonspecific risk factor (Mangilio, 2010) since child sexual abuse has been found to contribute to an array of psychiatric disorders (Chen et al., 2010; Paras et al., 2009). Child sexual abuse has been found to have long-term effects on children's levels of depression regardless of the age at which the abuse occurred (Chen et al., 2010).

Findings on the moderating effects of gender on the mental health of children with a history of child sexual abuse are inconsistent. Both boys and girls with a history of child sexual abuse have been found to suffer from depression and substance abuse (Chen, Dunne, & Han, 2004) and feelings of anger (Newcomb, Munoz, & Carmona, 2009). However, some studies have found that for males physical abuse but not sexual abuse was a significant predictor of depression, whereas the opposite was found for girls (McDonald et al., 2009; Myerson, Long, Miranda, & Marx, 2002). In contradiction to this, Coohey (2010) found boys, but not girls, to be at a significant risk for developing depression as a result of victimisation by childhood sexual abuse, however the number of boys in her sample was a quarter of the number of girls. Coohey (2010), however, argues that her sample consisted of a younger age group (11 – 14 years) in comparison to most studies which include older adolescents, and that it may be that younger boys are more

prone to internalising. A study which included equivalent numbers of boys and girls found no gender differences in levels of internalising and externalising symptoms (for both younger children and adolescents) (Kohn Maikovich-Fong & Jaffe, 2010). The authors do warn that their study "examined broad categories of mental health" excluding subtle symptom differences which, if included, may have indicated different mental health effects for boys and girls (Kohn Maikovich-Fong & Jaffe, 2010, p. 435). Regardless of these inconsistencies, most studies have shown boys and girls with a history of sexual abuse to be equally at risk for depression and conduct problems. Chen et al.'s, (2010) finding that both genders are at risk for depression in the face of child sexual abuse may be more reliable since it is a meta-analysis which made use of 37 studies.

As mentioned previously, few South African researchers have explored children's exposure to sexual violence. Studies which have been conducted focused on prevalence only and made use of high school and university student samples (Lalor, 2004; Madu, 2003; Madu & Pelzer, 2000) as opposed to children and younger adolescents. In these studies the effects of child sexual abuse on depressive symptomatology or externalising behaviour such as anger and conduct problems was not explored. A meta-analytic review on child sexual abuse in Sub-Saharan Africa mirrors findings from American studies which found boys and girls to be equally at risk for mood and behavioural difficulties in the face of sexual abuse and that problems with depressive symptoms and suicidal ideation remain a lifetime problem for some of these individuals (ECSA-HC, 2011).

Historically few researchers examining the effects of child sexual abuse on child and adolescent mental health have considered the possibility that the children in their samples were multiply victimised. Child sexual abuse and physical abuse commonly co-occur and if the effects of one or the other are not controlled for in investigations on the effects of abuse the effects for one type of abuse may be over-estimated. Both physical and sexual abuse have been shown to have independent effects on adolescent mental health significantly predicting depression in this population (Meyerson et al., 2002). Although Meyerson et al's. (2002) study is dated it was one of the pioneering studies in the field looking at the independent effects of physical abuse and sexual abuse on adolescent levels of depression. Another more recent study, looking at the effect of multiple victimisations on pre-adolescents' mental health found that sexual abuse did not lead

to internalising symptoms, however the authors caution that only a small portion of their sample had been victims of child sexual abuse (Petrenko, Friend, Garrido, Taussig, & Culhane, 2012).

In summary, as can be gleaned from studies from high and low income countries, both boys and girls with a history of sexual abuse are at risk for depression and behavioural problems regardless of the age at which the abuse occurred and regardless of other socio-demographic factors. There is a paucity of research in South Africa on the mental health effects of child sexual abuse, and more research needs to be conducted in this area. Furthermore the moderating effects of gender should be considered in addition to controlling for multiple victimisations when determining the effects of sexual abuse on child mental health.

2.2.4 School violence exposure

It has been shown that the various victimisations which have been found to take place in high school, such as physical assault, physical intimidation, emotional victimisation, sexual victimisation, property victimisation and internet victimisation, all make significant independent contributions to levels of anger and depression in adolescents (Felix, Furlong, & Austin, 2010; Turner et al., 2011). Moreover, a cumulative effect has been revealed, with an increase in exposure to different types of victimisations resulting in increased levels of symptomatology (Turner et al., 2011). Recent meta-analysis of longitudinal studies have found peer victimisations to significantly predict internalising difficulties, such as depression and becoming withdrawn (Reintjies, Kamphuis, Prinzie, & Telch, 2010; Storch & Ledley, 2005). Interestingly the reverse was also common, with internalising symptoms significantly increasing the likelihood of being victimised at school (Reintjies et al., 2010), indicating that poor mental health may maintain a cycle of violence exposure.

With regard to gender as a moderating factor, a literature review indicated that girls are more susceptible to depression than boys who are victimised at school (Storch & Ledley, 2005). Furthermore, adolescent girls are more likely than boys to be sexually victimised, and sexual victimisation has been shown to result in higher levels of depression and truancy than in non-victims (Felix, Furlong, & Austin, 2010). Children who are both perpetrators and victims of

violence at school have been found to suffer from worse mental health outcomes than children who are either only victims or perpetrators (Arseneault, Bowes, & Shakoor, 2010).

In addition to internalising problems, studies have indicated that being victimised at school results in the increased use of aggression as a problem solving tactic and is also associated with delinquent behaviour (Storch & Ledley, 2005). Bullying and peer victimisation have been found to be indicators for other more serious delinquent types of violent behaviour (Nansel et al., 2004), such as joining a gang (Apel & Burrow, 2011) and carrying a weapon (Nansel et al., 2004; Nansel, Overpeck, Haynie, Ruan, & Scheidt, 2003; Turner et al., 2011), evidence that bullying behaviour spills over into the use of violence as a problem solving technique.

Most studies which have explored the effects of peer victimisation at school have not considered the possibility that children are being victimised by peers in other contexts, such in their community, in addition to being victimised at school. Turner and colleagues (2011) investigated the effects of both at school and out of school peer victimisations on the mental health of children and found that non-school victimisations made significant independent contributions to symptoms of anger, depression and anxiety over and above exposure to violence at school. This underscores the importance of including cross-contextual violence exposure questions in research questionnaires so as not to over-represent the effects of single violence exposure types on children.

A number of local studies have investigated the prevalence of violence in South African schools, however, few studies have investigated the mental health effects thereof. Findings from one local study were in accordance with studies from high income countries in that being a victim or a perpetrator of bullying were both found to be significantly associated with fighting and delinquent anti-social behaviour such as carrying a weapon and stealing among youths in Durban and Cape Town (Liang, Flisher, & Lombard, 2007). More research needs to be conducted investigating the effects of school violence exposure on adolescent mental health in South Africa.

2.3 Poly-victimisation

Thus far the review has focused on single victimisation studies, the bulk of which failed to consider the full victimisation profile of the children and adolescents sampled. Overlooking the possibility that a respondent has been multiply victimised could result in a number of misconceptions about the data. For example, the contribution of a single victimisation exposure to poor mental health may be overestimated; the interrelationships between various types of exposures may be overlooked; and not recognising the possibility that a child may be multiply victimised may result in a failure to prioritise these individuals for intervention (Finkelhor, Ormrod, & Turner, 2007*b*). Research is increasingly indicating that certain types of victimisations tend to cluster together, for example, child sexual abuse and child physical abuse (Sternberg et al., 2004), and intra and extra familial violence exposure (Margolin et al., 2009). Furthermore, each added exposure increases the risk for poor mental health. What follows is a review of recent studies which take multiple victimisations into account, looking both at the prevalence of poly-victimisation and the effects thereof.

2.3.1 The prevalence of poly-victimisation

If a child is known to have experienced one type of violence (for example physical abuse), the likelihood that they are experiencing other violence types (for example sexual abuse) in other contexts is high (Finkelhor, Ormrod, & Turner, 2007*b*; Margolin & Gordis, 2000; Margolin et al., 2009; Rosenthal, 2000; Turner, Finkelhor, & Ormrod, 2006). Finkelhor and colleagues refer to this multiple exposure phenomenon as 'poly-victimisation' which they define as exposure to four or more different types of victimisations in different locations such as at home, at school or in the community in a one year period. Other authors refer to exposure to two or more types of violence as poly-victimisation (Margolin et al., 2009). Regardless of the various cut off points that have been established to determine poly-victimisation the important point is that researchers are increasingly becoming aware that many children are multiply victimised. The types of violence exposures that have been found to co-occur in varying combinations are: sexual victimisation; bullying; intimate partner violence; physical abuse; sibling assault; conventional crime; emotional abuse; gang violence and dating violence (Cuevas et al., 2010; Holt, Finkelhor,

& Kaufman Kantor, 2007; Finkelhor et al., 2005*a*; Finkelhor, Ormrod, & Turner 2007*a*; Finkelhor, Ormrod, & Turner, 2007*b*; Finkelhor, Ormrod, & Turner, 2010; Herrera & McCloskey, 2008).

The rate at which children and adolescents are exposed to multiple types of violence across a variety of contexts varies between studies, for example, 22% (three or more types of exposures) (Finkelhor, Turner, & Ormrod, 2007*b*), 24% (three or more types of exposures) (Finkelhor, Ormrod, Turner, & Holt, 2009), 37% (four types of exposures) (Kennedy, 2008), 38% (three types of exposures) (Kennedy, 2008), 50% (between two and four different types) (Margolin et al., 2009) and 75% (five different types) (Ford, Wasser, & Connor, 2011). The variation in rates of exposure could be attributed to various methodological differences between studies such as different definitions of poly-victimisation as well as sample differences. For example, Margolin and colleagues (2009) considered two or more types of exposure to violence as poly-victimisation therefore their rate of 50% is higher than the 22% reported by Finkelhor and colleagues' (2007*b*) who considered poly-victims to be those children exposed to four or more different types of violence. Ford, Wasser and Connor's (2011) high rate may be attributable to the fact that they included what other researchers would have considered correlates of violence exposure as violence exposure items, for example, parental mental illness and parental substance abuse.

Regardless of how researchers define poly-victimisation it is clear that children are more likely to be multiply exposed as opposed to only being exposed to one type of violence. For example, over the three year time period of a longitudinal study in the United States, only 10 to 20% of the adolescents reported no exposure to violence while 18–27% reported exposure to only one type of violent victimisation (Margolin et al., 2009). The average number of victimisation types a violence exposed child is likely to experience in a year is three (Finkelhor et al., 2005*a*; Finkelhor, Ormrod, & Turner, 2007). Some children are at an elevated risk for exposure to a higher number of multiple violence types than others. Some researchers have distinguished between low poly-victims (exposure to four to six victimisations) and high poly-victims (exposure to seven or more victimisations) (Finkelhor, Ormrod, Turner, & Hamby, 2005*b*). Low poly-victims have been found to be more common (15%) than high poly-victims (7%) (Finkelhor

et al., 2005*b*). Poly-victims are at more risk for serious violence exposures such as being injured, being exposed to a weapon and being sexually victimised (Finkelhor et al., 2005*b*).

Various violence exposures among children have been shown to cluster together with correlations ranging between .23 and .54, with the highest correlation being between witnessing family violence and child maltreatment (emotional or physical abuse) (Renner & Shook Slack, 2006; Turner, Finkelhor, & Ormrod, 2006). Intra and extra familial violence also co-occur, with youths who are victimised in their homes by a family member being more likely to be victims and witnesses of community violence (Kennedy, 2008; Margolin et al., 2009; Mrug & Loosier, 2008). Individuals who experience any kind of assault, sexual victimisation, property crime, or who were witnesses to violence, have been found to be up to 97% more likely to be victimised by another victimisation (Finkelhor et al., 2005*a*), with sexual victimisation being the violence exposure type most strongly predictive of re-victimisation of any kind (Finkelhor, Ormrod, & Turner, 2007*a*).

A number of demographic differences between poly-victims have emerged. With regards to gender, the poly-victimisation of females is likely to include sexual victimisation (Boxer & Terranova, 2008; Finkelhor et al., 2005*a*; Kennedy, 2008; Turner, Finkelhor, & Ormrod, 2006). For adolescent girls, a specific cluster of items appear to occur together and are moderately to highly correlated, for example, $r = .29$ for physical abuse and domestic violence, $r = .39$ for sexual abuse and domestic violence and $r = .47$ for sexual abuse and physical abuse (Finkelhor et al., 2005*a*). In some studies girls have been found to be exposed to a more diverse range of violence exposure types compared to males (Boxer & Terrannova, 2008), however most studies indicate boys to be at a higher risk for multiple victimisations (Finkelhor, Ormrod, & Turner, 2007*b*; Mathur, Rathore, & Mathur, 2009). Poly-victims have also been found to be older (Finkelhor, Ormrod, &Turner, 2007*b*) possibly because they have had more time and hence more opportunities to be victimised. These findings indicate that multiple types of exposures, specifically to various home-based violence, are commonplace and therefore call into question research that focuses only on the prevalence of single event violence exposures or multiple occurrences of the same type of victimisation.

Re-victimisation by multiple types of violence has been shown to be the norm. For example, in a longitudinal study, children exposed to four or more different types of violence in one year were

at a higher risk compared to non poly-victims for being multiply exposed to different types of victimisations in the following year (Finkelhor, Ormrod, & Turner, 2007*a*). In fact, 46% of poly-victims in year 1 were poly-victims in Year 2, and poly-victims were 5.1 times more likely to be poly-victimised in Year 2 compared to children who were not poly-victimised in Year 1 (Finkelhor, Ormrod, & Turner, 2007*a*). These findings indicate that desistence from being multiply victimised during the course of a child's life is not likely.

Certain types of exposures increase the risk for multiple victimisation. In addition to multiple victimisations resulting in repeat poly-victimisation, repeat single victimisation exposures also put children at an increased risk of becoming poly-victims (Finkelhor, Ormrod, & Turner, 2007*a*). Particular types of exposures are more predictive of poly-victimisation, such as facing a possible attack with a weapon (Finkelhor, Ormrod, & Turner, 2007*a*). Finkelhor and colleagues (2005*a*) found children and adolescents who experienced the following victimisations to be more at risk for high poly-victimisation, that is, experiencing seven or more incidents in one year: dating violence with an injury; attempted or completed rape; being flashed by a peer or adult; sexual assault by an unknown person; a racial attack; witnessing a murder; war exposure; a statutory sexual offense and kidnapping. It has also been found that children exposed to domestic abuse are at an increased risk for being poly-victimised (Finkelhor, Ormrod, & Turner, 2007*a*). These results allude to the need to redefine victimisation as a condition, as opposed to a single event (Finkelhor, Ormrod, & Turner, 2007*b*) and suggest that children who are victimised by particular types of violence are at a higher risk for becoming poly-victims.

Locally few studies have explicitly inquired about the victimisation of children and adolescents across multiple contexts such as the home, community and school. Most studies have focused on repeated exposure to single victimisation types, with the majority of violence exposure studies focusing on community violence. One of the few studies which looked at both school and home violence exposure found 35.3% of learners in the Western Cape to be exposed to violence at home as well as at school, either as victims or witnesses (Burton, 2008). Another study found almost 70% of children who reported witnessing domestic violence to also participate in bullying at school, supporting the notion that exposure to violence leads to the perpetration of violence, therefore feeding cycles of violence (Baldry, 2003). Burton (2008) argues that a fair proportion of children in South Africa are exposed to more than one type of violence across various contexts

and that "schools reflect what is happening in the home and the community thus presenting a microcosm of what is happening in the totality of young people's lives" (Burton, 2008). His study focused mostly on children's exposure to violence in schools, and there is a pressing need for more research to be done in South African on children's exposure to violence across multiple contexts.

A range of factors put children at a higher risk for poly-victimisation. These factors "are rooted in structural contexts and thus are likely to vary by age, gender, race, ethnicity, income, parental education and family structure" (Turner, Finkelhor, & Ormrod, 2006, p. 15). Research suggests living with a single parent or in a step-family are substantial risk factors for being poly-victimised (Finkelhor, Ormrod, & Turner, 2007*a*; Finkelhor et al., 2005*b*; Turner, Finkelhor, & Ormrod, 2006). Children living in step-families are also more likely to be victimised by someone living in their home such as an adult caregiver; the rate at which they are victimised by a known family member is 63% compared to children living with their biological parents (38.6%) and children living with a single parent (38.7%). Victimisation at the hands of siblings is also more likely in step-families (47.1%) than in biological parent households (33.6%) and single parent households (34.2%) (Turner, Finkelhor, & Ormrod, 2007). In step-family households the risk of children being multiply victimised is increased with each added person (Turner, Finkelhor, & Ormrod, 2007).

Step-family households are more likely to be populated by unrelated individuals (Finkelhor, Ormrod, Tuner, & Holt, 2009) which may put children more at risk for being abused. In a longitudinal study the persistence of poly-victimisation from Year 1 to Year 2 was associated with domestic violence, general family problems, family alcohol abuse, parental imprisonment and unemployment – all indicators of severe parental dysfunction (Turner, Finkelhor, & Ormrod, 2007). Children in single parent households may lack adequate supervision (Finkelhor et al., 2009) and are more likely to reside in high violence neighbourhoods and attend high violence schools owing to their lower socio economic status (Turner, Finkelhor, & Ormrod, 2007). Children living in these types of families may be vulnerable to abusers since they have an immense yearning for attention; this may impair their judgment about the people who they acquaint themselves with (Finkelhor et al., 2009).

Finkelhor and colleagues (2009) investigated four pathways, or risky situations, which are likely to result in poly-victimisation. These pathways included living in a dangerous family, living in a chaotic family environment (characterised by multiple family problems), living in a dangerous community and having emotional problems. All of the above mentioned pathways were found to make significant independent contributions to the risk of becoming a poly-victim and were often found to be simultaneously present in poly-victims lives (Finkelhor et al., 2009). Step and single-parent families are more likely to be associated with these above mentioned risks for poly-victimisation than nuclear families.

Living in a low income household has been shown to be associated with being exposed to higher rates of sexual victimisation, witnessing family violence and child maltreatment (Renner & Shook Slack, 2006; Turner, Finkelhor, & Ormrod, 2006). It has been found in one study that poly-victimised adolescents do not differ significantly from minimally victimised youth with regards to family structure (Holt, Finkelhor, & Kaufman Kantor, 2007). However the majority of studies have found a link between family structure and demographic variables such as household income, age, gender and exposure to violence. The influence of family structure on violence exposure is particularly relevant for the South African context where children living in high violence communities often live in single-parent households, extended families that comprise family members as well as non-family members, or live only with non-family members.

In summary, United States studies suggest that most children who are exposed to violence are exposed to more than one type of violence. Even though the majority of children are exposed to more than one type of violence, a smaller but noteworthy portion (between 22 and 38%) are exposed to three or more violence types with a minority being exposed to seven or more different types (7%). Boys and older children (adolescents) are at a higher risk for multiple exposure. Adolescent boys' victimisation profiles are more likely to include various forms of physical assault whereas girls are more likely to be exposed to sexual violence. In addition to repeated exposure to a single violence type, certain types of victimisations increase the risk for poly-victimisation, for example various types of sexual assault and physical assault. Living in certain types of families, that is single-parent and step-families, put children at an increased risk to become poly-victims. There is a dearth of South African research on poly-victimisation. In a

country plagued by uniquely elevated levels of interpersonal violence and conventional crime it is surprising that local researchers have not identified the need to investigate the extent of poly-victimisation among children and adolescents, and there is a need for increased research in this regard.

2.3.2 The psychological effects of poly-victimisation

As with exploring the prevalence of violence exposure, violence research has tended to examine the psychological effects of either one violence exposure event, or the effects of repeated exposures to the same victimisation type (e.g. community violence) on child mental health. A more recent trend is based on a cumulative risk model which "does not assign any single risk factor a higher status or a greater weight than any other" (Boxer & Terranova, 2008, p. 638). Rather, it is the total number of exposures of any type which are essential when predicting poor mental health (Sameroff cited in Boxer & Terranova, 2008). However, this does not allow for an exploration of which types of exposure contribute most to negative mental health outcomes, that is, which types of exposure are most pathogenic with regard to different outcomes.

Recent studies show that poly-victimisation remains particularly pathogenic when compared with exposure to only one type of victimisation, even when that single type of victimisation is experienced repeatedly (Boxer & Terranova, 2008; Finkelhor, Ormrod, & Turner, 2007*b*). Even those poly-victims who are classified as 'low poly-victims' (exposure to four different victimisation types), as opposed to 'high-poly-victims' (exposure to seven or more different victimisation types), were found to be more symptomatic than victims who were chronically victimised by one type of victimisation (Finkelhor, Ormrod, &Turner, 2007*a*). Finkelhor, Ormrod and Turner (2007*a*, p.16) suggest that "much of the presumed influence of particular victimisation types may instead be due to the underlying effects of poly-victimisation". The addition of poly-victimisation as a predictor variable for mental health outcomes either eradicates, or greatly lessens, the predictive power of single type victimisations (Finkelhor, Ormrod, & Turner, 2007*b*). However, it must be noted that in addition to the cumulative effect of violence exposure, as well as the fact that the addition of poly-victimisation as a variable often greatly reduces the effects of single types of exposure, it has been found that some types of

exposure remain more pathogenic than others (Turner, Finkelhor, & Ormrod, 2007*a*) lending support for both a cumulative and a hierarchical model of classifying the pathogenic effects of violence exposure (Boxer & Terranova, 2008).

This hierarchical model of classifying the gravity of different violence exposure types is based on the theory that some types of violence are more harmful because they violate social norms much more than other types (Toth & Cichetti, 1996). These exposures are particularly related to the abuse of children in various forms such as child sexual abuse, physical abuse and neglect. Child physical abuse (Boxer & Terranova, 2008; Turner, Finkelhor, & Ormrod, 2006) as well as child sexual abuse and neglect by a caregiver have been shown to be more pathogenic than other victimisation types (Turner, Finkelhor, & Ormrod, 2006). For example, for children aged 10 to 17 years exposure to child physical abuse and neglect by a caregiver, as well as child sexual abuse, over their lifetime contributed significantly and uniquely to levels of depression and aggression, even in the presence of poly-victimisation (Turner, Finkelhor, & Ormrod, 2006).

Conversely, a later study revealed that when poly-victimisation was added to multiple regression analyses sexual abuse became a nonsignificant predictor of depression and aggression in 10 to 17 year olds (Finkelhor, Ormrod, & Turner, 2007*b*). However, the effect of child physical abuse remained a significant contributor to depression although the strength as a predictor was lowered with the addition of poly-victimisation as a variable (Finkelhor, Ormrod, & Turner, 2007*b*). It must be noted that in the later study mental health effects where measured against victimisations experienced only in the year prior to the study, whereas Turner, Finkelhor, & Ormrod (2006) considered the lifetime exposure of children to violent events. Inquiring about violence exposure in the past year may exclude violence exposures that children have been exposed to earlier on and which might contribute significantly to their poor mental health. Sexual victimisation as a significant contributor to poor mental health may fall away as children become older and experience more victimisation types, which would be in support of a cumulative risk model. These findings indicate that the age of the sample is important to consider when determining association between violence exposure and poor mental health.

Despite indications that child sexual abuse, physical abuse and neglect may be particularly pathogenic, there remains considerable support for a cumulative risk model of the effects of multiple violence exposure (Boxer & Terranova, 2008; Finkelhor, Ormrod, & Turner, 2007*b*). In

one study, 86% of 10-17 year olds with clinical levels of depression were poly-victims (Finkelhor, Ormrod, &Turner, 2007*b*). Adolescents who are poly-victims are twice as likely to suffer from depression compared to adolescents who also have a victimisation history but who are not poly-victims (Ford, Elhai, Connor, & Freuh, 2010). Poly-victims are also significantly more likely to display delinquent behaviour in comparison to their victimised contemporaries who are not poly-victims (Ford, Elhai, Connor, & Freuh, 2010). In antithesis to this common finding, one study found poly-victimisation to be associated with clinical levels of externalising problems, such as aggression and conduct problems, but not internalising problems such as depression (Ford, Wasser, & Connor, 2011).

Even though children who suffer from depression as a result of poly-victimisation have been shown to be more likely to continue to be poly-victims, research more consistently shows that children who suffer from high levels of aggression as a result of poly-victimisation are more likely to be persisting poly-victims (Finkelhor, Ormrod, & Turner, 2007*a*). In fact, Finkelhor, Ormrod and Turner (2007*a*) found no evidence that internalising difficulties lead to persisting poly-victimisation (Finkelhor, Ormrod, & Turner, 2007*a*). It may be that externalising behaviours put children at a higher risk for re-victimisation since they are more likely to be present in potentially violent situations across a variety of contexts and therefore they may get into more physical altercations. Furthermore, they may be more vulnerable to child maltreatment of various kinds since they may be more challenging to parents which may result in harsh punitive parenting styles. Poly-victims whose victimisation profile included sexual abuse have been found to be at a higher risk for developing depressive symptomotology than externalising symptoms (Ford et al., 2010).

In summary much of the literature on poly-victimisation consistently shows that each victimisation adds uniquely to the variance in mental health problems. Furthermore when poly-victimisation is added as a variable the independent effects of single exposure types are lowered or become nonsignificant unless, as some studies show, they are of a particular kind such as child sexual abuse, physical abuse or neglect. Findings are not consistent with some studies finding that poly-victimisation is associated with both internalising problems and externalising problems while other studies have found support for only one or the other. In American studies, poly-victims appear to be at a higher risk for these mental health and behavioral problems in

comparison to children who have repeatedly been exposed to only one type of victimisation. It is important to investigate the effects of being multiply victimised on child mental health in South Africa, where many children are at risk for multiple types of violence exposure (Cluver, Fincham, & Seedat 2009). However, few South African studies have examined the role of poly-victimisation in mental health, or attempted to assess the comparative contributions of different types of violence exposure to mental health.

2.4 Conclusion

The reviewed literature indicates that studies on child victimisation need to adopt an inclusive approach to investigating both the prevalence and effects of violence against children. Historically the bulk of studies have examined the extent to which children are exposed to single types of violence, such as domestic violence, failing to account for the full victimisation profiles of the sampled children. As has been shown by the more recent poly-victimisation studies, most children who are exposed to violence are exposed to an average of three different types of victimisations. Therefore, earlier studies would have overlooked the extent of children's exposure to violence.

There is sufficient evidence for a cumulative risk model in which a dose response relationship is apparent, with an increase in the number of victimisation types resulting in an increase in poor mental health. Multiple victimisations have been shown to be more toxic than repeated exposure to a single victimisation type and to result in both depression and externalising problems such as aggression and conduct problems. There is also evidence for a hierarchical model of the effects of violence exposure, with some victimisations, such as child sexual and physical abuse, proving to be more toxic. The mental health effects accounted for in single victimisation studies may overestimate the contribution of these single exposures to poor mental health. For this reason the currently study not only accounts for the various types of violence exposures children in the sample have experienced, but also makes and attempt to tease out which exposures, or combinations of exposures, add the most risk to poor mental health.

There is a paucity of local studies which examine both the prevalence and effects of exposure multiple types of violence on child mental health. The majority of local studies have failed to

include a full range of victimisation types for which children may be at risk, with a specific lack of studies on children's exposure to domestic violence and sexual abuse compared with community violence exposure. However, most of these community violence exposure studies fail to consider the extent of children's exposure to violence in their schools which have become common sites of violence in South Africa. Since exposure to peer victimisation at school has been shown to contribute uniquely to the variance in mental health outcomes, it is important for studies to specifically enquire about these types of violence exposures.

A multivariate approach not only requires the inclusion of different types of violence exposures but also factors which could have moderating and mediating effects on the relationship between violence exposure and child mental health. As mentioned by Ward et al. (2007), a multitude of risk and resilience factors may play a role in accounting for the relationship between the exposure to trauma and the resultant mental health burden, for example family structure, gender and age may place children at varying degrees of risk for exposure to violence and have been found to moderate the relationship between violence exposure and poor mental health. Most studies, locally and internationally, include children with a broad age range in their samples for example age 1-17 years, or focus primarily on high school aged children. The reviewed literature has revealed that children of different ages may be at varying degrees of risk to exposure to certain violence types and may respond differently to various types of violence exposures. Few studies have focused specifically on children aged 12 to13 years old (preadolescence to young adolescence). Children at this age are vulnerable since they are transitioning from one developmental age to another; this change is accompanied by specific developmental stressors and therefore from a cumulative stress model perspective this age group may be at a higher risk for violence exposure and poor mental health.

This research study will explore the prevalence and impact of different forms of violence across multiple sites (home, school and neighbourhood) among young adolescents in a low-income community in Cape Town. The following chapter will elucidate the specific research aims and methodological approach of the study.

CHAPTER 3

METHODOLOGY

3.1 Aims of the study

The aims of the study are as follows:

1. To establish the frequency of exposure to different types of violence amongst a sample of younger adolescents residing in the Hanover Park residential area.
2. To explore the comparative contributions of different types of violence exposure to depressive symptomatology, aggressive behaviour and conduct problems once sociodemographic variables have been controlled for.
3. To establish the extent of poly-victimisation (exposure to several different types of violence) in the sample, and to examine the relationship between poly-victimisation and the mental health outcomes of depression, aggression and conduct problems (that is, do higher levels of poly-victimisation result in higher levels of depressive symptomatology, aggressive behaviour and conduct problems?).

3.2 Research Design

The study made use of a cross-sectional survey design which requires one sample to be drawn from the population at a particular time (Gavin, 2008). This method allows for the characteristics of populations to be described and for the differences between groups in the population to be explored (Shaughnessy, Zechmeister, & Zechmeister, 1990). The statistical analysis conducted on data from cross-sectional survey designs allow for predictions about similar populations to be made (Shaughnessy, Zechmeister, & Zechmeister, 1990).

3.3 Sample

A non-random sample, which consisted of Grade 7 learners, was drawn from eight primary schools in the Hanover Park municipal district in Cape Town and one school within the Landsdowne district (this school was included since it is in close proximity to Hanover Park and

most learners who attend this school reside in the Hanover Park area). These municipal districts are populated predominantly by the group previously classified as "coloured" under Apartheid law (Adhikari, 2009).

Hanover Park is a residential area based on the Cape Flats approximately 15km from Cape Town's city centre. This community has high levels of gang violence, and has been referred to as "one of the most violent places in South Africa" (Benjamin, 2011, p. 3). Two of the most active and well known gangs, the American and the Mongrels, are based in Hanover Park where there are ongoing turf wars (Benjamin, 2011). It is a low-income community with 15% of households surviving on between R9601,00 and R19200, 00 per annum and 44% living on between R19200, 00 and R76800,00 per annum (Miller, Sonti, & Van Eede, 2006). In 2006 Hanover Park consisted of 32,608 residents of which only 32% of females and 37% of males between the ages of 15 years and 65 years were employed (Miller, Sonti, & Van Eede, 2006).

With regards to non-participation, 2.1 % (n = 14) of the potential participants declined participation and 3.5% (n = 23) of parents rejected the request for their children's participation in the study. It must be noted that teacher strikes were taking place at the time of data gathering therefore many learners where absent from school on some of the days when data were being gathered. Therefore, the final sample does not constitute the full Grade 7 cohort in these nine schools.

All Grade 7 learners at the nine schools were invited to participate in the study through an information letter and consent form given to parents and learners. The total sample consisted of N=617 participants. However one case had a large number of missing values hence the sample size was reduced to N=616. Furthermore, two participants failed to indicate their gender hence the smaple size used for analyses involving the gender variable is N=614. The mean age of the participants was 12.8 years (SD = .74). The minimum age reported was 12 years and the maximum age 15 years. Of the sample, 54.6% (n = 336) were girls and 45.4% (n = 279) were boys. Of the participants, 27.1% (n=167) were instructed in Afrikaans, and 72.9% (n=450) were registered in classes conducted in English. Language of instruction and home language cannot be assumed to be synonymous in this study since some children speak a different language at home

to the language that they are taught in at school. However, the norm in this community is that children are taught in the same language that they speak at home.

3.4 Measures

Since the schools sampled in this study provide instruction in both English and Afrikaans, all measures were translated into Afrikaans by means of a forward and back translation process to ensure equivalence (Foxcroft & Roodt, 2006). The English version of each questionnaire was translated into Afrikaans by a fully bilingual individual. The translated version was then translated back into English by another fully bilingual individual. The original English version and the back translated version were checked for equivalence by a third English speaking individual, and in the case of any discrepancies, alternative translation options were discussed with the bilingual translators.

A form of colloquial Afrikaans is spoken in this community, therefore a pilot study of the questionnaire was conducted with a group of $N = 72$ Afrikaans speaking children from a tenth school. A meeting was then held with a group of Afrikaans children who had participated in this pilot study in order to identify the Afrikaans words which they found difficult to understand. Two such words were identified. Afrikaans words which children from this community are more familiar with were identified to replace these words. For example, an Afrikaans word for 'beaten up' is *opgefoeter*. The children in the pilot study did not understand this word and it was therefore replaced with another Afrikaans word, *opgeneuk*, which also means 'beaten up'. A second word, *beledig,* which means to abuse, insult or offend*,* was changed since the word was thought to be too advanced for Grade 7 learners from this population to understand.

3.4.1 Demographics

In order to characterise the sample, a demographic questionnaire (Appendix A) was constructed to gather information about the participants' age, gender, the kinds of dwellings they reside in, household composition and the number of individuals who live with participants in their homes.

Individuals from this community are known to live in extended family networks. It was thus important to capture the full range of individuals who the participants could be residing with. In addition to nuclear family members (mother, father and siblings), extended (e.g. aunts and uncles or distant cousins) and non-family members (e.g. boarders) were considered as possible household members in the demographics questionnaire. Non-biological family members, such as step-parents and parents' boyfriends or girlfriends, as well as spouses, boyfriends or girlfriends of siblings were all included. A category labeled 'someone else' was included to represent other non-familial household members. The names of the various kinds of dwellings children live in were adapted from Cluver, Fincham and Seedat's (2009) study which used a Cape Town based sample, and included formal dwellings (e.g. brick houses), informal dwellings (houses made of corrugated iron known as shacks), children's homes or shelters, and living on the street. The language participants were taught in at school, and therefore most likely to speak at home, was used as a proxy for socioeconomic status. This decision was informed by the understanding that among individuals in this community speaking English is afforded a higher status than speaking Afrikaans and that as a result individuals who speak English are often of a higher socioeconomic status (Adhikari, 2010). Although language is not necessarily a reliable indicator of socioeconomic status, children in the English and Afrikaans language groups may have different profiles of violence exposure and impact, and considering language as a control variable was therefore deemed to be important in this community.

3.4.2 Exposure to violence

The Child's Exposure to Violence Checklist (CEVC; Amaya-Jackson, 1998) was adapted to measure the participants' exposure to domestic, school, community and sexual violence (Appendix B). The questionnaire items were adapted to reflect the kinds of violence exposure experienced by children living in high violence communities in South Africa within this age group, and specifically within the community sampled. Firstly, 11 items that were considered ambiguous, irrelevant or which did not directly assess a form of violence, were omitted. For example, "Have you seen gangs in your neighbourhood?" was omitted since it is not necessarily reflective of a violent incident but could rather be an indicator of the quality of the neighbourhood. Also, "Have you heard grown-ups in your home yell at each other?" was omitted

since it is not necessarily indicative of a violent incident. The following item "Has someone in your family ever touched you or kissed you in a way that made you feel uncomfortable" was omitted since it was ambiguous. The item is supposed to assess exposure to sexually inappropriate behaviour, however it can be misunderstood; for example, a grandmother bestowing hugs and kisses to her grandson may make him feel uncomfortable, however her behaviour may not be sexually inappropriate. In this study 'victimisation' is defined as direct and indirect exposure to physical and sexual violence in the home, school or neighbourhood. Other types of victimisation such as emotional abuse, which is considered an equally important contributor to poor mental health in children, was excluded owing to the unreliable nature of the emotional abuse scale initially constructed for use in the study.

Secondly, the wording of items was adapted slightly to suit the intended purpose of the study. For example, the phrase "in your family" was changed to "in your home", since some children in this community do not reside with their biological parents. Some items were repeated with the prefixes or suffixes changed to "at school" and "in your neighbourhood" in order to assess the different contexts in which children are being exposed to each form of violence. Thirdly, two items from Cluver, Fincham and Seedat's (2009) study were added to the scale to assess physical domestic abuse (items 39 and 40). The 36 items of the adapted CEVC scale assess witnessing of community violence, direct victimisation in the community, witnessing of domestic violence, direct victimisation in the home, exposure to witnessed and direct violence at school, and experiences of sexual abuse.

The literature indicates that it is difficult for respondents to recall exactly how many times they have experienced a given event, especially if they are chronically exposed to violence (Wolfer, 1999). For this reason the response scale of the original questionnaire, which had five points ranging from 'never' to 'more than 10 times', was changed to a three-point response scale ('Never', 'Once' and 'More Than Once') in order to simplify the questionnaire for the intended sample. Given the high levels of violence that abound in this community, the respondents in this sample may have found it difficult to accurately recall, for example, if something had occurred twice, three times or four times. A previous study similarly scaled down the response options on the CEVC Likert scale from five to three options (Fehon, Grilo, & Lipshitz, 2001). In addition,

since this study considers lifetime exposure to violence, participants were asked to respond to items while considering their whole lives, instead of just "in the past seven days" as is instructed in Amaya-Jackson's (1998) original version of the CEVC.

The original version of the scale has previously been used with a South African sample in the Western Cape for which the Cronbach's Alpha was .93. (Fincham et al., 2009). The Cronbach's alpha for the CEVC for the current sample was .86, indicating good internal consistency. The Cronbach's alpha for the English questionnaire was .85 and for the Afrikaans questionnaire was .87, indicating good internal consistency for both language groups.

3.4.3 Depression

The depression subscale of the Social and Health Assessment Scales (SAHA; Rushkin, Schwab-Stone, & Vermeiren, 2004) was used to measure depressive symptomatology (Appendix C). Positive endorsement of 11 of the 15 items would be indicative of depressive symptomotology while four of the 15 items would indicate an absence of depressive symptomotology if positively endorsed. These four items were reverse-scored, however, they showed very low item-total correlations and hence lowered the Cronbach's alpha for the questionnaire. These four items were therefore excluded from all analyses of depression scores.

The response format consisted of a three- point Likert scale, with the choices being 'Not True', 'Sometimes True' and 'Often True', inquiring about how the child felt in the past month. Rushkin, Schwab-Stone and Vermeiren's (2004) response choices were 'Not True', 'Somewhat True' and 'Certainly True' – the wording has been changed for this study to assess the frequency rather than the intensity of the symptoms, which may be easier for the intended sample to report (a word like 'somewhat' may have an ambiguous meaning for the sample under study). The Cronbach's alpha for the depression sub-scale, based on an American study, was .80, indicating good internal consistency (Rushkin, Schwab-Stone, & Vermeiren 2004). In this study the Cronbach's alpha for both the English and Afrikaans questionnaires separately was.84. The questionnaire therefore displayed good and equivalent internal consistency in both languages.

3.4.4 Aggression

To assess aggression, 24 items were selected from Buss and Perry's (1992) Aggression Questionnaire (AQ), (Appendix D). The AQ was chosen because it assesses different dimensions of aggression, not just behavioural aggression. The subscales of the AQ included in this study measure physical aggression, anger and hostility. The verbal aggression subscale was omitted since the items do not always appear to measure aggression. For example, "I tell my friends openly when I disagree with them" is a behaviour that might reflect assertiveness rather than aggression. Exploratory factor analysis while constructing the original AQ revealed high factor loadings for all four subscales in repeated samples, indicating that they are indeed separate factors (Buss & Perry, 1992). In a study conducted by Buss and Perry (1992), the internal consistency of the subscales was as follows: physical aggression .85, anger .83 and hostility .77, with a total Cronbach's alpha of .89 for the scale as a whole. Regarding reliability reported by Buss and Perry (1992), test-retest correlations for the subscales were, .80 for physical aggression, .72 for anger and .72 for hostility, with the total score being .80.

Buss and Perry (1992) used a five-point Likert scale ranging from 'Extremely uncharacteristic of me' to 'Extremely characteristic of me'. For the present study this was adapted to a three-point Likert scale reading 'I'm not like this at all', 'I'm a bit like this' and 'I'm a lot like this', since the word 'uncharacteristic' may not be understandable for child participants in a South African sample and does not match the vocabulary used by this specific population. The wording of some items was also changed slightly where needed in order to suit the vocabulary used by the target population. Although the AQ was originally developed for adult populations, it has shown satisfactory psychometric properties with pre-adolescent and adolescent populations across different cultures (for example, Morren & Meesters, 2002; Santisteban, Alvarado, & Recio, 2007). The Cronbach's alpha for the AQ for the current study was .84. and was .83 and .87 for the English and Afrikaans scales respectively, indicating good internal consistency in both language versions of the questionnaire. The AQ data were not analysed according to the subscales for this study; only the total score was used.

3.4.5 Conduct problems

Items from the delinquency subscale of the Child Behaviour Checklist (CBL; Achenbach & Edelbrock, 1983) (Appendix E) were used to measure conduct problems, such as substance use, stealing and truancy. There were 12 items with a three-point Likert scale response format, with the options being 'Never', Sometimes' and 'Often'. No adaptations were made to the response format. The Cronbach's alpha for this subscale using a South African sample was .89 (Ward et al., 2007), and for the current study it was .70. The Cronbach's alpha for the English questionnaire was .67 (slightly lower than the acceptable .70 cut off), and .75 for the Afrikaans version (indicating good internal consistency). The Cronbach's alpha for the English version of this measure of conduct problems suggests that some degree of caution should be applied to interpreting results regarding conduct problems in the sample. Furthermore, self-reports of conduct problems are always prone to elicit socially desirable responses and youth are hesitant to disclose anti-social behaviour to both caregivers and professionals (Reijneveld, Crone, & de Meer, 2012), emphasising the need for tentative interpretation.

3.5 Procedure

Eight post-matric youth leaders, who belong to the CASE (Community Action for a Safer Environment) youth group in Hanover Park, were trained to assist in the administration of the questionnaires to the participants. The youth leaders reside in the same community as the participants. It was felt that the participants would be more likely to relate to the youth leaders than to researchers from outside their community, feel more comfortable working through the questionnaires with them, and therefore possibly be more motivated to answer the questionnaires honestly. Honours level psychology graduates were present at each administration to ensure consistency of administration. The first administration by each youth leader was also observed by the principal researcher. The questionnaires were administered class by class in each school and were administered over a period of one hour with a short break half way through to ensure optimal concentration from the participants. The study was introduced to the participants by the honours level psychology graduates prior to administration and it was made clear that participation was voluntary. Children who declined to participate, or whose parents had declined

permission for them to participate, were given reading material to read during the administration of the study. Each item from each questionnaire was read to the participants by a youth leader while participants read along from their own copy of the questionnaires. The response options were then read out and time was given for the learners to respond to each item before moving on to the next item. Children were administered questionnaires in the language in which they were instructed at school since, as mentioned above, it is common for children to be instructed in the same language that they speak at home.

A debriefing session was conducted after the administration of the questionnaires in which the youth leaders engaged with the learners regarding their experience of answering the questionnaires. In this debriefing session the youth leaders acknowledged the personal, and possibly upsetting nature, of some of the items in the questionnaires. Owing to the sensitive nature of the study a handout (Appendix F) containing the contact details for counselling centres that are accessible to the learners was distributed during this debriefing session in the event that a participant may have felt in need of counselling. The contact information of the principal researcher, who is a registered counsellor, was also indicated on the handout. The children were given something to eat and drink as a token of the research team's appreciation for their participation in the study. Questionnaires were collected by the honours graduates who were supervising the administration and were stored in a locked office in the Psychology Department.

3.6 Data Analysis

Data analysis was executed using PASW Statistics (SPSS) version 19.0.0 for Windows (SPSS Inc, 2011).

3.6.1 Descriptive statistics

Descriptive statistics were used to summarise demographic information (age, sex, language, type of dwelling, household size and household composition). Descriptive statistics were also computed to summarise the frequency of exposure to the various types of violence and the

frequency of poly-victimisation. Scale statistics were generated for the CEVC, aggression, depression and conduct problems questionnaires. Cronbach's alpha coefficients were computed for all the questionnaires, except for the demographics questionnaire.

3.6.2. Bivariate statistics

T-tests and one-way between groups ANOVAs were used to explore the relationship between sociodemographic variables, exposure to violence and the severity of depression, aggression and conduct disorder symptoms. Pearson's Product-moment correlations were computed to examine the relationship between levels of exposure to different types of violence, and the severity of depression, aggression and conduct symptoms, and between levels of poly-victimisation and the severity of mental health symptoms.

3.6.3 Multivariate statistics

Standard multiple regression analysis was used to investigate the independent and relative contributions of gender, language, household composition, different types of violence exposure and poly-victimisation to depressive symptoms, aggression and conduct problems.

3.6.4 Missing data

Item nonresponse occurred on all the outcome measures. Based on listwise deletion, 62 cases (10.07%) had incomplete data on the CEVC scale, 40 cases (6.49%) on the depression scale, 54 cases (8.77%) on the aggression scale and 18 cases (2.9%) on the conduct scale. Listwise deletion would thus have resulted in a considerable reduction of the sample size (from 616 to 442). Further, the patterns of missing data suggest that item nonresponses were not missing completely at random.

Item nonresponse was handled by imputing missing values using the two-way multiple imputation with error method (Method TW; Little & Su, 1989). PASW Statistics (SPSS) for

Windows version 19 (SPSS, 2011) was used to carry out the Method TW imputation (Van Ginkel, Sijtsma, Van Der Ark, & Vermunt, 2010). For each analysis five imputed data sets were created and statistical analyses were performed on the five imputed data sets independently. Method TW was applied to each scale separately. Cronbach's alpha coefficients for each scale and subscale were obtained as the mean of the five alpha values obtained from the five imputed data sets. Correlation coefficients were obtained as the mean of the five r-values from the five imputed data sets. R, R-squared, and the adjusted R-squared from the regression analyses were averaged across the five imputed data sets. Parameter estimates were combined according to the rules of Rubin (1987). It is important to note that tests of normality were not conducted since such tests have not been developled for multiple imputation methods

3.7 Ethical Considerations

3.7.1 Consent and assent

Permission to conduct the study was obtained from both the Western Cape Education Department (WCED) and the principal of each school. Owing to the reported lack of involvement of many parents in the lives of their children in this particular community, especially related to school activities (according to reports of school counsellors, teachers and principals), it was predicted that relying on parental informed consent letters to be completed and returned to the school would yield very few participants. Furthermore, in a local study, only 65% of parents who received and returned informed parental consent letters remembered seeing the consent form (Mathews et al., 2005), indicating that even signed parental consent forms have limited validity.

Instead, a passive consent letter (Appendix G) was sent to all the parents explaining the nature of the study and asking them to indicate to the school if they do not give consent for their child to participate. International (Benhorin & McMahon, 2008) and local (Ward et al., 2001) researchers have previously used a similar procedure of passive parental consent.

Informed assent (Appendix H) was obtained from the participants themselves prior to the administration of the questionnaires in the form of an assent letter. The content of the form was explained to them verbally by the youth leaders administering the questionnaires.

3.7.2 Confidentiality and anonymity

Participants were not required to write their names on the questionnaires. They were assured verbally, as well as in the assent form, that they will remain anonymous and that the information gleaned from the study could not be linked to specific children. To ensure privacy whilst completing the questionnaires, cardboard dividers were designed to fit onto the school desks during administration of the questionnaires. This was important since some of the classrooms were overcrowded.

3.7.3 Malevolence versus benevolence

Items in the CEVC had the potential to cause distress for participants who had been exposed to violence. For this reason participants were regularly reminded during the administration of the questionnaires that they could discontinue their participation altogether or omit particular items if they wished to. The research aims of a study should not outweigh the participant's well being (Davis, Du Plessis, & Klopper, 2005). However, it was of utmost importance for the all the violence exposure items to be included in the scale because the victimisation profiles of participants, and the related negative mental health sequalae thereof, will be used by the local organization, CASE, to develop prevention and intervention programmes. The programmes will be directed at assisting young adolescents in this community who are at a high risk for violent victimisation, or who are at an increased risk for negative mental health outcomes owing to victimisation.

CHAPTER 4

RESULTS

This chapter will begin by reporting descriptive statistics for the variables under study. Thereafter the results of the bivariate analyses will be reported, which were used to explore the association between socio-demographic factors, different forms of violence exposure and the severity of depressive symptoms, aggression and conduct disorder. Finally, the results of the multivariate analyses will be reported, which were used to explore the independent and relative contributions of different forms of violence exposure to depressive symptoms, aggression and conduct problems, when controlling for the influence of socio-demographic factors.

4.1 Descriptive Statistics

Age, language, and gender frequencies have been reported in the previous chapter in section 3.3. Descriptive statistics for the remaining variables are reported below.

4.1.1 Type of Dwelling

The majority of the participants, 87 % (n = 529), reside in formal housing (either a brick or concrete house or block of flats). The remainder of the sample reside either in informal housing, in a children's home or shelter, or "other" dwelling. No children indicated living on the street. See Table 1 for these results. This finding indicates that most children in this sample have the basic physical security of a formal dwelling.

4.1.2 Household size

The mean number of individuals living with the participants in this sample was 6.17 (SD = 4.28). The minimum number of individuals residing with participants in this sample was 1, with the maximum being 32 people. See Table 1 for these results. Given that most participants reside in

houses or flats, the mean number of six cohabitants suggests that conditions of over-crowding are not characteristic of the majority of the sample.

4.1.3 Household composition

Based on their responses to the item on the demographic questionnaire about who lives in the home, respondents were divided into four different types of household composition groups for the purpose of analyses. The groups are: the 'nuclear family', in which both the respondent's biological parents are present; the 'single-parent family', in which only one biological parent is present; the 'step-family', which includes any form of step caregiver or step-parent such as a stepmother or the girlfriend of a biological father; and 'other'. The 'other' category is constituted of family members who do not fit into the preceding categories for example; if a respondent resides with only his or her grandparents or aunt. Many households in the community where the current study took place include several members who are considered extended family (e.g. grandparents, aunts or uncles), or non-family members (such as a mother's friend). Within the current sample many children who resided within a nuclear family, single-parent family or step-family also had other individuals such as grandparents or non-family members residing with them. The majority of participants (55.52%) reside within nuclear families, while almost a quarter of the sample (23.32%) live in single parent families. See Table 1 for the results.

Table 1

Frequencies for Type of Dwelling, Household Size and Household Composition (n = 617)

	Frequency	Percentages %
Type of dwelling		
Brick or concrete house	376	61.8
Block of flats	153	25.2
Shack on its own plot	12	2.0
Shack in a backyard	7	1.2
Wendy house in a backyard	47	7.7
Wendy house on its own plot	7	1.2
Children's home or shelter	3	0.5
On the street	0	0
Other	3	0.4
Number of persons in household		
1	14	2.2
2	42	6.8
3	85	13.8
4	130	21.1
5	87	14.1
6	69	11.2
7	45	7.3
8	40	6.5
9	16	2.6
10	16	2.6
11	16	2.6
12 and more	57	9.2
Household composition		
(1) Nuclear Family	342	55.42
(2) Single-Parent Family	156	25.28
(3) Reconstituted Family	78	12.64
(4) Other	40	6.48

4.1.4 Violence Exposure

Before the frequency of exposure to different forms of violence could be calculated violence categories had to be developed. The process of development of the violence exposure variables is described below, followed by the scale statistics for the CEVC, and the frequencies for each sub-type of violence.

4.1.4.1 Development of violence exposure categories

Initially, a First-Order Factor Analysis was performed on the CEVC data for this sample to investigate if meaningful violence exposure categories would be generated. This approach has been used with the CEVC in a prior study (Vermeiren, Schwab-Stone, Deboutte, Leckman, & Rushkin, 2003) as well as on other trauma exposure questionnaires (Macksoud & Aber, 1996). The 43 items of the CEVC were subjected to Principal Axis Factoring (PAF), using the Varimax Rotation Method using PASW Statistics version 19 (2011). Prior to performing the PAF the suitability of the data for factor analysis was assessed. The correlation matrix revealed many factors with values of .6 and above. The Kaiser-Meyer-Oklin Measure of Sampling Adequacy (KMO) was .84, exceeding the recommended value of .6 (Tabachnik & Fiddel, 2007), supporting the factorability of the correlation matrix. The PAF revealed four factors with Eigenvalues exceeding 1. The cumulative percentage for the initial Eigenvalues at four factors was 90% and the cumulative percentage for the rotated sums of squared loadings for the four factors was 88%. See Table 2 for the four factors and the items which comprise them, with factor loadings equal to or higher than .3. Some of the Cronbach's Alphas for these first order factors were low; furthermore the factors were not conceptually complete. This approach was therefore abandoned and, as an alternative, conceptual categories were constructed.

Table 2

The Composition of the Factors Extracted From First Order Factor Analysis on the CEVC

1	2	3	4
Q1	Q15	Q16	Q24
Q3	Q16	Q17	Q27
Q5	Q17	Q19	Q28
Q7	Q18	Q20	Q29
Q8	Q19	Q22	
Q9	Q35	Q23	
Q12	Q36	Q25	
Q13		Q26	
Q32			
Q34			

The conceptual categories of violence exposure that were constructed for the current study were Community Violence Witnessing, Community Violence Victimisation, Domestic Violence Witnessing, Domestic Violence Victimisation, School Violence Witnessing or Victimisation, and Sexual Abuse Victimisation . The Community Violence Witnessing category comprises items 1, 3, 5, 7, 8, 12, 13, 32 and 34. The Community Violence Victimisation category comprises items 17, 20, 23, 26 and 28.The Domestic Violence Witnessing category comprises items 4, 6, 9, 10 and 33. The Domestic Violence Victimisation category comprises items 11, 15, 18, 21, 24, 27, 35 and 36. The School Violence Witnessing and Victimisation category comprises items 2, 14, 16, 19, 22 and 25. The Sexual Abuse Victimisation category comprises items 29, 30 and 31. 'Victimisation' refers to being directly victimised, as opposed to witnessing an event.

4.1.4.2 Scale statistics for the CEVC

The Cronbach's Alphas for the violence exposure categories are listed in Table 3 for the questionnaire as a whole, and then separately for the English and Afrikaans versions. A number

of the Cronbach's alphas are low; however, this could be owing to the fact that some of the subscales comprise very few items, for example, the sexual abuse category comprises only three items. Furthermore, the low Cronbach's alphas may have resulted from the use of a three-point response scale. The lower alphas for the Deomsetic Violence Witnessing, School Violence Witnessing and Victimisation, and Sexual Abuse Victimisations sub-scales imply that results involving these scales should be interpreted more cautiously.

Table 3

Cronbach's Alphas for the Subscales of the CEVC for the Combined English and Afrikaans Version and for the English and Afrikaans Versions Separately

	CEVC subscales					
	Community Violence Witnessing	Community Violence Victimisation	Domestic Violence Witnessing	Domestic Violence Victimisation	School Violence Witnessing and Victimisation	Sexual Abuse Victimisation
Combined	.83	.67	.48	.69	.56	.52
English	.85	.68	.44	.67	.53	.42
Afrikaans	.78	.64	.51	.73	.60	.59

As reported in Table 4 below, the maximum score that a participant could obtain on the CEVC was 72, with participants in this sample scoring a mean of 51.65 (*SE* = 0.36) signifying a high average level of cumulative violence exposure in the sample. The highest possible scores that could be obtained on the six subscales are: Community Violence Witnessing – 18; Community Violence Victimisation – 10; Domestic Violence Witnessing – 10; Domestic Violence Victimisation – 16; Sexual Abuse Victimisation – 6; and School Violence Witnessing and or Victimisation – 12. See Table 4 for the scale statistics for the CEVC. Given that the highest score that can be obtained for witnessing community violence on the CEVC is 18, the mean score of 17.27 (*SE*=0.18) is high, indicating that on average this particular sample have a high level of exposure to witnessed community violence. Fewer participants have been exposed to direct forms of violence as indicated by the lower means of exposure to community violence victimisation, domestic violence victimisation and sexual abuse victimisation, however these figures are all higher than half of what could be obtained on these measures.

Table 4

Scale Statistics for the CEVC for the Original Sample and the Imputed Sample

	Original sample		*After Imputation*	
	n	*M (SD)*	*n*	*M (SE)*
Overall Violence Exposure	616	51.29 (8.66)	616	51.65 (0.36)
Community Violence Witnessing	592	17.24 (4.45)	616	17.27 (0.18)
Community Violence Victimisation	609	5.92 (1.55)	616	5.93 (0.06)
Domestic Violence Witnessing	594	6.31 (1.54)	616	6.33 (0.06)
Domestic Violence Victimisation	602	10.71 (2.68)	616	10.76 (0.11)
Sexual Abuse Victimisation	612	3.12 (0.49)	616	3.13 (0.02)
School Violence Witnessing or Victim	597	8.21 (1.95)	616	8.23 (0.08)

As can be seen in Table 5 below, boys appeared to have higher mean scores than girls on all the violence exposure variables. T-tests which determine if these differences are significantly different will be reported on in the following section.

Table 5

Scale Statistics by Gender for the CEVC for the Original Sample and the Imputed Sample

		Original sample		After imputation	
	Gender	*n*	*M (SD)*	*n*	*M (SE)*
Violence exposure					
Overall Violence Exposure	Boys	278	53.63(9.54)	278	54.01 (0.58)
	Girls	336	49.33 (7.30)	336	49.62 (0.42)
Community Violence Witnessing	Boys	278	18.00 (4.61)	278	18.05 (0.27)
	Girls	336	16.62 (4.22)	336	16.60 (0.23)
Community Violence Victimisation	Boys	278	6.40 (1.90)	278	6.40 (0.11)
	Girls	336	5.53 (1.05)	336	5.54 (0.06)
Domestic Violence Witnessing	Boys	278	6.44 (1.65)	278	6.45 (0.10)
	Girls	336	6.18 (1.38)	336	6.21 (0.08)
Domestic Violence Victimisation	Boys	278	11.06 (2.83)	278	11.14 (0.17)
	Girls	336	10.40 (2.49)	336	10.42 (0.14)
School Witnessing and or Victimisation	Boys	278	8.77 (2.07)	278	8.8 (0.12)
	Girls	336	7.73 (1.70)	336	7.74 (0.10)
Sexual Abuse Victimisation	Boys	278	3.15 (.609)	278	3.15 (0.03)
	Girls	336	3.09 (.368)	336	3.10 (0.02)

4.1.4.3 Frequency of exposure to different forms of violence

Histograms indicated that the data deviated slightly from normality for the CEVC and all its subscales. It has been noted that in the social sciences, data are not generally normally distributed, nor are data that are derived from large samples (Pallant, 2007). It has been suggested that if data in large samples are skewed it will not "make a substantive difference in the analysis" (Tabachnick & Fiddel, 2007, p. 80). Statistical techniques such as one-way ANOVAs and independent sample t-tests are robust to the violation of the assumption of normality.

If a respondent endorsed one of the items in any of the six sub-categories of violence they were considered to have been exposed to that sub-category of violence. For example, if a respondent

indicated that they had seen someone being beaten up in their home at least once they would be considered to have been a witness of domestic violence. Rates of witnessing violence in the community, at home or at school at least once in their lifetimes were high for this sample. Almost all participants (98.9 %) reported witnessing violence in their community, 76.9% reported witnessing violence at home and 75.8% reporting exposure to direct or indirect violence at school at least once in their lifetimes. The majority of participants (58.6%) reported being physically victimised within their homes. One third of the sample (40.1%) had been directly victimised in the community. A minority of the sample (8.0%) reported exposure to sexual abuse. See Table 6 for the prevalence figures.

Table 6

Frequencies of Exposure to Violence Exposure Sub-Types

	No violence exposure events reported		At least one violent event reported		
Violence exposure type	Frequency	Percentage %	Frequency	Percentage %	*n*
Community Violence Witnessing	7	1.1%	609	98.9%	616
Community Violence Victimisation	369	59.9%	247	40.1%	616
Domestic Violence Witnessing	142	23.1%	474	76.9%	616
Domestic Violence Victimisation	255	41.4%	361	58.6%	616
School Violence Witnessing/ Victimisation	149	24.2%	467	75.8%	616
Sexual Abuse Victimisation	567	92.0%	49	8.0%	616

Rates of poly-victimisation (exposure to multiple violence sub-types) were high in this sample (see Table 7). Of the 616 participants, 14.37 (n = 85) reported exposure to two different categories of violence, 23.7% (n = 146) reported exposure to three different categories, 28.9% (n = 178) reported exposure to four different types and 22.1% (n = 136) reported exposure to five violence exposure categories. Therefore, 93.1% of the sample have experienced more than one violence sub-type while 75% of participants have experienced three or more different forms of violence in their lifetime. The median number of exposures for this sample was 4.

Table 7

Frequency of Different Levels of Poly-Victimisation for the Total Sample

Number of exposures	Frequency	Percentage%
0	1	0.2
1	40	6.5
2	85	14.3
3	146	23.7
4	178	28.9
5	136	22.1
6	27	4.4
Total	616	100

Both boys (95%) and girls (93%) reported high rates of poly-victimisation (exposure to between two and six of the violence sub-types). However, girls were disproportionately represented in the categories of two and three types of violence exposure, while a higher number of boys were represented amongst participants who reported four, five and six types of exposure, suggesting that boys may be at risk for higher levels of poly-victimisation (see Table 8).

Table 8

Frequency of Poly-Victimisation by Gender

	Boys		Girls	
Number of exposures	Frequency	Percentage %	Frequency	Percentage %
0	0	0	1	0.29
1	14	5.10	25	7.4
2	28	10.0	62.	18.5
3	55	19.8	90	26.6
4	84	30.14	94	27.9
5	80	28.7	54	15.9
6	17	6.1	11	3.2
Total	278	100	336	100

4.1.5 Scale statistics for the Depression, Aggression and Conduct Problems questionnaires

The maximum scores that could be obtained on the symptom questionnaires were: 30 for Depression (*M = 17.79*, *SE* = 0.19), 48 for Aggression (*M* = 42.13, *SE* = 0.19) and 22 for Conduct Problems (*M* = 13.82, *SD* = 0.10). The mean levels are moderate for Depression and Conduct Problems and high for Aggression. See Table 9 for scale statistics for the three mental health outcome variables. Histograms and normal Q-Q plots indicated that the data deviated somewhat from normality for all three outcome variables.

Table 9

Scale Statistics for the Depression, Aggression and Conduct problems Scales

	Original sample		After imputation	
	N	*M (SD)*	*N*	*M (SE)*
Depression	583	17.79 (4.75)	616	17.79 (0.19)
Aggression	562	42.19 (8.10)	616	42.13 (0.32)
Conduct Disorder	598	13.81 (2.56)	616	13.82 (0.10)

*$p<.05$

Girls' scores on Depression were higher than boys' scores and boys' scores on both Aggression and Conduct Problems were higher than girls' scores (See Table 10). Independent sample t-tests were conducted to see if these differences were statistically significant, see section 4.2.1.

Table 10

Descriptive group statistics by gender for, Depression, Aggression and Conduct Problems

		Original sample		After imputation	
	Gender	*n*	*M (SD)*	*n*	*M (SE)*
Depression	Boys	256	16.75 (4.15)	278	16.72 (0.25)
	Girls	325	18.57 (5.02)	336	18.63 (0.27)
Aggression	Boys	257	42.88 (8.44)	278	42.88 (0.50)
	Girls	303	41.51 (7.72)	336	41.43 (0.41)
Conduct problems	Boys	272	14.31 (2.98)	278	14.31 (0.18)
	Girls	324	13.38 (2.04)	336	13.41 (0.11)

4.2 Bivariate Analyses

4.2.1 Gender differences in exposure to violence and mental health outcomes

Independent sample t-tests were conducted to compare the scores on the following measures for boys and girls: violence exposure (overall violence exposure as well as for each of the six sub-types), Depression, Aggression and Conduct Problems.

Boys' and girls' mean scores were found to differ significantly on all variables except Sexual Abuse Victimisation. All significant differences were at the $p < .05$ level. Boys reported significantly higher levels of exposure to Overall Violence Exposure, Community Violence Witnessing, Community Violence Victimisation, Domestic Violence Witnessing, Domestic Violence Victimisation and School Violence Witnessing or Victimisation. In addition to higher mean scores on the majority of the violence exposure variables, boys also reported significantly higher levels of Aggression and Conduct Problems in comparison with girls. Girls reported significantly higher levels of Depressive symptoms than boys. See Table 11 for results of independent sample t-tests.

Table 11

Independent Sample T-Tests Investigating Gender Differences for Violence Exposure and Levels of Depression, Aggression and Conduct Problems

	t	*df*	*Eta*
Overall violence exposure	6.18*	612	0.02
Community Violence Witnessing	4.04*	612	0.01
Community Violence Victimisation	6.73*	612	0.02
Domestic Violence Witnessing	1.93*	612	0.00
Domestic Violence Victimisation	3.25*	612	0.01
School Violence Witnessing or Victimisation	6.78*	612	0.02
Sexual Abuse Victimisation	1.39	612	0.00
Depression	-5.16*	612	0.06
Aggression	2.23*	612	0.00
Conduct	4.27*	612	0.01

*$p<.05$

The eta values indicate that the proportion of variance in depression that is explained by gender reached practical significance at the .06 level, which is considered a moderate effect (Cohen, 1988). (Practical significance as represented by eta values specifies the degree to which the two groups are different from each other, not only whether the differences found were owing to

chance (Pallant, 2007). However, none of the other statistically significant differences reached practical significance beyond the .02 level, which is considered small.

4.2.2 Differences between language groups in exposure to violence and mental health outcomes

Independent sample t-tests were conducted to compare the scores on the following measures for participants instructed in English and Afrikaans: Overall Violence Exposure, exposure to each of the six sub-types, Depression, Aggression and Conduct Problems. The mean scores of participants instructed in English and Afrikaans were found to differ significantly at the $p < .05$ level for Overall Violence Exposure, Community Violence Victimisation, Domestic Violence Witnessing, School Violence Witnessing or Victimisation, Sexual Abuse Victimisation and Conduct Problems, with participants instructed in Afrikaans scoring significantly higher on these variables than learners instructed in English. However, the eta values were all small suggesting that even though there was a statistically significant difference between the two language groups on these variables, the differences did not reach practical significance. See Table 12 for the mean scores and Table 13 for the independent sample t-tests.

Table 12

Mean Levels of Violence Exposure and Symptom Severity for Learners Instructed in English and Afrikaans

	OVE	CVW	CVV	DVW	DVV	SVW	SAV	Dep	Agg	Cond
English	50.89	17.14	5.84	6.17	10.63	8.03	3.09	17.61	42.07	13.68
Afrikaans	53.67	17.62	6.18	6.76	11.10	8.77	3.23	18.27	42.29	14.21

English n= 449; Afrikaans n= 167

OVE: Overall Violence Exposure CVW: Community Violence Witnessing; CVV: Community Violence Victimisation; DVW: Domestic Violence Witnessing; DVV: Domestic Violence Victimisation; SWV: School Violence Witnessing or Victimisation; SAV: Sexual Abuse Victimisation; Dep: Depression; Agg: Aggression; Cond: Conduct Problems.

Table 13

Independent Sample T-Tests Investigating Differences in Violence Exposure and Levels of Depression, Aggression and Conduct Problems Between Language Groups

	t	*df*	*Eta*
Overall Violence Exposure	-3.259*	614	0.14
Community Violence Witnessing	-1.263	614	0.05
Community Violence Victimisation	-2.312*	614	0.10
Domestic Violence Witnessing	-3.738*	614	0.17
Domestic Violence Victimisation	-1.800	614	0.0
School Violence Witnessing or Victimisation	-4.187*	614	0.17
Sexual Abuse Victimisation	-2.496*	614	0.13
Depression	-1.535	614	0.06
Aggression	-.307	614	0.01
Conduct	-2.075*	614	0.09

*p<.05

4.2.3 The association of household composition with exposure to violence and mental health outcomes

One-way analyses of variance (ANOVAs) were performed to evaluate the mean differences between different household composition categories on exposure to violence and mental health outcomes.

Household composition categories did not differ on Community Violence Victimisation scores (F(3,616) = .730, p = .543), Community Violence Witnessing scores (F(3,616) = 1.685, p = .168), Domestic Violence Victimisation scores (F(3,616) = .587, p = .623), School Violence Witnessing or Victimisation scores (F(3,616) = 2.166, p = .090), Sexual Abuse Victimisation scores (F(3,616) = .364, p = .779), Aggression scores F(3,616) = 1.811, p = .143), or Conduct Problem scores (F(3,616) = .864, p = .459).

Significant differences were found between the household composition categories on Overall Violence Exposure ($F(3,616) = 2.690$, $p = .045$), Domestic Violence Witnessing ($F(3,616) = 5.778$, $p = .001$) and Depression ($F(3,616), = 5.302$, $p = .001$). Step-families showed a larger mean score on both Overall Violence Exposure and Domestic Violence Witnessing compared to nuclear families. This indicates that participants living in step-families are significantly more likely to witness domestic violence and have significantly more overall exposure to violence than participants living in nuclear families. Based on confidence intervals, the Step-Family category has a larger mean score on Depression compared to both Nuclear and Single-parent family categories. This indicates that participants living in step-families have significantly more depressive symptomotology than participants living in either nuclear families or single-parent families. See Table 14 for the mean scores, standard error of the mean, as well as the 95% confidence intervals of the means for those variables with significant differences.

Table 14

Means, Standard Error (SE) and 95% Confidence Intervals (CI) on Depression, Overall Violence Exposure and Domestic Violence Witnessing by the Four Household Composition Categories

	Depression		*Overall Violence Exposure*		*Domestic Violence Witnessing*	
Family type	*M (SE)*	*CI*	*M (SE)*	*CI*	*M (SE)*	*CI*
Nuclear	17.32 (0.25)	16.841, 17.806	51.04 (0.48)	50.102, 51.981	6.14 (0.08)	5.987, 6.295
Single-Parent	17.77 (0.39)	17.002, 18.544	51.75 (0.71)	50.350, 53.139	6.41 (0.13)	6.164, 6.659
Step	19.64 (0.55)	18.564, 20.718	54.17 (0.99)	52.227, 56.111	6.90 (0.21)	6.489, 7.306
Other	18.21 (0.75)	16.753, 19.677	51.54 (1.3)	48.974, 54.096	6.56 (0.22)	6.123, 6.997

4.2.4. Association between violence exposure types, and between violence exposure types and mental health outcomes.

The relationship between the different violence exposure types, as well as between the different violence exposure types and severity of Depression, Aggression and Conduct Problems, were investigated using Pearson product-moment correlation coefficient. The figures in Table 15 indicate that the relationships between all the variables were significant at either the $p = <.01$ (2 tailed) level or the $p =< .05$ (2 tailed) level. Preliminary analyses were conducted to ensure that the assumptions of normality, linearity and homoscedasticity were not seriously violated

(Pallant, 2007). The relationships were all positive, implying that the variables increased in concert.

4.2.4.1 The relationship between the different violence exposure types

All the violence exposure types were significantly correlated with each other at the $p < .01$ (2 tailed) level, indicating that exposure to one type of violence is significantly associated with exposure to other forms of violence. (see Table 15). Correlations between the subscales ranged between $r = .10$ and $r = .50$, with the strongest correlation being between School Witnessing or Victimisation and Community Violence Victimisation ($r = .50$). The relationships between the various violence exposure types and overall violence exposure were large, except for the relationship between Sexual Abuse Victimisation and Overall Violence Exposure ($r = .36$), which was of a medium strength. The relationships with the smallest strength were those between Sexual Abuse Victimisation and exposure to Community Violence Witnessing ($r = .16$), Community Violence Victimisation ($r = .21$), and Domestic Violence Witnessing ($r = .19$) and Domestic Violence Victimisation ($r = .27$). These findings suggest that sexual abuse has a weak association with other forms of violence exposure. The strength of the majority of the relationships were medium (Cohen, 1988).

4.2.4.2 The relationship between violence exposure types and mental health outcomes

All the violence exposure types were significantly correlated with the three mental health outcome variables at the $p < .05$ (2 tailed) level, apart from the relationship between Depression and Community Violence Witnessing, which was significant at the $p < .01$ (2 tailed) level ($r = .10$). The relationships ranged from a small to large strength, with the majority of them being of a medium strength. The smallest relationship was found between Depression and Community Violence Witnessing ($r = .10$) and the largest between Aggression and Domestic Violence Victimisation ($r = .41$). All three mental health outcome variables had their strongest relationships with Domestic Violence Victimisation; these relationships were of a medium size. Depression, Aggression and Conduct problems were all significantly correlated with one another, with the strongest relationship being between Aggression and Conduct problems ($r = .55$). See Table 15 for correlations between violence exposure and mental health.

Table 15

Pearson Product-Moment Correlations Between Types of Violence Exposure and Mental Health Outcomes

	1	2agg	3con	4over	5cw	6cv	7dw	8dv	9svw/v	10sav
1. Depression	-	.41**	.25**	.25*	.10*	.15**	.22**	.31**	.17**	.16**
2.Aggression		-	.55**	.45**	.30**	.29**	.25**	.41**	.30**	.23**
3.Conduct			-	.46**	.29**	.33**	.32**	.40**	.27**	.20**
4.Over				-	.79**	.66**	.63**	.68**	.66**	.36**
5.CVW					-	.36**	.39**	.27**	.30**	.16**
6.CVV						-	.33**	.40**	.50**	.21**
7.DVW							-	.41**	.31**	.19**
8.DVV								-	.41**	.27**
9.SVW/V									-	.30**
10.SAV										-

OVER: Overall Violence Exposure; CVW: Community Violence Witnessing; CVV: Community Violence Victimisation; DVW: Domestic Violence Witnessing; DVV: Domestic Violence Victimisation; SVWV: School Violence Witnessing or Victimisation; SAV: Sexual Abuse Victimisation.

**p<.01 (2 tailed)

* p<.05 (2 tailed)

4.2.4.3 The association between poly-victimisation and mental health outcomes

All three mental health outcomes were significantly associated with levels of poly-victimisation (between one and six different types of exposure) at the p = .05 level (2 tailed). This indicates that symptoms severity increases with increasing levels of poly-victimisation. The correlation between poly-victimisation and the three mental heatlh variables ranged from small (Depression, r = .28) to medium strength (Aggression, r = .37; Conduct Problems, r =42).

4.3 Multivariate analysis

Two sets of Standard Multiple Regression analyses were constructed to better understand the effect of different types of violence exposure on levels of Depression, Aggression and Conduct Problems in young adolescents, while controlling for the effects of gender, language and household composition.

In the first analyses, the aim was to to explore the independent and comparative contributions of the six different types of violence exposure to severity of Depression, Aggression and Conduct Problems when the demographic variables were controlled. Additionally, in order to determine the effect of poly-victimisation on the mental health of participants, a second set of Standard Multiple Regression analyses explored whether poly-victimisatin levels contributed to a better prediction of symptoms severity. In this analysis the Poly-Victimisation variable (Poly) was constructed as a continuous variable (where 0 = no poly-victimisation and 6 = six differerent types of victimisation). The results of the two sets of Standard Multiple Regression analyses are reported below.

4.3.1 The contribution of demographic variables and violence exposure sub-types to children's poor mental health

Standard Multiple Regression analyses were conducted to determine the independent and relative contributions of the following variables in explaining the variance in Depression, Aggression and Conduct Problems: gender, language instruction, household composition type, and the six different violence exposure sub-types. For each of the three models, the variables were entered as follows: gender, language, Nuclear Family, Single-Parent Family, Step-Family, Community Violence Witnessing, Community Violence Victimisation, Domestic Violence Witnessing, Domestic Violence Victimisation, School Violence Witnessing or Victimisation, and Sexual Abuse Victimisation.

4.3.1.1 Regression model for Depression

The Standard Multiple Regression model for Depression reached statistical significance ($F(11, 604) = 13.127$, $p < .05$), indicating that R was significantly different from 0 ($R = .4376$). The model explained 19.16% (17.7% adjusted) of the variability in Depression. When considered simultaneously with all the predictor variables, only being a girl (beta=.28) and being a victim of domestic violence (beta=.25) made significant contributions, with female gender making a slightly larger contribution. Female gender and being a victim of domestic violence each contributed independently to the severity of depressive symptoms. This suggests that, within the sample under study, female victims of domestic violence may be at the highest risk for depressive symptoms. While living in a step-family had a significant association with Depression when considered independently (see section 4.2.2), when considered simultaneously with the other predictors it no longer retained any significant independent associations with Depression (see section 4.2.3.2). See Table 16 for the results.

Table 16

Standard Multiple Regression for the Prediction of Depression by Gender, Language, Family Structure and the Six Violence Exposure Sub-Types

Predictors	Depression							
	R	R^2	Adjusted R^2	SE	*T(df)*	*p*	*b*	β
Intercept	0.4376	0.1916	0.1770	1.55	6.196 (604)	<.00	9.61	
Male				0 .36	-7173 (604)	<.00	-2.62	0.28
English				0.40	-665 (604)	.51	-0.27	-0.02
Nuclear Family				0.71	-.274 (604)	.41	-0.59	-0.06
Single-Parent Family				0.76	-.274 (604)	.78	-0.21	0.01
Step-family				0.83	1.354 (604)	.18	1.13	0.08
Community Violence Witnessing				0.04	-.388 (604)	.70	-0.02	0.02
Community Violence Victimisation				0.14	1.547 (604)	.12	-0.21	0.07
Domestic Violence Witnessing				0.14	1.380 (604)	.17	0.19	0.06
Domestic Violence Victimisation				0.07	5.723 (604)	<.00	0.43	0.25
School Violence Witnessing/ Victimisation				0.11	1.393 (604)	.16	0.15	0.06
Sexual Abuse Victimisation				0.37	1.457 (604)	.14	0.55	0.05

4.3.1.2 Regression Model for Aggression

The model for Aggression reached statistical significance ($F(11, 604) = 16.712$, $p < .05$), indicating that R was significantly different from 0 (R =.4810). The predictors explained 23.12% of the variance in Aggression (Adjusted R^2 = 21.72). In order of importance, the following predictors made significant contributions to the variance in Aggression: Domestic Violence Victimisation (beta=.27), Community Violence Witnessing (beta=.16), School Victimisation or Witnessing (beta=.09) and exposure to Sexual Abuse Victimisation (beta=.09). The betas indicate that being a victim of domestic violence made by far the largest contribution to the variability in Aggression. As was indicated in bivariate analyses in section 4.2.3.2, aggression remained significantly associated with being a victim of domestic violence when other variables were controlled. However, other forms of violence besides being a victim of domestic violence act to increase the risk for Aggression, indicating that there is a compound effect. This means that while all children who are victims of domestic violence are at an increased risk for developing symptoms of Aggression, children who additionally witness community violence, are victims or witnesses of school violence and who are sexually abused, are at an even higher risk for developing Aggressive symptoms. Furthermore, both males and females who have been exposed to domestic violence as victims are more at risk for developing symptoms of Aggression. See Table 17 for the results.

Table 17

Standard Multiple Regression for the Prediction of Aggression by Gender, Language, Family Structure and the Six Violence Exposure Sub-Types

Predictors	Aggression							
	R	R^2	Adjusted R^2	SE	*T(df)*	*p*	*b*	β
Intercept	0.4810	0.2312	0.2172	2.55	7.658 (604)	< .001	19.56	
Male				0.6	-.314 (604)	.75	-0.19	-0.08
English				0.65	1.556 (604)	.12	1.02	0.05
Nuclear Family				1.17	-1.517 (604)	.13	-1.78	-0.11
Single Parent Family				1.24	-1.674 (604)	.09	-2.08	-0.11
Step-family				1.36	-.831 (604)	.41	-1.14	-0.04
Community Violence Witnessing				0.07	4.034 (604)	< .00	0.29	0.16
Community Violence Victimisation				0.22	1.374 (604)	.17	0.31	0.06
Domestic Violence Witnessing				0.22	.083 (604)	.93	0.02	0.00
Domestic Violence Victimisation				0.12	6.513 (604)	< .00	0.81	0.27
School Violence Witnessing/ Victimisation				0.17	2.157 (604)	.03	0.39	0.09
Sexual Abuse Victimisation				0.61	2.428 (604)	.01	1.49	.09

4.3.1.3 Regression model for Conduct Problems

The model for Conduct Problems reached statistical significance ($F(11, 604) = 17.260$, $p < .05$) indicating that R was significantly different from 0 (R=.4878). The predictors explained 23.8% of the variability in Conduct Problems (Adjusted $R^2 = 22.42$). Being a victim of domestic violence (beta=.24), witnessing community violence (beta=.12), witnessing domestic violence (beta=.12), being a victim of community violence (beta.11), and being of male gender (beta=.07), all made significant contributions to the development of Conduct Problems, with being a victim of domestic violence conferring by far the most risk. As opposed to the findings from the model for Aggression, this model indicates that being male is more likely to result in the display of Conduct Problems. Furthermore, a different set of violence exposure sub-types put children at risk for developing Conduct Problems compared to the violence exposure sub-types which put children at risk for Aggression – the combination of witnessing and victimization across home and community appears to be associated with an increased risk of developing Conduct Problems. See Table 18 for the results.

Table 18

Standard Multiple Regression for the Prediction of Conduct Problems by Gender, Language, Family Structure and the Six Violence Exposure Sub-Types

Predictors	Conduct							
	R	R^2	Adjusted R^2	SE	*T(df)*	*p*	*b*	β
Intercept	0.4878	0.2380	0.2242	0.81	8.894 (604)	< .00	7.20	
Male				0.19	2.113 (604)	.035	0.41	0.08
English				0.20	-.576 (604)	.56	-0.12	-0.02
Nuclear Family				0.37	-1.532 (604)	.13	-0.57	-0.11
Single Parent Family				0.39	-1.285 (604)	.20	-0.51	-0.09
Step-family				0.43	-1.581 (604)	.11	-0.69	0.10
Community Violence Witnessing				0.02	2.837 (604)	.01	0.07	0.11
Community Violence Victimisation				0.07	2.524 (604)	.01	0.18	0.11
Domestic Violence Witnessing				0.07	2.696 (604)	.01	0.19	0.12
Domestic Violence Victimisation				0.03	5.795 (604)	< .00	0.30	0.24
School Violence Witnessing/ Victimisation				0.05	.209 (604)	.83	0.01	0.00
Sexual Abuse Victimisation				.019	1.740 (604)	.08	0.34	0.07

4.3.2 The contribution of poly-victimisation to the prediction of mental health outcomes

In a further set of Standard Multiple Regression analyses, Poly-Victimisation was added as an additional predictor. For each of the three models, the variables were entered as follows: gender, language, Nuclear Family, Single-Parent Family, Step-Family, Community Violence Witnessing, Community Violence Victimisation, Domestic Violence Witnessing, Domestic Violence Victimisation, School Violence Witnessing or Victimisation, Sexual Abuse Victimisation and Poly-Victimisation ('Poly').

4.3.2.1 Regression model for Depression

The model for Depression reached statistical significance ($F(12, 603) = 12.52$, $p = .05$), indicating that R was significantly different from 0 (R=0.4452). The predictors explained 19.8 % of the variability in Depression (Adjusted $R^2 = 0.1822$). This is only a slight increase compared to the model without Poly-Victimisation as a predictor variable. The 'Poly' variable is a significant predictor of Depression (beta = .14) with a coefficient estimate of 0.50, indicating that with every increase of one unit of the Poly-Victimisation variable, for example, from two violence exposures to three violence exposures, there will be an increase in Depression symptom severity of 0.5. As in the previous Standard Multiple Regression analysis in section 4.3.1.1, being of female gender (beta = .27) and being victimised by domestic violence (beta = .22) continued to contribute significantly to levels of Depression. Note that the beta values only decreased slightly in this Standard Multiple Regression analysis compared to the analyses which did not include Poly-Victimisation as a predictor variable. See Table 19 for the results.

Table 19

Standard Multiple Regression Results for the Prediction of Depression Problems by Gender, Language, Family Structure, Poly-Victimisation as a Continuous Variable and the Six Violence Exposure Sub-Types

Predictors	Depression							
	R	R^2	Adjusted R^2	SE	*T(df)*	*p*	*b*	β
Intercept	0.4452	0.1982	0.1822	1.65	6.640 (603)	.00	10.984	
Male				0.36	-7.181(603)	.00	-2.618	-0.27
English				0.39	-.595 (603)	.55	-0.237	-0.02
Nuclear Family				0.71	-.808 (603)	.42	-0.575	-0.06
Single Parent Family				0.75	-.179 (603)	.86	-0.134	-0.12
Step-family				0.83	1.360 (603)	.17	1.128	0.08
Community Violence Witnessing				0.04	-.722 (603)	.47	-0.032	-0.03
Community Violence Victimisation				0.14	.940 (603)	.35	0.134	0.04
Domestic Violence Witnessing				0.14	.548 (603)	.58	0.079	0.03
Domestic Violence Victimisation				0.07	4.911 (603)	.00	0.384	0.22
School Violence Witnessing/ Victimisation				0.11	.519 (603)	.60	0.06	0.03
Sexual Abuse Victimisation				0.37	1.020 (603)	.31	0.386	0.04
PolyVictimisation				0.22	2.249 (603)	.03	0.50	0.14

4.3.2.2. Regression model for Aggression

With the inclusion of Poly-Victimisation as a predictor, the model for Aggression reached statistical significance ($F(12.603) = 15.495$, $p < .05$), indicating that R is significantly different from 0 ($R = 0.4836$). The predictors explained 23.36 % of the variability in levels of Aggression (Adjusted $R^2 = 0.2336$) which again is only a slight increase compared to the model without Poly-Victimisation as a predictor variable. Community Violence Witnessing (beta = .16), Domestic Violence Victimisation (beta = .26) and Sexual Abuse Victimisation (beta = .08) all continued to make significant contributions to levels of Aggression, but the 'Poly' variable did not make a significant contribution indicating that there is not a statistically significant increase in levels of Aggression as the number of violence types increase. The beta values decreased slightly for Domestic Violence Victimisation and Sexual Abuse Victimisation in this Standard Multiple Regression analysis compared to the analysis which did not include Poly-Victimisatin as a predictor variable. Interestingly, the School Violence Victimisation or Witnessing variable did not make a significant contribution to levels of Aggression as it did in the previous analyses which did not include Poly-Victimisation as a variable suggesting that poly-victimisation levels may account for some of the apparent contribution of school-related violence to symptoms of aggression. See Table 20 for the results.

Table 20

Standard Multiple Regression Results for the Prediction of Levels of Aggression by Gender, Language, Family Structure, Poly-Victimisation as a Continuous Variable and the Six Violence Exposure Sub-Types

Predictors	Aggression							
	R	R^2	Adjusted R^2	SE	*T(df)*	*p*	*b*	β
Intercept	0.4836	0.2336	0.2184	2.74	7.633 (603)	.00	20.912	
Male				0.60	-.292 (603)	.77	-0.175	-0.01
English				0.65	1.590 (603)	.11	1.041	0.06
Nuclear Family				1.17	-1.518 (603)	.13	-1.782	-0.11
Single Parent Family				1.24	-1.616 (603)	.11	-2.007	-0.11
Step-family				1.36	-.834 (603)	.41	-1.141	-0.05
Community Violence Witnessing				0.07	3.816 (603)	.00	0.28	0.16
Community Violence Victimisation				0.23	.969 (603)	.33	0.226	0.04
Domestic Violence Witnessing				0.23	-.400 (603)	.69	-0.094	-0.02
Domestic Violence Victimisation				0.12	5.899 (603)	.00	0.76	0.26
School Violence Witnessing/ Victimisation				0.19	1.547 (603)	.12	0.295	0.07
Sexual Abuse Victimisation				0.62	2.111 (603)	.03	1.318	0.08
Poly-Victimisation				0.36	1.387 (603)	.17	0.509	0.08

4.3.2.3 Regression model for Conduct Problems

With Poly-Victimisation as an additional variable, the model for Conduct Problems again reached statistical significance ($F(12.603) = 16.013$, $p < .05$), indicating that R was significantly different from 0 ($R = 0.4902$). The predictors explained 24.04 % of the variance in Conduct Problems (Adjusted $R^2 = 0.2252$) again only a slight increase from the model that excluded Poly-victimiation as a variable. Male gender (beta = .08), Community Violence Witnessing (beta = .10), Community Violence Victimisation (beta = .09), Domestic Violence Witnessing (beta = .09) and Domestic Violence Victimisation (beta = .22) all continued to make significant contributions to Conduct Problems. However, the 'Poly' variable did not make a significant contribution to levels of Conduct Problems, indicating that there is not a statistically significant increase in levels of Conduct Problems with an increase in exposure higher levels of violence sub-types. Note that the beta values only decreased slighty for Community Violence Witnessing, Community Violence Victimisation, Domestic Violence Witnessing and Domestic Violence Victimisation in the analysis compared to the Standard Multiple Regression analysis which did not include Poly-Victimisation as a predictor variable. See Table 21 for the results.

Table 21

Standard Multiple Regression Results for the Prediction of Conduct Problems by Gender, Language, Family Structure, Poly-Victimisation as a Continuous Variable and the Six Violence Exposure Sub-Types

Predictors	Conduct Problems							
	R	R^2	Adjusted R^2	SE	*T(df)*	*p*	*b*	β
Intercept	0.4902	0.2404	0.2252	0.86	8.944 (603)	.00	7.752	
Male				0.19	2.125 (603)	.03	0.407	0.08
English				0.20	-.521(603)	.60	-0.109	-0.02
Nuclear Family				0.37	-1.518(603)	.39	-0.566	-0.11
Single Parent Family				0.39	-1.211 (603)	.36	-0.479	-0.08
Step-family				0.43	-1.582 (603)	.11	-0.687	-0.09
Community Violence Witnessing				0.02	2.549 (603)	.01	0.06	0.10
Community Violence Victimisation				0.07	2.021 (603)	.04	0.15	0.09
Domestic Violence Witnessin				0.07	1.969 (603)	.05	0.149	0.09
Domestic Violence Victimisation				0.04	5.126 (603)	.00	0.209	0.22
School Violence Witnessing/ Victimisation				0.06	-.401 (603)	.69	-0.025	0.02
Sexual Abuse Victimisation				0.19	1.381 (603)	.17	0.274	0.05
Poly-Victimisation				0.11	1.714 (603)	.09	0.199	0.10

CHAPTER 5

DISCUSSION

This chapter will summarise and discuss the findings presented in Chapter Four. Rates of exposure to the six violence types, and levels of symptom severity will be discussed followed by a discussion of exposure and symptoms severity according to gender, family structure and language of instruction. The contribution of the different violence exposure types to poor mental health will then be considered, followed by a discussion of the rate of poly-victimisation in this sample and the contribution of poly-victimisation to mental health outcomes. Thereafter the limitations of the study will be considered. Finally, recommendations for future research, and implications of the findings for practice and policy, will be discussed.

5.1 Frequencies of exposure to different types of violence

The first aim of this study was to explore the frequency of younger adolescents' exposure to different sub-types of violence in Hanover Park. The violence types most commonly experienced, in descending order from the most to the least common, are being a witness to community violence, being a witness to violence in the home, being exposed to violence at school, being a victim of domestic violence, being victimised in the community and exposure to sexual violence. Witnessing as opposed to direct victimisation across the various contexts appears to be the most common form of exposure in this sample.

5.1.1 Domestic violence and child physical abuse

The rate of witnessing violence at home among the participants in this study is 76.9%, which is substantially higher than has been found in studies in both economically developing and developed countries. In studies which made use of similarly aged participants rates of witnessing violence in the home were lower both in low income, (9%; Chan, 2011) and high income societies, (9%; Zinzow, et al., 2009). However, it must be noted that these studies made use of

narrow definitions of witnessing parental violence, whereas the current study made use of behaviourally specific questions about witnessing domestic violence which included a broader range of possible events. In comparison to prevalence figures found by other studies conducted in Cape Town, the current study's prevalence rate is higher, with other local studies having found rates of exposure to violence in the home to be between 30 and 40% (Seedat et al., 2004; Seedat et al., 2000; Suliman et al., 2005). Again it should be noted that comparisons are difficult to make because of various methodological differences between studies. For example, Seedat and colleagues (2004) enquired only about events which had occurred in the year prior to the study and only asked if the participants had seen a family member being hurt or killed, which is a narrow inquiry into exposure to domestic violence. The current study appears to confirm that the use of behaviourally specific questions when enquiring about violence exposure are likely to yield a more comprehensive picture of the prevalence of children's exposure to violence in the home.

The rate of being a victim of physical abuse in the home for participants in this study is about 60%. This rate is high in comparison to findings from studies from other economically developing as well as developed societies, which have found rates of physical abuse to be between 13 and 14% (Chan, 2011; Smith-Slep & O'Leary, 2005). However, in the study by Smith Slep and O'Leary, when corporal punishment was included in the definition of physical abuse the rate increased to 44%. The violence exposure questionnaire in the current study included questions that were related to corporal punishment since corporal punishment is normative in South Africa (Seedat et al., 2009). Regardless of the inclusion of corporal punishment in Smith Slep and O'Leary's definition of child physical abuse, there remains a marked difference between their prevalence rate of 44% and the findings of the current study. Studies which have reviewed adults exposure to childhood physical abuse retrospectively in South Africa have also found a significantly higher number of South African adults reporting having been physically abused as children (Kaminer et al., 2008) compared to their American counterparts (Kessler, Sonega, Brommet, Hughes, & Nelson, 1995).

The rate of direct victimisation in the home in the current sample is also high in comparison to findings from other local studies on children's exposure to violence, which have found prevalence rates of physical abuse to be between 8 and 14% (Dawes et al., 2006; Seedat et al.,

2004). Once again it should be noted that these studies enquired about violence exposure in the year prior to the study whereas the current study considered lifetime exposure, which could have resulted in the marked discrepancy in physical abuse rates between the studies. However, the current study's rate remains high even in comparison to epidemiological studies with South African adults which enquired about lifetime exposure to child physical abuse (Kaminer et al., 2008).

Research on children's and adolescent's exposure to domestic violence in South Africa is very limited. Considering the high prevalence rate of young adolescent's exposure to domestic violence found in this study, coupled with the high rate of adult women's exposure to domestic violence in South Africa (Dunkle, et al., 2004) and particularly in the Western Cape (DoH, 2002), it is of utmost importance that establishing the prevalence patterns of children's exposure to domestic violence in the Western Cape be prioritised in victimisation studies. Levels of violence exposure in the Western Cape appear to be higher than in other communities in South Africa. This may be as a result of the high levels of gang violence and substance use in the area.

5.1.2 Child sexual abuse

The prevalence rate of being sexually abused among participants in this sample is 8%, which is lower than the 10 to 20% found by three meta-analytic studies of child sexual abuse globally (Finkelhor, 1994; Pereda et al., 2009a; Stoltenborgh et al., 2011). The rate of child sexual abuse in this sample is similar to some South African studies (8.6%, Suliman et al., 2005), higher than others (4.5%, Burton, 2006; 5.8%, King et al., 2004) and lower than some (12%, Seedat et al., 2000; 14%, Seedat et al., 2004; 54.3%, Madu & Peltzer, 2000). The varying rates of children's exposure to sexual abuse could be attributed to methodological differences between studies. For example, Madu and Peltzer, who found a high rate of 54.3%, used a broad range of behaviourally specific questions to enquire about exposure to sexual abuse, whereas the current study only made use of three non-specific questions. Children may not be aware as to what exactly constitutes sexual abuse, hence the need for questions that are behaviourally specific. Moreover, among South African adolescents in certain communities, particularly among Xhosa communities, being 'forced' to have sex with a man or boy (known otherwise as sexual

initiation) is distinguished from being 'raped' (Jewkes, Vundule, Maforah, & Jordaan, 2001) suggesting that cultural notions of what constitutes sexual abuse will influence how a respondent answers a non-specific broad question about sexual coercion. In one study as many as 86.7% of the participants who had been sexually abused did not consider themselves to have been victimised in this way until they had to answer behaviourally specific questions about their experiences (Madu & Peltzer, 2001). It has been shown that behaviourally specific questions about sexual abuse are significantly more endorsed than broad questions (Fricker et al., 2004). Furthermore, surveys are not the most effective manner with which to inquire about this particular type of abuse (Burton, 2006), particularly if the questions are of an intrusive nature, which could make them difficult to answer since they may be upsetting to victims. Furthermore, it is known that sexual offenses are under-reported in South Africa (Jewkes & Abrahams, 2002). All this suggests that the relatively low prevalence of reported sexual abuse in this sample, compared with other types of violence exposure, should be regarded with some caution.

5.1.3 Community violence exposure

Hanover Park has high levels of gang violence with residents in this community being routinely exposed to gun fights between warring gangs (Benjamin, 2011). In 2012 the intensity and regularity of gang violence in this community urged the local premier to appeal to the president to deploy the National Defence Force to assist with protecting the community (Nombembe, 2013). In addition to gang violence, the use of drugs is extensive in this community (Tomlinson, Swartz, & Landman, 2003), particularly the use of methamphetamine which is known to cause individuals to act violently. It is therefore not surprising that exposure to community violence as witnesses (98.9%) and victims (40.1%) is very prevalent for participants in this sample of young adolescents. Witnessing violence is more commonplace than direct victimisation, as has been found in studies in high income countries (Mrug, Loosier, & Windle, 2008) and local studies in the Western Cape (Shields, Nadasan, & Pierce, 2008). The rate of witnessing violence in the community among participants in this study was higher than some studies from high income countries (61%, Sullivan, Kung, & Farrell, 2004; 76%, Ozer & Weinstein, 2004) but similar to others (96%, Self-Brown et al., 2006). Self-Brown and colleague's study was conducted with a low socioeconomic sample which could have contributed to their elevated rate of exposure in

comparison to the other studies, and which may further account for the similarity between their findings and findings from the current study.

The rate of exposure to witnessing community violence in this study is similar to a previous study conducted in the Western Cape with primary school children in five different residential areas (92.9%, Shields, Nadasan, & Pierce, 2008). The rate of direct victimisation in the community in this study is similar to some studies that sampled low socioeconomic participants in America (32.8%, Mrug, Loosier, & Windle, 2008; 45%, Self-Brown et al., 2006). In comparison to local studies, the current study found similar rates of direct victimisation by community violence (48.1%, Ward et al., 2007). It appears that rates of witnessing and being victimised by community violence may be similar in low socioeconomic groups in different countries. The rate of witnessing community violence in the current sample lies towards the very top end of the range that has been documented in both international and local studies.

5.1.4 School violence exposure

In this study 75.8% of participants have been exposed to violence at school either in the form of witnessing or victimisation. This rate of exposure to violence at school is slightly lower than rates from an American study which found 80% of their sample to be exposed to some type of violence at school in their lifetime (Mrug, Loosier, & Windle, 2008). In comparison to local studies these rates appear to be high. For example, 19.3% of the participants in a study on bullying reported exposure to this type of violence (Liang, Flisher, &Lombard, 2007) while the National School Violence Survey (Burton, 2008), which included types of violence other than bullying, found 15.3% of the respondents to have experienced some sort of violence at school. It must be noted that Burton's study inquired about violence exposure in the 12 months prior to the study, which would have excluded children who had experienced violence outside of this specified time frame. Furthermore, the current study did not focus specifically on bullying behaviour. For these reasons, comparing the exposure rates from the current study with the two abovementioned studies should be conducted with caution. There is a paucity of local community based studies enquiring about children's lifetime exposure to various types of

violence at school. The results of this study suggest that better documentation of exposure to school-based violence is a matter of some urgency.

5.2

Severity of depression, aggression and conduct problems

Participants in this study experienced high levels of mental distress as evidenced by their high to moderate symptom levels on the three mental health scales. Among participants in this study levels of aggression were high while levels of depressive symptoms and conduct problems were moderate. It is possible that levels of conduct problems may actually be even higher since conduct problems may have been under-reported by participants in this study owing to social desireability effects.

5.3

Demographic risk factors for exposure to violence and for severity of symptoms

The second aim of this study was to explore the comparative contributions of different types of violence exposure to symptoms of depression, aggression and conduct problems. In other words, when youth are exposed to many different types of violence simultaneously, which types of exposure (or combinations of exposure types) create the most risk for symptoms of depression, aggression and conduct problems? Prior to the discussion of the outcomes of these multivariate analyses, the bivariate relationships between demographic factors and the violence exposure sub-types will be examined, followed by a discussion of the relationship between demographic factors and poor mental health.

5.3.1 Demographic risk factors and exposure to violence sub-types

As has been found in a meta-analysis reviewing studies on children's exposure to domestic violence across the globe (Jouriles et al., 2008), in this study boys' mean scores on exposure to domestic violence as victims and as witnesses were found to be higher than for girls, indicating that young adolescent boys in this community are more frequently exposed to domestic violence

in their lifetime than young adolescent girls. A possible reason for boys' higher exposure to physical abuse as victims in the home may be because corporal punishment is a normative form of discipline in South Africa and parents may be more likely to use methods of physical force to discipline boys. In addition perhaps boys are more likely to become physically involved in preventing their caregivers from getting injured in domestic violence incidents, and in this manner may both witness the abuse and also become victims in their attempts to assist.

Meta-analytic studies have found girls to be at a higher risk for sexual victimisation than boys (Finkelhor, 1994; Pereda et al., 2009*a*; Stoltenborgh et al., 2011). However, the current study did not confirm these findings, with no significant differences found in the reported rates of sexual abuse between boys and girls. The current study only asked three questions about sexual abuse, therefore potentially omitting a range of experiences that boys and girls may be differently exposed to. Additionally, it has been pointed out that victim surveys are not the most useful manner in which to study children's exposure to this type of violence (Burton, 2008), which could have contributed to the low rate of sexual abuse found in this study for both boys and girls, and the failure of the detection of differences between exposure rates for boys and girls. At the same time, it should also be held in mind that boys in this community may in fact be as vulnerable to sexual abuse as girls are – this would need to be carefully investigated in future research in this community.

In the United States boys have been found to be at a higher risk for both witnessing of and victimisation by community violence (Lambert, Copeland-Linder, & Ialongo, 2008). This finding is supported by the current study, which found boys to have higher mean scores than girls on the sub-scales measuring exposure to community violence as witnesses and victims. Boys may be more active outside of the home in the community, which may place them at a greater risk than girls for exposure to violence in the community (Kaminer & Eagle, 2010). It is not uncommon for parents to restrict the time children spend outdoors in the community if the community is inundated with high levels of violence (McAlister-Groves, Zuckerman, Marans, & Cohen as cited in Cooley-Strickland et al., 2009). Anecdotal evidence from NGOs in this particular community suggest that female children are more likely to be kept indoors than male children in an attempt to protect them from the violence that prevails on the streets; boys seem to be afforded more freedom to explore their neighbourhood. This free reign may result in young

adolescents being more likely to spend time with older boys and men which could put them at a higher risk for exposure to criminal as well as gang related incidents.

More boys than girls in this study reported exposure to school violence. This is in accordance with international studies, which have found boys to be more at risk for various types of physical violence threats at school than girls (Nansel et al., 2004). It has been found that exposure to community violence is associated with aggressive behaviour at school and that this relationship is not direct, but mediated by negatively biased social information processing (Bradshaw et al., 2009). Therefore, it may be that the high rate of boys' exposure to community violence may result in the creation of "scripts and beliefs about the use, appropriateness, and effectiveness of aggressive responses to threat" (Bradshaw et al., 2009, p. 207), which may influence and inform how they behave at school. Male adolescents are known to be more physically aggressive than female adolescents (Chen, 2009) and if boys behave in an aggressive or delinquent manner at school this may place them at an increased risk to be present in violent situations that are gang related or involve the use of weapons (Henry, Tolan, & Gorman-Smith, 2001). Boys are often constructed as the perpertrators of school violence, however findings from this study suggest that they are more often the victims than what girls are.

In this study language of instruction has been used as an indicator of socioeconomic status, however it is also possible that children instructed in English differ on other dimensions from children instructed in Afrikaans. The results of this study do suggest that those two sub-samples have different experiences of violence exposure. Participants instructed in Afrikaans at school had a higher mean score on the overall violence exposure scale, as well as higher mean scores on the school violence, domestic violence witnessing and community violence victimisation sub-scales, compared to learners instructed in English. This may suggest that these participants reside in and attend schools in parts of Hanover Park which experience higher rates of violence. Studies have found, for example, that moving to a worse neighbourhood positively predicts re-victimisation (Finkelhor et al. 2007*b*), indicating that neigbourhood factors add to the risk for violence exposure (Foster & Brooks-Gunn, 2009). Studies have also found that children who come from lower socioeconomic families and neighbourhoods are at an increased risk for violence exposure of various kinds (Foster & Brooks-Gunn, 2009; Turner, Finkelhor, & Ormrod,

2006). Language could be an indicator for lower socioeconomic status in this community, this could account for the risk levels of exposure in the Afrikaans sub-sample.

With regards to family composition, bivariate analyses indicated that being a member of a step-family was associated with participants having higher mean scores on overall violence exposure as well as witnessing domestic violence, compared to participants residing in nuclear family households. Studies have shown that living in less conventional family structures such as with single parents or in step-families puts children at a higher risk for violence exposure (Turner, Finkelhor, & Ormrod, 2006). This increased risk relates to both intra and extra-familial violence exposure (Finkelhor, 2008). The current study did not find living with a single parent to be a risk factor for increased violence exposure. Finkelhor (2008) proposed a number of reasons why children living in unconventional family situations may be at a higher risk for being exposed to violence. For example, step-parents or romantic partners may not be good enough supervisors; children may be exposed to unrelated and "potentially predatory aggressive" individuals (p. 51); children in these families may have a lower capacity to protect themselves as a result of their experiences of conflict, adversity, turmoil or loss; and these children may be exposed to dysfunctional interactional styles as a result of family upheaval which they may adopt and which could put them at risk for being victims of violence. Step-families have been found to be characterised by higher levels of family problems that are indicators of parental dysfunction, such as high levels of parental imprisonment, substance abuse in the family, high levels of parental unemployment and parental arguing (Turner, Finkelhor, & Ormrod, 2007*a*). These factors may put children at a higher risk for violence exposure.

5.3.2. Demographic factors and mental health outcomes

In bivariate analyses, boys reported higher levels of conduct problems and aggression than girls, and girls reported higher levels of depressive symptoms than boys. However, in multivariate analyses gender did not remain a significant predictor of aggression, when considered together with language of instruction, family structure and the various violence exposure sub-types. In multivariate analyses being a girl remained a significant predictor of depressive symptoms and

being male remained a significant predictor of conduct problems. Previous studies on the effects of violence exposure on the mental health of girls and boys are heterogeneous, however most studies indicate that violence exposure is associated with an increased risk for conduct problems in boys (Gorman-Smith, Henry, & Tolan, 2004), while violence exposed girls are more likely to struggle with symptoms of depression; this has been found in both bivariate (Chen, 2009) and multivariate analyses (Goldstein, Walton, Cunningham, Trowbridge, & Maio, 2007). In one study, twice the number of girls than boys have been found to meet the criteria for depression (Kilpatrick et al., 2003). Some authors argue that there may be interaction effects (Cooley-Strickland et al., 2009) for example, boys who are victims of community violence and who reside in well functioning families are less likely to present with delinquent behaviour compared to boys who are raised in dysfunctional families (Gorman-Smith, Henry, & Tolan, 2004), highlighting the importance of the moderating role of protective factors.

In bivariate analyses participants instructed in Afrikaans at school had a higher mean score for conduct problems than their contemporaries instructed in English. However, in multivariate analyses, which included other demographic variables such as gender and household structure and the various violence exposure sub-types, language of instruction failed to remain a significant predictor for conduct problems. This perhaps suggests that low socioeconomic status does not contribute independently to levels of conduct problems in this sample. Rather, language of instruction may be associated with one or more of the violence exposure sub-types that do contribute independently to conduct problems, and in the bivariate analysis may have acted as a proxy for these other variables.

Bivariate analyses indicated that being a member of a step-family was associated with an elevated risk for depression compared to participants residing in nuclear and single-parent families. However, in multivariate analyses, family structure as a predictor variable for depressive symptoms failed to maintain significance when considered together with gender, language of instruction and the various violence exposure sub-types. It may be that the elevated levels of violence exposure amongst children in step-families accounts for their higher levels of depressive symptomatology.

5.4 The comparative contribution of different types of violence exposure to poor mental health

Multivariate analyses indicated that, for this sample of young adolescents, specific patterns of violence exposure contribute to different types of symptomatology, as discussed below.

5.4.1 Depression

The model for Depression was significant and explained almost 20% of the variability in depressive symptoms. Among the participants in this study, only being a victim of domestic violence conferred a significant risk for depressive symptoms, along with female gender. Female gender and being a victim of family violence were also found to be significant predictors of depressive symptomatology amongst youth in previous studies using multivariate analyses (Goldstein et al., 2007; Kilpatrick et al., 2003; Turner, Finkelhor, & Ormrod, 2006). However, these studies also found other significant contributors to depressive symptoms, such as family alcohol use, participant alcohol use, socioeconomic status, non-violent adversities, age and various other forms of violence exposure (Goldstein et al., 2007; Kilpatrick et al., 2003; Turner, Finkelhor, & Ormrod, 2006). While the current study did not assess all these variables, other types of violence exposure did not enhance the risk for depression once female gender and domestic violence victimisation were accounted for. Exposure to domestic violence as a victim has been found to be the strongest predictor of depressive symptoms in an American study (Turner, Finkelhor, & Ormrod, 2006) which is in line with the current study.

In the bivariate analysis of the present study being a member of a step-family was significantly associated with the severity of depressive symptoms. However, this variable failed to maintain significance in the multivariate analysis. This may be accounted for by the possibility that participants in this study who reside in step-families are exposed to higher levels of violence. Similarly, in the first step of Turner, Finkelhor and Ormrod's (2006) hierarchical regression analyses, living in a step-family was a significant contributor to depressive symptoms, however this variable failed to maintain significance when violence exposure variables were entered into the final model for both younger (two to nine year old) and older (ten to 17 year old) participants. It is possible then that it is not step-family structures per se that increase the risk for

depression in children, but rather the higher levels of domestic violence that occur in step-families compared with nuclear or single-parent families.

Girls' greater propensity towards internalising disorders such as depression may stem from the socialisation of female children to use different emotions to boys (Froschl & Sprung as cited in Feder, Dean, & Levant, 2007). The emotions girls are socialised into using rarely include behaving aggressively or defiantly; girls are typically discouraged from behaving in this manner in most societies. Furthermore, it has been proposed that girls are more likely to develop depressive symptoms in the face of family violence exposure because they have a greater inclination towards self-blame than boys (Kerig, 1998), and girls are more likely to appraise life events such as violence exposure in a negative manner (Shibley Hyde, Mezulis, & Abramson, 2008). This studies' findings reflect findings from previous research which demonstrated that girls at the particular developmental age of 12 to 15 years are more at risk than boys for developing depression (Angold, Costello, & Worthman, 1998).

5.4.2 Aggression

The model for Aggression was significant, with 23.12% of the variability in aggression being explained by the predictor variables. In line with previous studies, being a victim of domestic violence contributed the most to the severity of aggression when compared with other types of violence and with the demographic factors of gender, language and household composition (Mrug, Loosier, & Windle, 2008; Turner, Finkelhor, & Ormrod, 2006). In addition to domestic violence victimisation, witnessing community violence, being exposed to violence at school and being sexually abused all made significant independent contributions to predicting levels of aggression. This suggests that aggressive behaviour in this sample is associated with exposure to multiple forms of violence across different contexts, in contrast to depressive symptoms which were only predicted by being a victim of domestic violence.

Other studies have similarly found being a victim of physical abuse in the home, (Kitzman et al., 2003; McDonald et al., 2009), witnessing violence in the community (Van Der Merwe & Dawes, 2000), being exposed to violence at school (Storch & Ledley, 2005) and being sexually abused

(Newcomb, Munoz, & Carmona, 2009) to contribute independently to the development of aggression. While male gender was significantly associated with levels of aggression in the bivariate analysis, being of male gender did not maintain significance in the multivariate analysis, suggesting that boys and girls in this sample are equally vulnerable to developing aggression when exposed to violence across multiple sites. Research findings on gender as a predictor of aggression are heterogeneous, with some researchers having found no difference between boys and girls levels of aggression in response to violence exposure of various kinds (Tuner, Finkelhor, & Ormrod, 2006) and others reporting that boys display more aggressive symptoms than girls (Mrug, Loosier, & Windle, 2008).

Various theories have been proposed as to why children who are exposed to violence may become aggressive. One theory which is well known and well established is that of 'social learning and modeling' (Bandura, 1977). According to social learning theory and modeling, children learn how to resolve conflict with aggressive solutions by copying what those around them do. Therefore, if a child resides in a violent neighbourhood, and is also exposed to high levels of violence at school and at home, they have little opportunity to learn pro-social methods of dealing with conflict and life stressors; their pervasive exposure to violence "engenders beliefs about how to respond to threat" (Bradshaw & Garbarino, 2004, p.85).

Furthermore, the concepts of 'reactive aggression' and 'appetitive aggression' could also contribute to our understanding of why children who are multiply and continuously exposed to violence develop problems with aggression (Weierstall & Elbert as cited in Weierstall et al., 2013). According to the concept of reactive aggression, individuals who are exposed to violence are in a state of hyperarousal and therefore develop reactive aggressive responses which are "motivated by an avoidance of a negative emotional state like fear or distress" (Weierstall et al., 2013, p.139). These children may be using aggression as an instrumental protective survival response. In contrast to this, the concept of appetitive aggression suggests that certain individuals derive pleasure from acting violently and inflicting harm (Weierstall et al., 2013). Both theories suggest that aggression is used as a protective survival response; however the key difference between individuals who fit the reactive aggression model and those who are thought to have an appetite for violence is that those who respond from a place of hyperarousal are more likely to

suffer from psychological difficulties than those who simply have an appetite for aggression and who have "a rewarding perception of violence" (Weierstall et al., 2013, p. 145). Similarly, Roach (2013) argues that individuals who live in contexts of ongoing violence tend to respond with aggression as opposed to anxiety since ongoing anxiety fails to act as a protective mechanism in contexts of continuous traumatic stress. Aggression is believed to serve a protective function in violent neighborhoods where "the readiness for quick aggression is a valued quality" (Roach, 2013, p. 155). However, in the current study, the cross-sectional design does not permit firm conclusions regarding a causal relationship between violence exposure and aggression.

5.4.3 Conduct problems

The model for Conduct Problems in this study was significant, explaining 23.8% of the variance. Boys in this sample who are exposed to witnessed and direct victimisation both in the home and in the community, are at an increased risk for having conduct problems. Being a victim of domestic violence made the biggest independent contribution (32%) to conduct problems. These findings suggest that domestic violence victimisation is by far the most pathogenic violence type associated with conduct problems, as it is for symptoms of depression and aggression. However, witnessing domestic violence, and witnessed and direct community violence, each add cumulatively to an increased risk of conduct difficulties. Physical abuse in the home has been found to be one of the main contributors to delinquency in some previous studies (Mrug, Loosier, & Windle, 2008; Petrenko et al., 2012), while another study found that for boys being either a witness *or* a victim of domestic violence both contribute significantly to the development of conduct problems (Evans, Davies, & DiLillo, 2008). Studies have found boys who were physically abused at home to be at a higher risk to perpetrate violent, felony and property crimes (Herrera & McCloskey, 2001). A meta-analytic study found that being exposed to violence in the community as a victim and as a witness each independently contributed to delinquent behaviour (Fowler et al., 2009). Fowler and colleagues noted that conclusions could not reliably be made regarding gender, since few studies investigated the difference between boys' and girls' levels of conduct problems. Local studies have also found exposure to community violence as a witness and as a victim to each contribute independently to delinquent behaviour (Barbarin, Richter, & DeWet, 2001; Ward et al., 2007).

As with the development of aggression, social learning theory and modelling (1977) are useful theories for understanding how exposure across multiple sites contributes to conduct problems in children. However, these theories do not explain why boys may be more likely to develop conduct problems than girls. The gendered socialisation of boys and girls is different and may account for why boys are more likely to behave delinquently than girls. The socialisation of boys into particular masculine roles places them at a higher risk for becoming violent and delinquent (Feder, Dean, & Levant, 2007). According to this perspective "traditional masculine socialisation estranges and isolates boys from their genuine inner lives and vital connections to others, which is theorised to heighten their risk of engaging in acts of violence" (Feder, Dean, & Levant, 2007, p. 385).

In South Africa boys and men are socialised in a particular way which engenders a propensity to use violence; "masculinity in South Africa is based on demonstrations of toughness, bravery, and defence of honour, which readily translate into risk-taking behaviours and the high status gained by fighting rather than to resolve differences peacefully" (Seedat et al., 2009, p.1015). Therefore, the expectation to act in a confrontational aggressive way along with ample opportunities to model this type of behaviour across multiple sites of violence exposure could go some way in explaining why boys in this sample may be more vulnerable to developing conduct problems than girls. Apel and Burrow (2011, p. 124) found that violent retaliation occurs as a result of past victimisation, in order to prevent future victimisation "and/or to repair one's reputation as physically weak and unlikely to retaliate".

It has also been found that delinquent behaviour in and of itself puts children at an increased risk for re-victimisation (Finkelhor, Ormrod, & Turner, 2007*a*), suggesting that children get locked into a cycle of violence exposure. As Finkelhor and colleagues (2007*a*, p. 493) suggest, violence exposure across multiple sites "propel children into an intensively and generalised victimisation condition that in turn generates general anger/aggression, which by fuelling and sustaining defiant, challenging, rule-violating behaviour, tends to lock them in to an even more persistent victimised condition". Delinquent youth are prime targets for exposure to violence and the perpetration of violence because of the elevated amount of time they spend in the company of

other delinquent youths and criminal adults (Apel & Burrow, 2011). The relationship between violence exposure and conduct problems is therefore likely to be bi-directional, with each influencing the other. Again, however, the current research design limits conclusions regarding causality.

5.5 Prevalence of poly-victimisation and contribution of poly-victimisation to mental health outcomes

Given recent research indicating that the degree of poly-victimisation amongst youth is a more important contributor to mental health outcomes than specific types of violence, this study investigated the prevalence of poly-victimisation in the sample and explored its contribution to internalising and externalising symptoms. As discussed below, despite very high rates of poly-victimisation, this aspect of violence exposure is less helpful in predicting mental health outcomes than are specific profiles or patterns of violence exposure.

5.5.1 The prevalence of poly-victimisation

The average number of violence sub-types participants in this sample have been exposed to is four. A similar lifetime average exposure rate has been found in other studies of poly-victimisation, for example, 4.12 in a sample of Spanish adolescents (Lila, Herrero, & Gracia, 2008). One study reported a slightly lower rate of 3.6 in a sample of American children and adolescents (Cuevas et al., 2010), however this study considered exposure only in the year prior to the study. One study reported higher average exposure rates of five and six for different sub-groups of poly-victimised children and adolescents (Holt, Finkelhor, & Kaufman Kantor, 2007). In the later study it became apparent that different types of poly-victim sub-groups may exist and may have different average exposure rates. For example 'primarily peer victims' are exposed to less types of violence (average of five victimisations) than 'multiple victims' (average of six victimisations), suggesting that studies should consider different types of poly-victimisation sub-groups.

As many as 93% of the participants in the current study have been exposed to more than one sub-type of violence in their lifetime, while 75% have experienced three or more types. This indicates that multiple victimisation across different contexts among young adolescents in this

community is the norm rather than the exception. Previous American studies have reported lower rates of poly-victimisation for example, 66% (Turner, Finkelhor, & Ormrod, 2010) and 71% (Finkelhor, Hamby, Ormrod, & Turner, 2005). However, Kennedy (2008) found a similar rate to the current study's rate in a sample drawn from a low-income African American community. It should be noted that comparisons between these American studies and the current study should be made with caution. For example, Turner and colleagues (2010) and Finkelhor and colleagues (2005) made use of samples comprising a combination of very young children and older adolescents. Furthermore, Finkelhor and colleagues' study measured violence exposure in a one year period as opposed to lifetime exposure. Younger adolescents in this sample may be particularly vulnerable to poly-victimisation since they may divide their time more equitably across multiple life domains, for example at home, at school and in the neighbourhood. Much younger children are more likely to spend more time at home and less time out on the streets in their communities (which is one proposed reason for their disproportionate exposure to physical abuse in the home), and older adolescents are more likely to spend the majority of their time in the neighbourhood as opposed to at home. Furthermore, the elevated levels of gang activity and drug abuse in this particular community may result in high levels of violence both out on the streets in the neighbourhood and in the homes of inhabitants of this community.

Furthermore, this study found multiple victimisation to be prevalent among both genders. However, it does appear that boys are exposed to more violence sub-types than girls. Studies in Spain, America and South Africa have similarly found girls to be victimised in fewer life domains than boys (Finkelhor, Ormrod, & Turner, 2007*b*; Lila, Herrera, & Gracia, 2008; Morajele & Brooks, 2006). This may be because boys are given more freedom to roam about outside of their homes. Furthermore, boys are at an increased risk for delinquent behaviour which has consistently been shown to put them at an increased risk for being multiply victimised (Finkelhor, Ormrod, & Turner, 2007*a*; Ford, Wasser, & Connor, 2011).

5.5.2 The contribution of poly-victimisation to poor mental health

Poly-victimisation as an independent contributor to poor mental health was only significant for symptoms of depression, and including poly-victimisation as a predictor variable resulted in very little increase in the amount of variance explained.

As in the multiple regression analysis which explored the contribution of the six violence sub-types to levels of depression, being of female gender and being a victim of violence in the home remained significant predictors however, this analysis additionally indicated that more types of violence exposure (being poly-victimised) create further risk of depression. Even though boys in this study are exposed to violence across a higher number of contexts than girls and are more likely to be exposed to violence in the home, girls who are victimised at home and who have higher levels of poly-victimisation, are at a higher risk than boys to become symptomatic with signs of depression. Being a victim of domestic violence retained significance when considered with poly-victimisation, suggesting that being victimised in this way is particularly pathogenic. In some previous studies adding poly-victimisation as a predictor either reduced or eliminated the significance of single violence exposure types as predictors of depression (Turner, Finkelhor, & Ormrod, 2010). However, as in the present study, some researchers have also found child physical abuse to retain significance when considered together with poly-victimisation (although the strength as a predictor was lowered with the addition of the poly-victimisation as a variable) (Finkelhor, Ormrod, & Turner, 2007*b*). Other scholars have found both childhood physical abuse and childhood rape to retain significance in predicting depression in female university students when considered with poly-victimisation (Briere, Kaltman, & Green, 2008). Adolescents who are poly-victims have been found to be twice as likely to suffer from depression compared to adolescents who have a victimisation history but who are not multiply victimised (Ford et al., 2010). Similar to findings from this study, other scholars have found levels of depression in females to increase with increased levels of violence exposure (Goldstein et al., 2007;Mrug, Loosier, & Windle, 2008) and specifically with increased family violence exposure (Mrug, Loosier, & Windle, 2008). These findings underscore the importance of identifying girls who live in homes that are violent and who are additionally victimised in other life domains, in order to develop targeted intervention initiatives for this at-risk group.

Poly-victimisation did not significantly predict levels of aggression or conduct disorder in participants in this sample over and above single victimisation exposures. Other studies have found poly-victimisation to result in elevated levels of aggression (Finkelhor, Ormrod, & Turner, 2007*b*; Turner, Finkelhor & Ormrod, 2010) and Turner and colleagues found the inclusion of poly-victimisation to significantly reduce the association for each single violence exposure type. Other scholars have found delinquent behaviour to be significantly associated with poly-victimisation (Ford et al., 2010; Herrera & Gracia, 2008). Cumulative risk models have been supported by studies that have found that children who are exposed to many types of violence are at a higher risk for developing delinquent behaviour, for example Sousa and colleagues (2011) found children who were both witnesses and victims of domestic violence to be more likely to behave in an anti-social manner than children exposed to only one or the other. In the current study, there is no evidence that the experience of poly-victimisation increases the risk of externalising symptoms beyond that contributed by each individual type of exposure. The findings suggest that the combination of certain types of violence exposures assist to predict externalising symptoms, more than the actual number of different types of exposure.

5.6 Summary of findings

This study indicated that while different violence exposures frequently co-occur they do make independent, unique contributions to predicting poor mental health. Being victimised in the home conferred the most risk for both internalising and externalising symptoms. Being poly-victimised contributed significantly only to levels of depression. This is contrary to most previous studies on poly-victimisation, which have found poly-victimisation to lessen or eliminate the contribution of single violence exposures to poor mental health. Rather, the current study's findings suggest that the *number* of different types of violence a young adolescent in this community has been exposed to does not assist in predicting the development of externalising symptoms. Instead, it has been shown that particular types of exposure (particularly domestic violence victimisation) contribute independently to increasing the risk of aggression and conduct problems. Moreover, particular combinations of exposure seem to be important for aggression and conduct problems respectively. These findings suggest that the profile of violence exposure

of young adolescents in this sample may be more helpful in understanding their mental health difficulties than knowledge on the number of different types of exposures they have experienced.

6

Limitations

This study has several limitations which restrict the generalisability of findings and the strength of the conclusions which can be drawn. Firstly, generalisation of the findings should be done with caution since the sample is not representative of all South African adolescents; it includes only young adolescents from a particular high violence neighbourhood. While this community has much in common with other low-income communities in Cape Town, it also has unique features which restrict generalisability, such as particular high levels of gang violence and methamphetamine abuse. Also, the absence of some learners from school on the days of administration may have caused some sampling bias. This may limit the representativity of the sample in relation to young adolescents Hanover Park.

A number of limitations exist with regards to the questionnaires used in the study. This study made use of self-report questionnaires which are known to be affected by retrospective report bias (Liang, Flisher, & Lomabard, 2007; Turner, Finkelhor, & Ormrod, 2006). For example, children may not accurately recall which violent events they have been exposed to and how many times they have been exposed to such incidents. Furthermore, the content of the questionnaires were of a private nature and even though precautions were taken to ensure the privacy of learners during the administration of the questionnaires some respondents may have felt that their privacy was not guaranteed which could have influenced how they answered the questionnaires.

The violence exposure questionnaire only had three response options in the likert-type scale. Although this was purposefully done in order to make it easier for participants to indicate the number of times they were exposed to the individual violence types, it may have resulted in low Cronbach's alphas for some of the violence exposure sub-scales. Furthermore, the sexual

victimisation sub-scale only consisted of three questions which could further lowered the Cronbach's alpha for this sub-scale. Research has shown that behaviourally specific questions about exposure to sexual abuse yields responses that are more reflective of children's sexual abuse experiences. The current study's questions on sexual abuse were possibly too broad and not behaviourally specific. The abovementioned factors may also have contributed to the low reported rate of child sexual abuse among the participants in this study. Future research exploring children's victimisation profiles in South Africa should include a broader variety of questions that are behaviourally specific which could be more reflective of the sexual abuse experiences children could be exposed to.

Research has increasingly indicated that children who are exposed to physical abuse in the home as victims are also victims of emotional abuse, and that emotional abuse makes unique contributions to poor mental health over and above socio-demographic factors and other violence exposures types (Egeland, 2009; O'Dougherty Wright, Crawford, & Del Castillo, 2009). The emotional abuse items which were initially constructed by the principal investigator and added to the CEVC were removed since there was concern about the psychometric properties of these sub-scales. Future research on children's exposure to violence in South Africa should include exposure to emotional abuse in the home.

In addition, some studies on the effects of multiple victimisations on children's mental health include non-violent victimisations as stressors, which have been found to contribute independently to levels of poor mental health (Turner, Finkelhor, & Ormrod, 2006). The present study did not include such non-violent victimisations and adversities. The community under study is known to be affected not only by high levels of violence exposure but also to some of the social structural correlates of violence which have previously been found to contribute to children's emotional difficulties, such as parental substance abuse, parental poor mental health and parental imprisonment. Future studies should enquire about children's exposure to other life stressors in addition to violence exposure, in order to better understand the respective contributions of traumatic stressors and other stressors to mental health outcomes.

Since a fair portion of learners were educated in Afrikaans, all measures were translated from English to Afrikaans by means of a forward and back translation process to ensure equivalence (Foxcroft & Roodt, 2006). However, this was the first time these measures were used in Afrikaans and the psychometric properties were not established prior to the administration. However, the Cronbach's Alphas for all the translated scales were high, indicating good internal consistency.

This study is a cross sectional survey study which does not allow for causal inferences to be made regarding the nature of the relationship between violence exposure and mental health outcomes. Longitudinal studies are needed to answer questions in this regard. As Finkelhor, Turner and Ormrod (2006, p. 24) suggest "data collected at two or more measurement points would also improve our ability to accurately assess cumulative victimisation exposure over time and the determinants and outcomes of such exposure for children". If correlational studies are to be used it has been proposed that it is vital that as many confounding risk factors as possible are included in the study design (Mrug, Loosier, & Windle, 2008). This study was restricted to examining gender, language (as a proxy for social class), and household composition as control variables.

7

Recommendations

Responses to child victimisation are often fragmented, focusing on one type of violence exposure such as bullying at school. The current study's findings point to the importance of taking a broader, more holistic, approach since it has been shown that many young adolescents in this community are exposed to violence across multiple sites such as at home, at school and in the neighbourhood. Controlling levels of violence in the community and in the homes of individuals is a great challenge and is reliant on many micro and macro systems being targeted. However, there are a number of strategies which can be employed in order to minimise children's exposure to violence in the community under study and which may be employed to assist them once they are exposed. It is useful to take an ecological approach when conceptualising responses to children's exposure to violence. Primary, secondary and tertiary intervention programmes could

be implemented with individual, relationship, community and societal factors in mind when developing various programmes to reduce children's exposure to violence and the treatment of the effects thereof.

Being a victim of violence in the home appears to be the strongest risk factor for poor mental health outcomes among participants in this sample. This suggests that the home is therefore the most important site for intervention. At the primary prevention level, resources should be prioritised for campaigns which disseminate information about children's rights as well as programmes which examine parent's behaviours and attitudes towards children in the home and strive to develop positive parenting practices. Some examples are parenting and family strengthening skills programmes. However, these programmes would have to be responsive to the stressors of parenting within a high violence community where strict control of young adolescents' behaviour may be an important way of keeping them safe. Reconstituted families should be prioritised as the targets for these interventions. Furthermore, at the primary level of intervention risk factors for domestic violence should be identified by researchers and addressed. Since the use of methamphetamine is a correlate of violence (Cartier, Farabee, & Prendergast, 2006) caregivers in this community should be made aware of this risk factor and should have access to rehabilitation programmes. Too few rehabilitation centers currently exist in the Western Cape given the great demand for such services (Myers, Louw, & Fakier, 2008).

At a secondary intervention level, temporary safe havens for families exposed to domestic violence could be established which adult female caregivers could be made aware of. These shelters could assist female caregivers to make the difficult transition from leaving a violent home. Often practical obstacles, such as a lack of finances, prevent women from escaping these violent contexts (Anderson & Saunders, 2003). The Saartjie Baartman Centre for Women and Children in the Western Cape is a good example of such a shelter. The centre offers overnight shelter, skills/job training, legal advice, parenting skills, trauma and drug counseling. On a tertiary level, policy changes which allow for perpetrators as opposed to children to be removed from domestically violent contexts should be considered.

The perpetrators of domestic violence in South Africa are mostly men (Wood & Jewkes, 2009) therefore, on a broader societal level less violent and more balanced masculine gender roles need to be made accessible to men. More balanced gender roles, children's rights and zero tolerance

towards domestic violence could be advocated by government agencies, the media, school programmes, as well as parenting programmes.

Schools fall within the community sphere of the ecological approach and may potentially be sites where children's exposure to violence in various life domains could be monitored and where primary and secondary violence intervention programmes could be implemented. For example, offering support at schools for children affected by various types of violence in the form of social work and counselling services would provide children with an alternative avenue through which to explore their help-seeking options. Social workers are key in assisting with intervening in domestic violence cases yet there is a dearth of social work support in this community (and in the broader context of South Africa) (Earle, 2008). There is also a shortage of school-based counsellors who can offer much needed trauma support services. These counsellors could offer trauma counselling once a child has been victimised and would also be able to identify children who are at risk. Referrals to social services could also be made by these counsellors.

Specific attention should be focused on identifying girls who are being poly-victimised since they are at a high for developing depressive symptomatology. This could be done through monitoring by teachers at school (as will be discussed below) and school counsellors. The employment of clinically trained school counsellors should be made a priority by the education department since they are able to treat psychological disorders, such as depression, which come about as a result of exposure to violence. The costs of creating posts for school-based counsellors would in the long-term be off-set by the reduced economic and societal costs associated with reducing levels of depression, aggression and conduct disorder among young adolescents. If this is too big a financial burden for schools registered counsellors and lay counsellors should be employed, these counsellors could make referrals to psychologists in the education department for children who are in need of clinical intervention. However, there are also a death of psychologists employed by the education department, a situation that too needs rectifying.

Teachers may be the only adults (other than caregivers at home) whom children are exposed to and who may be aware of the goings on in a child's home and school environment. It is not being suggested that the well-being of children be placed in the hands of teachers but that teachers may be one source through which the state of a child's life may be monitored. Teachers should routinely explore with children the violence types they are being exposed to. However, this may

not be realistic in all school contexts given how overburdened teachers already are. Perhaps a time efficient manner of such enquiries could be the routine completion of a violence exposure questionnaire in life orientation classes. Such questionnaires should be used to establish which youth are most at risk, and particular attention should then be paid to identifying girls who are poly-victimised. However, ethical issues regarding confidentiality would need to be carefully attended to.

Since violence exposure at school was found to be high in this study, ways in which to reduce violence at schools in this community should be prioritised. One study found a number of strategies which have been employed by schools in the Western Cape to be useful in decreasing the amount of violence children are exposed to at school (Braun, 2007). For example: proper security access control such as gates, fences and intercom systems; clarifying expectations and consequences of the behaviour of learners; a method of discipline which encompasses positive behaviour support as opposed to seeing children as "transgressors worthy of punishment"; a collaborative relationship between the school and the parents; liaising with the Safe Schools Programme; and having access to social workers (Braun, 2008, p.2). It should be noted that a code of conduct should be endorsed not only for learners but for teachers too, since it has been shown in previous studies that teachers are often perpetrators of physical violence and sexual offenses against children in schools in South Africa (Jewkes et al., 2002). There should be consequences for teachers and learners who fail to comply with the code of conduct.

Since exposure to community violence is so commonplace for participants in this study, efforts should be made to protect young adolescents in this community from such exposures by minimising the amount of time they spend out and about in their neighbourhoods. For example, after school programmes may offer an alternative venue at which to spend time, as opposed to spending time on conflict ridden streets. Further, programmes offering conflict resolution skills should be implemented in schools in order to equip children with the ability to resolve conflict in a pro-social manner, in this way minimising the learning of violent behaviour which is known to take place when children are routinely exposed to violence. Parents should be involved in this training in order to enforce the use of pro-social problem solving at home. Masculine identities in this neighbourhood are linked to gang membership and gangs are known to be central to the

ongoing levels of violence in this community. For this reason alternative masculine identities need to be made available.

This study indicated that boys who are exposed to violence in the home, school and community are at an increased risk for having conduct problems. Programmes should be investigated and implemented which target boys at risk for developing conduct problems, since this is a key part in addressing the cycle of violence in this neighbourhood. School based intervention programmes as well as wilderness diversion programmes have previously been suggested as useful intervention strategies in this regard (Parker, Dawes, & Farr, 2004).

With regards to tertiary intervention few studies have been conducted on how to treat children who are poly-victimised and who have little chance of escaping the violent contexts to which they are routinely exposed. Therapy interventions have historically focused on treating the effects of single exposures to violence (Resick & Schnicke, 1992) or continuous exposure to one kind of violence, such as child sexual abuse (Cloitre, Koenen, Cohen, & Han, 2002). Future research should focus on studying therapeutic interventions for children who are poly-victimised. Given that poly-victimisation is so widespread in this sample, focusing on group interventions should take priority over individual therapeutic interventions if this is possible and indicated. Perhaps these interventions could be taught to lay counsellors since employing psychologists in all schools will not be possible owing to resource constraints.

It is important that programmes which are employed to target the cycle of violence in communities be evidence based and undergo stringent programme evaluation and monitoring to ensure that outcomes are being successfully reached (Parker, Dawes, & Farr, 2004).

With regard to recommendations for future research, it would be valuable to examine vulnerability and resilience factors in combination with poly-victimisation in order to determine what makes children more vulnerable to being multiply victimised and what factors protect them from becoming symptomatic when exposed to violence across many life domains. Ideally longitudinal studies should be conducted looking at the effects of violence exposure over time since the effects may be different for different age groups, and to identify risk factors for violence exposure at different developmental stages over the lifetime. Dawes and colleagues (2006) suggest that epidemiological studies should be undertaken to determine the extent of

children's exposure to violence on a national basis and that patterns of violence exposure be indentified in these studies since it may be that not all children in all provinces are at risk for all types of exposure. Future studies on poly-victimisation should perhaps focus on a broader range of mental health outcomes since some children may become symptomatic in ways other than those explored in the present study (for example, PTSD).

8. Conclusion

This study found high levels of exposure to home, school and neighbourhood violence, and moderate to high levels of internalising and externalising symptoms among young adolescents. It was found that particular patterns of violence exposure are more useful than the number of types of exposure for predicting particular kinds of symptoms in this sample. In particular, domestic victimisation confers a higher risk for symptoms of depression, aggression and conduct problems than any other kind of violence exposure. However, additional types of violence exposure appear to further increase the risk of aggression and conduct problems.

While bearing the limitations of the study in mind, some tentative recommendations for policy, intervention and research have been offered. Young adolescence offers a fruitful developmental stage for intervention, at this age it is still early enough to develop and consolidate healthier developmental trajectories.

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APPENDICES

Appendix A

Demographics Questionnaire

These are some things we would like to know about you.

1. How old are you now? _____

2. Are you a boy _____ or a girl_____? (Make a tick √ next to the right answer).

3. Make a tick √ in the box next to the kind of house that you live in.

I live:	√
a. In a brick or concrete house.	
b. In a shack on its own plot.	
c. In a block of flats.	
d. In a shack in a backyard.	
e. In a wendy house in a back yard.	
f. In a wendy house on its own plot.	
g. In a children's home or shelter.	
h. On the street.	
I. Other:	_____

4. Now we would like to know who lives with you in your house. Make a tick √ next to each person that lives with you in your house. Where it asks 'How many?' write in how many of that kind of person lives with you.

PERSON	**Tick √**	**Numbers**
My real mom		
My real dad		
My Aunty		How many? _____
My Uncle		How many? _____
My cousins		How many? _____
My real brother (s)		How many? _____
My real sister (s)		How many? _____
My step dad		
My step mom		
My mom's boyfriend		
My dad's girlfriend		
My sister's boyfriend or husband		
My brother's girlfriend or wife		
My brother's or sister's children		How many? _____
My granny		How many? _____
My grandpa		How many? _____
Someone else		How many? _____

Appendix B

Child's Exposure to Violence Checklist (CEVC; Amaya-Jackson, 1998)

<u>Instructions</u>: <u>for each question</u>, please make a tick √ in the box that fits you best.

	Never	Once	More than once
1. Have you heard gun shots?			
2. Have you seen someone being beaten up in your school?			
3. Have you seen someone being beaten up in your neighbourhood?			
4. Have you seen grown-ups in your home hit each other?			
5. Have you seen a dead body around your neighbourhood (don't include funerals)?			
6. Have you seen somebody point a gun at another person in your home?			
7. Have you seen somebody point a gun at another person in your neighbourhood?			
8. Have you seen somebody get shot in your neighbourhood?			
9. Have you seen someone in your home get stabbed?			
10. Have you seen someone in your home get shot?			
11. Has your house ever been robbed while you were at home?			
12. Have you seen somebody point a knife at another person in your neighbourhood?			
13. Have you seen someone get stabbed in your neighbourhood?			
14. Have you seen somebody point a knife at another person at your school?			

	Never	Once	More than once
15. At home, have you ever seen someone else be forced to do something with their private parts that they didn't want to do?			
16. At your school, have you ever seen someone else be forced to do something with their private parts that they didn't want to do?			
17. In your neighbourhood, have you ever seen someone else be forced to do something with their private parts that they didn't want to do?			
18. Has someone ever threatened to beat you up at home?			
19. Has someone ever threatened to beat you up at school?			
20. Have you ever been threatened to be beaten up by someone somewhere else?			
21. Have you actually been beaten up by someone in your home?			
22. Have you actually been beaten up by someone at your school?			
23. Have you actually been beaten up by someone somewhere else?			
24. Has someone in your house threatened to kill you?			
25. Has someone at school threatened to kill you?			
26. Has someone threatened to kill you somewhere else?			
27. Has someone in your family threatened to shoot or stab you?			
28. Has someone at school threatened to shoot or stab you?			
29. Has someone threatened to shoot or stab you somewhere else?			
30. Has someone shot or stabbed you while you were at home?			
31. Has someone shot or stabbed you somewhere else?			
32. Has someone in your house ever made you do something with your private parts or with their private parts that you did not want to do?			

	Never	Once	More than once
33. Has someone at school ever made you do something with your private parts or with their private parts that you did not want to do?			
34. Has someone somewhere else ever made you do something with your private parts or with their private parts that you did not want to do?			
35. Have you known someone that was killed by another person?			
36. Have you seen someone being killed by another person at home?			
37. Have you seen someone being killed by another person somewhere else?			
38. Does someone in your family shout at you so loudly and fiercely that you feel scared?			
39. Has anyone at home used a stick, belt or other hard item to hit you with?			
40. Has anyone at home ever hit you so hard you were hurt?			
41. Has anyone at home ever said that you would be sent away or kicked out of the house?			
42. Has anyone at home ever called you stupid, lazy or other horrible names?			

Appendix C

The Social and Health Assessment Scales (SAHA: Rushkin, Schwab-Stone & Vermeiren, 2004)

Instructions: for each sentence please make a tick √ in the box that best describes how you have behaved or felt over the past month.

In the past month:

	Not true	Sometimes true	Often true
1. I did not feel like eating very much at all.			
2. I felt that I could not stop my sad feelings even with help from my family or friends.			
3. I felt excited about the future.			
4. I felt lonely.			
5. I enjoyed doing things.			
6. I felt like crying.			
7. I felt really sad.			
8. I felt that people did not like me.			
9. I felt that many things were my fault.			
10. I was tired.			
11. I have lost my interest in other people and things.			
12. It was easy for me to make decisions.			
13. I did not like myself.			
14. I felt irritated by people and things.			
15. I felt confident.			

Appendix D

Aggression Questionnaire (Buss & Perry, 1992)

<u>Instructions</u>: <u>for each sentence</u>, please make a tick √ in the box that fits you best.

	I'm not like this at all	I'm a bit like this	I'm a lot like this
1. Every now and then I can't stop myself from hitting someone else.			
2. If someone irritates me enough I will hit them.			
3. If somebody hits me I hit them back.			
4. I get into fights more than what my friends do.			
5. If I must hurt someone to protect myself I will.			
6. There are other kids I know who have made me so angry we hurt each other in fights.			
7. I don't think there are any good reasons for hitting someone else.			
8. I have threatened to beat someone up.			
9. I have got so cross in the past that I have broken things.			
10. I get cross quickly but also calm down quickly.			
11. When I am frustrated I show it.			
12. I feel so angry inside it feels like I can explode.			
13. I don't get cross with people easily at all.			
14. Some of my friends think that I get angry very quickly.			
15. I get very angry for no reason.			

	I'm not like this at all	I'm a bit like this	I'm a lot like this
16. I find it hard to stop myself from getting really angry.			
17. I am very jealous of other people.			
18. I feel like my life is worse than other people's lives.			
19. Other people always seem to have better chances than what I do.			
20. I feel upset because life is unfair.			
21. I think that other people talk about me behind my back.			
22. I don't trust strangers who act very friendly with me.			
23. I feel that people are laughing at me behind my back.			
24. When people are very nice to me I wonder what they want from me.			

Appendix E

Child Behaviour Checklist (CBL; Achenbach & Edelbrock, 1983)

<u>Instructions</u>: <u>for each sentence</u>, please make a tick √ in the box that fits you best.

	Never	**Sometimes**	**Often**
1. I cut classes or skip school.			
2. I run away from home.			
3. I drink wine or other alcohol.			
4. I use drugs.			
5. I hang out with kids who get into trouble.			
6. I would rather be with older kids than with kids my own age.			
7. I break windows or other property.			
8. I steal at home.			
9. I steal things from other places.			
10. I lie about things.			
11. I carry a knife on me for protection.			

Appendix F

Contact Details for Counselling Services

Counselling Telephone Numbers Counselling Telefoon Nommers

1. **CHILDLINE**
   You can call them for free at anytime of the day or night on **0800 055 555.**

   Jy can hulle skakel sonder om te betaal, enige tyd van die dag or nag op **0800 055 555**.

2. **NICRO**
   Their office address is:
   4 Buitensingel Street
   Cape Town
   Their telephone number is: **021 422-1690**

   Hulle kantoor addres is:
   4 Buitensingel Straat
   Kaapstad
   Hulle telefoon nommer is: **021 422-1690**

3. **FAMSA**
   Their office address is:
   9 Bowden Road
   Observatory
   Cape Town
   Their telephone number is: **021 447 0170**

   Hulle kantoor addres is:
   9 Bowden Straat
   Observatory
   Kaapstad
   Hulle telefoon nommer is: **021 447 0170**

4. Remember you can speak to the CASE counsellor at your school too. If there is no CASE counsellor at your school you can call CASE on **021 691 7066** and ask them to tell you where you can meet with a CASE counsellor. CASE counselling is free.

Onthou jy can ook met die CASE counsellor by jou skool praat, as daar nie een by jou skool is nie bel dan vir die CASE kantoor op **021 691 7066** en vra vir hulle om vir jou te sê waar jy ‘n CASE counsellor can ontmoet. CASE counselling is gratis.

If you are still having problems finding someone to talk to call Bernice du Plessis on 076 9444 533 and she can help you find a counsellor to talk to.

As jy nog steeds sukkel om ‘n counsellor te vind dan kan jy vir Bernice du Plessis bel op 076 9444 533 en sy sal jou help om ‘n counsellor te vind.

Appendix G

Passive parental consent letter

UNIVERSITY OF CAPE TOWN

Department of Psychology
University of Cape Town, Rondebosch,
Cape Town, South Africa, 7700,

Dear Parent

The University of Cape Town, in partnership with CASE (Community Action for a Safer Environment), is conducting a research study at your child's school. The aim of the study is to learn more about the scary things that happen to children e.g. seeing gangs fight or hearing gun shots in the neighbourhood, and how these events make them feel. This information will help CASE to create community projects to help the children.

Taking part in the study is voluntary. This means that your child may choose not to take part at all or can stop taking part at any point during the study. Your child will be asked to fill in a form in which they will tell us if they do or do not want to be part of the study.

The study will take place over a few lessons during school time at the beginning of the third term. Permission to do this study has been given to us by the principal of the school as well as the Western Cape Education Department.

If you would prefer that your child does not participate in this study, please inform the principal in a letter by 13 August 2010. In this letter please include your child's name, surname, grade, and their teachers' name.

If you have any further questions please contact me.

Contact Details:
Researcher: Bernice du Plessis
Cell: 0769444 533
E-mail: bernice.duplessis@uct.ac.za

Research Supervisor: Dr D. KaminerCell:
Office Phone: (021) 650 3425
E-mail: debbie.kaminer@uct.ac.za

Thank you
Bernice du Plessis

break the cycle of violence

Appendix H

Informed Assent Letter

UNIVERSITY OF CAPE TOWN

Department of Psychology
University of Cape Town, Rondebosch,
Cape Town, South Africa, 7700

Dear Learner

Thank you very much for spending some of your time reading through this form. You have been invited to take part in a study being done by the University of Cape Town. This study is about scary things that happen to children, for example, seeing gangs fight or hearing gun shots in the neighbourhood, and how these things make children feel. It is important for us to know this kind of information because it will help us decide how to help children with problems in their lives.

Do I have to take part? You do not have to take part in this study at all. It is your choice if you want to take part or not.

What will I have to do? There are some questions that we would like you to answer. The researchers will explain to you what to do and they will read each question with you, after which you will write your answers down on the forms that they will give you.

Will anyone know what I have answered? Definitely not! All your answers will be private, there will be no way that anyone will know what answers you gave. Your name will not be on the forms.

What will happen with the information that the university is going to get from all the learners? The information will be used to put together programmes that can help children when things go wrong in their lives.

What if the questions upset me? If you feel sad or upset by any of the questions and feel like you can't keep answering them, then you may stop. If you are upset by the questions and feel like you want to speak to a counsellor the researchers will help to set up an appointment for you. Nobody will be upset with you if you decide to stop answering the questions.

On the back of this letter is what is called an 'assent form'. We need you to fill this in and give it back to us before we can begin.

Thank you

Bernice du Plessis

Please make a tick √ in the right box.

BOX 1:

☐ I **WILL** take part in this study today.

Name: _____ Surname: _____

OR

BOX 2:

☐ I **WILL NOT** take part in this study today.

Name: _____ Surname: _____