CHAPTER 2

An overview of Child Maltreatment and associated Negative Sequelae
2.0. Introduction

A number of negative outcomes are associated with all types of child maltreatment. These outcomes include but are not limited to perpetration of violence against an intimate partner (Straus & Savage, 2005), transmission of HIV and other sexually transmitted diseases (Larsen, Chapman & Armstrong, 1998; Lalor, 2008), alcohol use and substance dependence (Epstein, Saunders, Kilpatrick & Resnick, 1998; Horowitz, Widom, McLaughlin & White, 2001), Posttraumatic Stress Disorder (PTSD) (Breire & Elliot, 2003; Scott, 2007; Schaal & McCanne; 1998), anxiety disorders and depression (Mancini, Ameringen & MacMillan, 1995), aggression and other forms of externalizing behaviours (Manly, Kim, Rogosch & Cicchetti, 2001), internalizing behaviour problems, (Kolko, 2002; Springer et al., 2007) and even death (Glaser 2005). Although there is broad diversity in the negative outcomes of child maltreatment, this thesis will concern itself with the associations of CSA, CPA, neglect, and witnessing interparental violence with antisocial personality symptoms, criminal tendencies, dating violence, depressive symptoms and borderline personality disorder. We will also be concerned with the role of Posttraumatic Stress Symptoms (PTSS) in mediating the association between child maltreatment and the selected psychopathological outcomes. In this chapter, therefore, we review the relevant studies that have examined these associations and studies that have examined the mediating role of PTSD in the association of child maltreatment and psychopathological sequelae.

2.1 Consequences of Childhood Physical Abuse

Childhood physical abuse affects hundreds of thousands of children annually with physical trauma ranging from mild to severe, including fatalities. It has been observed that the consequences of CPA go beyond the physical and include emotional and psychological injury to the individual child (Kolko, 2002). Research shows that adults who report histories of CPA are at risk for delinquency, adult criminal behaviour (Hildyard & Wolfe, 2002; Maxfeild & Widom, 1996) and dissociation (Hauggard, 2004). In their review, MacMillan and Munn (2001) observed that in addition to a number of other disorders, CPA has consistently been associated depression and antisocial personality symptoms (Johnston, Cohen, Brown, Smailes, & Bernstein, 1999). CPA that occurs during pre-school years has been found to predict later externalizing behaviour and aggression (Manly et al., 2001) with males reporting more externalizing problems than females (Herrenkhol & Herrenkhol, 2007).

The association of CPA and mental health outcomes has also been found in clinical samples of depressed and anxiety disordered persons (Mancini et al. 1995; Mullen, Martin, Anderson, Romans & Herbison 1996; Duran et al., 2004). In addition, CPA has been identified as an etiological factor in the development of Borderline Personality Disorder (BPD) (Arntz, 1994).
2.1.1 Childhood Physical Abuse and PTSD

PTSD in childhood, adolescence and adulthood is one of the primary consequences associated with a history of CPA (Clemmons et al., 2003; Dubner & Motta, 1999; Kolko, 2002; Maker, Kemmelmeer & Peterson, 2001). In a study that examined the association between CPA and trauma symptoms in the general population, Breire and Elliot (2003) found that CPA was associated with trauma symptoms. In order to determine this association in a sample of 935 male and female participants, the authors used the Trauma Symptom Inventory (TSI). The TSI measures a wide range of psychological sequelae and it consists of subscales that are associated with PTSD. These subscales include anxious arousal, intrusive experiences, defensive avoidance and dissociation. The association between CPA and these three subscales were all significant implying that CPA was positively associated with the posttraumatic stress symptomatology. This association remained significant even when demographic and other abuse characteristics in childhood and adulthood were controlled for.

The association between CPA and PTSD has also been found in a nationally representative sample of 4351 South African adults. Kaminer, et al. (2008) examined the elevated risk for PTSD associated with different forms of interpersonal violence in South Africa. Lifetime PTSD was assessed using the Composite International Diagnostic Interview (CIDI). The results showed that childhood physical abuse was associated with PTSD among males but not among females. Although the association between CPA and PTSD was not significant among females, it was likely that other traumatic events like rape, intimate partner violence and criminal assault could have confounded this association. Thus in multiple traumatized samples it may be difficult to conclusively link PTSD symptoms to a specific traumatic experience (Kaminer et al., 2008). Similarly, Hetzel and McCanne (2005) found that the likelihood of American females reporting PTSD symptoms was higher if one had experienced both CPA and CSA (see also review by MacMillan & Munn, 2001).

Using the Trauma Symptom Checklist (TSC– 33) to assess adult symptoms associated with traumatic experiences, Haj- Yahia and De Zoysa (2008) examined the psychological effects of childhood physical abuse in the family among 476 Sri Lankan university students. The TSC– 33 measures a wide range of outcomes that include depression, dissociation and anxiety. Results showed that although none of the socio-demographic characteristics of the students did significantly explain the variance in psychological functioning of the university students, the family functioning and environment could indeed explain part of the variance in the TSC-33 scores. After this was adjusted for CPA was significantly associated with symptoms of depression, anxiety and dissociation. We however note that although Haj- Yahia and De Zoysa (2008) examined trauma associated with childhood physical abuse, the TSC- 33 is not a full measure of the constructs of PTSD and depression, it measures individuals’ psychological functioning after traumatic events. Nonetheless, the study showed that CPA in the family had significant psychological effects on the victims.

Although PTSD seems to be a common consequence of CPA, not all studies that have examined the sequelae of CPA have found an association with PTSD.
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symptomatology. For example, Scott (2007) found no association between CPA and PTSD. Similarly Griffing et al. (2006) did not find such an association in their sample of female domestic violence survivors. In addition, Clemmons et al. (2003) found that in their sample of Latina undergraduate students, there was no difference in trauma symptomatology between those who experienced CPA only and those who had not been maltreated at all. Trauma symptoms were however more associated with those who experienced multiple forms of maltreatment.

2.1.2 Childhood Physical abuse and Borderline Personality Disorder (BPD)

Research has shown that persons with a history of CPA were likely to report elevated symptoms of BPD (Johnston et al., 1999). Westen, Ludolph, Misle, Ruffin, and Block (1990) examined childhood physical abuse among adolescent girls (mean age 15 years) with BPD and compared them with a control group (mean age 16 years) that did not have BPD. The results showed that adolescent females with BPD were more likely to have been physically abused than the control group. In this study, not all physically abused subjects had BPD and not all subjects that had BPD were physically abused. Since most physically abused girls in this sample were also subjected to maternal rejection or neglect, Westen et al. (1990) suggested that a synergistic combination of early parent-infant interactions combined with continued grossly inappropriate or neglectful parenting and manifestly traumatic experiences would increase the risk of BPD. In comparison to CSA, childhood physical abuse was less predictive of BPD. Although these findings are important, there is need to further examine the contribution of childhood physical abuse in the development of BPD in Africa where this association has not been tested.

2.1.3 Childhood Physical abuse and Dating Violence

The link between exposure to violence in the family and dating violence perpetration has traditionally focused on social learning of physical violence in the family. It is suggested that social learning of violence in the family leads to intergenerational transmission of violence (Bandura 1986). Using the Revised Conflict Tactics Scale (CTS2; Straus, Hamby, Boney, McCoy & Sugarman, 1996) to assess childhood physical abuse and a modified version of the CTS 2 (Straus et al., 1996) to measure dating violence, Gover, Kaukinen, & Fox (2008) examined the relation between dating violence and CPA among 2541 university students in the USA. The results of the study (Gover et al., 2008) showed that both male and female respondents who experienced CPA were more likely to perpetrate physical violence on their dating partners than those who did not experience CPA. Female respondents who had a history of CPA were more likely to also perpetrate psychological abuse against their dating partners than male respondents with a history of CPA.

Although a number of studies have examined the psychological consequences of CPA on its victims the present study seeks to examine the associations of CPA and the following outcomes; depressive symptoms, borderline personality symptoms, antisocial personality symptoms, PTSS, criminal tendencies and dating violence among Kenyan, Zambian and Dutch students. To our knowledge
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no study has examined these associations on the African continent. Even though Kaminer et al. (2008) examined the association between CPA and PTSD within the general population, the study examined this association as part of a larger conglomeration of traumatic experiences. In addition, the study by Kaminer et al. (2008) may not be generalizable across the vast continent of Africa hence the present study is a useful addition to the knowledge base on the association between child physical abuse and psychopathological sequelae in Zambia and Kenya.

2.2. Consequences of Childhood Sexual Abuse

Research shows that a wide range of psychological and interpersonal problems are more prevalent among those who have been sexually abused as children than among individuals with no such experiences. The experience of CSA is harmful, frightening, confusing and can lead to responses that interfere with normal developmental processes and increase the risk for subsequent maladjustment in adult life (Berliner & Elliot, 2002). The effects are even more severe if the perpetrator is a trusted adult (Molnar, Buka, & Kessler, 2001). CSA has been associated with PTSD among child victims and even adult survivors (Dubner & Motta, 1999; Maker et al., 2001). In children, PTSD symptoms have been found to be more severe in pre-adolescents than in early adolescents (Dubner & Motta, 1999). In South Africa, children and adolescents with a history of CSA were more likely to suffer from major depression and PTSD (Carey, et al., 2008). A history of CSA also dramatically increases the likelihood of having a diagnosis of BPD (Arntz, Dietzel, & Dreesen, 1999). In addition, victims of CSA are more likely to perpetrate and/or be victims of intimate partner violence than those who do not report CSA (Whitfield, Anda, Aube, & Filleti, 2003). Boys who have been sexually abused are more likely to have antisocial personality, BPD, major depression, and criminal problems (Holmes & Slap, 1998).

2.2.1 Child Sexual Abuse and PTSD

Molnar et al. (2001) examined CSA and subsequent psychopathology in a nationally representative sample of 5877 participants. Using multivariate analysis, the authors found that depression and PTSD were among other psychopathological outcomes that were associated with a history of CSA. The authors used the CIDI to determine psychopathology among the participants. The results showed that the prevalence of lifetime psychiatric disorder was higher among those who reported a history of CSA than among those who did not report CSA. Of relevance is that CSA was positively associated with depression in females, and PTSD in both female and male respondents. The odds for PTSD in this sample were more than 8 times higher for males and females who reported CSA than for those who did not report a history of CSA. The odds for PTSD were even higher if the nature of CSA was rape.

Carey et al. (2008) examined psychopathology in 94 adolescents (35 males and 59 females) with a mean age of 14 years. This was a clinical sample of traumatized
South-African children and adolescents who had been referred to a Youth Stress Clinic. Using the Childhood Trauma Questionnaire, Trauma event module (K-SADS), the authors found that sexually abused children and adolescents were more likely to have a diagnosis of major depression and PTSD than those without a history of CSA. Despite the fact that the results of the study were important in highlighting the association between CSA and major depression, and PTSD, the study sample had experienced other highly traumatic events in their lives. Therefore, the extent to which CSA accounted for the variance in depression and PTSD scores cannot be ascertained. Secondly, the sample was predominantly mixed/Asian and of low SES, and therefore may not be representative of the general South-African population.

In a study that examined CSA in a college sample of 733 students who were predominantly female (71%), and racially diverse (36% White, 29.6% Asian American, 18.5% Hispanic, 11.3% Black, and 4.7% other), Ullman and Filipas (2005) compared male and female PTSD symptomatology of survivors of CSA. Post-traumatic stress symptom severity in response to CSA was assessed using Foa’s posttraumatic stress symptom severity scale (Foa, 1995). This is a 17-item self-report instrument used to provide a reliable diagnosis of PTSD based on the DSM-IV criteria and quantification of the severity of PTSD symptoms. Results showed that PTSD symptom severity was associated with a history of CSA and severity of abuse characteristics. Gender differences were found with women reporting more PTSD symptoms than men. Although the sample in this study (Ullman & Filipas, 2005) was racially diverse, the findings cannot be generalized to other populations worldwide, because of the diversity in global cultures that this American sample cannot fully represent. In addition, this study examined only PTSD as a psychological outcome of CSA. The current thesis will examine other psychological sequelae associated with CSA. These include depressive symptoms, borderline personality symptoms, antisocial personality symptoms, criminal tendencies and intimate partner violence in three diverse cultures.

2.2.2 Child Sexual Abuse and Depression
Significant associations have also been found between CSA and depression across all age groups (MacMillan & Munn, 2001; Molnar et al., 2001; Tenney-Soeiro & Wilson 2004). Women with a history of CSA have been found to be depressed earlier in life and to have other psychological problems (Gladstone et al., 2004; Molnar et al., 2001). In community samples, persons with a history of CSA were more likely to report elevated depressive symptoms (Johnston et al., 1999). This association has also been found in clinical samples of women in care for anxiety disorders. In this group, patients with a history of CSA had significantly higher depression scores than those without a history of CSA (Mancini et al., 1995).

The association between CSA and depression was studied among 652 Palestinian university students (261 males and 391 females), Using the BSI to measure psychological consequences of abuse, Haj-Yahia and Tamish (2001) found that CSA was significantly associated with depression. The study examined psychological consequences of CSA as reported by participants who had been abused at ages < 12 years, 12 to 16 years, and over 16 years of age. The
authors also examined the effect of the relationship between the CSA survivor and the perpetrator, and the level of psychological functioning. The association between CSA and depression was positively significant for both male and female students regardless of the age at which the abuse took place. In addition, this association was even stronger if a close relative was the perpetrator than when it was a stranger. There were no significant differences in the level of depression among sexually abused male and female university students. Like in most other studies, the SES and religiosity of the family did not significantly account for the variance in psychological functioning of university students (Haj Yahia & Tamis, 2001). The findings of this study were significant because it was the first study to examine CSA and psychological functioning in the Arab world.

In a study that examined the long-term effects of CSA among 640 female university students in South Africa, Collings (1997) found that women who were sexually abused in childhood were more likely to score high on the Brief Symptom Inventory (BSI). The BSI is a self-report measure that reflects on the psychological symptoms and behaviour patterns of psychiatric, medical and nonpatient populations. In this study those who had a history of CSA were more likely to report depressive symptoms as defined by the BSI. Although the study used a student sample drawn from a university population, the sample was all female and predominantly white (64%). Therefore conclusions cannot be drawn with regard to the rest of the South African ethnically diverse population.

In a similar study, Collings (1995) examined the long-term effects of contact and noncontact forms of child sexual abuse in a sample of 284 university men. Results showed that regardless of whether the CSA experience involved contact or not, CSA had significant long-term effects on psychological functioning of the survivors. Male students who reported contact CSA also reported more psychological symptoms than did those who experienced noncontact CSA. Both the contact and noncontact groups reported more psychological symptoms compared to the control group. Notably, depression was associated with both contact and noncontact sexual abuse. Similar to Collings (1997), the sample in this study was predominantly white and findings cannot be generalized to the South African population as it is constituted.

Although the two studies cited above examined the association between CSA and psychological outcomes separately among male and university students in South Africa, the findings cannot be generalized to the rest of the African population that is predominantly black and culturally varied. The present study will therefore examine CSA and its association with selected outcomes; depressive symptoms, PTSD, criminal tendencies, antisocial personality symptoms, violence against dating partners and borderline personality symptoms in two all-black samples drawn from university students in Zambia and Kenya. In addition, we will examine these associations among Dutch university students.

2.2.3 Child Sexual Abuse and Borderline Personality Disorder (BPD)
Borderline Personality is one of the most common personality disorders associated with CSA (Maniglio, 2009). Using data from a community-based longitudinal study in the USA, Johnston et al. (1999) examined the association between child
maltreatment and personality disorders. The results of their study showed that those who had documented CSA had elevated BPD symptomatology. In a seminal study that examined the association between child sexual abuse and Borderline Personality Disorder, Westen et al. (1990) studied child sexual abuse among adolescent girls (mean age 15 years) with BPD and compared them with a control group (mean age 16 years). The results showed that adolescent females with BPD were more likely to have been sexually abused than the control group that did not have BPD. In this study, not all sexually abused subjects had BPD and not all subjects that had BPD were sexually abused. Since most sexually abused girls in this sample were also subjected to maternal rejection or neglect, Westen et al. (1990) suggested that BPD is likely to develop as a result of collective experiences of negative early parent-infant interactions, neglectful parenting and perceptible traumatic childhood experiences. CSA was a stronger predictor of BPD than was childhood physical abuse. This highlights the profound negative effect of CSA on mental health outcomes when compared to childhood physical abuse. Although these findings are important, there is need to examine the contribution of CSA in the development of BPD in Africa where this association has not been tested.

2.3 Consequences of Childhood Neglect

Neglect is the most prevalent form of child maltreatment (Glaser, 2005). Although many types of neglect leave no physical marks they have a devastating impact on the child’s development (Erickson & Egeland, 2002). Research has shown that neglect is associated with elevated symptom levels of antisocial personality and BPD (Johnson et al., 1999). In addition, neglect increases a person’s risk for subsequent PTSD. Widom (1999) studied victims of substantiated child abuse and neglect from 1967 to 1971 who were matched on the basis of age, race, sex, and approximate family socioeconomic class with a group of non-neglected children and non-abused children and followed prospectively into young adulthood. The subjects (N = 1,196) were administered an interview that included the National Institute of Mental Health Diagnostic Interview Schedule to assess PTSD. The results of this study (Widom, 1999) showed that childhood neglect was associated with increased risk for lifetime and current PTSD. About a third of the victims of childhood neglect (30.6%) met DSM-III-R criteria for lifetime PTSD. The odds of a neglected child developing PTSD were significantly higher than in the control group. The relation between childhood neglect and the number of PTSD symptoms persisted despite the introduction of covariates associated with risk for childhood abuse. Covariates included family, individual, child and lifestyle risk factors; which together explained about 9% of the variation in PTSD symptomatology. This shows that although childhood neglect increases the risk for PTSD, other factors associated with family, individual, and lifestyle are also important and may place individuals at risk and contribute to symptoms of PTSD.

Besides the association of neglect and PTSD, research shows that neglect in childhood is associated with dating violence. In a study that examined childhood
neglect in the life histories of 6900 university students in 17 countries, Straus and Savage (2005) found that neglect was related to the likelihood of assaulting and even injuring a dating partner. In addition, Straus and Savage (2005) found that in universities where assault levels were high, neglect on the individual level was associated with violence against the dating partner. In universities where assault was rare the probability of individual level neglect to be associated with assault of a dating partner was also low. Thus in university contexts with a high level of assault, the more neglect a student had experienced the higher the probability that he or she would physically assault a dating partner. This study is important because it examined the relation between childhood neglect and dating violence perpetration in 17 countries across five continents of the world. However, conspicuously missing was data on neglect and dating violence perpetration in Africa. Using similar measures, this thesis will examine this relation between childhood neglect and dating violence perpetration in Kenya and Zambia. Besides, studies that have examined child neglect are very few compared to those that have examined CSA and CPA, yet neglect is the most common type of maltreatment. This thesis therefore seeks to contribute to the existing knowledge on child neglect by examining the psychopathological sequelae associated with it in Kenya, Zambia and The Netherlands.

### 2.4 Consequences of Witnessing Interparental Violence

Witnessing interparental violence has been associated with PTSD, externalizing and internalizing behaviour problems (Shen, 2009). In addition, it has been associated with dating violence perpetration and victimization (Foshee, Bauman, & Linder, 1999; Fehringer, & Hindin, 2008). It is suggested that children model behaviours as they observe adults leading to intergenerational transmission of violence. In a study that examined the relation between dating violence and witnessing interparental violence among 2541 university students in the USA, Gover, et al. (2008) used the CTS2 (Straus et al., 1996) to assess childhood physical abuse and two items specifically developed by the authors to determine witnessing of interparental violence. Dating violence was also measured using a modified version of the CTS2 (Straus et al., 1996). The results of the study showed that witnessing interparental violence was not significantly related to physical violence perpetration. However respondents who witnessed their mothers hit their fathers were more likely to perpetrate psychological abuse against their partners than those who did not witness this act.

In a study that examined psychological effects of exposure to family violence among 476 Sri Lankan University students, Haj-Yahia and De Zoysa (2008) used the Trauma Symptom Checklist (TSC–33) to assess adult symptoms associated with traumatic experiences. The TSC-33 measures a wide range of outcomes that include depression, dissociation and anxiety. The results showed that although none of the socio-demographic characteristics of the students did significantly explain the variance in psychological functioning, family environment and functioning did account for significant variance in the TSC-33 scores. After controlling for family
environment and functioning, the results showed that witnessing interparental violence was significantly associated with depression, anxiety and dissociation. Although Haj-Yahia and De Zoysa (2008) examined symptoms associated with childhood trauma, the instrument used did not measure explicitly all aspects of PTSD and depression; hence it is not a complete measure of these constructs. This thesis seeks to examine the association of witnessing interparental violence and later psychopathological outcomes that include depressive symptoms, borderline personality symptoms, PTSD symptoms, antisocial personality symptoms, criminal tendencies and dating violence perpetration.

Witnessing domestic abuse in childhood has also been associated with depressive symptoms in adulthood. Russell, Springer and Greenfield (2010) examined this association among 1,175 young adults in the USA. The results showed that witnessing domestic abuse frequently in childhood was a risk factor for depressive symptoms in young adulthood. This association persisted regardless of whether one experienced other family adversities or not. However, infrequent exposure to domestic violence did not have a persistent influence on later depressive symptoms independently of other competing family adversities. This implies that infrequent witnessing of domestic violence was associated with depressive symptoms only when other family adversities were present. It should be noted that this study examined depressive symptoms and witnessing domestic violence perpetrated against mothers and other close female relatives and did not examine the association between depressive symptoms and witnessing parental violence perpetrated by both mothers and fathers in the family. In view of the fact that violence in relationships may be reciprocal, we seek to examine the association between depressive symptoms and witnessing interparental violence perpetrated by either fathers or mothers.

2.5 The Mediating Role of PTSD in the Association between Child Maltreatment and Psychopathology

PTSD is one of the most salient consequences of child maltreatment. It has been associated with all forms of maltreatment; CPA, CSA, neglect and witnessing of interparental violence. From a child’s perspective experiencing physical, sexual and emotional maltreatment may constitute a trauma. Physical and emotional neglect may not be directly traumatizing; however, they may be associated with traumatic events such as serious accidental injuries, or may create a vulnerability to other forms of victimization such as sexual abuse (Wekerle, Wolfe, Hawkins, Pittman, & Glickman, 2001). Although not all maltreated children will develop PTSD symptomatology, it is speculated that PTSD and other psychological disorders are related (Werkele et al., 2001; Widom, 1999). According to Whiffen and MacIntosh (2005), the emotional distress associated with PTSD may be the mechanism that links childhood abuse to other negative psychological outcomes in adulthood.

Several studies have examined the mediating role of PTSD in this abuse-symptom relation. Kerig, Ward, Vanderzee, and Moeddel (2009) examined the
role of PTSD as a mediator in the association between traumatic experiences and mental health problems in 289 juvenile adolescents (199 male, 90 female). In this study PTSD played a major role in the emergence and persistence of psychological problems among juvenile delinquents. The role of PTSD in mediating this association was more profound in trauma experiences that were interpersonal and involved direct victimization by others, especially those with whom the youth had an intimate personal relation. These included acts of sexual abuse and experiencing of domestic violence. In this study (Kerig et al., 2009) females experienced more interpersonal traumas and also suffered more serious psychological consequences arising from traumatic experiences than did males. In addition, PTSD accounted for more mental health problems in females than it did in males.

Soloff, Feske, and Fabio (2008) examined the mediating role of various risk factors for suicidal behaviour in the association between CSA and suicidal behaviour in persons with BPD. Male and female participnts were recruited from outpatient treatment clinics and also from the community. Results showed that schizotypal personality disorder and psychosis mediated the association between CSA and suicidal behaviour in persons with BPD. PTSD on the other hand did not mediate this association.

It has been observed that women who experienced CSA are twice more likely to experience adult sexual victimization than did women who did not experience CSA (Mayall & Gold, 1995). Risser, Hetzel-Riggin, Thomsen, and McCanne (2006) examined the role of PTSD as a potential mediator of the association between CSA and adult sexual assault (ASA). Riser et al. (2006) hypothesized that PTSD clusters of hyperarousal, re-experiencing, and avoidance would be differentially important in mediating the association between CSA and sexual re-victimization in adulthood among 1449 American female university students. The results showed that of the three PTSD cluster symptoms, only the hyperarousal cluster of PTSD significantly mediated the relation between CSA and adult sexual revictimization severity. Although both re-experiencing and avoidance clusters were associated with CSA they did not predict adult revictimization. The authors suggested that PTSD leads to adult sexual revictimization because the high levels of arousal may interfere with the individual’s ability to discriminate and respond appropriately to situation-specific gender cues hence increasing ones vulnerability to adult sexual revictimization.

In view of the fact that several aspects of PTSD symptomatology could contribute to an increased risk of sexual revictimization among victims of child and adolescent sexual abuse, Sandberg, Matorin, and Lynn (1999), examined the mediator effects of PTSD among college women who had been sexually victimized in childhood and adolescence and later in adulthood. The authors found that PTSD did not mediate the association between sexual victimization in childhood and adolescence and later revictimization in adulthood. It is likely that the measurement of sexual revictimization that was restricted to having occurred in the ten weeks of the academic semester may not have provided an adequate test of mediation. Probably, mediator effects would have been observed if the measurement of sexual revictimization would have included acts that occurred over a longer period than just ten weeks of an academic semester.
Recent data suggests that avoidant coping may be a risk factor for sexual revictimization among victims of CSA. Fortier et al. (2009) conceptualized a complex mediation model in which CSA severity would lead to use of avoidant coping, avoidant coping would then lead to maintenance of trauma symptoms, which would in turn impact the severity of revictimization. This model was tested in 99 sexually abused undergraduate female students drawn from different sites in the US. Two mediations were significant; the association between CSA severity and trauma symptoms was fully mediated by avoidant coping strategy while the association between CSA severity and revictimization was fully mediated by trauma symptoms. According to the authors, these two significant mediation models imply a sequence of relationships in which CSA severity predicts avoidant coping, avoidant coping predicts trauma symptoms, and trauma symptoms predict severity of revictimization. This mediation model therefore helps clarify the relationships that appear to be important in understanding the increased rates of victimization among CSA survivors.

Child maltreatment has also been associated with dating violence victimization and perpetration (Wekerle et al., 2001). PTSD symptomatology on the other hand, may be functionally associated with dating violence. Trauma associated with child maltreatment may interfere with an individual’s accurate appraisal of threat and consequent avoidance actions. This may create a situation of vulnerability that may contribute to revictimization in dating relationships (Wolfe, 1999). Werkele et al. (2001) examined the role of PTSD in mediating the relation between childhood maltreatment and dating violence among adolescents aged between 14 and 16 years. One sample was drawn from the Child Protection Services (N = 146; 61 males and 85 females) and a second one drawn from a regular school (N = 968; 421 males and 547 females). In both samples childhood maltreatment predicted dating violence. Using the Baron and Kenny (1986) procedure, Werkele et al. (2001) found that PTSD mediated the association between child maltreatment and dating violence among females only in both the school and CPS samples. Thus PTSD symptomatology accounted for the relation between childhood maltreatment and dating violence for females only. This raises the question of gender specific processes in understanding the sequelae of child maltreatment. In a continuing effort to understand gender-specific pathways of the negative sequelae of child maltreatment, it is important to replicate these results in different populations.

Although the relation between childhood sexual abuse and later alcohol use has been documented, little is known about the pathways that link these two variables. Epstein, et al. (1998) hypothesized that PTSD symptomatology resulting from childhood sexual abuse was a possible cause of emotional distress that would cause subsequent alcohol abuse. Using a nationally representative sample of 2994 mainly Caucasian women with a mean age of 44 years, Epstein et al. (1998) assessed the association between a history of childhood rape, and lifetime PTSD symptoms and lifetime alcohol use. Women who reported childhood rape had twice as many lifetime PTSD symptoms than did women with no history of childhood rape. Similarly, a history of childhood rape doubled the number of alcohol abuse symptoms that women experienced in adulthood. In addition,
women with childhood rape histories who reported PTSD symptoms had more than double alcohol abuse symptoms than those with a history of childhood rape but no PTSD symptoms. The authors postulated a model in which PTSD was a possible mediator in the relation between childhood rape and alcohol use while controlling for age and income. Using path analysis and cross-validation, Epstein et al. (1998) found a significant pathway connecting childhood rape to PTSD symptoms and PTSD symptoms to alcohol use implying that PTSD mediated the association between child maltreatment and alcohol use in adulthood.

The mediational significance of PTSD in the relation between sexual abuse and negative outcomes has also been tested in people with eating disorders. Holzer, Uppala, Wonderwich, Crosby and Simonich (2008), found that PTSD significantly mediated the association between sexual trauma and eating disorder psychopathology. Using a sample of 97 adult women, 71 of whom had experienced sexual trauma in childhood or adulthood or both, Holtzer et al (2008) compared this group to a control group (n=25) that had not experienced sexual trauma. As expected, sexual trauma victims scored higher on eating disorders and also on PTSD symptomatology than did the control group. Using the Baron and Kenny (1986) procedure to test mediation, the authors found that PTSD fully mediated the association between sexual trauma and eating disorders. When the various clusters of PTSD were tested for mediation significance, only the avoidance and arousal scale remained significant. The re-experiencing subscale of PTSD did not mediate the association between sexual trauma and eating disorder psychopathology. The findings of this study are similar to the findings by Risser et al. (2006) that showed mediational significance only for hyperarousal symptoms of PTSD. Holzer et al. (2008) suggested that sexual trauma victims may develop eating disorders as a means of dealing with the social isolation and negative affect associated with sexual trauma. The hyperaroused victims of sexual trauma may develop eating disorders as a means to regulate underlying negative emotional states. Holzer et al. (2008) did not specifically test the mediating effect of PTSD in the relation between CSA and psychopathological eating disorders, but the mediating effect of PTSD in the association between sexual trauma arising from either CSA, adult sexual assault or both and eating disorders, Nevertheless, the findings of this study are important in clarifying that psychopathological outcomes associated with traumatic events may be in part or fully accounted for by PTSD.

Research on the significance of PTSD as a mediator of the association between child maltreatment and negative outcomes has focused mainly on CSA and negative psychological outcomes. Other forms of child maltreatment may be equally traumatic and it is important to find out whether PTSD symptomatology mediates the association between childhood physical abuse, neglect and witnessing of interparental violence and psychological sequelae. The current thesis will therefore examine the mediating role of PTSD symptomatology in the association between the various forms of child maltreatment and selected psychopathological sequelae; depressive symptoms, borderline personality symptoms, antisocial personality symptoms, criminal tendencies and dating violence in university students recruited from Kenya, Zambia and The Netherlands.