THE INFLUENCE OF EARLY TRAUMA ON THE EXPERIENCE AND EXPRESSION OF ANGER IN MEN ON PAROLE

by

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Abstract

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This exploratory quantitative study examined the inter-relationship of traumatic events, post-traumatic response, and anger in a population of men who were on parole, were in treatment for alcohol and/or substance abuse, and reported a history of childhood trauma. The central question of the study was how does trauma influence the experience and expression of anger in male trauma survivors who were currently on parole?

The study group was recruited from *Success Counseling*, which is a substance abuse treatment program, located in the Bronx, N.Y. Sixty men participated in the study and identified their ethnicity as either "Hispanic/Latino" (51.7%) or "Black/African American" (48.3%). The current findings of the study indicated that trauma influences the experience and expression of anger in adult men who are on parole and enrolled in a substance abuse treatment program. All of the men in the study acknowledged experiencing multiple traumatic events and were angry in response to those traumas. The univariate, bivariate and multivariate analyses of the data supported the presence of a

significant relationship between anger and post-traumatic response. The multiple regression results from the measures of anger and post-traumatic response indicated that anger arousal predicts post-traumatic symptoms. Specifically, an increase in anger arousal predicted an increase in post-traumatic symptoms. This result supports the premise that for men in the criminal justice system and mandated to attend anger management programs, the curriculum for these treatment programs needs to include sensitivity to, and interventions for, post-traumatic responses, especially as they relate to anger.

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CHAPTER 1: INTRODUCTION AND FORMULATION OF THE PROBLEM

The abuse and neglect of children is common and widespread in the United States. Child welfare agencies across the country received 3.3 million reports of child abuse and maltreatment in 2005 (United States Department of Health and Human Services, 2007). More than three-quarters of the confirmed perpetrators of child abuse and maltreatment were parents (79.4%) and another 6% were relatives of the victim (United States Department of Health and Human Services, 2007). The lingering effects of interfamilial child abuse are intense, pervasive, and lifelong if not recognized (Briere & Scott, 2006). Over the past 20 years, a number of studies (Briere, 1988; Kessler, 1995, 2000, 2005; Najavits, 2005; Messina, Grella, Burdon, & Prendergast, 2007) have revealed a strong association between childhood abuse, extreme emotional distress, and maladaptive behaviors in adulthood. Although recognition of the impact of child abuse has grown since Post Traumatic Stress Disorder's first appearance in 1980 as the diagnostic standard for traumatic response (Briere & Scott, 2006), gaps still exist in the acceptance of the full range of post-traumatic responses and their impact on certain populations.

In the course of my professional work, I have witnessed the difficulty that trauma survivors who have histories of alcohol and substance abuse and are involved with the criminal justice system demonstrate in modulating their anger in response to little or no provocation. Given anger's importance as a protective response to a threat, as well as the survivors' histories of abuse, it appeared their responses could be part of a post-traumatic response. However, little research exists that addresses the impact of trauma and its relationship to anger, specifically in a criminal population.

Recent research (Orth & Wieland, 2006) has identified the presence of anger among survivors of trauma; however, minimal research has established the relationship between trauma, anger, and treatment. Furthermore, individuals who are incarcerated (Adams, 2002; Howells & Day, 2003) have recently reported dysregulated intense anger and trauma, but few studies have directly investigated their interrelationship (Flemke, 2009) in spite of some evidence that supports their connection (Novaco, 2007). Recognition of the large number of incarcerated women who report histories of physical and sexual assault has increased over the past decade (Covington, 1998; Green, Miranda, Daroowalla, & Siddique, 2005; Messina, Grella, Burdon, & Prendergast, 2007). Increasingly, male inmates are also acknowledging similar histories of abuse in spite of their perception of the social stigma associated with it (Messina, Grella, Burdon, & Prendergast, 2007).

Purpose of the Study

As part of their rehabilitation upon release from prison into the community, many paroled men and women must attend cognitive-behavioral anger management programs. Anger management interventions are associated with a reduction in recidivism (Andrews, as cited in Wang, Owens, Long, Diamond, & Smith, 2000). Recent studies on anger indicate that individuals with a history of traumatic experience who demonstrate significant self-defeating or anti-social behavior may need an anger management intervention that recognizes how trauma has influenced their regulation of anger (Novaco, 2007). The inquiry of this dissertation further explored the relationship of traumatic events, post-traumatic response, and anger in a population of men who are on parole and report a history of childhood abuse. The central question of the study was

what was trauma's influence on the experience and expression of anger in male trauma survivors who were on parole? I defined trauma as traumatic experience and post-traumatic response as the starting point for this study. Further inquiry focused on the characteristics and quality of their trauma-infused anger and the perception of the impact of this anger on the lives of trauma survivors. The results of this study may contribute to developing a trauma-sensitive intervention for treating anger in clinical and/or criminal populations referred for treatment of their anger.

Formulation of the Problem

Defining trauma and post-traumatic response. Simply put, traumatic events initiate a post-traumatic response. Traumatic events are a series of events that occur outside of the purview of predictable human experience. The circumstances of traumatic events typically include an abuse of power, betrayal of trust, entrapment, helplessness, pain, confusion, and loss. In response to traumatic events, an individual subjectively experiences a threat to life, bodily integrity, or sanity (Saakvitne, Gamble, Pearlman, & Tabor-Lev, 1999). An individual's exposure to physical or sexual abuse, neglect, or assault is widely considered a traumatic event (Kessler, 1995, 2000, 2005; Herman, 1997; American Psychiatric Association, 2000). Post-traumatic responses to trauma are an individual's unique experience of a traumatic event or enduring conditions that overwhelm an individual's ability to cope with and integrate emotional experiences (Pearlman & Saakvitne, 1995). The survivor's perception of the traumatic event is an important factor in the development and resolution of post-traumatic response. If a trauma survivor perceives that he or she was at great risk, he or she is likely to develop a more intense post-traumatic response (Allen, 1995).

Trauma survivors report fear as their primary response to trauma (Norris, Foster, & Weisshaar, 2002). Other post-traumatic responses include hyperarousal, anxiety, dissociation, depression, "flashbacks" to the event, and insomnia (Kessler, 1995, 2000, 2005; American Psychiatric Association, 2000). Post Traumatic Stress Disorder (American Psychiatric Association, 2000) is the recognized diagnostic standard for identifying on-going post-traumatic response (Spinazzola, Blaustein, & van der Kolk, 2005). The three categories of symptoms of Post Traumatic Stress Disorder (PTSD) include a persistent re-experiencing of the traumatic event, persistent avoidance of the stimuli associated with the traumatic event with a numbing of general responsiveness, and persistent symptoms of increased arousal (American Psychiatric Association, 2000). Not every trauma survivor develops PTSD; however, of those survivors who develop PTSD, 90% to 92% also meet the criteria for another diagnosis of a mental health disorder (Kessler, 1995, 2000, 2005; Keane, Brief, Pratt, & Miller, 2002). In a community-based large-scale survey of trauma survivors, 77% met the criteria for a major depressive disorder; 38% met the criteria for an anxiety disorder; and 31% met the diagnostic criteria for alcohol or other drug (AOD) abuse/dependence (Keane, et al., 2002).

Threat to one's physical and psychological integrity is at the core of post-traumatic response. Although there is some difference of opinion about whether there is a specific physiological signal for every emotion, emotion theorists agree that there is a distinctive, survival-oriented "flight or fight" response when a person faces with any type of threat (Ekman & Davidson, 1994). Fear paradoxically can "freeze you into seeming helplessness or send you fleeing with all your might, totally abandoning all thought and

action not relevant to escape" (Izard, 1991, p. 282). Anger "serves as a warning signal that something is wrong. Just as physical pain can serve as a warning, anger can warn one of imminent trauma" (McKay, 1989, p. 243). Within this flight or fight construct, there are instances in which anger has been employed to counteract fear and provide an individual with the energy or will to fight in the face of a threat (Izard, 1991; Carson, Grubaugh, & Resnick, 2002).

The neurobiological theory of trauma addresses the "flight or fight" response and enhances understanding of its role in an individual's response to a traumatic threat. Upon initiation of exposure to a traumatic threat, when an individual realizes no action can be taken to ward off the inevitable, the natural physiological activation and hormonal secretions that organize a successful fight or flight response are immobilized, creating a phenomenon of "inescapable shock" (van der Kolk, 2006, p. 7). In response to this shock, research shows that the brain will redirect the fear-conditioned neurologic pathways so that "passive fear responding is replaced with an active coping strategy" (Ledoux, Romanski, & Xagoraris, 1991). However, these new coping pathways can become dysregulated in the face of repeated abuse in the context of a familial relationship, because the survivor has no means to escape, recuperate, or regulate his or her emotional experience (van der Kolk, 1996). This dysregulation leaves the survivor vulnerable to a physiological cycle that includes states of extreme hypo- and hyperarousal. Overall trauma "...involves a fundamental dysregulation of arousal modulation at the brain stem level. Survivors suffer from baseline automatic hyperarousal and lower resting HRV compared to controls, suggesting that they have an increased sympathetic and decreased parasympathetic tone." (van der Kolk, 2006, p. 9).

Fear, as previously noted, is the most frequently reported post-traumatic response (Norris, Foster, & Weisshaar, 2002). Emotions theory identifies both fear and anger as responses to a threat (Ekman & Davidson, 1994). Although repeated interpersonal trauma can severely dysregulate a trauma survivor's fight or flight response, neurobiological research indicates that both fearful and angry responses are still available to a trauma survivor (van der Kolk, 1996, 2005). With so much of the language and diagnostic framework of the post-traumatic response focused on a fearful or avoidant reaction to a traumatic threat, and emotions theory support for an equally possible angry response, why do trauma survivors not report a "fight" or angry response more often in the face of a traumatic threat?

In recent empirical studies, survivors report anger more frequently as a result of trauma, yet the number of studies that establish the relationship between trauma and anger are few (Orth & Wieland, 2006). Within the trauma literature, one of the central reasons cited for the dearth of literature is clinicians' and researchers' reliance on PTSD's rigorous diagnostic criteria (Spinazzola, Blaustein, & van der Kolk, 2005) and its focus on fear as the primary response to a traumatic event (Brewin, Andrews, & Rose, 2000). While PTSD criteria acknowledge that individuals reliably experience intense emotions during exposure to trauma, a primary diagnostic criterion for PTSD narrows post-traumatic response to one that involves intense fear, helplessness, or horror (American Psychiatric Association, 2000). In addition to PTSD's reliance on fear as the central response to trauma, it carries stringent diagnostic criteria: a survivor must experience symptoms under each of the three categories of symptoms. These symptoms include re-experiencing, avoidance, and arousal (American Psychiatric Association, 2000). As a

result, a number of trauma survivors' genuine post-traumatic responses go unrecognized diagnostically, because they do not meet the full criteria for the diagnosis (Spinazzola, Blaustein, & van der Kolk, 2005). PTSD criteria also exclude key elements within interpersonal traumatic events that contribute to an underrepresented set of post-traumatic symptoms, such as anger (van der Kolk, 1994; Herman, 1997).

Alternative frameworks of post-traumatic response. To increase understanding and augment the incomplete language of PTSD's diagnostic criteria, clinical frameworks of post-traumatic response were developed and have been found to be better suited to frame and define the emotional aftermath of interpersonal trauma (Briere & Spinazzola, 2005; van der Kolk, Roth, & Pelcovitz, 2005; Foa, 2006). Notably, while a comprehensive definition of post-traumatic response is included in both frameworks, only a small number of researchers have used it (van der Kolk, Roth, & Pelcovitz 2005).

Judith Herman (1992) presented an alternative framework, Complex Post Traumatic Stress Disorder. Working with survivors of childhood abuse and neglect, she discovered that clients reported a wide array of post-traumatic symptoms that fell outside of current Post Traumatic Stress Disorder diagnostic criteria. Herman also found a key determinant for childhood trauma survivors' post-traumatic response was in the environmental context of the trauma (Herman, 1992, 1997). Prolonged or repeated trauma, (as opposed to a circumscribed traumatic event) during which the victim is in a state of captivity, is unable to flee, and is under the control of the perpetrator, creates a set of symptoms that are reflective of the emotional and environmental context of the abuse (Herman, 1992, 1997). Chronic traumatic events produce profound and lasting changes in physiological arousal, emotion, cognition, and memory. Chronically traumatized people

are hypervigilant, anxious, and agitated; they no longer have a baseline of physical calm, comfort, or safety (Herman, 1997).

Working with survivors of interpersonal traumas at the same time as Herman, Bessel van der Kolk (1994) discovered similar reports of specific post-traumatic response resulting from early and continued childhood abuse and neglect. He identified these symptoms as Disorders of Extreme Stress, Not Otherwise Specified (DESNOS). Van der Kolk's work (1994) supported the two main sources for a survivor of interpersonal abuse distress: the survivor's subjective experience of abuse and the relationship between the victim and the agent of the prolonged trauma. Van der Kolk supported the theory that consistent, external, parental support is a necessary condition for a child to learn how to regulate internal affective states and how to modulate behavioral responses to external stressors. Insecure or unstable attachments are hallmarks of chronic abuse and are very likely to create a profound and pervasive negative effect (Bowlby, 1969; van der Kolk, 1994). Many adult survivors of trauma report or demonstrate a variety of issues that reflect their struggle regulating affect and impulses (van der Kolk, Perlcovitz, Roth, Mandel, McFarlane & Herman, 1996). At the core of these dysregulated post-traumatic responses is a trauma-infused, inconsistent attachment between parent and child (van der Kolk, et al., 1996). Abused children often fail to develop the capacity to express specific and differentiated emotions as adults. This difficulty interferes with flexible response strategies and promotes acting out (van der Kolk, 1994). Van der Kolk further postulates that a trauma survivor's inability to modulate emotions gives rise to a range of self-destructive behaviors that are best understood as a survivor's attempts at self-regulation. These self-regulating behaviors include aggression against others, suicide, self-injury,

eating disorders, and substance abuse. The expression of a loss of emotional self-regulation occurs on other levels, such as loss of ability to focus on relevant stimuli, attention deficits, and an inability to inhibit action when aroused (van der Kolk, 1994). In addition to his core conceptualization of the cause and impact of trauma-based dysregulated affect, van der Kolk (1994, 2002) identified alterations in an individual's regulation of affective impulses, including difficulty modulating anger and being self-destructive as chronic post-traumatic responses.

Anger as an emotional response. The limited number of studies of anger as a post-traumatic response is not a phenomenon that occurs only in the field of trauma study: the studies of anger as a basic emotion are similarly sparse (DiGiuseppe & Tafrate, 2007). Anger is a core human emotion that is universally experienced (Izard, 1991) however; its definition and dynamics are not as comprehensively understood by either researchers or clinicians (Kassinove & Sukhodolsky, 1995; DiGiuseppe & Tafrate, 2003; Novaco, 2007). Anger can serve as both a positive and negative force in an individual's life (Lench, 2004; Novaco, 2007). The experience and expression of mild-to-moderate anger serves a number of core functions in maintaining an individual's emotional well-being (Novaco & Chemtob, 1998). When anger becomes intense and difficult to control, however, it becomes dysfunctional (Lench, 2004). In contrast to the importance and survival function of anger, the research is limited and a universally recognized conceptualization of it does not exist (Kassinove & Sukhodolsky, 1995; Hazebroek, Howells, & Day, 2001; DiGiuseppe & Tafrate, 2003; Del Vecchio & O'Leary, 2004; DiGiuseppe & Tafrate, 2007). Similarly, a uniform diagnosis of disordered or dysfunctional anger has not been established in spite of its association with significant

negative social outcomes such as criminal behavior, disrupted interpersonal relationships, and the proliferation of anger management treatment models developed to treat it (Tafrate, Kassinove, & Dundun, 2002; Conger, Edmondson, Tescher, & Smolin, 2003; DiGiuseppe & Tafrate, 2003). Currently, studies conducted with college students or other non-clinical populations account for the largest source of research about the dynamics of anger in adults (Deffenbacher, Oetting, Lynch, & Morris, 1996; Tafrate, Kassinove, & Dundin, 2002; DiGiuseppe & Tafrate, 2003; Del Vecchio & O'Leary, 2004; Tescher, Conger, Edmondson, & Conger, 1999). As a result of the limited research on anger and the non-clinical populations selected for study, significant influences, such as early traumatic experiences that can dysregulate and trigger intense anger, are largely overlooked (Novaco, 2007).

Anger as a clinical construct. Anger is an interpersonal, socially constructed emotion that spans three levels: biological, psychological, and sociocultural (Averill, 1982). An individual typically experiences anger on a biological and psychological level; however, the social environment can also trigger and shape angry responses. In spite of anger's protective function and its activation in response to dangerous environmental cues, there are a number of negative associations with anger's expression in the social environment.

All cultures develop some form of social control and there is a relationship between the mediation of anger and the social environment (Stearns & Stearns, 1986). "People everywhere get angry but they get angry in the service of culture's rules" (Tavris, 1982, p. 47). When individuals fail to utilize culturally approved methods of anger management, cultures ascribe specific, often negative labels, to describe those

individuals (Tanaka-Matsumi, 1995). American culture plays a major role in determining how people should experience or express their anger (Stearns & Stearns, 1986). American society supports the expression of anger in the context of asserting one's rights or independence, or anger used to point out an injustice committed against oneself or the community (Tanaka-Matsumi, 1995). Conversely, the judgment of anger that is extreme or uncontrolled is deviant and threatening (Tsytsarev & Grodnitzky, 1995).

Anger is a subjectively experienced state, initiated through the recognition of a real, perceived, or potential threat, appraised through an individual's dispositional tendencies, and transitional physical, emotional, and cognitive states, as well as the immediate characteristics of the situation (Eckhardt & Deffenbacher, 1995). Anger is not likely to initiate if an individual perceives him/herself as possessing adequate coping skills in response to a potential or actual threat (Eckhardt & Deffenbacher, 1995). Anger's activation varies in frequency, intensity, and duration (Novaco & Jarvis, 2002). Preliminary research has identified that individuals who frequently experience intense anger that is slow to stabilize also display a greater cognitive bias for blaming a source outside themselves, and the anger they experience is dysregulated or dysfunctional (Hazebroek, Howells, & Day, 2001; Novaco, 2007). This form of dysregulated anger can be confused with other aroused states and can incur similar negative social consequences. Simply defined, aggression is any behavior directed towards another person (or person's property) with the intention of causing harm (Crump, 1995). Anger can influence aggression; however, anger and aggression are separate emotional states. Anger can activate aggression, but aggressive behavior is not an automatic consequence of anger (Chemtob, Novaco, Hamada, & Gross, 1997).

Frequently, intense or dysregulated anger and aggression are misinterpreted as the same construct (DiGiuseppe & Tafrate, 2007). However, a solid association between intense anger and negative social consequences appears in the literature. Intense anger, in general, has been misunderstood as aggression and linked to various forms of aggressive behavior, such as domestic violence, child abuse, criminality, and aggressive driving (Wolf, 2007; Lench, 2004; Deffenbacher, Huff, Lynch, Oetting, & Savatore, 2000). Crime, however, "concerns aggression, typically intentional aggression, and anger may or may not be part of its root" (Tsytsarev & Grodnitzky, 1995, p. 97). As a result of being confused one for the other, intense anger and aggression typically incur the same social consequences via the criminal justice system, rather than by receiving treatment through a mental health-oriented system of care (Novaco, 2007). The diversion of angry, hostile, and aggressive individuals to the criminal justice system has also contributed to the underdeveloped understanding and lack of definition of dysregulated anger in the mental health community (Novaco, Ramm, & Black, 2001).

History of the Rehabilitation of Criminal Offenders

Historically, the response to individuals who break the law has alternated between punitive and rehabilitative response. It has progressed from severe public punishment (i.e., burning, flogging, hanging, or death), incapacitation through incarceration, rehabilitation (Wang, Owens, Long, Diamond, & Smith, 2000), intensive supervision, to rehabilitation with intensive supervision (Gendreau, Goggin, & Fulton, 2001). The social framework for individuals whose anger resulted in aggressive acts is one predominantly of punishment versus treatment. The person is viewed as "bad" and not "sick" (Mechanic, 1999, p. 19).

Until the mid-1700s, society's wealthy citizens meted out public punishment for any action deemed socially deviant (Wang, et al., 2000). The advent of classical theory and the principle of utility (Hollin, 2001) was a movement that ushered in a new and lasting judicial system to address negative social behavior. The principle of utility's primary assumption is that an individual's actions are of his or her own free will, and intended to avoid pain to bring pleasure (Hollin, 2001). Therefore, by their own free will, criminals determine to act in an unlawful manner to avoid pain while gaining reward (Hollin, 2001). Consequently, laws sought to prevent criminal acts by ensuring that the pain of the sanctions outweighed the pleasures of a successful crime (Hollin, 2001). Nevertheless, the justice system levels punishment based on the severity of the crime, because, if all crimes carried the same harsh penalty, then there would be no selective differential effect of the punishment (Hollin, 2001). The principle of utility still influences the current legal system's perception of the association between crimes and those individuals who commit them (DiGiuseppe & Tafrate, 2007). The enduring legacy of the utilitarian principle is the principle of free will in making choices about actions, that these choices are made in a rational manner, and that the dispensation of punishment should fit the nature of the crime (Hollin, 2001).

In the 1800's the inclusion of rehabilitation efforts in the penal system sparked some interest but only took hold as an intervention strategy during the 1950s and 1960s (Wang, et al., 2000). During this time, the legal system's utilitarian principle of matching the punishment to the crime grew to include probation, parole, and rehabilitative efforts to restore the offender to a more self-sustaining role in the community (Bennett, 1962). Although criminal offenders received punishment, they also received a variety of

programs and supervision designed for their rehabilitation and reintegration into society (Wang, et al., 2000). An individualized approach to crime, punishment, and rehabilitation was emerging; initially it was effective (Bennett, 1962; Gendreau, Goggin, & Fulton, 2001). By the mid-1970s, however, a number of mixed reviews of offender rehabilitation had been published, which began to diminish the public's and judicial system's support for rehabilitation programs (Wang, et al. , 2000; Gendreau, Goggin & Fulton, 2001). Most notably, Martinson's (1974) review of rehabilitation programs found that they were ineffective. This finding is cited as a turning point in the shift from rehabilitation back towards punishment for the next decade (Gendreau, et al., 2001; Hollin, 2001).

The 1970s and 1980s ushered in a return to a pure utilitarian view of punishment to deter a criminal's free will towards breaking the law in America's penal system (Gendreau, et al., 2001; Hollin, 2001). Probation and parole programs adopted a series of new invasive and punitive sanctions in response to a "get tough" political and judicial environment that emerged because of the sharp criticism of rehabilitation efforts (Gendreau, et al., 2001). The head of a model program for intensive probation/parole supervision programs noted, "We are in the business of increasing heat on probationers...satisfying the public's demand for punishment...criminals must be punished for their misdeeds" (Erwin, as cited in Hollin, 2001, p. 10). In addition to the stringent restructuring of probation and parole programs, short-term shock incarceration programs and "boot camps" emerged to punish offenders. The intent was to deter them from pursuing further criminal activities (Hollin, 2001).

The integrated philosophy of combining rehabilitation with incarceration or supervision through probation or parole programs rose again in the early 1990. A large

number of meta-analysis studies appeared that supported efficacy of providing offenders with treatment as a deterrent to their re-offending (Hollin, 2001). A 1996 review of more than 500-controlled outcome studies on interventions designed to influence change in criminal behavior revealed important factors that could enhance a rehabilitation program's efficacy (Andrews, as cited in Wang, Owens, Long, Diamond, & Smith, 2000). These factors included the ideas that punishment consistently had nothing to do with the reduction of recidivism and that sanctioning criminals without referral to a correctional treatment service showed a 7% increase in recidivism (Andrews, as cited in Wang, et al., 2000). The 1996 review also reported that the delivery of human services (i.e., clinical treatment) significantly reduced recidivism (Andrews, as cited in Wang, et al., 2000). The results of these studies determined that cognitive-behavioral and behavioral therapies were more effective than non-behavioral therapies (i.e., psychoanalysis and milieu therapies) at reducing recidivism at a ratio of 29% to 6% (Andrews, as cited in Wang, et al., 2000).

Currently, public support for the rehabilitation of criminal offenders is still strong. In a 2006 national survey of U.S. voters, 70% of the respondents supported the provision of rehabilitation and treatment both during incarceration and upon release (Krisberg & Marchionna, 2006). A lack of "life skills" was considered by those surveyed to be the main reason for the high rates of re-arrest following release from prison (Krisberg & Marchionna, 2006).

Treatment of anger in criminal offenders

A number of studies support the benefit of cognitive-behavioral therapy with criminal offenders who are either incarcerated or reintegrating into the community. Three

recent large-scale meta-analyses of cognitive-behavioral anger management models also support the effectiveness for this approach in reducing participants' angry behavior and cognition (Tafrate, Kassinove, & Dundin, 2002; DiGiuseppe & Tafrate, 2003; Del Vecchio & O'Leary, 2004). However, these reviews of the efficacy of anger management only interventions include samples of community-based clinical populations, such as alcohol/substance abusers and individuals who have battered their significant others. In contrast, research data on the efficacy of anger management with criminal offenders is extremely limited (Novaco, 1997; Howells, 1998; Novaco, Ramm, & Black, 2001; Howells, Day, Bubner, Jauncey, Williamson, Parker, & Heseltine, 2002).

A small but empirically supported set of studies of criminal offenders' anger found that anger management has a good but not universally beneficial impact on this population (Howells, Day, Bubner, Jauncey, Williamson, Parker, & Heseltine, 2002). Raymond Novaco (1975, 2007), author of the first models of cognitive-behavioral management of anger, notes that, given the complexity of emotions and factors related to dysregulated anger, clinical interventions should also vary in their complexity. Anger management typically refers to a cognitive-behaviorally framed intervention format that includes problem solving, relaxation techniques, self-observation, reflections on how thoughts and beliefs influence anger, and other cognitive-behavioral strategies (Novaco, 2007). In contrast, anger treatment is an individualized treatment approach that addresses high intensity anger as embedded in aversive or other traumatic life experiences (Novaco, 2007). Anger treatment entails working with the evocation of other distressed emotions, such as fear, sadness, and shame, as well as anger. Individuals who have a history of

traumatic experience and demonstrate significant self-defeating or anti-social behavior are more likely to respond to anger treatment versus anger management (Novaco, 2007).

Dissertation Overview

An individual's response to danger is a complex, interrelated system of (fight or flight) responses that encompass both the body and the mind (Herman, 1997). Anger occurs when the evaluation of an event determines that there was a relevant trespass on the personal domain, a violation of expectations or freedoms, and/or an interference with goal-directed behavior (Eckhardt & Deffenbacher, 1995). In the face of a life-endangering threat, anger serves as a function of survival (Novaco, 1997, 2007). Traumatic events, by their definition, are a significant threat to one's life, body, integrity, or sanity (Saakvitne, Gamble, Pearlman, & Tabor-Lev, 1999). Traumatic events characterized by early, ongoing, intentional abuse within the context of a primary relationship, leave a lasting imprint on a trauma survivor's emotional development (Briere & Scott, 2006; van der Kolk & McFarlane, 2007). Out of the "fight or flight" response to a threat, fear is the most widely identified response to a traumatic event and serves as a primary diagnostic criterion for post-traumatic response (American Psychiatric Association, 2000; Norris, Foster, & Weisshaar, 2002). In spite of the self-protective function of both flight *and* fight (Herman, 1992; Novaco, 1997, 2007), comprehensive analyses of the relationship between anger and non-combat-related post-traumatic response do not readily appear in the literature (Orth & Wieland, 2006; Novaco, 2007).

Anger, over time, can become intense and hard to modulate because of long-term exposure to adverse life circumstances such as trauma (Novaco, 2007). Intense anger

tends to result in negative behaviors and is more likely to be subject to socially punitive consequences rather than treatment (DiGiuseppe & Tafrate, 2007). Research on male criminal offenders indicates that many report difficulty managing their anger (Hazebroek, Howells, & Day, 2001). Recent research (Messina, Grella, Burdon, & Prendergast, 2007) also indicates that an increasing number of incarcerated men report histories of childhood abuse. However, the research on the inter-relationship of trauma and anger in men in the criminal justice system is sparse (Novaco, 2007).

Many parolees are mandated to participate in cognitive-behavioral anger management groups or other clinical treatment as a condition of their release into the community (Taylor & Novaco, 2005). Although a cognitive-behavioral intervention model for anger has demonstrated efficacy in non-criminal populations (Del Vecchio & O'Leary, 2004; DiGiuseppe & Tafrate, 2003; Edmondson & Conger, 1996), the results of the model's efficacy on criminal offenders is not solidly established (Howells, Day, Bubner, Jauncey, Williamson, Parker, & Heseltine, 2002). In contrast, trauma can influence intense, dysregulated forms of anger present in a criminal population (Novaco, 2007). Traumatized individuals respond best to any treatment approach that is sensitive to the presence of trauma in their lives (Novaco, 2007). Therefore, although there are many separate evidence-based cognitive-behavioral models for treating intense anger (i.e., Kassinove & Tafrate, 2002; Taylor & Novaco, 2005) and post-traumatic response (Najavits, 1999); a model that treats their combined influence on any population does not exist.

This exploratory study examined the inter-relationship of traumatic events, post-traumatic response, and anger in a population of men who were on parole, in treatment

for alcohol and/or substance abuse, and reported a history of childhood trauma. The central question of the study was how does trauma influence the experience and expression of anger in male trauma survivors who are currently on parole? Additional inquiry explored the characteristics and quality of their trauma-infused anger and their perception of the impact this anger had in their lives. The purpose of this study was to contribute to developing a trauma-sensitive intervention to treating anger in clinical and/or criminal populations referred for treatment of their anger.

To establish the context for this study, the next chapters will review the history of the treatment of trauma and identify theoretical frameworks that support the study results. A review of the empirical literature leads into a review of the methodology, results, and discussion of the study.

CHAPTER 2: THE HISTORY OF THE TREATMENT OF POST-TRAUMATIC RESPONSE AND ANGER

The study of emotions over time reflects the processes of change in emotional standards, emotional experience, and emotional continuities amid shifting cultural contexts (Stearns, 2000). Psychotherapeutic goals and theories consistently echo shifts that occur in the view of emotions and the social environment (Stearns, 2000). Accordingly, the history of the recognition, conceptualization, and treatment of moderate-to-intense anger and post-traumatic response as a result of interpersonal trauma, such as child abuse, is limited. This is a result of society's discomfort with acknowledging both anger and trauma (DiGiuseppe & Tafrate, 2007; van der Kolk & McFarlane, 2007). Although there are early individual accounts of post-traumatic response resulting from accidents or large-scale catastrophes, such as the Great Fire of London in 1666, the conceptualization and specific treatment of the impact of interpersonal trauma within the field of psychotherapy has only come into focus within the past three decades (Graziano, 2011). America's cultural acceptance of the expression of moderate-to-intense anger has also been limited and matched with a social impetus to control it (Stearns & Stearns, 1986). As a result, formal clinical frameworks and interventions for the management of intense anger do not appear until the 1970s (Kassinove & Tafrate, 2002).

The histories of the identification and treatment of interpersonal post-traumatic response and of dysregulated anger occurred during two periods of time that defined them and directed their treatment interventions. The first influential period for these concepts occurred at the turn of the 20th century, when Sigmund Freud's psychoanalytic

theories were the prevailing psychotherapeutic model (Novaco, 2007; van der Kolk & McFarlane, 2007). The second important period for the identification and treatment of post-traumatic response and anger occurred during the 1970s (Novaco, 2007; van der Kolk & McFarlane, 2007). The advent of the Feminist Movement, social consciousness, social advocacy, and the return of America's soldiers from Vietnam during the 1970s, brought the impact of traumatic experience and the importance of trauma-specific treatment to the attention of both mental health professionals and the public (Finkelhor, 1979; van der Kolk & McFarlane, 2007). In addition to the rise in recognition of the impact of trauma during the 1970s, cognitive and cognitive-behavioral models of psychotherapy gained prominence during this time (Dobson, 1988). The rise in understanding emotional distress through a cognitive-behavioral lens brought greater understanding to the conceptualization and treatment of anger (Kassinove & Tafrate, 2002; Novaco, 2007). Cognitive-behavioral theories and interventions are a primary mode of treatment for post-traumatic distress (Monson, Freidman, & LaBash, 2007).

Many authors who have written about the history of interpersonal trauma and post-traumatic response cite Sigmund Freud's work as both a vanguard in identifying the influence of childhood traumas and a primary force consigning it back to the shadows and blaming its victims (Herman & Hirschman, 1977; Rush, 1977; van der Kolk, 1996; Finkelhor, 1979; Goodwin, 2005). In his early work, Sigmund Freud postulated that the origins of mental health symptoms in "hysterical" but otherwise intact young men and women may have been a result of their being molested as children, most often by adult family members (Breuer & Freud, 1895, 1957). Freud believed that if these individuals could tell their story with words instead of symptoms, they would feel significant relief

(Breuer & Freud, 1895, 1957). Freud's connection between the traumatic event of sexual molestation or abuse and a resulting set of responses was the first formal recognition of the direct impact of interpersonal trauma (Finkelhor, 1979).

In his later work, Freud refuted his belief that his patients had experienced sexual molestation or abuse (Finkelhor, 1979). He postulated, through his presentation of the Oedipus complex, that his patients' memories of sexual contact as a child by an adult family member were not real. Instead, they were fantasies of sexual desire for the parent of the opposite sex (Finkelhor, 1979). By revising his theory regarding the nature of the disclosure of childhood sexual abuse, Freud's work rationalized two negative developments in the identification and treatment of childhood trauma. The first negative outcome manifested as an ideology in psychotherapy that discounted or dismissed patients' disclosures of childhood abuse as Oedipal fantasies (Finkelhor, 1979). The second outcome of Freud's Oedipal reconstruction of childhood abuse switched the blame for the sexual contact from the adult to the child. For many years, the interpretation of a survivor's disclosure of sexual abuse was thought to be a result of a child's Oedipal impulses instead of an adult's predatory one (Finkelhor, 1979). As a result, for several generations therapists discounted or contradicted survivors' disclosures of sexual abuse during the course of therapy (Herman & Hirschman, 1977).

Freud's work did not specifically define anger as a discrete emotional state (Hansen, 2001). However, his theories of repressed anger and catharsis, however, have defined key concepts in anger's dynamic and treatment (Hansen, 2001). The belief that depression is anger turned inward, and the use of ventilation as a therapeutic intervention

for anger, continue to influence clinical research and thinking about anger. These notions still influence treatment despite research that disputes their efficacy (Novaco, 2007).

The premise of inverted or repressed anger comes from the psychodynamic view that depression is anger turned inward (Novaco, 2007). From this perspective, the self-reproach of a melancholic patient is actually anger aimed at a loved object that is redirected to the patient's own ego out of fear of reprisals for its genuine expression (Freud 1917, 1963). Originally, the concept of repressed anger and its relationship to depression developed following observations about mourning and grief but later extended to apply to libidinal object relations and emotional loss in general (Hansen, 2001).

The technique of catharsis is a key component of psychoanalysis (Breuer & Freud, 1895, 1957). The intent is to bring an unconscious, distressing experience into consciousness, so that the patient can discharge blocked and problematic affect in an effort to restore emotional equilibrium (Hansen, 2001). Initially, anger was expressed through ventilation, a "hydraulic" version of catharsis, in which restoration occurred through catharsis to prevent a dangerous eruption (Hansen, 2001). This model of catharsis lead to a longstanding but ultimately erroneous value of ventilation as an approach at anger control (Averill, 1994; Novaco, 2007). Subsequent research has demonstrated that, while ventilation has the potential to reduce the immediate consequences of anger and aggression (Konecni, 1975a) overall, the cathartic approach to anger actually serves to worsen the experience of anger and encourages its "volatile" expression on subsequent occasions (Tavris, 1984; Benjamin, 1990; DiGiuseppe & Tafrate, 2007).

The 1970s represented the second historical turning point in the recognition of interpersonal traumas and related post-traumatic response. Fueled by the efforts of a lobby of child advocates consisting of physicians, social workers, and other human service professionals, as well as the Women's Movement, the prevalence and impact of interpersonal traumas, such as rape, child abuse, and domestic violence, came to the public's attention (Finkelhor, 1996). Ann Burgess, Linda Holstrom, Lenore Walker, and Judith Herman documented and published reports of the impact that rape, domestic violence, child abuse, and other interpersonal traumas had on their clients in treatment (van der Kolk & McFarlane, 2007). The first National Family Violence study, published in 1975, represented one of the first major milestones of recognition of interpersonal traumas (Carlson, 2005). The National Family Violence research represented the first time a national study confirmed that violence and trauma occurred in American homes, among family members, and did not just occur as a result of criminal assault or war (Carlson, 2005).

As recognition of the impact of interpersonal trauma resurfaced during the 1970s, the return of Vietnam veterans from war during this time also brought the issue of post-traumatic responses not only to the attention of the mental health field, but to the public as well (Salasin, 2005). Many Vietnam veterans demonstrated explosive and aberrant behavior directly related to their trauma, which was eventually framed as "unhealed wounds" from the war and named "traumatic syndrome" (Salasin, 2005). As a result of this decade's recognition of the impact of violent traumatic experience (specifically combat trauma) on subsequent emotional well-being, the first diagnostic criteria for Post-Traumatic Stress Disorder were introduced to the *Diagnostic & Statistical Manual of*

Mental Disorders in 1980 (American Psychiatric Association, 1980; van der Kolk, 1996). For the first time, there was diagnostic recognition for emotional distress caused by violence. It provided a legitimate lens for the identification, study, and treatment of the wounds of trauma (van der Kolk & McFarlane, 2007).

The 1970s served as a period in which there was significant growth in the acceptance of the efficacy and popularity of cognitive and cognitive-behavioral theories and models (Foreyt, 2001). As cognitive-behavioral models of treatment gained acceptance in the 1970s, so did their application to the dynamics and management of anger (Kassinove & Tafrate, 2002). At their core, cognitive-behavioral therapies share three fundamental positions: cognitive activity affects behavior; cognitive activity is monitored and altered; and desired behavior-change may be affected through cognitive change (Dobson, 1988). Konecni (1975b), whose research was among the first to determine the inefficiency of catharsis, established an early connection between an individual's arousal level, anger, and cognitive labeling. Konecni's conclusions regarding the dynamics of anger were among the first to frame the emotional dynamics of anger through a cognitive theoretical framework (Novaco, 2007). Similarly, Novaco (1975) viewed the dynamics of anger experience through a cognitive-behavioral framework and developed the first anger treatment curriculum, drawing from Meichenbaum's (1977) Stress Inoculation cognitive-behavioral model. Novaco (1977) also coined the term "anger management," which came to serve as a reference for all models of anger management interventions (DiGiuseppe & Tafrate, 2007). Based on emerging research that supports the efficacy of cognitive-behavioral models of anger management in non-incarcerated populations, cognitive-behavioral interventions are the primary methods for

the treatment of moderate-to-intense anger (Taylor & Novaco, 2005; DiGiuseppe & Tafrate, 2007; Gaudiano, 2008). It is also noteworthy that cognitive-behavioral theories and methods shape many evidenced-based treatment interventions for post-traumatic response defined by PTSD (Friedman, Keane, & Resick, 2007).

Reviewing the history of the identification and treatment of trauma and anger serves to explain and support the current treatment models in place as well as shape what treatment models could be developed. As the next step in defining the context for this study, a number of theoretical frameworks are reviewed in chapter three. These frameworks influence the definition and treatment of trauma and anger. These theoretical frameworks also inform the impact that traumatic events and dysregulated anger have on psychological development.

CHAPTER 3: THEORETICAL FRAMEWORKS

Recurrent trauma in an adult's life "erodes the structure of a personality already formed;" however, recurrent trauma in childhood "forms and deforms the personality" (Herman, 1997, p. 98). The theories of human development reviewed in this section will serve as the backdrop to compare and discuss the psychological impact of trauma and how it influences basic emotional responses. This review includes the Bioecological model of human development (Lerner, 2005), an eclectic summary of emotional development, and the Social Interactional model of emotional development (Kemper, 1978, 2000).

The Bioecological Model

Urie Bronfenbrenner's (Bronfenbrenner, 1992) Bioecological Process-Person-Context-Time (PPCT) model has four interrelated components that serve as markers for describing positive or negative child development over the life course. PPCT is composed of the developmental Process, which involves the connected and dynamic relationship of the individual and the context. Person, the next component of PPCT, is an individual's repertoire of biological, cognitive, emotional, and behavioral characteristics. The third component is the Context of human development, as described by the nested levels of the Micro, Mezzo, and Macro systems. Finally, Time, the last component is conceptualized as involving multiple dimensions of temporality and makes up the chronosystem that moderates change over the life course (Lerner, 2005). Symbolically, Bronfenbrenner's formula for human development is D= f (PE): Development is a joint function of person and environment (Bronfenbrenner, 2005, p. 108).

This formula is defined as "the characteristics of the person at a given time in his or her life, and are a joint function of the characteristics of the person and of the environment over the course of that person's life up to that time" (Bronfenbrenner, 2005, p. 108). In this context, the definition of development is "the set of processes through which properties of the person and the environment interact to produce constancy and change in the biopsychological characteristics of the person over the life course" (Bronfenbrenner, 2005, p. 109). The development and modulation of basic emotion relies on the exchange between the growing child and his or her environment (Izard, 1991). The emotional environment, within which chronic childhood abuse takes place, is one of danger, abuse of power, betrayal, totalitarian control, inconsistency, and injustice (Herman, 1997). In response to his or her interaction with this type of environment, a child develops a set of symptoms that are reflective of the context of the abuse (Herman, 1992, 1997). Chronic traumatic events produce profound and lasting changes in physiological arousal, emotion, cognition, and memory (Herman, 1992, 1997).

Emotional Development Theories

At their core, emotions are essential to our survival and existence as human beings. Emotions help define humanness: without emotions, we would not really be human beings at all (Izard, 1991). There are seven main schools of thought regarding the origin and development of emotions: Biological (Neuroscience), Psychoanalytic, Developmental, Behavioral, Cognitive, Cognitive-Affective, and Dimensional (Izard, 1991). There is a consensus across these theories, despite differences in their perspective about the initiation and functions of emotion. This common ground identifies an emotions theory as a starting point for a basic understanding of emotions. This starting

point will also serve as a marker against which to describe trauma's impact on a child's anticipated emotional development.

An emotion is "a relatively short-term evaluative response that is essentially positive or negative in nature involving distinct somatic (and often cognitive) components" (Kemper, 1978, p. 47). Emotional processing is "a particular set of neural processes instigating efferent processes that may or may not lead to an observable expression but always leads to a unique conscious experience. The subjective experience may or may not be accessible through cognitive processes or the language system" (Izard, 2000, p. 40). Emotion is not a simple peripheral phenomenon, but one that involves the entire human organism. Emotional experience shapes and reflects individual personality development (Ekman & Davidson, 1994).

The intense and disruptive nature of chronic trauma can serve as a key determinant in the process of a child's development. Emotions theorists agree that there is formal information processing and an evaluation of events that provoke emotion on a cognitive level (Ekman & Davidson, 1994). Therefore, although there may be disagreement among theorists about the function or origin of an emotion, such as anger, all agree on what an emotion is and the way it is experienced (Ekman & Davidson, 1994). There is some divergence about whether there is a physiological distinctive signal for every emotion; however, nearly all emotion theorists agree that there is a distinctive signal for the core emotions such as anger (Izard, 2000). All theories of emotion agree that there is a retrieval of relevant memories, expectations, and methods for coping with the emotion-provoking event (Ekman & Davidson, 1994). Emotion involves a subjective experience that may include awareness of some or all of the cognitive and physiological

elements noted above. All theorists concede that the individual experience and the processing of emotions occur in the context of the reciprocity between the individual and a stimulus or situation within the environment.

A large-scale review of emotions theory (Ekman & Davidson, 1994) found that most theories identify the existence and quality of the interchange between a child and his/her primary caregivers as a key concept in the development and management of emotion. Theorists differ regarding the development of emotions and the skills necessary to regulate them; nevertheless, most agree that the origin and evolution of emotions in human beings occurred to ensure social bonding between an infant and the primary caregiver (Ekman & Davidson, 1994). From birth, an infant is dependent on the caregiver for sustenance, warmth, nurturing, and protection from danger. However, of equal importance, is the infant's dependence on parental affection for overall health and well-being, communicated through emotion (Izard, 1991).

Long before an infant understands or speaks a single word, he or she receives a collection of signals to communicate internal feeling-states, which most primary caregivers understand. The infant then develops a set of signals and sounds in response. This system of communication is vital; without it, there would be no mother, or primary caregiver, and infant attachment (Izard, 1991). The importance and content of this first attachment has been identified as a primary determinant in a person's socio-emotional development (Bowlby, 1969). If the nature of the emotional interchange between a child and his/her primary caregiver is secure, a child is able to venture out and explore the world feeling safe enough to include others in reciprocal relationships that include emotional responses. As the child grows, s/he develops a strategic cognitive/emotional

"internal working model" of emotional response based on the relationship with the primary caregiver (Bowlby, 1969). Starting at age four, children develop and refine their emotional sphere with others in their world based on the relationship they had with the primary people in their lives. This interchange is ongoing. If the mother-infant attachment changes as the child matures, so does the child's internal working model of his or her emotional responses (Boris, Aoki, & Zeanah, 1999). A child learns about emotions and his or her social display through an "affective induction" into a caregiver's own emotional tone and reactions. These cues may dampen, redirect, or delay a child's emotional display or behaviors (Thompson, 1991).

Within this review of the importance of attachment, it is necessary to define consistent caregivers as those who maintain an optimal balance of physiological arousal. Conversely, unresponsive or abusive parents may trigger chronic hyperarousal in their children, which may have enduring effects on the children's subsequent ability to modulate their emotions (van der Kolk & McFarlane, 2007). Research (van der Kolk & McFarlane, 2007) shows that as many as 80% of abused children have disorganized/disoriented attachment patterns, including unpredictable responses to stimuli in the environment that engage the fight or flight response.

Social Interactional Model

Social models of emotional development focus on the events in the social environment that instigate emotions (e.g. emotions are determined based on the outcomes of social interaction). While social emotions theorists acknowledge the importance of primary relationships in emotional development (and many identify a fit between the models), social models of emotion emphasize and delineate the social matrix and its

parameters (Kemper, 2000). As the child moves from the emotional reciprocity of his or her primary relationships to a larger world, his or her emotional development continues as a result of these experiences with others. The socialization of five elements of emotion occur throughout one's lifespan: elicitors, receptors, states, expressions, and experiences (Saarni, 1993). An individual learns to express and modulate his/her emotions in relation to the social environment. One would need to consider the interpenetration of subject and context to understand the pragmatics of a given instance of behavior; that is, how the person acts in his or her world as the world reciprocally acts on the person (Saarni, 2000). Issues of power and control in an abusive and/or captive environment dominate and directly affect the emotional growth and response of those within the environment (Herman, 1997). The emotional reciprocity between a child and his/her caregivers becomes tainted as the environment becomes infused with trauma's betrayal and pain, all of which, in turn, shapes and informs the child's emotional development.

Kemper's Social Interactional (Kemper, 1978) theory of emotions fits into the framework of other social models of emotional development. Kemper (1978) begins with the basic premise that events in the social environment instigate emotions. The most important social events are the ongoing or changing patterns of social relations between two actors. Starting with the individual as the locus of emotion, the containment of the individual in the social matrix determines which emotions are likely to be expressed by whom, when, where, on what grounds, by what reasons, and by what modes of expression. A very large class of human emotions results from real, anticipated, imagined, or recollected outcomes of social relations (Kemper, 1978). Kemper (1978, 2000) organizes his social framework across two dimensions: "power" and "status,"

which are inherent in trauma-based environments. "Power" is a relational condition in which one actor actually or potentially compels another actor to do something he or she does not wish to do. The means of power in a relationship includes the threatened or actual use of force or deprivation of valued material, symbolic goods, or experiences. "Status" is the relational condition of voluntary compliance with the wishes, interests, and desires of another person. One actor gives status to another through acts of recognition of the other's value through respect, consideration, and, at the ultimate end of the spectrum: love (Kemper, 1978).

From the perspective of either actor, any episode of interaction in a social relationship may have one of the following general outcomes: (1) an increase, decrease, or no change in the self's own power and status vis-à-vis the other or (2) an increase, decrease, or no change in the other's power vis-à-vis the self (Kemper, 2000). There are 12 possible social interactions between the two actors based on these proposed outcomes such as an increase or decrease in one's status and power (Kemper, 1978,)

All told, since neither actor can gain and lose power at the same time or continue at the same level of power while he or she gains or loses in the same dimension, there are only four outcomes in which both the self's own and the other's power and status will be affected (Kemper, 2000). The four possible relational outcomes, which, in turn, promote or shape emotional response, are due to "agency," which is the attribution of the person responsible for the relational outcome across the lines of power and status (self, other, or third party). Agency starts from the perspective of the actor who has the emotion. If a person believes that he or she was the responsible agent for the change in power and status, then his or her emotion is influenced accordingly. If he or she believes that the

other is responsible for the change, then this perception influences his/her emotion, as well (Kemper, 2000, 1978).

As a result of this review, a longitudinal theoretical framework was formed for this study starting with a child's emotional development within a Bioecological framework, through the reciprocity between him/herself and the primary caregiver(s) through Kemper's Social Interactional context. The concepts from these theories help to explain and support the proposal that prolonged trauma influences and dysregulates emotional development and predictable anger responses. The following sections on anger and Disorder of Extreme Stress, Not Otherwise Specified, served to provide the context and language for this study's research question.

Definitions of Anger

Drawing from a number of current conceptualizations of anger, DiGiuseppe and Tafrate (1997) proposed a comprehensive definition of anger. Their construct served as the definition of anger for purposes of this dissertation. DiGiuseppe and Tafrate (1997) define anger in the following way: "Anger is a subjectively experienced emotional state with high sympathetic arousal. It is initially elicited by a perception of a threat (to one's physical well-being, property, present or future resources, self-image, social status or projected image to one's group, maintenance of social rules that regulate daily life or comfort), although it may persist even after the threat has passed. Anger is associated with attributional, informational, and evaluative cognitions that emphasize the misdeeds of others and motivate a response of antagonism to thwart, drive off, retaliate against, or attack the source of the perceived threat" (p. 20).

DiGiuseppe and Tafrate's (1997) comprehensive definition of anger is augmented by two additional concepts; "trait anger" (Spielberger 1972, 1988) and "anger appraisal" (Eckhardt & Deffenbacher, 1995). A distinction between a state and a trait appears in the study of emotion (Izard, 1991). Emotional states are single episodes of emotion, whereas trait refers to the tendency to experience an emotion frequently and intensely (Izard, 1991). Individuals who experience high-trait anger or "dysregulated anger " will experience that state of anger more frequently and intensely, at wider ranges of provoking stimuli, more negatively and cope poorly with anger. Individuals with dysregulated anger experience more dysfunction and negative consequences of the anger in their lives (DiGiuseppe & Tafrate, 2007).

There are two types of anger appraisal: primary and secondary (Eckhardt & Deffenbacher, 1995). Primary appraisal involves an evaluation of an actual event and its context in terms of its potential relevance and threat or harm value (Eckhardt & Deffenbacher, 1995). Secondary appraisal involves judgments about one's coping capacities, rather than a precipitating condition. Collateral judgments can also factor into anger's appraisal process and prompt an individual to become angry. These judgments include attributions of injustices, preventability of threat, intentionality, and/or blameworthiness to the external event that initiates an anger response. Research (Howells, Day, Bubner, Jauncey, Williamson, Parker, & Heseltine, 2002; Howells & Day, 2003) has shown that incarcerated individuals are more likely to report making these judgments than general community populations. Anger is more likely to occur when the person judges that he or she believes exposure to a threat was unavoidable (Eckhardt & Deffenbacher, 1995). The early imprint of traumatic experience and abusive

emotional environments can be a primary influence in shaping secondary appraisals and/or collateral judgments when a trauma survivor faces a present precipitant to anger (DiGiuseppe & Tafrate, 2007).

Anger frequently blends with other intense and aggressive emotions. Therefore, it is important to specifically identify and differentiate anger from its emotional "cousins" hostility and aggression (Kassinove, 1995). In contrast to anger, hostility is more of a trait-like term referring to appraisal and cognitive processes through which the individual tends to automatically code others' actions as harmful and unjustified attacks, which, in turn, trigger retaliatory and/or aggressive counter responses (DiGiuseppe & Tafrate, 2007). Hostility involves an attitudinal ill will, enmity, discounting, or denigration of others, combined with blame and punishment of the perceived provocation. Hostile attitudes can provoke anger, but the relationship between them is not direct (Eckhardt & Deffenbacher, 1995). Aggression is any behavior directed toward another person or his or her property with the intention of causing harm (Crump, 1995).

The identification of incarcerated men's difficulty with anger management is a unifying concept in a small but validated set of research studies (Howells & Day, 2003). Emerging data reports incarcerated men are also disclosing childhood histories of abuse (Messina, Grella, Burdon, & Prendergast, 2007). Anger appears as one word ("anger") in Post-Traumatic Stress Disorder's (PTSD) formal diagnostic criteria (American Psychiatric Association, 2000). Based on the existing research on incarcerated men, anger and trauma, it seems that a consideration of alternate but validated frameworks of post-traumatic response is necessary. The post-traumatic constructs in Disorders of Extreme Stress, Not Otherwise Specified served as the framework to investigate the relationship

between a history of traumatic experience in childhood and dysregulated anger in a population of men who are on parole.

Disorder of Extreme Stress Not Otherwise Specified (DESNOS)

Judith Herman's Complex Post Traumatic Stress Disorder and Bessel van der Kolk's Disorders of Extreme Stress Not Otherwise Specified models of post-traumatic response were developed as a result of their work with survivors of interpersonal trauma (Herman, 1992, 1997; van der Kolk, 1994). These models of post-traumatic response published around the same time identified the source of trauma and resulting symptom cluster in survivors of interpersonal trauma. Recognizing that the formal diagnostic criteria for trauma, PTSD did not include emotional responses and symptoms resulting from interpersonal traumas, Herman and van der Kolk each developed a framework from their belief that responses to trauma are a spectrum of conditions as opposed to a single disorder (Herman, 1997; van der Kolk, 1994). By 1996, Herman and van der Kolk came together to create one post-traumatic construct (van der Kolk, Pelcovitz, Roth, Mandel, McFarlane, & Herman, 1996). Therefore, a trauma survivor could report some or all of each framework's identified syndromes. Herman's (1992) Complex Post Traumatic Stress Disorder model describes a biological-psychological-social framework and identifies six core areas of post-traumatic response: a history of subjection to totalitarian control over a prolonged period; alterations in affect; alterations in consciousness; alterations in self-perception; alterations in perception of the perpetrator; alterations in relations with others; and alterations in systems of meaning (Herman, 1997). In contrast, van der Kolk's (1994) Disorders of Extreme Stress Not Otherwise Specified model focuses on the power and impact of disrupted and abusive relationships and identifies

these core areas of post-traumatic response: disorders of affect regulation; amnesia, and dissociation; somatization; disruptions in self-perception; disorders in relation to others; and disrupted systems of meaning (van der Kolk, 1994).

Currently, Herman's and van der Kolk's symptom clusters have been collapsed into one model of post-traumatic response, which is primarily informed by the areas of post-traumatic distress identified by van der Kolk's model (van der Kolk, Roth & Pelcovitz, 2005) Disorders of Extreme Stress Not Otherwise Specified (DESNOS). The current model of DENOS served as the framework for assessing and discussing post-traumatic response in this study. It offers a broader spectrum of identifying post-traumatic response as compared to the American Psychiatric Association's (2000) *Diagnostic and Statistical Manual of Mental Disorder, Fourth edition (DSM-IV)* diagnostic criteria for Post Traumatic Stress Disorder. While Herman and van der Kolk's post-traumatic symptom clusters now exist as one set, their separate conceptualizations of trauma and post-traumatic response were useful in defining the language of this research study.

The limited research that exists on the anger of incarcerated men identifies anger patterns not related to a traditional PTSD post-traumatic response (Novaco, 2007). The recent DESNOS model captures the spectrum of these men's anger and possible post-traumatic responses. DESNOS formally identifies seven core areas of post-traumatic response: alterations in the regulation of affective impulses, including difficulty modulating anger and being self-destructive; alterations in attention and consciousness, leading to amnesias; dissociative episodes and depersonalizations; somatization (e.g. feeling symptoms on a somatic level for which no medical explanation can be found);

alterations in self-perception, such as a chronic sense of guilt and responsibility; feeling chronically ashamed; alterations in the perception of the perpetrator, which includes an idealization of him/her; alterations in relationships to others, such as not being able to trust, not being able to be intimate with people; and alterations in systems of meaning, such as a loss of sustaining beliefs, producing a trauma-infused sense of despair and hopelessness, as well as a loss of previously sustaining beliefs (van der Kolk, Roth, & Pelcovitz, 2005).

With the main theoretical concepts defined, to further situate and support this study's inquiry the next chapter will review the empirical literature on post-traumatic response and anger in general. The literature review will also discuss research studies that are related to the core concepts of trauma and anger as well as their co-morbidity with other variables represented in the study's methodology such as gender, ethnicity, and alcohol/drug use.

CHAPTER 4: REVIEW OF THE EMPIRICAL LITERATURE

The depth and breadth of trauma's impact on a person's life is clear. In addition to generating a spectrum of post-traumatic symptoms, early exposure to traumatic events disrupts a child's emotional development and has the potential to dysregulate the development, experience, and expression of a victim's anger (van der Kolk, 1994; Herman, 1997). The intent of this study was to explore the relationship among traumatic events, post-traumatic response, and anger in a population of men who are on parole, report a history of childhood abuse, and participate in a treatment program for alcohol and substance abuse. The central question of this study focused on trauma's influence on the experience and expression of anger in the study's participants.

To support this study's intent to explore the inter-relationship of traumatic events, post-traumatic response, and anger in a population of men who are on parole, this literature review will address the available research in these areas. A review of the available literature on Disorders of Extreme Stress Not Otherwise Specified (DESNOS) begins this section. I will discuss anger's under-representation and diagnostic misinterpretation in the clinical literature. I will also review anger as it appears in studies of post-traumatic response; gender as it relates to trauma; the prevalence of trauma histories that now reported by a large number of incarcerated men; and the research on alcohol and substance abuse within a population of traumatized men. This section will also briefly discuss the lack of study on incarcerated persons who report a history of trauma and addiction. Because a disproportionate number of African American and Hispanic men are under the supervision of this country's criminal justice system, they

make up a significant portion of the study's population. Therefore, a brief discussion of ethnicity and post-traumatic response concludes this section.

Disorders of Extreme Stress Not Otherwise Specified (DESNOS)

The full depth and breadth of post-traumatic response is under-represented in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text-Revision* (DSM-IV-TR) (American Psychiatric Association, 2000). Post Traumatic Stress Disorder (PTSD), as described in the DSM-IV-TR, is a tri-phasic, cyclical set of intrusive, arousal, and dissociative symptoms that develop in response to a traumatic event (American Psychiatric Association, 2000). PTSD is the most widely utilized diagnosis by both clinicians and researchers to define post-traumatic symptomatology (Briere & Spinazzola, 2005). However, it is important to note that the primary diagnostic conceptualization and language used to define all types of traumatic emotional aftermath, in light of its widespread use, were determined based on the experiences of soldiers who endured or witnessed combat-related violence (van der Kolk, 1996; Salasin, 2005). Nonetheless, PTSD is widely applied to a variety of populations of trauma survivors.

Since the introduction of Judith Herman's Complex Post Traumatic Stress Disorder in 1992 and Bessel van der Kolk's Disorders of Extreme Stress Not Otherwise Specified (DESNOS) in 1995 (van der Kolk, 1994; Herman 1997), there has been slight but significant progress towards firmly establishing a universally recognized conceptualization of an alternate set of interpersonally-based post-traumatic responses. Many theorists propose viewing Complex Post Traumatic Stress Disorder and DESNOS as co-occurring with PTSD or occurring as an alternate set of responses, rather than invalidating PTSD's post-traumatic criteria in response to abuse (Kilpatrick, 2005).

Currently, there are two main schools of thought regarding post-traumatic distress that results from interpersonal trauma; Disorders of Extreme Stress Not Otherwise Specified (van der Kolk, Pelcovitz, Roth, Mandel, McFarlane, & Herman, 1996) and a collection of dysregulated affect, identity, and relationship symptoms identified as Altered Self-Capacities (Briere & Runtz, 2002). Of these two models, DESNOS is the strongest candidate to date to serve as a "stand-alone" framework for post-traumatic response (van der Kolk, et al., 1996).

The 27 symptoms that fall under the six categories of *Complex Post Traumatic Stress/*DESNOS were initially confirmed during a large-scale DSM-IV field trial conducted between 1990 and 1992 (van der Kolk, et al., 1996). The field trial confirmed PTSD's symptom cluster and established the presence of alternative responses (van der Kolk, et al., 1996). Not only was Complex Post Traumatic Stress/DESNOS' symptom cluster confirmed and the two frameworks collapsed under the DESNOS conceptualization, but the impact and identification of specific interpersonal traumas were supported in the field trial as well (van der Kolk, et al., 1996).

Anger

Anger does not receive the same recognition in clinical research and practice as other distressing emotions such as anxiety or depression (DiGiuseppe & Tafrate, 2007). A recent large-scale search of the literature of *PsychINFO's* database, spanning 1971 to 2005, examined articles about depression, anxiety, and anger (DiGiuseppe & Tafrate, 2007). This search identified 1,267 articles, all of which addressed the topic of diagnosis in depression, 410 were in the area of anxiety, and only seven addressed the nature of anger (DiGiuseppe & Tafrate, 2007). The same review identified 74 research articles on

the assessment of anger and 185 research articles on the treatment of anger (DiGiuseppe & Tafrate, 2007).

The identification or description of anger within the diagnostic categories in the DSM-IV-TR is minimal (American Psychiatric Association, 2000). A large-scale study (Lacmund, DiGiuseppe, & Fuller, 2005) reported that this lack of inclusion of anger in the DSM-IV confuses clinicians when faced with diagnosing a client's complaints of strong anger. The researchers approached 1,000 psychiatrists and psychologists with four clinical case vignettes and asked them to offer a primary and secondary clinical diagnosis using the DSM-IV. Over 500 clinicians responded to the request to participate in the study. The first set of vignettes depicted a client who met diagnostic criteria for social phobia. There were two versions of the case study in this set, one describing a man, the other describing a woman (Lacmund, et al., 2005). These case studies were identical in detail except for gender. The second set of vignettes in this 2005 study exchanged the word "anxiety" for "anger" (Lacmund, et al., 2005). The study found that widespread agreement among clinicians about anxiety cases. Approximately 80% of the respondents correctly identified the symptoms and the disorder. In contrast, in the anger vignettes, the clinicians proposed a wide range of inappropriate and more severe diagnoses than in the anxiety vignettes (Lacmund, et al., 2005). The results concluded that clinicians would assign more severe (i.e., pathological) diagnoses to angry clients (Lacmund, et al., 2005). The results of this study underscore the need to develop an accurate understanding of moderate–to-intense anger, as well as anger that has been dysregulated by traumatic experience. By enhancing the understanding and conceptualization of dysregulated anger,

the likelihood of developing appropriate treatment models based on this information increases.

Anger and Trauma

The studies of anger in survivors of interpersonal trauma are few in number and present limited conclusions about the relationship between anger and trauma (Orth & Wieland, 2006). It is noteworthy that PTSD criteria served as the framework to evaluate post-traumatic symptoms in spite of the availability of an alternate post-traumatic framework, such as DESNOS, in all of these studies. While recent studies have supported the presence of anger in more severe post-traumatic responses, researchers collapsed anger and hostility together as one emotional construct as the basis for their evaluations, instead of viewing anger as a separate entity (Orth &Wieland, 2006; Flemke, 2009). Earlier studies of trauma established a connection between anger and trauma but provided a mix of conclusions.

Two studies confirmed PTSD-related anger in crime and assault victims. These studies linked the victim's anger directly to the assault (Riggs, Dancu, Gershuny, Greenberg, & Foa, 1992; Feeny, Zoellner, & Foa, 2000). In one study, anger was positively related to the development of PTSD (Riggs, et al. 1992), while in the other, anger appeared to protect the survivor from fully experiencing PTSD and thus resolving the symptomatology (i.e., flashbacks) related to the attack (Feeny, et al., 2000). Both studies focused their investigation on anger and its relation to the event of a single assault and not as an ongoing dysregulated affective response.

Only a small number of studies exist on anger and post-traumatic response, as a result of interpersonal trauma. Lurerek and colleagues (2004) surveyed childhood sexual

abuse survivors. They evaluated the interpersonal rejection sensitivity of this population and its role as a mediator of depressive symptoms and anger suppression. This study supported the role of interpersonal rejection sensitivity as a mediator of depressive symptoms and as a partial mediator of anger suppression. However, the content and quality of these anger symptoms were not fully detailed (Lurerek, Harb, Heimberg, & Marx, 2004). The only study of anger in adolescent female incest survivors (Newman & Peterson, 1996) indicated that this group was angrier in general and with their parents than the study group who were not incest survivors. However, the balance of the study's counterparts commented on the quality and intensity of the incest survivors' anger without empirical support (Newman & Peterson, 1996). In an early and brief review of the available trauma literature, Novaco and Chemtob (1998) made a strong case regarding the lack of data on trauma and anger and the need to investigate this connection more thoroughly. This gap in the literature remains, based on a small pool of recent research on trauma's impact on anger (Orth & Wieland, 2006; DiGiuseppe & Tafrate, 2007).

Gender and Trauma

Although there is a central, identified spectrum of post-traumatic response, there are a number of differences in the traumatic events and post-traumatic distress that men report compared to what women report (Tolin & Foa, 2006; Olff & Langeland, 2007). Studies indicate that men report a greater number of initial, single-event traumas, while women are more likely to experience multiple traumas following an initial event (Kessler, 1995, 2000). In addition, men are less likely to report a greater number of post-traumatic symptoms when compared to women (Tolin & Foa, 2006; Olff & Langeland,

2007). Although the differences between men's and women's experience with and their reporting of trauma and post-traumatic response were validated in a number of research studies, there is recent research (Tolin & Foa, 2006; Simmons, 2007) that suggested methodological or sampling issues may have influenced gender-specific thought regarding post-traumatic response. Based on the review of these studies, van der Kolk (unpublished instrument, 1997) supports the use of a comprehensive questionnaire, such as the Traumatic Antecedents Questionnaire to ensure the investigation of a full range of traumatic experience among survivors of trauma.

However, in large-scale trauma studies and literature reviews (Kessler, 1995; Tolin & Foa, 2006; Olff & Langeland, 2007), men typically report fewer physical and sexual assaults by a known perpetrator. Men are more likely to report post-traumatic responses to stranger-initiated assaults or attacks, environmental disasters (i.e., fire, flood), threats made with a weapon, and combat experience, than physical or sexual abuse (Tolin & Foa, 2006). Women are twice as likely as men to report trauma (Olff & Langeland, 2007). Women report greater incidents of early familiar interpersonal trauma, such as ongoing sexual and/or physical abuse, and they are also more likely to experience further abuse and trauma as adults (Becker, Noether, & Larson, 2005).

Recent reviews of the literature (Tolin & Foa, 2006; Simmons, 2007) examined gender-based differences in post-traumatic experience. Although there may be some clinical validity to these comparative studies, some methodological issues in these studies inform these gender- based differences (Tolin & Foa, 2006; Simmons, 2007). For example, since women have been the primary focus in the study of trauma (Najavits 1997, 1999; Pears & Capaldi, 1999; Tolin & Foa, 2006; Simmons, 2007), there are a

greater number of studies evaluating a woman's traumatic response. The prevalence of studies about women's response to trauma may influence why women are cited as having a post-traumatic response twice as often as men (Tolin & Foa, 2006) have. Additional reasons for women reporting a greater and more severe set of post-traumatic symptoms than men include a woman's increased risk of exposure to early and adult abuse vs. the increased likelihood of a man's exposure to assault and combat exposure, as well as the differences in men's and women's social relationships to the world (Simmons, 2007).

Overall, while men and women report specific and different traumatic experiences and post-traumatic responses, such as combat-related trauma vs. incest, it is important to note that recent research reveals that there is a growing number of men who experience and report interpersonal abuse (Grossman, Sorsoli, & Kia-Keating, 2006). Studies report that interpersonally traumatized men, in addition to describing symptoms related to PTSD, report significant behavioral problems such as suicide attempts, violence, high-risk sexual activities, sexual aggression, and anger (Holmes, Foa, & Sammuel, 2005; Najavits, Schmitz, Gotthardt, & Weiss, 2005; Dhaliwal, Gauzas, Antonowicz, & Ross, 1996). A growing number of female soldiers returning from Iraq and Afghanistan describe experiencing combat-related PTSD (Pearrow & Cosgrove, 2009).

The Prevalence of Trauma in Incarcerated Individuals

Study of the presence, prevalence, and impact of trauma in incarcerated men and women has increased in the literature over the past 10 years (Covington, 1998; Green, Miranda, Daroowalla, & Siddique, 2005). Although women are the focus of much of the research (Covington, 1998; Green, et al., 2005), more recent studies are emerging and confirm that men who are incarcerated are also reporting histories of early childhood

abuse in spite of the perceived stigma of disclosure (Messina, Grella, Burdon, & Prendergast, 2007). In a 2008 study of Australian male prisoners (Day, Wanganeen, Casey, Howells, & Nakata, 2008), a preliminary relationship was established between the subjects' reports of early trauma, high trait anger, and their perception of experiencing more discrimination than a non-incarcerated population.

Alcohol and Substance Abuse in Incarcerated Survivors of Trauma

Because of the intensity and depth of the wound, post-traumatic responses represent a survivor's attempt to cope with painful, unimaginable, and overwhelming events (Graziano, 1997). One of the strategies that trauma survivors use to cope with their pain is to engage in alcohol and/or substance abuse. There is a clear connection between trauma and alcohol/substance abuse (Kessler, 1995, 2000; Najavits, 1997; Ouimette, Kimerling, Shaw, & Moors, 2000). There is no research that discusses a direct connection between trauma and substance abuse in a population of incarcerated men, in spite of the large-scale studies that support this connection between experiencing trauma and alcohol/substance abuse (Ouimette, et al., 2000) nevertheless, there is a strong prevalence of alcohol/substance abuse in incarcerated individuals (droptherock.org, 2008). Although the majority of co-morbidity studies of trauma and alcohol/substance abuse survey women more often than men (Ouimette, Kimerling, Shaw, & Moors, 2000), co-occurring post-traumatic response and alcohol/substance abuse has been solidly established for men (Kessler, 1995, 2000; Najavits, 1997). A recent gender-specific study (Najavits, 2005) supported a strong correlation between a man's post-traumatic distress and substance use. In two national surveys, the lifetime rates for a man's post-traumatic distress and

alcoholism was estimated at 51% (Kessler, 1995, 2000); and the lifetime rate for a man developing a substance abuse disorder was 34.5% (Kessler, 1995, 2000).

Ethnicity and Trauma

In spite of studies that support the prevalence and greater risk for non-Caucasian children and adults to experience trauma (Amaro, Larson, Gampel, Richardson, & Savage, 2005), ethnicity and its relationship to trauma remain minimally investigated. In 1998, Breslau found PTSD in non-Caucasian individuals twice as often as compared with Caucasians in the study sample (14% non-Caucasians versus 7% Caucasians). Subsequent studies (Mennen, 2004; Rich & Grey, 2005) have found that African Americans and Hispanics are also more likely to suffer from recurrent trauma. The risk of re-traumatization not only stems from the universal risk of interpersonal abuse, but also from within the communities in which the study participants live and structural violence from the society of which these men are a part (Amaro, et al., 2005; Rich & Grey, 2005). Despite this information and the potential risk factor for traumatic experience, few studies has surfaced about the specific nature and quality of trauma's impact and influence on non-Caucasian survivors. Existing studies (Kenney & McEachern, 2000; Behl, Crouch, May, Valente, & Conyngham, 2001; Cohen, Deblinger, Mannarino, & deArellano, 2001; Fontes, Cruz, & Tabachnick, 2001) confirm that Latino, African American, and Native American adults and children will report PTSD symptomatology that is similar to the clinical profile established for post-traumatic response. However, little information is available regarding differences between Caucasian and non-Caucasian individuals' post-traumatic experience or the efficacy of culturally sensitive interventions. Based on this review of a small but significant research set, ethnicity and

structural violence could potentially be factors to be included in a study of incarcerated males' anger and trauma, but it is beyond the scope of this dissertation to do so.

The co-morbidity of trauma and anger in individuals involved in the criminal justice system has been identified in a few studies (Hazebroek, Howells, & Day, 2001; Adams, 2002; Novaco, 2007; Messina, Grella, Burdon, & Prendergast, 2007; Day, Davey, Wanganeen, Casey, Howells, & Nakata, 2008). Although a few studies identify a connection between trauma and anger in criminal offenders, there is little research about the nature and quality of this experience for these individuals. The intent of this study was to learn more about the relationship between trauma and anger in this study's population of men who report histories of childhood abuse and who are on parole. The central question of this dissertation explored how trauma (defined as traumatic events and post-traumatic response) influenced the experience and expression of anger in adult male survivors who were currently on parole. The hypothesis of this study was that traumatic events and subsequent post-traumatic response would influence the study group's anger.

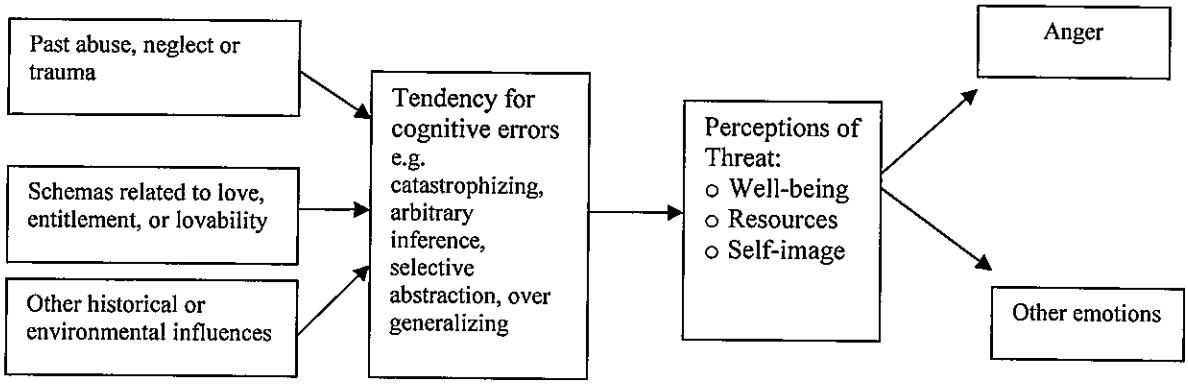
CHAPTER 5: RESEARCH DESIGN AND METHODS

This chapter presents a review of the study's design and methodology. All of the concepts and variables reviewed up until this point influenced the design of the research study. The methods for conducting the study were sensitive to the nature of the topics discussed as well as the study group's status as a "vulnerable population" because they were on parole.

Research Design

The following primary concepts formed the foundation for this research study: anger is a response to a threat in one's environment (DiGiuseppe & Tafrate, 2007) and traumatic events are a threat to an individual's physical, psychological, or emotional integrity (Saakvitne, Gamble, Pearlman, & Tabor-Lev, 1999). Individuals who experience prolonged or multiple traumatic events may develop a post-traumatic response (Herman, 1992; van der Kolk, 1994; Saakvitne, et al., 1999). The spectrum of post-traumatic response includes a dysregulation of anger (Herman, 1992; van der Kolk, 1994; Luxenberg, Spinazzola, & van der Kolk, 2001). Finally, if the experience of the traumatic event is significant, then the post-traumatic response will be significant (Luxenberg, et al., 2001).

The more significant the post-traumatic response, the more significant the influence it will have in the evaluation of an environmental threat (Novaco, 2007). Over time, left untreated, the imprint of trauma and post-traumatic response infuses a trauma survivor's cognitive process for evaluating an environmental threat as outlined on the next page:



(DiGiuseppe & Tafrate, 2007, p. 138)

To answer this study's research question, I employed standardized instruments and a questionnaire. Using these measures, I explored the presence of a history of trauma and anger in the study sample and identified the presence of the co-occurrence of post-traumatic response and dysregulated anger. Additionally, I explored the relationship between the types of traumatic events in an individual's history and identified any relationship or behavioral outcomes between the type of traumatic events experienced by the study participants, their post-traumatic response, and a greater sensitivity to provocative situations.

Using a quantitative approach, the study participants completed a battery of instruments I administered in one 90-minute session. The research protocol consisted of three standardized measures cited in studies researching post-traumatic response and anger. The assessment tools included in the study were the *Traumatic Antecedents Questionnaire* (van der Kolk, unpublished instrument, 1997), the *Structured Interview for Disorders of Extreme Stress* (Pelcovitz, van der Kolk, Roth, Mandel, Kaplan, & Resnick, 1997), and the *Novaco Anger Scale and*

Provocation Inventory (Novaco, 1994, 1998). I developed a single-question questionnaire and included it in the research protocol to gather narrative information about the study participants' experience of anger and its relationship to trauma.

Research Instruments

The quantitative research instruments used for this study have support in the literature for their use in a research study. The *Structured Interview for Disorders of Extreme Stress* (Pelcovitz, et al., 1997) and the *Novaco Anger Scale and Provocation Inventory* (Novaco, 1994, 1998) have acceptable reliability and validity. The *Traumatic Antecedents Questionnaire* (van der Kolk, unpublished instrument, 1997) has solid anecdotal support, but its psychometric properties are not established. I purchased all of the instruments, which included the right to use them in my research study. The following section will review the qualities of these three measures.

Traumatic Antecedents Questionnaire (TAQ) is a 42-item self-report instrument that gathers information about the lifetime experiences of a respondent in 11 subscales: (1) competence, (2) safety, (3) neglect, (4) separations, (5) secrets, (6) emotional abuse, (7) physical trauma, (8) sexual trauma, (9) witnessing trauma, (10) other traumas (i.e., natural disaster, serious accident), 11) exposure to drugs and alcohol (Luxenberg, Spinazzola, & van der Kolk, 2001). The first two subscales represent experiences of adaptive functioning, while the remaining eight subscales assess exposure to traumatic or adverse experiences (Luxenberg, et al., 2001). These subscales assess exposure to traumatic events at four different stages: birth to 6 years, 7 to 12 years, 13 to 18 years, and adulthood. For each item, the respondent rates the extent to which he or she had a

particular experience during each developmental period on a scale from 0-3 (Luxenberg, et al., 2001). The TAQ allows for calculation of the summary scores for each of the 11 individual subscales, as well as across four developmental periods. A preliminary study revealed that cumulative trauma during early childhood and adolescence emerged as powerful predictors of the severity of a respondent's post-traumatic response, as assessed through a *Disorders of Extreme Stress Not Otherwise Specified* (DESNOS) framework (Luxenberg, et al., 2001).

The second instrument, the *Structured Interview for Disorders of Extreme Stress* (SIDES) is a 45-item instrument that asks respondents to describe their past and current functioning over six subscales: (1) disorders of affect regulation, (2) amnesia and dissociation, (3) somatization, (4) disruptions in self-perception, (5) disorders in relation to others, and (6) disrupted systems of meaning (Luxenberg, et al., 2001). These six subscales represent the areas of impairment of the DESNOS construct (Spinazzola, Blaustein, & van der Kolk, 2005). For each item on the SIDES, respondents rate a lifetime presence (as a "yes/no" dichotomy), as well as current symptom presence and severity during the past month (Luxenberg, et al., 2001). Each item's descriptors contain concrete behavioral anchors in order to facilitate a respondent's answers and/or the evaluator's ratings (Luxenberg, et al., 2001).

The SIDES is scored in one of two ways: as a diagnostic tool to assess the presence and weighting of clinically significant symptomatology within and across each of the six dimensions of DESNOS or as a continuous measure of DESNOS symptom severity (Luxenberg, et al., 2001). There have been a number of studies that have examined the reliability and validity of the SIDES instrument. Evaluation of the SIDES

instrument during the DSM-IV field trials revealed that the interview version of the SIDES demonstrated good inter-rater reliability (Kappa=.81), as well as internal consistency (coefficient alpha ranged from .53 to .96) (Pelcovitz, et al., 1997). The evaluation of internal reliability occurred in a longitudinal outcome study of trauma treatment. Internal consistency for the full interview scale and the affect scale was adequate (full interview: alpha=.86; affect scale alpha=.71) (Spinazzola, et al., 2005). The validity of the interview version (vs. the self-report) of the SIDES has a full-scale correlation coefficient of .86 (Luxenberg, et al., 2001).

The third instrument, the *Novaco Anger Scale and Provocation Inventory* is a two-part test designed to assess anger as a problem of psychological functioning and physical health and to assess therapeutic change. Developed and standardized with both community and clinical populations, it is for use as a measurement tool for research, individual assessment, and outcome evaluation (Novaco, 1994, 1998). The *Novaco Anger Scale and Provocation Inventory* (NAS-PI) is a self-report questionnaire designed to measure anger disposition by assessing trait-like aspects of "anger response" and "anger response readiness" (Novaco, 1994, 1998, p. 2). The *Novaco Anger Scale* (NAS) evaluates anger and yields individual and collective scores across four subscales: (1) cognitive, (2) arousal, (3) behavioral, and (4) anger regulation (Novaco, 1994, 1998). The *Provocation Inventory* summarizes the intensity and generality of anger across five provocative situations: disrespectful treatment, unfairness/injustice, frustration/interruption, annoying traits, and irritations (Novaco, 1994, 1998). Reliability for the NAS-PI was established through internal consistency estimates and test-retest correlations. The total internal consistency (alpha) score for the standardization sample of

the NAS was .94. The total internal consistency (alpha) score for the PI was .95 (Novaco, 1994; 1998). The total score for the test-retest reliability for the NAS was .76; for the PI, it was .82 (Novaco, 1994, 1998).

The construct validity of the NAS-PI has been established with a number of populations, including those who acknowledge trauma as confirmed through a diagnosis of PTSD (Chemtob & Novaco, 2002). One hundred and twenty-three combat veterans who carried a diagnosis of PTSD completed the Spielberg State Trait Anger Expression Inventory (STAXI) and the NAS-PI. The results of the study supported the presence of high trait anger in this population and established a strong correlation between the total NAS and PI scores and the total score on the well-established STAXI (NAS r =.77; PI r = .67) (Chemtob & Novaco, 2002).

Study Sample

Selection and recruitment. The sample for this study was adult men (18 years and older) who were on parole through New York City's criminal justice system and reported a history of childhood abuse or violence. *Success Counseling,* a New York State-licensed outpatient substance abuse treatment program located in the Bronx that primarily serves male and female clients on parole, served as the recruitment site. It serves approximately 90-100 clients per week. The total sample size was 60 participants. The study used a non-probability, purposeful sample, because the sample was recruited from an agency that serves the target population. Publicly posted flyers in the lobby of *Success Counseling* facilitated the study's recruitment of the study group. Program staff also introduced the study to their clients by giving them a flyer announcing the study (see attachment A for a copy of the flyer and attachment B for a copy of the recruitment

script; both are located in the appendix). Since the target population was involved with the criminal justice system, they were a "vulnerable population" and entitled to an additional set of considerations to be included in the study's protocol. Additionally, protocols existed to protect the participants' confidentiality regarding their decision to participate to insure their protection or guard against any external or internal agency influence, including the agency that referred them to the study. These procedures were successful and insured that their decision to participate was free from coercion, both real and perceived. To meet these goals, *Success Counseling's* staff approached clients in the following way:

1. *Success Counseling*'s staff provided a flyer announcing the study to new clients during their intake into the program.
2. *Success Counseling's* staff made it clear that the decision to participate or to refuse to participate was not shared with *Success Counseling* or any criminal justice-affiliated agency or staff. This information was not shared with the staff who introduced the participant study.
3. Interested potential participants contacted me as the principal investigator (PI).
4. When a potential participant contacted me, an appointment to review the study and sign the full consent was scheduled. I did not share information with clinical personnel or intake staff regarding who did/did not contact me or who agreed or did not agree to participate (see attachment C for PI introduction to the study located in the appendix).

5. If the potential participant fulfilled the study criteria and agreed to participate, the respondent and I decided upon a mutually agreed upon time, date, and public location to have a face-to-face interview.
6. At the start of the meeting, prior to the research interview, I introduced the study to the respondent.
7. I gave the respondent the informed consent to read and answered any questions the potential respondent had about the study.
8. I reiterated my commitment to protecting the respondent's confidentiality through non-disclosure of his participation or answers to service providers. The potential participant was told that his name would not appear on any research materials and that a numeric code was used instead.
9. If a potential participant was interested in participating in the study, he signed the informed consent and the research interview immediately took place (see attachment D for a copy of the informed consent form located in the appendix). Repeatedly, I reminded the participant that his participation in the study was voluntary and he could chose to withdraw at any time without consequence or repercussion.

Data Collection

The research design required that the study subjects participated in a single 90-minute face-to-face interview, with me, in which they responded to questions from three instruments and a one-item questionnaire (See attachment H for a copy of the one-item questionnaire located in the appendix). All of the research materials used a numeric code, not the participant's name, as an identifier. I stared the interview by completing an

extremely brief face sheet and assigned the numeric code to the participant's battery of instruments. I also agreed not to identify the status of the respondent's involvement with the criminal justice system and other human service providers. The order of the presentation of the instruments was as follows: the *Traumatic Antecedents Questionnaire* (TAQ), the *Structured Interview for Disorders of Extreme Stress* (SIDES), and the *Novaco Anger Scale and Provocation Inventory* (NAS-PI). The one-item questionnaire concluded the interview. While the qualitative data from this questionnaire was informative, the results of this part of the data collection do not appear in the Results chapter but will appear in a future publication.

Data Management and Storage

To provide a high level of confidentiality to the research participants, I followed these steps:

1. The participant's name was stored as a record of his consent via the signed informed consent agreement. Only my adviser, Dr. Bernadette Hadden, and I had access to this information, and which was stored my office. The signed consent separated from the rest of the questionnaires was locked up in a file cabinet in the same office.
2. A numeric code, instead of the participant's name, was the identifier on all other research materials.
3. All of the study materials were kept in a locked cabinet in a locked office, to which only Dr. Hadden and myself had access.

4. By law, the information will be stored for a minimum of three years. After that time, all the materials will be destroyed. As long as the information exists, it will be kept secure.
5. Only aggregate data about the research group appears in any reports or publications that come from this research. Individual responses to the questions and surveys were not identified. Any identifying information about anyone who participated is not included in any report.
6. I insured that my mandate to report to the proper authorities suspected child abuse or any indications that a participant is in imminent danger of harming himself or others was made clear both verbally and in writing to all study participants.
7. I insured that my commitment not to disclose a participant's status of his participation in the study to any service provider, including probation and parole, was communicated clearly both verbally and in writing to all study participants.
8. My commitment not to disclose to any service provider a participant's responses to the research questions, including probation and parole, was communicated clearly both verbally and in writing to all study participants.

Human Subject Protection

In addition to the need to protect the participant and provide confidentiality because of his vulnerable status, the research study was sensitive to the nature of the material addressed with the participants. This study carried an intermediate risk for its enrollees. Although the main interview was comprised of well-tested scales and surveys,

the study protocol included sensitive areas that could cause the participants stress, anxiety, and/or discomfort, as they reflected and responded to areas of their lives. During the course of the interview, if a participant reported or experienced discomfort or distress, he would have been referred to a professional counselor for evaluation and follow-up. Dr. Andri Osipov, a psychiatrist who specializes in this population, agreed to provide emergency phone and in-office (if needed) coverage for this project from his private practice in the Bronx, New York. Dr. Michael Sanders, a psychiatrist who also specializes in this population, also agreed to provide backup for Dr. Osipov. The phone number for LifeNet, New York City's public mental health emergency hotline was also available to participants as an agency to contact (See attachment E for a copy of the list of providers and their contact information located in the appendix). Participants received the name and contact information of these resources at the start of the interview; however, no one stated that they needed to call them during or after the interview.

CHAPTER 6: RESULTS

This chapter first reports on the univariate analyses for the study participant demographics, the Trauma Antecedents Questionnaire (TAQ), the Structured Interview for Disorders of Extreme Stress (SIDES) and the Novaco Anger Scale-Provocation Index (NAS-PI). A report on the bivariate analyses of critical variables considered central to the study hypotheses, along with other interesting findings, will follow the demographic findings. The chapter concludes with multivariate analyses in which the relationship between anger and Disorders of Extreme Stress not Otherwise Specified (DESNOS) was tested.

The data analysis for this study examined the inter-relationship of traumatic events, posttraumatic response, and anger in men who reported a history of exposure to childhood abuse or violence, are on parole, and enrolled in a substance abuse treatment program in New York City. The proposed sample size for the study was between 60 and 100 men. The final sample comprised of sixty men recruited from *Success Counseling* and interviewed at a location off-site from the program. Data collection took place throughout an eight-month period, starting October 2009 and ending in June 2010. The average length of an interview was 90 minutes. The proposed protocols and procedures designed to protect the participants' decision to participate from real and coercion were followed. All of the participants signed the informed consent form and completed all of the questionnaires included in the study. During the informed consent process, respondents received a list of mental health providers. I told each participant that if they felt significant distress about any part of the interview and wanted a referral to a mental health professional, I would do so from the list of providers indentified for the study.

None of the participants reported that that felt anxious or distressed and none requested a referral. The data were analyzed using SPSS 16.0.

All of the interviewed participants reported experiencing at least one traumatic event in their history, acknowledged posttraumatic symptomatology, and confirmed a number of characteristics related to their anger that stem from their experiences with traumatic events.

Demographics

Sixty men comprised the study group; they identified their ethnicity as either "Hispanic/Latino" (51.7%) or "Black/African American" (48.3%). The youngest participant was 19 years old; the oldest was 58. The mean age of the participants was 33.8. Sixty percent of participants reported less than a high school education. Sixty percent of the participants are single and 68.3% of the respondents said that they were unemployed at the time of the interview. The mean age of participants involved in the study was 33.80 (SD = 11.34). Table 1 illustrates the demographic results.

Table 1

Frequencies and Percentages for Participant Demographic Characteristics

Characteristic	*n*	%
GENDER:		
Male	60	100
ETHNICITY:		
African American/Black	29	48.3
Hispanic/Latino	31	51.7
EDUCATION (highest grade achieved):		
Less than high school	36	60.0
High school graduate	19	31.7
Some college	2	3.3
Bachelor's degree	2	3.3
Master's degree	1	1.7
MARITAL STATUS:		
Single	36	60.0
Living with someone	2	3.3
Married	16	26.7
Separated	3	5.0
Divorced	3	5.0
CURRENTLY EMPLOYED:		
Yes	19	31.7
No	41	68.3

Descriptive Results

Traumatic Antecedents Questionnaire. The *Traumatic Antecedents Questionnaire* (TAQ) collected information about type and timing of traumatic events in a participant's life. The TAQ is a survey that gathers information about a respondent's lifetime experience with traumatic events over 11 subscales: 1) competence, 2) safety, 3) neglect, 4) separations, 5) secrets, 6) emotional trauma, 7) physical trauma, 8) sexual trauma, 9) witnessing traumas, 10) other traumas, and 11) exposure to alcohol and drugs. The TAQ assesses these traumatic subscales at four different age levels: early childhood (birth to 6 years), middle childhood (7-12 years), adolescence (13-18 years), and adulthood. Respondents were asked to rate the *frequency* and *severity* of the occurrence of traumatic events using a Likert scale within each of the 11 subscales and across the four developmental age ranges. A copy of the TAQ with the scoring sheet that designates the organization of the subscales is located in the appendix as attachment F.

A calculation of the frequency and severity of nine subscales of traumatic events within the TAQ determines a respondent's exposure to traumatic events. A score of "0" is the lowest TAQ score on any one of the subscales. The number of items in each subscale varies; therefore, the high mean score for each domain was determined based on the intensity of response and the number of items in each subscale. For this study, the organization of the items in each subscale may have contributed to a higher mean score on the subscale than was warranted by the respondent's answers. For example, over 80% of the participants reported *seeing a dead body*, which is located under the TAQ subscale of witnessing. The respondents denied many of the other items listed under witnessing, however, the concentration of the affirmative answers to the one item, *seeing a dead*

body, created a significant mean score for the subscale. As a result of this pattern of lopsided response, the individual TAQ items selected for further analysis represent the frequency of reporting for an individual items versus applying entire subscales to the bivariate analyses.

In summary, on the TAQ, participants scored the highest total mean score on the subscale of competence (M=10.64, SD=3.35) and the lowest of sexual abuse (M=0.99, SD=3.60). This finding is interesting and is consistent with other studies of male trauma survivors, which report fewer incidents of sexual abuse. A mean score of 10 or above on the TAQ subscale of competence is related to a greater level of adaptive functioning.

The remaining TAQ subscales present an interesting pattern of the respondents' experience with traumatic events. The safety subscale had the next highest total mean score (M=10.42, SD=2.87). A mean score of 10.0 or above on the TAQ's safety scales also represents greater levels of adaptive functioning.

In descending order of total mean score, the TAQ traumatic event subscales ranked as follows: secrets (M=10.06, SD= 3.66), neglect (M=9.27, SD=3.18), witnessing (M=7.17, SD= 5.06), separation (M=7.16, SD=3.18), alcohol and other drugs (M=6.81, SD= 4.83), other traumas (M= 5.24, SD=5.00), physical abuse (M=4.94, SD=5.21), emotional abuse (M=4.87, SD=5.36), and sexual abuse (M= 0.99, SD= 3.60). These total mean scores indicate that the study group was exposed to a greater intensity and number of traumatic events characterized by neglect and secrets to witnessing the event, experiencing significant separations, exposure to alcohol and other drugs and other traumas not specified by the TAQ instrument. A few of the participants would offer examples such as killing someone in an effort to protect him as a trauma not specified in

the TAQ. Additionally, the TAQ total mean score indicates that a small number of participants experienced interpersonal trauma such as emotional, physical, or sexual abuse. Tables 2-12 list all of the scores for each TAQ subscale.

Table 2

TAQ Competence Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	2.66	0.86	0-6
7-12	2.70	0.76	0-6
13-18	2.70	0.76	0-6
19+	2.58	0.97	0-6
Total	10.64	3.35	0-24

Table 3

TAQ Safety Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	2.58	0.76	0-9
7-12	2.57	0.76	0-9
13-18	2.58	0.76	0-9
19+	2.69	0.59	0-9
Total	10.42	2.87	0-36

Table 4

TAQ Secrets Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	2.58	0.84	0-6
7-12	2.50	0.90	0-6
13-18	2.43	1.01	0-6
19+	2.55	0.91	0-6
Total	10.06	3.66	0-24

Table 5

TAQ Neglect Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	2.61	0.78	0-15
7-12	2.60	0.79	0-15
13-18	2.86	0.21	0-15
19+	1.20	1.40	0-15
Total	9.27	3.18	0-45

Table 6

TAQ Witnessing Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	1.28	1.36	0-18
7-12	1.65	1.31	0-18
13-18	2.20	1.10	0-18
19+	2.04	1.29	0-18
Total	7.17	5.06	0-72

Table 7

TAQ Separation Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	2.06	0.33	0-12
7-12	1.96	0.78	0-12
13-18	1.86	0.95	0-12
19+	1.28	1.12	0-12
Total	7.16	3.18	0-48

Table 8

TAQ Alcohol and Other Drugs Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	1.25	1.38	0-6
7-12	1.73	1.25	0-6
13-18	2.49	0.85	0-6
19+	1.34	1.35	0-6
Total	6.81	4.83	0-24

Table 9

TAQ Other Traumas Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	0.84	1.24	0-18
7-12	0.91	1.24	0-18
13-18	1.54	1.32	0-18
19+	1.95	1.20	0-18
Total	5.24	5.00	0-72

Table 10

TAQ Physical Abuse Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	0.77	1.21	0-9
7-12	0.78	1.22	0-9
13-18	1.97	1.33	0-9
19+	1.42	1.45	0-9
Total	4.94	5.21	0-36

Table 11

TAQ Emotional Abuse Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	1.25	1.34	0-15
7-12	1.20	1.33	0-15
13-18	1.37	1.33	0-15
19+	1.05	1.36	0-15
Total	4.87	5.36	0-60

Table 12

TAQ Sexual Abuse Means and Standard Deviation

Age	*M*	*SD*	Range
0-6	0.26	0.92	0-12
7-12	0.32	0.98	0-12
13-18	0.23	0.89	0-12
19+	0.18	0.81	0-12
Total	0.99	3.60	0-48

A review of individual TAQ items clarifies and identifies the specific protective factors and traumatic events in the respondents' lives. Seventy-seven percent of the respondents (n=46) reported that their *parents were divorced or separated.* Fifty percent of the participants reported that their parents separated before they were born. Seventy-five percent of the participants reported that their familial physical and emotional environments were safe and supportive. Just 25%-30% of participants lived apart from their primary parent at any point in their development. When asked about their upbringing, over 80% of participants responded positively to the TAQ's safety subscale items, *I felt safe and cared for* and they reported that they *felt close to at least one brother or sister* over the course of their lives. Sixty-four percent of the men reported having *someone outside the home to talk to* (the final safety subscale item). The participants reported the emotional environment of their homes to be caring and protective. More than 80% of the respondents reported that someone made sure they *woke up and went to school in the morning*. Between 70%-80% of the respondents acknowledged that, *the rules of their home were clear and their punishments were fair*. Comparatively, only a small percentage of respondents reported experiencing emotional (8.3%), physical (7.0%), or sexual abuse (2.7%) within their families.

The TAQ scoring protocol (van der Kolk, unpublished instrument, 1997) indicated that the greater the score on the subscales reflecting traumatic events (e.g., neglect, separations, physical trauma, etc.) the greater the respondents' exposure to traumatic events. In contrast to their reportedly growing up in a positive, safe environment, the study group consistently reported two significant negative influences within their home environment related to their development: the regular occurrence of *the*

death of someone who was close to them (separation subscale) and a *family member who was involved in alcohol or substance abuse*. Forty-five percent of the respondents reported that someone with whom they were close to died at some point in their lives. More than 50% of the participants acknowledged that there was someone in their families who "had problems with alcohol or drugs." The percentage of those participants who acknowledged both issues within their families increased, as they grew older. Table 13 summarizes the protective factors and traumatic events most frequently reported by the study group.

Table 13

Positive & negative characteristics of respondents' home environment (n=60)

Household Characteristic	**Early Childhood (0-6 years)**	**Middle Childhood (7-12 years)**	**Adolescence (13-18 years)**
Safety			
I felt safe and cared for	81.7%	80%	80%
I felt close to at least one of my brothers or sisters	84%	84%	85%
Other positive influences			
Someone made sure I got up and went to school in the morning	87%	85%	80%
The rules in my family were clear & consistent	81%	81%	81%
Negative influences			
Someone close to me died	13%	38%	53%
Someone in the family had a problem with alcohol or substance abuse	52%	57%	60%

Overall, the study's participants reported that a greater number of traumatic events occurred outside the home and within the context of the environment (i.e., "the street" or prison). The study group's TAQ high scores on the subscales of other traumas and exposure to drugs and alcohol support their report. The highest possible mean score

for the TAQ subscale of other traumas prior to adulthood is 6.0. The study group's score in this subscale, prior to adulthood, was 5.24 (*SD*=5.0).

The study's respondents reported that an increase in the frequency and occurrence of traumatic events began during middle childhood and peaked during adolescence, as reported in Table 14 below. Coinciding with the increase in traumatic events, 81.6% of the participants also reported that their alcohol and/or substance use was highest during adolescence. The traumatic event most frequently reported on the TAQ was *I saw dead bodies*: 75% of the respondents reported seeing at least one dead body during adolescence. The lifetime occurrence for seeing a dead body for the study's population was 93.3%. Participants offered a variety of scenarios for their witnessing a dead body such as watching someone murdered or someone dying because of a drug overdose.

Sixty-four percent of the respondents reported that they were *in a situation in which they could have been seriously injured or killed* during adolescence. Fifty percent of the respondents reported that *someone outside of the family attacked them* during adolescent. Table 14 lists the most frequently reported traumatic events in middle childhood and adolescence.

Table 14

Traumatic events in middle childhood and adolescence (n=60)

Traumatic Event	**Middle Childhood (7-12 years)**	**Adolescence (13-18 years)**
I saw dead bodies	42%	75%
I was in a situation in which I was convinced that I would be physically injured or lose my life	9%	55%
Someone outside my family attacked me	13%	50%

The Structured Interview for Disorders of Extreme Stress. The *Structured Interview for Disorders of Extreme Stress* (Pelcovitz, van der Kolk, Roth, Mandel, Kaplan & Resnick, 1997) captured information for this study about the type and duration of post-traumatic response. The *Structured Interview for Disorders of Extreme Stress* (SIDES) is a 45-item questionnaire that asks about a participant's past and current functioning over six subscales: 1) disorders of affect regulation, 2) amnesia and dissociation, 3) somatization, 4) alterations in self-perception, 5) alterations in relationships with others, and 6) disruptions in systems of meaning. For each item on the SIDES, respondents can acknowledge a lifetime presence of a symptom and if they experienced it in varying degrees of intensity over the past month. In keeping with the diagnostic criteria of the SIDES, a respondent needs to acknowledge at least one symptom on the SIDES inventory to support his experiencing post-traumatic symptomatology as defined by the clinical criteria of *Disorders of Extreme Stress not*

Otherwise Specified (Luxenberg, Spinazzola, & van der Kolk, 2001). A copy of the Sides is located in the appendix as attachment G

There are two ways to interpret the SIDES: as a continuous measure of *Disorders of Extreme Stress not Otherwise* Specified (DESNOS) and as a tool to assess the presence of clinically significant symptomatology within and across each of the six DESNOS subscales. The sum of total scores on the six individual subscales of the SIDES determines the full score for the overall severity of DESNOS symptomatology. The total SIDES score can range from zero to 135. The full range of the total score for each of the individual subscales is 0-57 with a median high score of 15.

All of the respondents reported experiencing lifetime and current post-traumatic symptomatology, as defined by DESNOS' clinical construct. The pattern of the participants' responses to the SIDES is noteworthy: if the participants identified a specific item as distressing (i.e., unable to trust others), then all of the participants acknowledged it intensely and universally. If a SIDES item was not representative of one participant's post-traumatic response, then it was not representative of many participants' post-traumatic responses. For example, almost all of the participants denied experiencing any form of somatization; however, almost 90% of them reported feeling close to their loved ones. Through the course of the interviews, the study's participants reported a number of possible reasons for this pattern. Primarily, the conditions under which a participant acknowledged a symptom did not match the manner in which the participant experienced it. For example, the somatization subscale asks about a number of medical ailments *for which there is no medical diagnosis.* While many of the participants reported experiencing the SIDES stress-related medical conditions (i.e., cardiovascular or

gastrointestinal distress), they had received a medical diagnosis for these illnesses (i.e., high blood pressure, ulcer), and were unable to acknowledge any of the somatization items because their symptoms did not meet the scoring criteria for it. This lack of fit contributed to a lopsided scoring pattern. To illustrate the extent and quality of the participants' post-traumatic response, this analysis has focused on the subscales and individual SIDES items that best illustrate the study group's experience post-trauma.

The SIDES total severity score for the study group was 20, indicating a mild-to-moderate overall post-traumatic response. However, sub scores within the subscales of alterations in relations with others and disorders of affect regulation displayed the most significant post-traumatic symptomatology. The pattern of response within both subscales reflected the lopsided reporting extremes: if one participant identified a specific item or subgroup of items, then all participants identified it. If one participant did not identify an item, then none of the participants identified it. The highest mean score for the SIDES subscale alteration in relations with others was 15.0. The study group's total mean score for this subscale was 4.55 (*SD*= 3.38). The highest mean score for the SIDES subscale of disorders of affect regulation is 57.0. The study group's mean score for this domain was 8.27 (*SD*=6.65). Table 15 lists the total SIDES and individual subscale scores.

Table 15

SIDES six subscales (n=60)

Subscales	*M*	*SD*	Min	Max	Range
Affect regulation	8.27	6.65	0	27	0-57
Amnesia and dissociation	2.23	2.78	0	11	0-15
Alterations in self-perception	3.48	3.01	0	11	0-18
Alterations in relations with others	4.55	3.38	0	14	0-15
Somatization	0.07	0.25	0	1	0-15
Disruptions in systems of meaning	1.40	1.99	0	10	0-15
Total SIDES score	20.00	18.04	0	74	0-135

The inability to trust, a key item within the SIDES alterations in relationships subscale, was the most frequently reported post-traumatic symptom. Eighty-three percent (n=50) of the participants acknowledged having *trouble trusting other people* over the course of their lives and identified varying degrees of *trouble trusting other people* over the past month.

In contrast to their reports of an inability to trust, 88.3% of the respondents reported *feeling close to their loved ones* throughout their life. During the interviews, some respondents provided supplemental data to their answers by reporting a clear distinction between their affiliation with their families and their specific distrust of anyone who was not part of their family ("everyone else"). When answering the question, *do you feel really close to your loved ones* over the past month, the TAQ theme of separation through experiencing the loss of a loved one resurfaced: many participants voluntarily reported the death of their loved ones (i.e., mother, grandmother) while

incarcerated. Thus, many respondents reported feeling close to someone over the course of their lives; however, many respondents could not identify someone with whom they were currently close, given their reporting the deaths of family members with whom they were close. Table 16 presents the significant items within the SIDES subscale alterations in relations with others.

Table 16

Select items from the SIDES subscale alterations in relations with others (n=60)

SIDES Item	No lifetime	Yes lifetime	No current	Not Applicable current	Yes current	
Do you have trouble trusting other people?	16.7%	83.3%	18.3%	0.0%	81.7%	13.3% Is guarded & suspicious 16.7% Will lower guard only if people prove them-selves over & over 51.7% Doesn't trust anybody
Do you feel really close to loved ones?	11.7%	88.3%	65.0%	15.0%	20.0%	6.6% Sometimes feels distant & disconnected 11.7% Goes through the motions 1.7% Doesn't feel part of the human race

The participants' responses to the SIDES items, related to anger modulation as part of the questionnaire's alteration in regulation of affect domain, produced interesting results. Sixty-eight percent of participants denied *feeling angry a lot of the time* during their lifetime and 73.7% reported not experiencing much anger over the past month. However, 56.7% of the respondents reported that they are *so worried about showing their anger that they show no feelings at all* as a way to control them. Table 17 summarizes the participants' reports of their modulation of anger.

Table 17

Modulation of anger (n=60)

SIDES Item	No lifetime	Yes lifetime	No current	Yes current	
Do you feel angry a lot of the time?	68.3%	31.7%	73.3%	26.7%	9.3% Feels anger but can switch to other matters 10.7% Anger interferes with attention to daily tasks 6.7% Anger dominates my life
Are you so worried about showing your anger that you make sure not to show any feelings at all?	43.3%	56.7%	43.3%	56.7%	15.1% Has trouble confronting someone when angry 8.3% Never confronts the person 33.3% Never shows anger in words

When study participants asked if they had trouble "letting go" of things that are upsetting, almost 44% said "yes" over the course of their lifetime and 56.7% of the participants acknowledged experiencing this difficulty in varying degrees over the past month. Almost 57% of the respondents acknowledged small things have upset them throughout their lifetime and 51.6% acknowledged it over the past month. When asked about their ability to calm themselves down when distressed, only 45% of the participants said they could soothe themselves over their lifetime and 46.7% said they could within the last month. Table 18 illustrates these results.

Table 18

Modulation of Affect (n=60)

SIDES Item	No lifetime	Yes lifetime	No current	Not Applicable current	Yes current	
Do you have trouble letting go of things that upset you?	43.3%	56.7%	43.3%	0.0%	56.7%	16.7% Gets momentarily upset 20.0% Upsetting thought keeps coming back 20.0% Gets consumed by upsetting thought
Do small problems get you very upset?	43.3%	56.7%	48.4%	0.0%	51.6%	18.3% Sometimes overreacts a little 20.0% Sometimes gets very upset 13.3% Often gets extremely upset
Do you have ways of calming yourself down?	45%	55%	50%	3.3%	46.7%	25.0% Needs to make efforts to calm down 15.0% Stop everything & focus on calming down 6.7% Needs extreme measures

The Novaco Anger Scale and Provocation Inventory. The *Novaco Anger Scale and Provocation Inventory* (Novaco, 1994, 1998) collected study information about the characteristics of the participants' anger and sensitivity to provocation. The *Novaco Anger Scale and Provocation Inventory* (NAS-PI) assessed anger as a problem of psychological functioning and physical health (Novaco, 1994, 1998). There are 60 items on the *Novaco Anger Scale* (NAS) that produce an overall numerical determination of the respondent's anger. The overall raw score for the NAS can range from 48 to 144, with higher scores indicating greater difficulty in regulating anger. The NAS asks respondents if they *never* (1), *sometimes* (2), or *always* (3) agree with a statement that reflects an anger response across three subscales: cognitive (NAS COG), arousal (NAS ARO), behavior (NAS BEH). A series of questions under a fourth subscale, Regulation, are included in the NAS set of questions but not in its scoring. The scores from the three subscales collectively produce the total NAS score and separately evaluate the characteristics of a respondent's anger. The raw mean scores for the cognitive, arousal, and behavior subscales range from 16 to 48. I received permission to use the NAS-PI for my study through the purchase of the instrument but I could not include a copy of the NAS-PI in my dissertation. I have permission to present the NAS items that most frequently reported through the original authorization to use the NAS-PI in my study through purchase of the instrument.

The *Provocation Inventory* (PI) lists 25 provocative situations and asks participants to rate each situation as to whether it would make them "not angry" (1), "a little angry" (2), "fairly angry" (3), or "very angry" (4). The PI items scores as a complete instrument; the total raw mean score on the PI ranges from 25 to 100. Therefore, the

higher the score on the PI the more sensitive a respondent is to provoking situations (e.g. *someone looks through your things without your permission*).

The scoring protocol of the NAS/PI (Novaco, 2003) includes the computation of an Inconsistent Response Index (INC) to ensure that there was no response distortion and that the study participants responded honestly to the questions. Correlations of 16 pairs of items (8 pairs from the 60 items on the NAS, 8 items from the 25 items on the PI) create the INC Index. An INC index score of four indicates an 84% chance of random, non-premeditated responses. An INC score of five indicates a 98% chance of random responses and an INC score of six indicates a 99% chance that the responses given were authentic. The study group's INC score for the NAS was 4.23, which indicated that the participants were honestly responding to the questions without forethought or premeditation.

The INC score for the PI was 2.47, which indicates that the participants were providing answers they perceived to be socially acceptable. While participants did not directly comment on the perception of the PI items, a few remarked that the items in the PI (e.g. *someone cuts in front of you in line, you get cold food that is supposed to be hot*) reflect the type of incident they needed to negotiate in prison. For example, when asked about receiving *cold food that is supposed to be hot*, a participant laughed and said, "That happened every day- who thinks this is supposed to be upsetting?" The scale may in fact be biased towards middle-class values and not sensitive to conditions in environments such as prison. The men, therefore, may not necessarily have been responding in a socially desirable or biased manner, but were responding truthfully to a condition that the instrument did not capture. Other factors may have influenced their reticence to respond

such as the researcher's gender (female), role (social worker) and their intention to not return to prison ("I'm never going back there again"). These considerations may explain their reluctance to identify anger at any behavior that is perceived as aggressive. Table 19 illustrates the specific pairs of items correlated to create the total INC scores for the NAS. Table 20 illustrates the specific pairs of items correlated to create the total INC score for the PI.

Table 19

NAS INC Index Scores

Questions	Correlations
6 and 56	0.48***
8 and 37	0.48***
11 and 41	0.54***
14 and 36	0.92***
18 and 48	0.47***
27 and 28	0.41**
32 and 33	0.62***
43 and 58	0.31**

Note. $*p < .05$, $**p < .01$, $***p < .001$

Table 20

PI INC Index Scores

Questions	Correlations
3 and 7	0.31*
4 and 16	0.39**
5 and 6	0.26
11 and 14	0.11
12 and 13	0.37**
15 and 20	0.37**
17 and 25	0.35**
18 and 19	0.31*

Note. $*p < .05$, $**p < .01$, $***p < .001$

A calculation of a weighted total score (*T*-score) is required for both the total NAS score and each of its subscales so that valid correlations exist between the current study and prior research studies. These prior studies reported a *T*-score for the total NAS score and for each subscale ranging from 29 to 70. The results of this study's NAS *T*-scores indicated that the study's participants experienced anger more intensely than the NAS non-clinical standardization sample used as a baseline when comparing the NAS *T* scores of one group to other study groups. The NAS *T*-score for men in the NAS' standardization sample was 51.1. This study population's NAS *T*-score was 72.85 (*SD*=6.61). An NAS *T*-score that falls in the range of 45 to 55 represents an "average" anger response. An NAS *T*-score that falls in the range of 70 and above represents a "high" anger response indicating that the responses of this study group of men who were on parole and enrolled in substance abuse treatment fell within the high anger response range, but at the lower end of it.

The PI *T*-score range, from the standardization sample, is from 29 through 70. The PI *T*-score for the male standardization sample was 49.8. This study's participants' responses to statements on the PI yielded a total *T*-score of 53.49 (*SD*=11.03). According to the NAS-PI scoring protocol, PI *T*-scores that range between 45 and 55 indicate an average range of provocation response. Therefore, while the NAS *T* score indicated a "high" anger response, the PI *T* score for the study participants falls within the "average" range set by the standardization sample. The respondents' lower PI *T* score could correlate with their PI's INC score reflecting social desirability in their answers. Table 21 illustrates the *T*- scores for the NAS, NAS subscales, and the PI.

Table 21

NAS-PI T-score Means and Standard Deviations

Testing Scales	*M*	*SD*	Min	Max
Total NAS (NAS *T*)	72.85	6.61	57.0	81.0
Cognitive NAS	57.73	12.01	35.0	81.0
Arousal NAS	51.83	14.79	24.0	81.0
Behavioral NAS	55.29	11.86	34.0	81.0
REG NAS	58.36	15.57	21.0	81.0
Total PI (PI *T*)	53.49	11.03	24.0	74.0

The core characteristics of the study participants' anger appear in their response to the following independent items, reported in table 22, on the NAS: *If someone hits me first, I am going to hit them back, I get angry because I have a good reason to be angry,* and *when I get angry, I get really angry.* Seventy-two percent of the study group "always" agreed with the statement, *if someone hits me first, I am going to hit them* back.

For the statement, *I get angry because I have a good reason to be angry*, 53.3% of the respondents said that the statement was "always true." For the last statement, *when I get angry, I get really angry*, 48% "always" agreed with the statement. In summary, participants are angry but at the lower end of the anger continuum and are moderate in their sensitivity to provocation.

Table 22

Core Characteristics of Anger (n=60)

Anger Inventory Items	Never True	Sometimes True	Always True
"If someone hits me first, I am going to hit them back"	6.7%	21.7%	71.7%
"I get angry because I have a good reason to be angry"	10.0%	36.7%	53.3%
"When I get angry, I get really angry"	16.7%	35.0%	48.3%

The *T*-scores of the individual subscales define the quality of the participants' reports of their anger, in addition to the total NAS *T*-score. The study group's *T*-scores for the cognitive subscale of anger on the NAS were the most significant. The cognitive subscale of the NAS consists of 16 questions that ask about angry thoughts or expectations, which may stem from a network of previous experiences. The cognitive *T*-score for the study group was 57.73 (*SD*=12.01). Comparatively, the *T*-score for the male standardization group on the cognition subscale was 51.0.

Within the NAS' cognition subscale, the responses that reflect suspiciousness and participants' distrust for people outside of their family resurfaced. As reflected in Table

23, when asked, *if someone does something nice for me, I wonder about the hidden reason*, 42% of the participants reported the statement to be "always true." Responding to the NAS statement, *People can be trusted to do what they say*, 28% said it was "never true." Thirty-three percent of the respondents replied that it was "always true" in response to the statement, *People act like they are being honest when they have something to hide.* Table 23 presents the results of this sub scale.

Table 23

Suspiciousness (N=60)

Anger Inventory Items	Never True	Sometimes True	Always True
If someone does something nice for me, I wonder about the hidden reason	21.7%	36.7%	41.7%
People can be trusted to do what they say	28.3%	65.0%	6.7%
People act like they are being honest/they have something to hide	11.7%	55.0%	33.3%

The NAS cognition subscale also includes items that reflect the participants' tendency to brood about the insults of others (rumination). In addition to the intensity of the suspicious cognitions the study participants reported, their responses to the rumination subscale indicated that they dwell on these angry thoughts. The rumination items include *once something makes me angry, I keep thinking about it, when someone makes me angry, I think about getting even,* and *I can't sleep when something wrong has*

been done to me. As indicated in Table 24, only 18.3% of the participants reported that it was "never true" that, once angered, they continued to think about it. Fifty-five percent of the respondents replied that it was "sometimes true" and 27% acknowledged that it was "always true." With regard to seeking retribution (*getting even*) when angered, 23.3% of the respondents said it was "always true." When asked if they could not sleep when *something wrong had been done* to them, 43% of the respondents said it was "always true."

Table 24 *Rumination (N=60)*

Anger Inventory Items	Never True	Sometimes True	Always True
Once something makes me angry, I keep thinking about it	18.3%	55.0%	26.7%
When someone makes me angry, I think about getting even	43.3%	33.3%	23.3%
I can't sleep when something wrong has been done	33.3%	23.3%%	43.3%

Bivariate Analyses

The univariate analysis of the *Traumatic Antecedents Questionnaire* (TAQ), *Structured Interview for Disorders of Extreme Stress* (SIDES), and the *Novaco Anger Scale and Provocation Inventory* (NAS-PI), identified a set of variables most frequently reported, which will serve as the foundation for the remaining bivariate and multivariate analysis of this study. The greatest number of traumatic events occurred during middle

childhood and adolescence. As a result, the subsequent analysis will focus on these age ranges.

The most frequently reported TAQ events during these developmental timeframes were, 1) *Someone close to me died,* 2) *I saw dead bodies,*3) *I was in a situation in which I thought I would be seriously injured or lose my life,* and 4) *Someone outside of my family attacked me*. The study participants' reported use of alcohol and drugs will also be included in this analysis, as participants under a mandate to attend a substance abuse treatment program volunteered for the study. Additionally, participants reported starting to use drugs and alcohol in middle childhood and reported its most frequent use between the ages of 13 and 18.

The eight most frequently reported individual SIDES items serve as the study's indicators of post-traumatic response. The most frequently identified SIDES items were: *do small problems get you upset?, do you have trouble letting go of things that upset you?, do you feel angry a lot of the time?, are you so worried about showing your anger that you show no feelings at all?, do you have thoughts of hurting others?, do you have trouble trusting others?, do you feel really close to loved ones?* The first five SIDES items came from a set of questions that reflect a respondent's ability to modulate his affect and anger; the remaining three items represent alterations in relationships with others.

The individual NAS items for the following analyses form the general characteristics of anger, suspiciousness, and rumination scales. As the Provocation Inventory's INC index indicated that the study group's answers might have been biased

or formed based on what they perceived to be socially acceptable, the PI scale was not included in the remaining analysis.

Bivariate analyses using Spearman's Rho

The TAQ, SIDES, and NAS are ordinal scales that are treated as interval and are therefore nonparametric. As a result, bivariate analyses using Pearson's r produced skewed data. Spearman's correlation coefficient (Spearman's rho) examined the relationships between the TAQ, SIDES, and NAS variables. The organization of the bivariate analysis was as follows: TAQ + SIDES variables during ages 7-12, and 13-18, TAQ + NAS during the ages of 7-12 and 13-18, NAS+ SIDES for ages 7-12 and 13-18. The most significant results of the bivariate analysis were produced when the above-identified variables from the NAS were correlated with the identified variables from the SIDES.

To examine the relationships between participant responses to the TAQ and SIDES items for the 7-12 age group 56 Spearman rho correlations were conducted. Only those variables directly informing the model for the multivariate analysis have been included in the discussion of bivariate analyses that follows.

The results of the correlations were significant for *children who abused alcohol/drugs* and *those who have trouble trusting other people*, $p = .036$, $r = -0.27$. The negative correlation coefficient indicated that, if a child has abused alcohol/drugs he is less likely to have trouble trusting other people. It was also significant for *children who have had someone close to them die* and those who *feel angry a lot of the time*, $p = .024$, $r = 0.29$, suggesting that those who have had someone close to them die are more likely to also feel angry a lot of the time.

The analysis was significant for *children who have been in a situation where they were convinced they would be seriously injured or lose their life* and *how well they let go of things that upset them*, $p = .026$, $r = 0.29$. This finding indicated that those who have been in a situation where they were convinced they would be seriously injured or lose their life, are more likely to be able to let go of things that upset them. The analysis was significant for *children who were in a situation where they were convinced they would be seriously injured or lose their life* and *how much trouble they have calming themselves when they are upset*, $p = .001$, $r = 0.44$. This finding suggested that, if a child was in a situation where he was convinced of being seriously injured or at risk of losing his life, that child would be more likely to have trouble calming down when upset.

Lastly, bivariate correlations were significant for *children who have had someone outside of their family attack them* and *how close they feel to loved ones*, $p = .012$, $r = 0.32$, suggesting that if the child has had someone outside of his family attack him, the child would be more likely to feel closer to loved ones. Table 25 illustrates the results for these correlations.

Table 25

Spearman rho correlation coefficients for TAQ and SIDES Responses (Ages 7-12)

SIDES Questions	TAQ #27	TAQ #28	TAQ #11	TAQ #13	TAQ #31	TAQ #32	TAQ #26
Small problems get you upset	0.23	-0.15	-0.03	0.14	0.10	-0.01	0.14
Letting go of things that upset you	-0.03	0.08	0.06	0.10	0.29*	0.12	-0.12
When upset, trouble calming self	0.14	0.16	0.08	0.01	0.44**	-0.04	0.03
Feel angry a lot of the time	-0.03	-0.15	-0.04	0.29*	-0.03	-0.10	-0.21
Have thoughts of hurting others	0.08	0.12	0.03	-0.11	0.02	0.05	-0.04
So worried about showing anger, you show no feelings at all	-0.05	0.11	-0.25	0.15	0.17	-0.07	0.11
Have trouble trusting other people	-0.11	-0.27*	-0.25	0.07	0.14	0.19	0.02
Feel really close to loved ones	-0.04	-0.14	-0.08	0.14	0.19	0.32*	-0.07

Note * $p<0.05$. ** $p<0.01$,

Footnote: TAQ 27: Someone in the family had a problem with alcohol and/other drugs. TAQ 28: I abused alcohol and/or other drugs. TAQ11: My parents confided things in me that made me feel uncomfortable. TAQ13: Somebody close to me died. TAQ 31: I was in a situation in which I was convinced that I would be physically injured or lose my life. TAQ32: Someone outside of my family attacked me. TAQ26: Someone in my family got medical attention because of violence.

Fifty-six Spearman rho correlations were also conducted to examine the relationship between participant responses to the TAQ and SIDES items for the 13-18 age group. Only those variables directly informing the model for the multivariate analysis have been included in the discussion of bivariate analyses that follows.

The results of the correlations were significant for adolescents *who abused alcohol/drugs* and *those that felt angry a lot* of the time, $p = .050$, $r = 0.26$. This result suggests that, if an adolescent has abused alcohol/drugs, then he is more likely to feel angry a lot of the time. Correlations were also significant for adolescents who have *been in a situation where they were convinced they would be seriously injured or lose their lives* and those *who have trouble trusting other people*, $p = .050$, $r = 0.28$. This suggests that those adolescents who have been in a situation where they were convinced they would be seriously injured or lose their life are more likely to have trouble trusting other people. Correlations were also positively significant for *I saw dead bodies* and *small problems get you upset* ($p = .026$, $r = 0.29$), *feeling angry a lot* ($p = .041$, $r = 0.27$), *having thoughts of hurting people* ($p = .030$, $r = 0.28$), *having trouble trusting people* ($p = .006$, $r = 0.35$), *and feeling really close to loved one* ($p = .005$, $r = 0.36$). This finding suggests that those that saw dead bodies are more likely to have felt angry a lot of the time. Table 26 presents the results of these correlations.

Table 26

Spearman rho correlation coefficients for TAQ and SIDES Responses (Ages 13-18)

SIDES Questions	TAQ # 27	TAQ #28	TAQ #11	TAQ #13	TAQ #31	TAQ #32	TAQ #33
Small problems get you upset	0.15	0.12	-0.12	-0.09	0.07	-0.01	0.29*
Letting go of things that upset you	-0.01	0.11	0.07	-0.12	0.18	0.24	0.15
When upset, trouble calming self	0.15	-0.01	0.10	0.04	0.18	0.18	-0.01
Feel angry a lot of the time	-0.05	0.26*	-0.04	0.22	0.12	0.10	0.27*
Have thoughts of hurting others	-0.02	0.15	-0.08	-0.08	0.01	-0.02	0.28*
So worried about showing anger you show no feelings at all	-0.12	0.05	-0.20	0.10	0.16	0.23	0.13
Have trouble trusting other people	-0.18	0.07	-0.21	-0.12	0.28*	0.20	0.35**
Feel really close to loved ones	-0.06	0.24	0.01	0.05	0.16	0.20	0.36**

Note * $p < 0.05$. ** $p < 0.01$,
Footnote: TAQ27: Someone in the family had a problem with alcohol and/other drugs. TAQ28: I abused alcohol and/or other drugs. TAQ11: My parents confided things in me that made me feel uncomfortable. TAQ13: Somebody close to me died. TAQ31: I was in a situation in which I was convinced that I would be physically injured or lose my life. TAQ32: Someone outside of my family attacked me. TAQ33: I saw dead bodies.

To examine the relationship between participant responses to the TAQ and NAS items for the 7-12 age group, 63 Spearman correlations were conducted. The results of

the correlations were significant for children who have *had someone close to them die* and *how much people can be trusted to do what they say*, $p = .048$, $r = -0.26$. This result suggests that children who have had someone close to them die are less likely to trust people to do what they say. Table 27 presents these results.

Table 27

Spearman rho correlation coefficients for TAQ and NAS Answers (Ages 7-12)

NAS Questions	TAQ #27	TAQ #28	TAQ #11	TAQ #13	TAQ #31	TAQ #32	TAQ #26
Once something makes me angry, I keep thinking about it	0.04	0.16	-0.03	0.20	0.14	0.18	-0.14
I get angry because I have a good reason to get angry	0.03	0.06	0.12	-0.11	-0.04	-0.03	-0.13
I can't sleep when something wrong has been done to me	0.15	-0.04	-0.08	-0.03	0.18	-0.25	0.03
People can be trusted to do what they say	0.04	0.17	0.10	-0.26*	-0.10	0.05	-0.04
When I get angry, I get really angry	0.01	-0.11	-0.06	0.14	0.04	-0.08	0.23
When someone makes me angry, I think about getting even	0.02	0.15	0.08	0.04	0.09	-0.08	-0.11
People act like they are being honest when they really have something to hide	-0.04	0.01	0.11	-0.20	0.12	0.12	-0.04
If someone hits me first, I hit them back	-0.09	-0.16	0.04	-0.08	-0.23	-0.01	-0.10
When someone does something nice for me, I wonder about the hidden reason	-0.03	-0.02	-0.11	0.10	0.03	-0.08	0.10

Note * $p<0.05$. ** $p<0.01$,

Footnote: TAQ 27: Someone in the family had a problem with alcohol and/other drugs. TAQ 28: I abused alcohol and/or other drugs. TAQ 11: My parents confided things in me that made me feel uncomfortable. TAQ13: Somebody close to me died. TAQ 31: I was in a situation in which I was convinced that I would be physically injured or lose my life. TAQ 32: Someone outside of my family attacked me. TAQ 26: Someone in my family got medical attention because of violence.

Sixty-three Spearman correlations were conducted to examine the relationship between participant responses to the TAQ and NAS items for 13-18 year olds. Table 28 presents these results. The correlations were significant for adolescents *who have abused alcohol/drugs* and *those who keep thinking about something once it makes them angry*, $p = .014$, $r = 0.32$. This suggests that children who have abused alcohol/drugs are more likely to keep thinking about something, once it makes them angry. The result of this analysis were also significant for adolescents *who have had someone close to them die* and *how well people can be trusted to do what they say*, $p = .049$, $r = 0.26$, suggesting that those who have had someone close to them die are less likely to trust people to do what they say. The correlations were significant for children *who have had someone outside of their family attack them* and *how likely people are to act like they are being honest when they really have someone to hide*, $p = .001$, $r = 0.43$. This suggests that, if a child has had someone outside of their family attack them, they are more likely to believe that people act like they are being honest when they really have something to hide.

Lastly, the correlations were significant for adolescents *who have had someone in their family get medical attention, because of violence* and *those who get angry because they have a good reason to get angry*, $p = .032$, $r = -0.28$. This result suggests an inverse relationship; adolescents who have had someone in their family get medical attention due to violence are less likely to get angry.

Table 28

Spearman rho Correlation Coefficients between TAQ and NAS Responses (Ages 13-18)

NAS Questions	TAQ # 27	TAQ # 28	TAQ # 11	TAQ # 13	TAQ # 31	TAQ # 32	TAQ # 26
Something makes me angry, I keep thinking about it	-0.10	0.32*	-0.06	0.13	0.05	0.22	-0.21
I get angry because I have a good reason to get angry	0.08	-0.03	0.09	-0.15	-0.07	-0.02	-0.28*
I can't sleep when something wrong has been done to me	0.25	0.12	-0.11	0.08	0.24	0.03	0.06
People can be trusted to do what they say	0.06	-0.13	0.10	-0.26*	0.13	-0.06	0.03
When I get angry, I get really angry	-0.19	0.09	-0.14	-0.04	-0.05	-0.09	0.18
When someone makes me angry, I think about getting even	-0.12	0.21	-0.01	0.06	0.13	0.14	-0.11
People act like they are being honest when they really have something to hide	-0.12	0.04	0.12	-0.21	0.16	0.43**	-0.01
If someone hits me first, I hit them back	-0.12	0.11	0.08	-0.20	0.00	-0.07	0.01
When someone does something nice for me, I wonder about the hidden reason	-0.11	0.06	-0.08	0.00	0.03	0.21	-0.01

Note * $p<0.05$. ** $p<0.01$,

Footnote: TAQ 27: Someone in the family had a problem with alcohol and/other drugs. TAQ 28: I abused alcohol and/or other drugs. TAQ 11: My parents confided things in me that made me feel uncomfortable. TAQ 13: Somebody close to me died. TAQ 31: I was in a situation in which I was convinced that I would be physically injured or lose my life. TAQ 32: Someone outside of my family attacked me. TAQ 26: Someone in my family got medical attention because of violence.

Seventy-two Spearman correlations were conducted to examine the relationship between participants' responses to the SIDES and NAS items. The analyses revealed significant positive correlations between *how likely a participant was to get upset over small problems* (SIDES #1) and three NAS questions;' *not being able to sleep when something wrong has been done to them* ($p = .050$, $r = 0.25$), *when they get angry, they get really angry* ($p = .001$, $r = 0.40$), and *when someone makes them angry, they think about getting even* ($p = .008$, $r = .034$). This finding suggests that the more likely a participant was to get upset over small problems, the more true the NAS question was for the participant. For example, the more likely a participant got upset over small problems, the more likely he was to not able to sleep when something wrong was done to him.

The analyses revealed significant positive correlations between *how hard it is to let go of things that upset them* (SIDES #2) and five NAS questions; *when something makes them angry, they keep thinking about it* ($p = .001$, $r = 0.47$), *they get angry because they have a good reason to get angry* ($p = .026$, $r = .029$), *they can't sleep when something wrong has been done to them* ($p = .006$, $r = 0.35$), *when someone makes them angry, they think about getting even* ($p = .001$, $r = 0.55$), *and people act like they are being honest when they really have something to hide* ($p = .012$, $r = 0.32$), suggesting that the harder it is to let go of things that upset the participant, the more true the NAS question was for the participant. For example, the harder it is to let go of things that upset the participant, the more the participant keeps thinking about what made him angry.

Other items that revealed significant positive correlations between *when upset, they have trouble calming themselves* (SIDES #3)and three NAS questions; *they can't sleep when something wrong has been done to them* ($p = .001$, $r = 0.50$), *when someone*

makes them angry, they think about getting even ($p = .001$, $r = 0.47$), and *when someone does something nice for them, they wonder about the hidden reason* ($p = .041$, $r = 0.27$), suggesting that the more trouble they have calming themselves when they are upset, the more true the NAS question was for participants. For example, the more trouble they have calming themselves when they are upset, the more trouble participants have falling asleep when something wrong has been done to them.

Additional analyses revealed significant positive correlations between *feeling angry a lot of the time* (SIDES #4) and two NAS questions: *once something makes them angry, they keep thinking about it* ($p = .001$, $r = 0.41$) and *when someone makes them angry, they think about getting even* ($p = .001$, $r = 0.49$), suggesting that the more frequently the participant felt angry, the more true the NAS question was for the participant. For example, the more time participants felt angry, the more they thought about what makes them angry.

Still other analyses revealed significant positive correlations between *having thoughts of hurting others* (SIDES #5) and two NAS questions: *when someone makes them angry, they think about getting even* ($p = .007$, $r = 0.35$) and *when someone does something nice for them, they wonder about the hidden reason* ($p = .038$, $r = 0.27$), suggesting that the more participants had thoughts of hurting others, the more they thought about getting even when someone made them angry, and the more they wonder about the hidden reason when someone does something nice for them.

Significant positive correlations occurred between *being so worried about showing anger that they show no feelings at all* (SIDES #6) and three NAS questions: *when they get angry, they get really angry* ($p = .006$, $r = 0.35$), *when someone makes*

them angry, they think about getting even ($p = .001$, $r = 0.48$), and *when someone does something nice for them, they wonder about the hidden reason* ($p = .001$, $r = 0.48$). This suggests that the more worried they are about showing anger, such that they show no feelings at all, the more true the NAS question was for that participant. For example, the more worried they were about showing anger, such that they show no feelings at all, the angrier they were when they got angry.

The analyses further revealed significant positive correlations between *having trouble trusting other people* (SIDES #7) and four NAS questions: *once something makes them angry, they keep thinking about it* ($p = .035$, $r = 0.27$), *when someone makes them angry, they think about getting even* ($p = .018$, $r = 0.30$), *if someone hits them first, they hit them back* ($p = .031$, $r = 0.28$), and *when someone does something nice for them, they wonder about the hidden reason* ($p = .041$, $r = 0.27$). This finding suggests that the more trouble the participant has trusting other people, the more true the NAS question was for that participant. For example, the more trouble the participant has trusting other people, the more he keeps thinking about that which makes him angry.

Finally, bivariate analyses revealed significant positive correlations for *feeling really close to loved ones* and *when someone does something nice for them, they wonder about the hidden reason* ($p = .022$, $r = 0.30$). This finding suggests that the closer the participant feels to loved ones, the more the participant wonders about the hidden reason when someone (e.g. stranger, non-family member) does something nice for them.

This analysis also revealed significant negative correlations between an NAS item, *how much a participant trusts other people to do what they say* and four SIDES questions: *they feel angry a lot of the time* ($p = .001$, $r = -0.50$), *they are so worried about*

showing anger that they show no feelings at all ($p = .014$, $r = -0.31$), *they have trouble trusting other people* ($p = .007$, $r = -0.35$), and *if they feel really close to loved ones* ($p = .001$, $r = -0.51$). This finding suggests that the degree to which a participant trusts other people to do what they say, the less true the NAS question is for the participant. For example, the more a participant trusts other people to do what they say, the less likely that the participant feels close to loved ones. Table 29 presents the results of the NAS and SIDES set of Spearman correlations.

Table 29

Spearman Correlations between SIDES and NAS Answers

Questions	1	2	3	4	5	7	31	42
Once something makes me angry, I keep thinking about it	0.15	0.47**	0.17	0.41**	0.19	0.21	0.27*	0.18
I get angry because I have a good reason to get angry	0.11	0.29*	0.18	0.24	0.07	0.04	0.03	0.03
I can't sleep when something wrong has been done to me	0.25*	0.35**	0.50**	0.18	0.07	0.15	-0.01	0.09
People can be trusted to do what they say	-0.15	-0.15	-0.06	-0.50**	-0.04	-0.31*	-0.35**	-0.51**
When I get angry, I get really angry	0.40**	0.21	0.23	0.25	0.25	0.35**	0.22	0.24
When someone makes me angry, I think about getting even	0.34**	0.55**	0.47**	0.49**	0.35**	0.48**	0.30*	0.22
People act like they are being honest when they really have something to hide	0.05	0.32*	0.18	0.21	0.25	0.04	0.16	0.23
If someone hits me first, I hit them back	0.13	0.17	-0.02	0.18	0.24	-0.13	0.28*	0.07
When someone does something nice for me, I wonder about the hidden reason	0.18	0.13	0.27*	0.10	.271*	0.48**	0.28*	0.30*

Note * $p < 0.05$ ** $p < 0.01$, **Footnotes:** 1:Do small problem get you very upset? 2: Do you have trouble letting go of things that upset you? 3: When you feel upset you have trouble finding ways of calming yourself down? 4: Do you feel angry a lot of the time? 5: Do you have thoughts or images of hurting somebody else? 7:Are you so worried about showing your anger that you make sure not to show any feelings at all? 31: Do you have trouble trusting other people? 42: Do you feel really close to loved ones?

Multiple Regression Analyses

Since the bivariate analyses indicated significant relationships between several items and subscales on the NAS-PI and the SIDES instruments, a multiple regression analysis conducted between the NAS cognitive (NAS COG), NAS arousal (NAS ARO), and NAS behavior (NAS BEH) subscales and total SIDES instrument. The mean score for NAS COG subscale was 57.3, the mean score for the NAS ARO subscale was 51.83 and the mean score for the NAS BEH subscale was 55.29. The total SIDES score was 20, which indicated that the study sample experienced mild-to-moderate post-traumatic response. The total NAS *T*-score was 72.85 for study group.

Prior to conducting multivariate analyses, one has to evaluate whether the data meet specific criteria. The data from the TAQ, SIDES, and NAS-PI were evaluated for normality, linearity, and homoscedasticity through an examination of the residual scatter plots and Box's M. Five one-sample Kolmogarov Smirnov tests were conducted to assess normality. Results show that the SIDES total score was not normally distributed. When the degrees of freedom (df) are greater than 25, violation of this assumption has little consequence (Morgan, Leech, Gloekner, & Barrett, 2010), and the variables selected for my regression analysis exceeded 25df. The absence of multicollinearity was assessed through examination of the Variance Inflation Factor (VIF) and Tolerance; VIF values over 10 and Tolerance below .1will suggest the presence of multicollinearity (Mertler & Vannatta, 2001). The assumption was met for an absence of multicollinearity, no VIF values were over 10, and Tolerance values were below .1. Box's M was not significant; indicating that variance-covariance between groups was equal. One wants this condition

in order to proceed with one's multivariate analysis. Since all conditions for normality, linearity, and homoscedasticity were met, the multiple regression was conducted.

A standard multiple regression was to test the relationship between anger and DESNOS as measured by the SIDES instrument. Specifically, the model rested whether anger predicted DESNOS.

The results of the regression were significant, $F(3, 55) = 42.75, p < .001$, suggesting that anger, and specifically anger arousal (NAS ARO) predicted the *Structured Interview for Disorders of Extreme Stress* total score, $R^2 = 0.70$, revealing that the model containing NAS cognitive (NASCOG), NAS arousal (NAS ARO), and NAS behavior (NAS BEH) subscales accounted for 70.0% of the variation in the SIDES total score. Of the variables in this model, NAS ARO was the only significant predictor of the SIDES total score. Table 30 presents the beta coefficients; for every one-unit increase in NAS ARO, the SIDES total score will increase by 0.97 units.

While not as significant a result as the one between NAS ARO and the SIDES total score, the model indicates that for every unit increase in angry behavior (NAS BEH), there was a decrease in the SIDES total score. This result supports the idea that if a respondent is able to act out on his anger, he may actually lower his experience of post-traumatic symptomatology.

Table 30

Multiple Regression for NAS Subscales Predicting SIDES Total Score

NAS scores	B	SE	β	*t*	*p*
NAS COG	0.03	0.18	0.03	0.19	.851
NAS ARO	0.97	0.17	0.97	5.57	.000
NAS BEH	-0.22	0.20	-0.18	-1.15	.255

CHAPTER7: SUMMARY AND DISCUSSION OF FINDINGS

Implications for Social Work Practice

The study findings support the basic inquiry of this study: trauma (defined as traumatic events and post-traumatic response) influences the experience and expression of anger and supported a relationship in which anger influences trauma in adult men who are on parole and enrolled in a substance abuse treatment program. The univariate, bivariate and multivariate analyses of the data support the hypothesis that there would be a significant relationship between anger and post-traumatic response. All of the men in the study acknowledged experiencing multiple traumatic events and were angry. In addition, through the bivariate analyses of the data, support for a relationship between anger and post-traumatic response emerged: anger, as measured by the *Novaco Anger Scale* (NAS) subscales of cognition, arousal and behavior, predicts *Disorders of Extreme Stress not Otherwise Specified* (DESNOS) post-traumatic response as measured by the *Structured Interview of Disorders of Extreme Stress* (SIDES) which includes the following subscales: (1) disorders of affect regulation, (2) amnesia and dissociation, (3) somatization, (4) disruptions in self perception, (5) disorders in relations to others, and (6) disrupted systems of meaning.

The study results reflected many of the core ideas and theories in the literature related to the impact of traumatic events; the results also revealed nascent information about the traumatic impact of a violent environment on a child's development. The expectation at the outset of the study was that the majority of participants would identify their familial relationships as the primary source of their traumatic experiences as most of the research on trauma focuses on interpersonal or interfamilial abuse (Briere & Scott,

2006). However, more than 85% of the participants reported experiencing traumatic events within their larger social environments (e.g., their neighborhood or prison) as opposed to occurring within their home. These environmental traumatic events produced the most significant post-traumatic responses. Conversely, the study group's identification of their familial relationships as safe and supportive received one of the highest, most comprehensive scores of all of the study's instruments. The *Traumatic Antecedents Questionnaire* (TAQ), SIDES and NAS subscales that were most significant include the participants' identification of a dysregulated affect, the timing and characteristics of traumatic events and the respondents' relational dichotomy of their affiliation for loved ones compared with their distrust of anyone outside their families. These subscales served as the foundation for the support of the relationship between anger and post-traumatic response.

Multiple regression analysis revealed that the arousal subscale of the NAS significantly predicted the total score of the SIDES: an increase in their anger arousal increases their post-traumatic response. While not a statistically significant result, it should be noted that multiple regression analysis indicated that when there was an increase in angry behavior (NAS BEH) there was a decrease in the respondents' post-traumatic response as indicated by the SIDES total score. This relationship suggests that if a respondent were able to act out his anger he would experience a reduction in the intensity of his post-traumatic symptoms. This result supports the premise that for men in the criminal justice system and mandated to attend anger management programs, the curriculum for these treatment programs needs to include a sensitivity to and intervention for post-traumatic response, especially as it relates to anger. Framed by larger social

influences such as society's negative response to anger that includes a mandate (versus a choice) for parolees to attend anger management programs, the dismissal of the influence of trauma in these men's lives could further traumatize them.

Exposure to recurrent traumatic events produces pronounced changes in arousal, cognition, emotion, and memory. Chronically traumatized people no longer experience a baseline of physical safety, calm, or comfort (Herman, 1997). In fact, a trauma survivor's post-traumatic response becomes his or her new emotional baseline. For many, post-traumatic response primarily correlates with events associated with interpersonal trauma, such as incest and physical abuse (Herman, 1997; van der Kolk, 1994). In response to the traumatic events that occurred within their environment (e.g., attack by a stranger, witnessing a dead body), the study group reported a similar dysregulation of affect. The study's participants identified three main ways they regulated their response to traumatic events: to ruminate over past threats, to avoid experiencing or expressing any emotion, or their inability to soothe themselves. This emotional outcome supports the consideration of a broader application of the DESNOS construct as a response to traumatic events that occur outside the context of interpersonal relationships.

The results of the study also point to a developmental trajectory of the participants' reporting and coping with traumatic events. The study group reported the occurrence of the highest number of traumatic events in adolescence; however, participants identified the greatest variety of post-traumatic responses in middle childhood. Therefore, while the number of traumatic events experienced was greater in adolescence, the greatest impact and emotional response to it occurred in middle childhood. It appears that, from the end of middle childhood onward, study participants

began to engage in less direct methods of expressing their emotional distress. This may be, in part, due to participants' reaching a saturation point in their exposure to and ability to cope with traumatic events by early adolescence. The ongoing use of post-traumatic coping skills, from adolescence onward, is exemplified by the participants' reports of their current experiences as adults of dysregulated intense affect (feeling too much or too little) or coping with past threats through ruminating about them.

These age specific findings support the importance of early identification and treatment of post-traumatic response in children (Gil, 2006). Given the wide reaching and chronic nature of untreated post-traumatic response, these results additionally support raising public awareness of this issue to increase early detection of and intervention for these responses. Given that middle school is a primary social environment for children aged 7-12, a trauma-informed curriculum for teachers, administrators and other school personnel (e.g. nurse, school social worker, school psychologist) that provides information about the potential and impact of traumatic events as well as support for intervention to public educators would help address this issue.

Coinciding with the increase in experience of traumatic events in adolescence was an increase in their alcohol and drug use, reported as peaking during this time. The study group reported adolescent alcohol and drug use continuing from adolescence well into various stages of adulthood and ended during the participants' most recent incarceration or when they enrolled in a substance abuse treatment program. The study group's report of adolescent alcohol and drug use reflects the strong prevalence of the co-morbidity of traumatic experience and substance abuse reported by other groups of trauma survivors (Kessler, 1995, 2000; Najavits, 1997, 2005). The study group's use of alcohol and drugs

could serve as an effort to manage their post-traumatic response through numbing their uncomfortable affect, a coping strategy reported by other traumatized populations (Brown, Stout, & Rowley-Gannon, 1998).

The study's results also reflected the significance and meaning of a child's relationship with a primary caretaker and feeling close to one's family. The reciprocal relationship between a child and his or her caretaker not only initiates and shapes early emotional development (Ekman & Davidson, 1994), but it provides the child with a framework for evaluating future relationships in the larger social environment (Boris, Aoki, & Zeanah, 1999). A little over 88% of the participants reported feeling really close to their loved ones over the course of their lives; 63.9% reported currently feeling really close to someone. The respondents reported an intense affiliation for their immediate families throughout the interviews. They characterized their relationship to their families as positive and protective, especially through childhood and adolescence. The study participants' report of loss and separation from a loved one strongly correlated with their current reports of feeling chronically angry toward and suspicious of those who are not part of their family. If a respondent reported that if someone outside of their family attacked them, he was more likely to feel close to family members and have distrust for non-family members. There was a small group of negative bivariate correlations that demonstrated contradictory relationships such as the more the study group trusted others, the less close they felt to family. However, given the larger number of bivariate results that support the relationships discussed in this section, it is possible that the few conflicting correlations were a result of sample size or measurement error.

The importance and proximity of primary relationships serves as a central negative risk factor when a primary caretaker abuses or neglects a child (Herman, 1997; van der Kolk, 1994). The majority of the research about traumatic events and post-traumatic response reflects interpersonal or familial abuse (Tolin & Foa, 2006; Simmons, 2007). Although not anticipated at the start of the study, the participants' alliance with their families served as a protective factor when they were traumatized outside of their homes; a strength that needs to be a factor considered in future research and intervention. Additionally, the combination of close ties to their families and experiencing multiple traumatic events outside of the family may have also contributed to the participants' description of a specific dichotomy in their perception of their expectations of non-familial relationships. The respondents' report of the character and importance of the positive emotional connection to and within their families as well as their suspicion of non-family members are important considerations when evaluating and treating an individual's post-traumatic response resulting from environmental traumas. Awareness and inclusion of this dynamic corresponds to Social Work's person-in-environment model for assessment and is an important consideration in a social worker's practice with clients who experience non-familial traumatic events.

The principal point of inquiry for this study was to examine the relationship among traumatic events, post-traumatic response, and anger. Given anger's protective role in the face of a threat, its minimal appearance in the trauma literature seemed inconceivable. The study's bivariate correlations of the SIDES subscale of alteration in affect and the NAS subscales of cognition and arousal were statistically significant. These statistically significant relationships among the participants' post-traumatic

dysregulation of affect, persistent feelings of anger, and distrust for non-familial others lend support to continued exploration of the inter-relationship between traumatic events, post-traumatic response, and anger.

The multiple regression results from the NAS and SIDES indicate that anger arousal (NAS ARO) predicts post-traumatic symptoms. Specifically, the more a respondent experienced an increase in his anger arousal, the more he would experience an increase in his post-traumatic DESNOS symptoms as measured by SIDES. This result is in keeping with a 1992 study of anger and post-traumatic response in crime and assault victims; the conclusion of the earlier study reported that anger was positively related to the development of PTSD (Riggs, Dancu, Gershuny, Greenberg, & Foa, 1992). While not statistically significant, multiple regression analysis also revealed that the relationship between the anger behavior (NAS BEH) subscale and the total SIDES score is an important result for this inquiry. The analysis indicated that if the respondents were able to engage in angry behaviors, it would result in a reduction of their experiencing DESNOS symptomatology. This result is similar to a study of non-familial traumatic events and anger that concluded that anger was potentially protecting the trauma survivor from fully experiencing PTSD and thus influential in the resolution of symptoms related to the assault (Feeny, Zoellner, & Foa, 2000).

One of the intentions of this study was to contribute to the development of a trauma-sensitive anger management/treatment program for those who are involved in the criminal justice system. Based on the study's results, the experience of a highly aroused anger response, to a real or perceived threat, couples with an increased post-traumatic response among male parolees in a substance abuse treatment program. Additionally, if

the respondents were able to engage in angry behavior, their post-traumatic response decreased. Since the majority of men on parole receive a mandate to attend an anger management program (Taylor & Novaco, 2005), these results support Novaco's (2007) recommendation that for the curriculum of anger management groups for a criminal population to be effective, it is necessary to include a sensitivity to and intervention for post-traumatic response and its relationship to anger. Anger management treatment that only addresses the anger portion of the relationship between anger and post-traumatic response may result in an incomplete intervention.

Limitations of the Study

Although the study results support the basic question of this inquiry, limitations exist related to its design and sample size. A convenience sample of sixty participants is large enough for multivariate analysis, but the sampling strategy and size limit the generalizeability of the study findings. The study's participants were a group of adult men recruited from a single location (*Success Counseling*), in one neighborhood (South Bronx) of one city (New York). Generalizing the results to traumatized women or traumatized men in other neighborhoods in New York City as well as from other areas of the country (e.g. urban versus rural) would require additional research. These study findings are important in that they add to the knowledge base of trauma, trauma response, and anger, particularly among parolees mandated to drug and alcohol treatment. The findings cannot be generalized to all parolees mandated to drug and alcohol treatment but should inform social work practice in this area. Rather than routinely providing anger management for these men, trauma treatment principles should inform any intervention approach.

The acknowledgement of experiencing trauma and anger is associated with shame and a perception of a social stigma related to those who express moderate-to-high anger as well as post-traumatic response (Messina, Grella, Burdon, & Prendergast, 2007). Just over 56% of the study's participants acknowledged that, at the time of the interview, they *were so worried about showing their anger that they made sure not to show any feelings at all.* While the INC index of the NAS indicated that the study group was authentically responding to the anger items, the participants may not have fully disclosed the extent of their experiencing traumatic events or anger, given the real or perceived stigma associated with acknowledging it.

A final limitation of the study is a result of the constraint set by the parameters of the instruments. The trauma studies in the literature predominantly relate to women who experience interpersonal (e.g., molestation, rape) traumatic events (Tolin & Foa, 2006), and the resulting research may not be as gender or culturally sensitive (Kenney & McEachern, 2000; Simmons, 2007). During administration of the TAQ, on several occasions, respondents would remark that the instrument failed to ask them about traumatic events that were specific to their lives (e.g., "drive-by shootings," surviving "initiation" after entering prison). The best way to record these events on the TAQ was under "other traumas;" however, this practice mitigated specificity of the type of traumatic events experienced by the study group.

Directions for Future Research

During the early stages of the data collection phase of this study, one participant offered the following description to augment his answers to the questionnaires: "Say you are born in a box. And that box is full of poverty, violence, drugs, and nobody gives a f--

k. Nobody knows that there is a top to the box and damn sure nobody can tell you how to get out of the box. What do you think is going to happen?" This statement set the stage for an improved understanding of the participants' responses, as well as the study results, and it serves as the starting point for recommending areas for future research.

The traumatic events reported in this study are more similar to the events of combat (e.g., direct threat to life and well-being, physical attack) than to the events associated with interpersonal abuses (e.g., molestation, emotional neglect). Although the results of the study indicate that the participants' experience with traumatic events left a significant emotional imprint, little research exists about the impact of contextual violence. Research on the impact of violent environments over the past 10 years has primarily focused on combat veterans' experience during the wars in Iraq and Afghanistan (Walker, 2010). Studies of non-combat related structural violence are scarce (Amaro, Larson, Gampel Richardson, & Savage, 2005; Rich & Grey, 2005). Although the contextual source of the participants' traumatic events was unexpected at the start of the study, given the prevalence of research on the frequency and impact of interpersonal or familial traumatic events, the threat within and the impact of violent environments is not new. Geoffrey Canada, CEO of New York's Harlem Children's Zone, which serves as one of the national models for public education reform, wrote *Fist, Stick, Knife, Gun: A Personal History of Violence* (1995), about his upbringing in the South Bronx during the late 1950s and early 1960s. In the preface, Canada reflects, "Some people think that this violence is new, but it isn't. Violence has always been around, usually concentrated amongst the poor…most people in this country don't have to think about their personal safety everyday" (1995, pp. xi). There needs to be continued research into the

characteristics and impact of traumatic events within violent environments unrelated to war.

The interview protocol included a final qualitative question: "Do you see a connection between your experiences and your anger? If so, please explain." A participant who had been quite open to answering all of the questionnaires, answered "yes" to the final question, adding, "All of these questions you ask about the stuff that happened to us and our anger is good and all but you got to find the questions that get to the anger that, when it snaps, people die."

In 1995, Claude Chemtob and Raymond Novaco published an exhaustive study of a group of combat veterans' anger regulation deficits as they related to their Post Traumatic Stress Disorder. Chemtob and Novaco (1995) proposed that a hypervigilant, aggressive, cognitive restructuring occurs within an individual to improve his or her response to real or possible environmental threat. Their research suggests that the dysregulated anger that the study group of combat veterans struggled with was a result of their inability to restructure their perceptions and thoughts once they returned home and were out of imminent danger. If the premise that coping with persistent environmental threat creates a change in an individual's cognitions is true, then what happens to the individual who is never free from the danger of his or her environment? The final recommendation for future research is to continue to evaluate the specific inter-relationships among traumatic events, post-traumatic response, and anger in men, women, and children who live or grow up in violent environments. This recognition of violent environments as a source of trauma is not as prevalent as compared to a combat

zone; however, these environments can have an equally traumatizing effect on a potentially greater number of people.

APPENDIX

ATTACHMENT A

Volunteers Needed...

...for a VOLUNTARY research study about people who have experienced abuse or violence in their lives. Any information you give to the researcher is strictly confidential. No one at Success Counseling will know if you participated in this study.

You will receive a $20.00 gift card to participate in a one-time, 90-minute interview.

If you are interested, please call M. Earle at (646) 300-5052 for more information about the research. M. Earle is a doctoral student at the Hunter College School of Social Work/CUNY Graduate Center

ATTACHMENT B

PARTICIPANT RECRUITMENT SCRIPT

(*To the client*): Hello, (*Name of the client*), this is a flyer for a research project that is open to Success Counseling's clients (*gives flyer to the client*). Your participation in this study is voluntary. Your decision about whether or not to participate in the study will not be communicated to any of the staff at Success Counseling, your parole officer or anyone involved in your case from the criminal justice system. Your decision about whether or not to participate in the study will not affect you ability to receive services at Success Counseling. Please telephone M. Earle at (646) 300-5052 if you are interested in participating in this research. M. Earle is a doctoral student at the Hunter College School of Social Work through the City University of New York's Graduate Center.

ATTACHMENT C

PI'S INTRODUCTION TO THE STUDY

Thank-you for your interest in learning more about this study. I am interested in finding out if men and women in the criminal justice system have experienced trauma and violence and if so, to what extent and how it affects them. You have been invited to participate in this study because you are over 18 years old and are (or were) involved with the criminal justice system. Your participation in this study is voluntary and is not connected in any way with Success Counseling or any other service provider, including a representative from the criminal justice system such as a probation or parole officer who is currently in your life. You will be able to continue to receive all of the services that are available to you through these agencies whether or not you participate in this study. I will not contact anyone about your decision to participate nor will I tell then about any of your answers to my questions. Your participation in this study will not affect your legal status. However, please do not discuss any open legal cases with me to prevent any chance of future involvement with the legal system (i.e. a subpoena). Your answers to my questions are confidential. Your confidentiality will be assured because I will not write your name on any of my interview materials or surveys: I will use a number code instead.

You will only need to meet with me once for an hour and a half. During the interview, you will be asked questions about you, your background as well as about your experience with abuse or violence and how it affects today. This study may raise difficult issues about stress in your life. In the event that this happens, I have a list of resources of people and services you can contact for assistance should you need them. During the interview,

you can refuse to answer a question. You can ask to take a break during the interview. You can take as many breaks as you like. You can also stop the interview at any time.

There are no direct benefits to you for your involvement in this study. However, participating in the study may increase your knowledge of stress as it relates to your past and present. As I said, I will not discuss your participation or answers with any of your service providers however, you can if you wish to do so. You will also be paid $20.00 for participation in this study. Even if you do not answer all of the questions or complete the entire interview, you will still receive $20.00.

In addition to protecting your confidentiality by not writing your name on any of the research data and committing to not speak to any of your service providers, I want to tell you about some additional ways I am going to protect the information that you share with me. All of the study materials will be kept in a locked cabinet in my faculty advisor's locked office to which only my advisor and I have access. By law, the information will be stored for a minimum of three years. After that, all materials will be destroyed. As long as the information exists, it will be kept secured. The information will be used to produce a paper for my doctoral research project. Only combined (aggregate) data about the total group will be reported in any reports or publications that come from this research. Individual responses to these surveys will not be reviewed or identified. All identifying information about you and the others who participated will be omitted. However, there are certain limits to your confidentiality because I am mandated to report to the proper authorities suspected child abuse or any indications that you are in imminent danger of harming yourself or others.

Are you still interested in participating? (No): Thank-you for your time. (Yes): Thank-you for your interest. I have an informed consent form for you to review and to sign before we can continue. Please feel free at any point to ask me questions about the form or for clarification of any part of it. It is important that you understand what you are being asked to do and what your rights are as a participant in this study.

Now that you have read and signed this consent, do you have time to be interviewed? (No): Can we schedule another time that is convenient for you? (Yes): Before we start, I want to tell you a little about what is involved. I am going to read to you a set of questions exactly as they are worded so that each person who participates in this study is asked the same questions. In some cases, you will be asked to respond in your own words and I will write down your answers. In other cases, you will be given a list of answers and asked to choose which one is best for you. I am interested in what you think; there are no right or wrong answers. Please take your time to respond and please feel free to ask me for clarification if you are not sure what you have been asked. Remember that your answers are confidential. The interview will last about an hour and half. Do you have any questions so far?

Now, I think we are ready to begin. I am interested in what your life is like, your health and well-being and how you feel about things. Sometimes, I will ask you about a specific timeframe, like in the past 30 days or 6 month and sometimes, I will ask about things that happened in your lifetime. I will try to be clear, but please ask me if you are not sure about the timeframe involved.

Remember: if at any time you need a break, please let me know. We can take breaks as often as you need, so please don't hesitate to ask.

ATTACHMENT D

[PhD Program Letter Head]

Informed Consent

Purpose and background of the research

Melissa J. Earle is a doctoral student in Hunter College's School of Social Work and the City University of New York Graduate Center. She is conducting a study about how past trauma affects a person's life today. You are invited to participate in a study that looks at how people who have histories of abuse or violence cope with some of the stresses they face today. You have been identified as a possible participant because you are a man over the age of 18, reported an experience of trauma, and have been involved with the criminal justice system. It is anticipated that between sixty and 100 people will participate in this study. In order to decide whether or not you wish to be part of this study, you should know enough about its risks and benefits to make an informed decision. This consent form provides detailed information about this study. Please feel free to ask about anything you do not understand and to take as long as you need to decide whether you would like to participate.

Participation in this study is voluntary. You can refuse to participate in the study. You can decide to quit the study at any time. You will not be penalized in any way if you decide you do not want to participate in the study at any point. You will still be able to receive your treatment and any support services if you do not want to participate. Your decision to participate (or not) will be kept confidential. Your decision about this study will have no effect on your criminal justice status (i.e. parole, probation).

Procedures

You will be asked to participate in one ninety minute face-to-face interview at a mutually agreed upon secure location. During the interview, you will be asked questions about your background as well as about your past trauma and how it affects you today. To protect your information, you are asked not to discuss any open cases you may have in the legal system. Your answers will be recorded on an answer sheet. Your name will not be written down on any form or answer sheet.

Risks or discomforts

This study may raise difficult issues about stress in your life. If this happens, Ms. Earle has a list of resources of people and services you can contact for assistance should you need them. You can stop the interview at any time and you do not have answer any questions you do not want to. You can ask to take a break during the interview

Benefits

There are no direct benefits. However, participating in the study may increase your knowledge of stress as it relates to your past and present.

Alternatives

None

Financial Considerations

You will receive a $20.00 gift card for your participation in this study. Even if you do not answer all of the questions or do not finish the entire interview, you will still receive the $20.00 gift card.

Privacy and Confidentiality

Ms. Earle will ask you questions from a survey and write down or mark your answers on an answer sheet. Your name will not be written down on either the survey or the answer

sheet. A number code will be written down instead of your name. Your name will only be stored as a record of your consent; no one but the researchers will have access to this information. All of the study materials will be kept in a locked cabinet in the researcher's locked office to which only Ms. Earle and her advisor have access. By law, the information will be stored for a minimum of three years. After that, all materials will be destroyed. As long as the information exists, it will be kept secured. The information will be used to produce a paper for a doctoral research project. Only combined data about the total group will be represented in any reports or publications that come from this research. Individual responses to these surveys will not be reviewed or identified. All identifying information about you and the others who participated will be omitted. Ms. Earle is mandated to report to the proper authorities suspected child abuse or any indications that you are in imminent danger of harming yourself or others.

Withdrawal

You can stop participating in the project at any time without penalty or loss of benefits or services to which you are entitled.

Contact information

If you have questions about this study, you can contact the researcher, Melissa J. Earle at (646)300-5052 or her faculty advisor, Dr. Bernadette Hadden at (212) 452-7072. You should contact the Hunter College IRB office at (212) 650-3053 if you have questions regarding your rights as a subject or if you feel you have been harmed because of your participation in this research.

Signatures

I have read (or have had read to me) the contents of this consent form and have been encouraged to ask questions. I have received answers to my questions. I understand the following:

- My participation is voluntary.
- If I decide to participate, that information will not be shared with any other service provider including any parole or probation officer (if applicable) involved in my life
- If I decide to participate, that information will not be shared with the program who told me about this project
- I can stop participating at any time without penalty
- My name will not appear on any data collection forms; only a code number will be used
- All of the information collected will be kept confidential and locked up
- All written and published information will report about the total group that was interviewed, with information that would identify any one person removed.

I give my consent to participate in this study. I have received (or will receive) a copy of this form for my records and future reference.

_____	_____	_____
Participant's Name	Signature	Date
_____	_____	_____
Researcher's Name	Signature	Date

ATTACHMENT E

Resource List

Should you experience distress or discomfort because of participating in this study, the following people/resources are available to talk to you. You are free to contact any of the resources listed below:

1. Dr. Andri Osipov, (917) 892-3529 (Private Practice)
2. Dr. Michael Sanders (516) 876-5555 (Private Practice)
3. LifeNet is New York City's primary free, confidential crisis, information and referral hotline for anyone seeking help for any mental health and/or substance abuse issues. The number is: 1-800-LIFENET (1-800-543-3638)

ATTACHMENT F

Traumatic Antecedents Questionnaire (TAQ)

Traumatic Antecedents Questionnaire (TAQ)

Name:_____ Date:_____

Age:____ Sex:____ Marital Status:_____ Education:_____

Occupation:_____

Instructions: This questionnaire asks you to describe experiences you may have had as a young child (ages 0 to 6), as a school age child (ages 7 to 12), as an adolescent (ages 13 to 18), and as an adult. For each item, indicate the degree to which the statement describes your experience at each different age period. The scale has both frequency and intensity words; please choose the highest applicable number. If there are any age periods for an item that you are unable to answer, please indicate this by choosing DK ("don't know").

Use the highest applicable number

0 = never or not at all
1 = rarely or a little bit
2 = occasionally or moderately
3 = often or very much
DK = don't know

	AGE	INTENSITY / FREQUENCY
1. I generally felt safe and cared for.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
2. Someone made sure I got up in the morning and went to school.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 - 18	0 1 2 3 DK
3. I was really good at something (like sports, a hobby, school, work, or some creative activity).	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
4. I had good friends.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
5. I felt close to at least one of my brothers and sisters.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK

Use the highest applicable number

0 = never or not at all
1 = rarely or a little bit
2 = occasionally or moderately
3 = often or very much
DK = don't know

	AGE	INTENSITY / FREQUENCY
6. Somebody in my family had so many problems that there was little left for me.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
7. I felt that nobody cared whether I lived or died.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
8. I had someone to talk with outside my family when something was bugging me at home.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
9. There were secrets in my family that I was not supposed to know about.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
10. My parents confided things in me that made me feel uncomfortable.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
11. My parents were divorced or separated.	0 - 6	NO YES
	7 - 12	NO YES
	13 -18	NO YES
	adult	NO YES
12. I lived with different people at different times (like different relatives, or foster families).	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK

Use the highest applicable number

0 = never or not at all
1 = rarely or a little bit
2 = occasionally or moderately
3 = often or very much
DK = don't know

	AGE	INTENSITY / FREQUENCY
13. Somebody close to me died.	0 - 6	NO YES
	7 - 12	NO YES
	13 -18	NO YES
	adult	NO YES
14. I had a serious illness and/or had to be hospitalized for a medical problem.	0 - 6	0 1 2 3 DK
	7 -12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
15. Someone I was close to was very sick, or in an accident for which they needed to be hospitalized.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
16. I received news that someone close to me had been seriously injured or violently killed during an accident, a fight, or a crime.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
17. In my parents' eyes, nothing I did was ever good enough.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
18. People in my family called me insulting names.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
19. The rules in my family were unclear and inconsistent.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK

Use the highest applicable number

0 = never or not at all
1 = rarely or a little bit
2 = occasionally or moderately
3 = often or very much
DK = don't know

	AGE	INTENSITY / FREQUENCY
20. The punishments I received were unfair.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
21. My parents hurt each other physically when they argued and fought.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
22. I spent time out of the house and no one knew where I was.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
23. People in my family were out of control.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
24. Nobody knew what really went on in my family.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 - 18	0 1 2 3 DK
	adult	0 1 2 3 DK
25. I witnessed physical violence in my family.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13-18	0 1 2 3 DK
	adult	0 1 2 3 DK
26. Someone in my family got medical attention because of violence.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK

Use the highest applicable number

0 = never or not at all
1 = rarely or a little bit
2 = occasionally or moderately
3 = often or very much
DK = don't know

	AGE	INTENSITY / FREQUENCY
27. Someone in my family had a problem with alcohol and/or drugs.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
28. I abused alcohol and/or drugs.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
29. My caregivers were so into alcohol or drugs that they couldn't take care of me.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	3 -18	0 1 2 3 DK
30. I was beaten, kicked or punched by someone close to me.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
31. I was in a situation in which I was convinced that I would be physically injured or lose my life.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
32. Someone outside my family attacked me.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
33. I saw dead bodies.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK

Use the highest applicable number

0 = never or not at all
1 = rarely or a little bit
2 = occasionally or moderately
3 = often or very much
DK = don't know

	AGE	INTENSITY / FREQUENCY
34. I was involved in a serious accident.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
35. I was in a natural disaster.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
36. I saw sexual things that scared me.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
37. Someone (older) touched me sexually, against my wishes or tried to make me touch them.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
38. Someone forced me to have sex against my will.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
39. Someone threatened me with physical harm unless I did something sexual.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
40. I believe that one of my brothers or sisters was sexually molested.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK

Use the highest applicable number

0 = never or not at all
1 = rarely or a little bit
2 = occasionally or moderately
3 = often or very much
DK = don't know

	AGE	INTENSITY / FREQUENCY
41. I have had another very frightening or traumatic experience where I felt intense fear, helpless, or horrified.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
42. Something terrible happened to me that still remains a mystery to me.	0 - 6	0 1 2 3 DK
	7 - 12	0 1 2 3 DK
	13 -18	0 1 2 3 DK
	adult	0 1 2 3 DK
		INTENSITY
43. How upsetting was it to answer these questions?		0 1 2 3 DK

TAQ Score Report Sheet

	Childhood			Adulthood	Total
	Young Child (0-6)	School Age (7-12)	Adolescent (13-18)		
Competence	_____	_____	_____	_____	_____
Safety	_____	_____	_____	_____	_____
Neglect	_____	_____	_____	_____	_____
Separation	_____	_____	_____	_____	_____
Secrets	_____	_____	_____	_____	_____
Emotional Abuse	_____	_____	_____	_____	_____
Physical Abuse	_____	_____	_____	_____	_____
Sexual Abuse	_____	_____	_____	_____	_____
Witnessing	_____	_____	_____	_____	_____
Other Trauma	_____	_____	_____	_____	_____
Alcohol and Drugs	_____	_____	_____	_____	_____

ATTACHMENT G

Structured Interview of Disorders of Extreme Stress (SIDES)

Structured Interview for Disorders of Extreme Stress-NOS

NOTE: In view of the fact that some interviewees may be victims of interpersonal violence or other severe trauma very early in life, and essentially have no experience with pre-traumatic functioning, the preamble "since the experience" may not apply. Alternative wording is suggested where appropriate.

Instructions:

What follows are descriptions of typical reactions someone could have after traumatic experiences such as you have had. Please indicate if you had similar feelings soon after the experience or as long as you can remember.

After each reaction that you feel describes your behavior indicate how severely you felt that reaction in the past month. If the reaction is not one you feel describes you, enter a four, for not applicable, as the severity rating for the past month.

I) ALTERATION IN REGULATION OF AFFECT AND IMPULSES

I. a.) Affect regulation

1. Do small problems get you very upset? *(For example, do you get too angry at a minor frustration? Do you cry too easily? Do you get too nervous about minor things?)*

After the experience or as long as you can remember In the last month:	Yes	No	
None; not at all.			0
Sometimes overreacts a little.			1
Sometimes gets very upset.			2
Often gets extremely upset, or has tantrums.			3
Not applicable.			4

2. Do you have trouble letting go of things that upset you? *(Do you have trouble getting upsetting things off your mind)?*

After the experience or as long as you can remember In the last month:	Yes	No	
None; not at all.			0
Gets momentarily upset.			1
Upsetting thought keeps coming back hour after hour.			2
Gets completely consumed by upsetting thought.			3
Not applicable.			4

3. When you feel upset, do you have trouble finding ways of calming yourself down? *(Does playing music, going out with friends, or sports help? How do you get yourself back on track?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all		0
Needs to make special efforts to calm down (e.g. talking, sports, listening to music ...)		1
Needs to stop everything and focus all energy on calming down.		2
Needs to resort to extreme measures, like getting drunk, taking drugs, or doing other harmful things to his/her body.		3
Not applicable.		4

I. b.) Modulation of anger

4. Do you feel angry a lot of the time?

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Feels quite angry but able to shift to other matters.		1
Anger interferes with paying attention to daily tasks.		2
Anger dominates my daily life.		3
Not applicable.		4

5. Do you have thoughts or images of hurting somebody else? *(Tell me more about that.)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Yes, fleeting thoughts.		1
Thinks about hurting people every day.		2
Can't stop thinking about hurting people.		3
Not applicable.		4

6. Do you have trouble controlling your anger? *(What happens? What do you do? How often?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Snaps at people.		1
Yells or throw things.		2
Attack people physically.		3
Not applicable.		4

7. Are you so worried about showing your anger that you make sure not to show any feelings at all?

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Has trouble confronting someone when angry.		1
Never confronts the person he/she is angry at.		2
Never shows anger in words or actions.		3
Not applicable.		4

I. c.) Self-destructive (since the experience or as long as you can remember)

8. Have you been in accidents or near accidents lately? *(What about little accidents at home, in the kitchen, car scrapes?)*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Occasional accidents causing harm or pain but not requiring medical attention.		1
One accident or episode requiring medical attention.		2
More than one serious accident or episode requiring medical attention.		3
Not applicable.		4

9. Do you find yourself careless about making sure that you are safe? *(Like being around unsafe places and people? Not locking doors?)*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Tends not to think about the risks involved in relationships or situations.		1
Takes undue risks regarding the people he/she is with or places he/she visits.		2
Keeps company with people who can be dangerous; doesn't take measures to protect self in dangerous situations.		3
Not applicable.		4

10 Have you deliberately tried to hurt yourself lately? *(Like burning or cutting yourself?)*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Hits or kicks objects.		1
Hurts self deliberately (pinching, scratching, hitting, banging).		2
Hurts self deliberately in ways that cause serious physical damage.		3
Not applicable.		4

I. d.) Suicidal preoccupation (since the experience or as long as you can remember)

11. Have you thought about killing yourself recently? *(What do you think off doing? How often is it on your mind? Have you tried to kill yourself?) (If yes, How?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Is preoccupied, but had no plan.		1
Made gestures or was chronically preoccupied with plans.		2
Made one or more serious suicide attempts.		3
Not applicable.		4

I. e.) Difficulty modulating sexual involvement preoccupation (since the experience or as long as you can remember)

12. Do you make active efforts to keep yourself from thinking about sex?

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Tries not to think about sex.		1
Works very hard not to think about sex.		2
Won't tolerate any thoughts about sex.		3
Not applicable.		4

13. Does it bother you to be touched in general? *(What is that like?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Sometimes.		1
Often or regularly.		2
Simply cannot stand it.		3
Not applicable.		4

14. Does it bother you to be touched in a sexual way?

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Sometimes.		1
Often or regularly.		2
Simply cannot stand it.		3
Not applicable.		4

15. Do you actively avoid sexual activity? *(Do you currently have a sexual partner?)*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Makes excuses to avoid sex.		1
Tries not to have sex.		2
Does not have sex.		3
Not applicable.		4

16. Do you find yourself thinking about sex more than you want to? *(How does that affect your life)?*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Thinks about it too much.		1
Sex distracts him/her from other activities.		2
Is obsessed with it.		3
Not applicable.		4

17. Do you feel like you have to engage in sexual activities without really feeling you have a choice about it?

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Internal compulsion, but does not act on it.		1
Internal compulsion, but can usually stop self.		2
Engages in sexual activities due to an uncontrollable urge at least once a month.		3
Not applicable.		4

18. Are you active sexually in ways that you know put you in danger? *(Like having sex with people you don't know very well, or unprotected sex)?*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Has been careless before.		1
Has talked self into ignoring the danger or only sees the danger in looking back.		2
Knowingly puts self in danger.		3
Not applicable.		4

I. f.) Excessive risk taking (since the experience or as long as you can remember)

19. Have you recently exposed yourself to situations that might be dangerous? *(e.g., getting involved with people who might hurt you, going to places that are not safe, or driving too fast)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Has been careless before.		1
Has talked self into ignoring the danger or only sees the danger in looking back.		2
Knowingly puts self in danger.		3
Not applicable.		4

II) ALTERATIONS IN ATTENTION OR CONSCIOUSNESS

II. a.) Amnesia (since the experience or as long as you can remember)

20. When you look back over your life, do you have any gaps in your memory? *(Note: This question is asking about lack of memories after the age of 2 years old).*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
A few memory lapses.		1
Important gaps in memory; or missing periods of life.		2
No memory for months, or years of life.		3
Not applicable.		4

II. b.) Transient dissociative episodes and depersonalization (since the experience or as long as you can remember)

21. Do you have difficulty keeping track of time in your daily life? *(Do you find yourself in places without knowing how you got* there? *Can you give examples?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Some difficulty making or keeping to schedules.		1
Regularly shows up in the wrong place at the wrong time.		2
Is not able to keep track of daily life.		3
Not applicable.		4

22. Do you space out when you feel frightened or under stress. *(What is that like?)*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Stops paying attention.		1
Retreats into own world and stops letting other people in.		2
Feelings of ceasing to exist.		3
Not applicable.		4

23. Other than when you use drugs or alcohol, do you sometimes feel so unreal that it is as if you were living in a dream, or not really there, or behind a "glass wall?"

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Feels unreal at times but can easily be brought back out of it.		1
Feels very unreal and has difficulty getting back.		2
Regularly feel totally disconnected from surroundings.		3
Not applicable.		4

24. Do you sometimes feel like there are two or more totally different people living inside yourself who control how you behave at different times?

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Feels and acts very differently in different settings.		1
Different parts are in competition to control behavior.		2
Separate parts take control at different times.		3
Not applicable.		4

III) ALTERATION IN SELF-PERCEPTION

III. a.) Ineffectiveness

25. Do you have the feeling that you basically have no influence or control over what happens to you in your life? *(Do you act on that feeling by neglecting your daily chores, like paying bills, paying attention to the kids, driving?)*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Doesn't take initiative in routine activities.		1
Doesn't keep appointments, go out, return phone calls, take care of self (e.g. my personal hygiene, shopping, eating.) .		2
Doesn't take care of anything at all.		3
Not applicable.		4

III. b.) Permanent damage

26. Do you feel that you have something wrong with you that can never be fixed? *(Tell me about it.)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Feels like one of the walking wounded.		1
Some parts feel damaged but some parts function.		2
Feels like a permanently damaged person.		3
Not applicable.		4

III. c.) Guilt and responsibility

27. Do you always feel guilty about all sorts of things?

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Feels more responsible than necessary for things that go wrong.		1
Blames self for things that go wrong even when he/she had nothing to do with them.		2
Blames and punishes self for whatever goes wrong, even when he/she has nothing to do with it.		3
Not applicable.		4

III. d.) Shame

28. Are you too ashamed of yourself to let people get to know you? *(How far do you go to hide from others? Do you avoid talking to people? Make up a cover story?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Makes up stories to hide things that shame him/her.		1
Avoids revealing true self to most people for fear that they'll get to know him/her.		2
Avoids revealing true self to anyone to make sure they won't find out who he/she really is.		3
Not applicable.		4

III. e.) Nobody can understand

29. Do you feel set apart and very different from other people?

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Feels quite different from people around him/her.		1
Feels different from others as well as distant, estranged, or alienated from them.		2
Feels like he/she is from another planet and doesn't belong anywhere.		3
Not applicable.		4

III. f.) Minimizing

30. Are there ever times that other people are more worried about you than you are? *(Do you ever put yourself in situations that you feel okay about but other people think of as dangerous?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Potential of harm (e.g. not wearing safety belt, driving while under the influence).		1
Potential higher probability (e.g. not taking medication, driving drunk, prostitution)		2
Severe injurious behavior.		3
Not applicable.		4

IV) ALTERATIONS IN RELATIONS WITH OTHERS

IV. a.) Inability to trust

31. Do you have trouble trusting other people? *(Can you give me some examples?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Is guarded and suspicious of people's motives.		1
Will lower guard only after people prove themselves over and over again.		2
Doesn't trust anybody.		3
Not applicable.		4

32. Do you avoid spending time with other people? *(Can you estimate how many hours a week of free time you spend with others)? (Compared to before?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Arranges to have lots of time to her/himself.		1
Does not initiate contact with others. (do not make phone calls, write letters).		2
Does not return phone calls, reply to letters; stops conversations as soon as possible.		3
Not applicable.		4

33. When you have problems *(arguments or conflicts)* with other people, how do you work them out?

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Is quiet or avoids situations that give rise to conflict, or is easily hurt and offended.		1
Has trouble hearing other viewpoints, or has difficulty standing up for self.		2
Quits jobs and relationships without negotiating; threatens to sue people who offend; cannot stand disagreement.		3
Not applicable.		4

IV. b.) Revictimization

34. Have you found that terrible things keep happening to you? *(e.g., recurrent rapes in sexual abuse victims; recurrent abusive relationships?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Occasionally finds self in abusive relationships or dangerous situations.		1
Repeatedly finds self in abusive relationships or dangerous situations.		2
Has been seriously hurt in abusive relationships or dangerous situations.		3
Not applicable.		4

IV. c.) Victimizing others

35. Have you hurt other people in ways similar to how you were hurt?

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Has been told once or twice that she/he has been hurtful.		1
Has been told several times that she/he is hurtful, or has deliberately hurt people.		2
Has seriously hurt or injured other people in ways that are similar to ways she/he has been hurt.		3
Not applicable.		4

V) SOMATIZATION

KEY
0= No trouble reported
1= Minor problem reported; does not affect daily life
2= Serious problem reported; affects daily life
3= Disabling problem reported; severely limits daily life
4= Does not apply

V. a.) Digestive system

36. Do you have any physical problems that causes you to worry, that doctors cannot find a clear cause for? *(Have you ever had problems with ...)*

After the experience or as long as you can remember In the last month:	Yes				No
a) vomiting	0	1	2	3	4
b) abdominal pain	0	1	2	3	4
c) nausea	0	1	2	3	4
d) diarrhea	0	1	2	3	4
e) intolerance of food	0	1	2	3	4

V. b.) Chronic pain

37. Do you have any pain that causes you to worry, that doctors cannot find a clear cause for? *(Have you ever had pain ...)*

After the experience or as long as you can remember In the last month:	Yes				No
a) in your arms and legs	0	1	2	3	4
b) in your back	0	1	2	3	4
c) in your joints	0	1	2	3	4
d) during urination	0	1	2	3	4
e) headaches	0	1	2	3	4
f) elsewhere	0	1	2	3	4

V. c.) Cardiopulmonary symptoms

38. Do you have any problems with your heart that cause you to worry, that doctors cannot find a clear cause for? *(Have you ever experienced...)*

After the experience or as long as you can remember In the last month:	Yes				No
a) shortness of breath	0	1	2	3	4
b) palpitations	0	1	2	3	4
c) chest pain	0	1	2	3	4
d) dizziness	0	1	2	3	4

V. d.) Conversion symptoms

39. Are you experiencing any other physical changes you can think of that cause you to worry, that doctors cannot find a clear cause for? *(Have you ever experienced)*

After the experience or as long as you can remember In the last month:	Yes				No
a) remembering things	0	1	2	3	4
b) swallowing	0	1	2	3	4
c) losing your voice	0	1	2	3	4
d) blurred vision	0	1	2	3	4
e) actual blindness	0	1	2	3	4
f) fainting and losing consciousness	0	1	2	3	4
g) seizures and convulsions	0	1	2	3	4
h) being able to walk	0	1	2	3	4
i) paralysis or muscle weakness	0	1	2	3	4
j) urination	0	1	2	3	4

V. e.) Sexual symptoms

40. Do you have any problems with your sexual organs that doctors cannot find a clear cause for? (Have *you ever experienced ...)*

After the experience or as long as you can remember In the last month:	Yes				No
a) burning sensations in your sexual organs or rectum (not during intercourse)	0	1	2	3	4
b) impotence (males)	0	1	2	3	4
c) irregular menstrual periods (females)	0	1	2	3	4
d) excessive pre-menstrual tension (females)	0	1	2	3	4
e) excessive menstrual bleeding (females)	0	1	2	3	4

VI) ALTERATIONS IN SYSTEMS OF MEANING

VI. a.) Foreshortened future

41. Do you feel hopeless and pessimistic about the future? *(How has your view of the future changed)?*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all		0
Gets discouraged and loses interest in planning for self		1
Doesn't see a future and goes through the motions of living		2
Feels condemned and as though there is no future left		3
Not applicable		4

42. Do you feel really close to loved ones? *(If no, ask: do you think that might change?)*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all		0
Sometimes feels distant and disconnected from loved ones		1
Goes through the motions of relationships, but feels numb		2
Doesn't feel part of the human race, and cannot imagine ever loving anybody		3
Not applicable		4

43. Do you feel okay about your work?

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all		0
Work is sometimes a routine, but it helps keep his/her mind off problems		1
Work is a burden; has trouble keeping mind on tasks		2
Cannot work any more due to being so upset and troubled		3
Not applicable		4

VI. b.) Loss of previously sustaining beliefs

44. Has it been hard to find a reason to go on with life? *(Are there things in your life that keep you going)?*

After the experience or as long as you can remember	Yes	No
In the last month:		
None; not at all.		0
Sometimes it seems pointless.		1
Can't think of a reason, but keeps on going.		2
Feels like there is nothing or no one important in life.		3
Not applicable.		4

45. Do you have the same moral beliefs you grew up with? *(Religious beliefs; ethical beliefs)?*

After the experience or as long as you can remember In the last month:	Yes	No
None; not at all.		0
Beliefs have changed, through a normal progression of life.		1
Is disillusioned with the beliefs he/she grew up with.		2
Hates the beliefs he/she grew up with.		3
Not applicable.		4

ATTACHMENT H

Qualitative Research Question

"Do you see any relationship between your past trauma and your anger now? If so, please explain".

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