

PHYSICAL AND EMOTIONAL HEALTH EFFECTS OF BETRAYAL TRAUMA:
A LONGITUDINAL STUDY OF YOUNG ADULTS

by

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Title: PHYSICAL AND EMOTIONAL HEALTH EFFECTS OF BETRAYAL
TRAUMA: A LONGITUDINAL STUDY OF YOUNG ADULTS

This study investigates young adults' interpersonal traumatic experiences, their perceptions of those experiences, and their current physical and psychological health. Current theoretical and empirical literature reveals connections between trauma perpetrated by close others (betrayal trauma) and traumatic sequelae such as dissociation, depression, anxiety, and alexithymia, a deficit in individuals' ability to identify and describe emotional experiences. Childhood abuse is a type of betrayal trauma with particularly deleterious effects because of its concurrent timing with developing systems such as affect regulation. Impaired awareness is often adaptive during abuse; for past abuse, awareness appears to have mixed effects.

The present study assesses trauma and health experiences in 185 college students, who completed surveys that included questions asking whether they had been physically, sexually, or emotionally abused or maltreated (using the words "abused" and "maltreated"), the Toronto Alexithymia Scale-20 (TAS-20), the Brief Betrayal Trauma Survey (BBTS), which measures trauma with higher and lower levels of betrayal, the Child Abuse Trauma Scale (CAT scale), the Trauma Symptom Checklist-40 (TSC-40), and the Pennebaker Inventory of Limbic Languidness (PILL), a physical health inventory. Ninety-six participants returned, 18-28 months later, for a follow-up session

that included the same questionnaires. Test-retest reliability values were high for psychological and physical health measures and for the CAT and BBTS scales. At both timepoints, trauma with more betrayal predicted anxiety, depression, and dissociation, while trauma with less betrayal did not. Using the words “abused” or “maltreated” for oneself was related to the amount of childhood trauma reported on the CAT scale at both timepoints, and at follow-up abuse perceptions were related to health complaints and visits, anxiety, and depression. At baseline, depression and abuse were significant independent predictors of the difficulty identifying feelings subscale of the TAS-20. Negative home environments and difficulty identifying feelings each independently predicted the quantity of individuals’ physical health complaints at both timepoints.

The results indicate that processes for coping with betrayal trauma are complex phenomena with numerous mental and physical health consequences. Understanding relations between childhood abuse, self-labeling of abuse, psychological symptoms, and physical health will improve the treatment of abused individuals.

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TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.....	1
Coping with chronic trauma	4
Abuse, neglect, and alexithymia	5
Trauma, dissociation, and memory	8
Perceptions and labeling of trauma experiences	10
Betrayal Trauma and the Posttraumatic Stress Disorder diagnosis	13
Alternate conceptualizations of trauma disorders	15
Studying childhood abuse	17
Goals of the present study	20
II. METHOD	23
Participants	23
Materials	26
Procedure	33
Data analysis	35
III. GENERAL RESULTS AND DISCUSSION	37
Results	37
Descriptive statistics	37
Gender differences in reported trauma	40
Gender differences in reported symptoms	45
Correlations between measures at Times 1 and 2	48
Betrayal trauma and posttraumatic symptoms	49
Trauma and memory impairment	51
Test-retest reliability	52
Disclosure	53
Social support	54
Counseling experiences	54
Changes in physical and emotional health over time	55
Coursework addressing issues of violence.....	57
Discussion	57
IV. EMOTIONAL ABUSE AND ALEXITHYMIA	61
Background	61
Emotional abuse and neglect	63
Emotional abuse and alexithymia	65

Chapter	Page
Abuse, alexithymia, and the developing brain	67
Alexithymia and posttraumatic symptoms	69
Gender and alexithymia	70
Goals of the current study	71
Results	72
Correlations between CAT, TAS-20, and TSC-40 subscales	72
Regression analyses	72
Gender differences for individuals reporting high levels of abuse on the CAT scale.....	75
Discussion	78
 V. BETRAYAL TRAUMA, PHYSICAL HEALTH, AND HEALTH CARE UTILIZATION	 82
Background	82
Results	85
Correlations	85
Regression analyses	88
Discussion	90
 VI. PERCEPTIONS AND LABELING OF CHILDHOOD ABUSE	 92
Background	92
Psychological correlates of abuse awareness	94
Goals of the current study	99
Results	99
Samples of participant responses to reasons for changes in self-labeling.....	104
Discussion	105
 VII. SUMMARY AND IMPLICATIONS	 110
 BIBLIOGRAPHY	 119

LIST OF FIGURES

Figure	Page
1. Male and Female TAS-20 DIF Scores for Individuals with Low and High CAT Scale Total Scores at Time 1	77
2. CAT Scale Total Scores, Negative Home Environments, and Abuse Self-labeling	100

LIST OF TABLES

Table	Page
1. Participant Demographic Characteristics for Time 1 and Time 2	25
2. Time 1 Descriptive Statistics for Study Measures	38
3. Time 2 Descriptive Statistics for Study Measures	39
4. Numbers of Men and Women Endorsing BBTS Items at Times 1 and 2.....	40
5. Gender Differences in Mean Scores for BBTS Items at Times 1 and 2	42
6. Mean Scores for Males and Females on TSC-40 Subscales and BBTS Trauma with More and Less Betrayal at Times 1 and 2	46
7. Summary of Hierarchical Regression Analysis for Variables Predicting TSC-40 Anxiety Scores at Time 1	47
8. Summary of Hierarchical Regression Analysis for Variables Predicting TSC-40 Dissociation Scores at Time 1	48
9. Zero-order Correlations between Trauma and Symptom Measures at at Times 1 and 2	49
10. Zero-order Correlations between TSC-40 Subscales and BBTS Categories	50
11. Number of Individuals with Memory Impairment by Abuse Category	52
12. Descriptive Statistics of Change Scores for TSC-40 Subscales, CAT, and PILL Scales	56
13. Intercorrelations Among Changes in TSC-40 subscales and CAT Scale Totals	56
14. Correlation Matrices for CAT Scale, TAS-20, and TSC-40 Subscales.....	73
15. Summary of Hierarchical Regression Analysis for Variables Predicting TAS-20 Difficulty Identifying Feelings at Time 1.....	74
16. Summary of Hierarchical Regression Analysis for Variables Predicting TAS-20 Difficulty Identifying Feelings at Time 2.....	74
17. Male and Female Mean Scores for TAS-20 Subscales	75
18. Mean Scores for Individuals Scoring at least 26 on the CAT scale	76
19. Correlations among TAS-20 subscales, CATS NEG Subscale Scores, and PILL Scores	86

Table	Page
20. Summary of Hierarchical Regression Analysis for Variables Predicting PILL Total Scores at Time 1.....	88
21. Summary of Hierarchical Regression Analysis for Variables Predicting PILL Total Scores at Time 2.....	89
22. Summary of Hierarchical Regression Analysis for Variables Predicting TSC-40 Depression Scores at Time 2.....	102
23. Summary of Hierarchical Regression Analysis for Variables Predicting TSC-40 Anxiety Scores at Time 2.....	102
24. Numbers of Time 2 Participants Self-labeling as Abused at Times 1 and 2	103

CHAPTER I

INTRODUCTION

This longitudinal project investigates young adults' trauma experiences, their perceptions of those experiences, and their current physical and psychological health. Previous research indicates that people who experience trauma may not report trauma (Williams, 1994), fail to label trauma as such (e.g., Rausch & Knutson, 1991), inconsistently report trauma or substantially under-report trauma (Fergusson, Horwood, & Woodward, 2000), deny that trauma was harmful (Egeland & Susman-Stillman, 1996; Weinbach & Curtiss, 1986), and report impaired memory for trauma (e.g., Freyd, DePrince, & Zurbriggen, 2001; Sargant & Slater, 1941). Trauma experiences are linked with an array of physical and mental health impairments (e.g., Lisak & Miller, 2003; Ross, 2000; Teicher, 2002; Zlotnick, Warshaw, Shea, & Keller, 1997; Wurr & Partridge, 1996). In addition, trauma experiences are correlated with alexithymia (Sifneos, 1973), a deficit in individuals' abilities and propensities to identify and describe their emotional experiences (Berenbaum, 1996; Zlotnick, Mattia, & Zimmerman, 2001). This deficit is likely to impede awareness for trauma and its effects by rendering individuals less able to recognize the ways internal and external cues influence their emotional functioning.

Qualitative differences in trauma experiences affect subsequent psychological symptoms (i.e., Harkness & Wildes, 2002; Loos & Alexander, 1997; Manly, Kim, Rogosch, & Cicchetti, 2001). For victims of interpersonal violence, the relationship between the victim and perpetrator affects psychological symptoms (e.g., Harkness & Wildes, 2002), and self-reported memory for abuse experiences (Freyd, DePrince, & Zurbriggen, 2001). Trauma perpetrated by close others, especially caregivers, has specific negative physical and emotional health effects. Briere and Runtz (1990) demonstrate that specific characteristics of childhood abuse yield distinct adult symptom profiles. In a study of 277 female college students, the authors found that childhood psychological abuse was uniquely tied to low self-esteem, childhood sexual abuse was correlated with maladaptive sexual activity, and childhood physical abuse was linked with adult aggression. Freyd's (1996) formulation of betrayal trauma theory explains how trauma perpetrated by close others, especially by those on whom one is dependent, has specific emotional and cognitive consequences.

Chronicity emerges as another important factor influencing the relation between trauma experiences and subsequent responses. Herman (1992) describes the enduring effects of prolonged, repeated trauma, in which the victims are under the control of their abusers. Herman cites as examples prisons, slave labor camps, some brothels, some religious cults, and some families, and describes emotional reactions to chronic trauma that can include alterations in affect regulation, consciousness, self-perception, perceptions of perpetrators, relations with others, and systems of meaning (Herman, 1992). Terr (1991, as cited in Wekerle et al., 2001) proposes four specific symptom clusters for repeated maltreatment: persistent sadness, denial and numbing, dissociation

and self-hypnosis, and rage. Finally, the developmental timing of trauma experiences affects outcomes, with early trauma experiences leading to especially deleterious effects (e.g., Cicchetti & Barnett, 2002; Schore, 2001; Terr, 1990).

Childhood abuse is an especially insidious form of betrayal trauma because it combines many of the characteristics explained above that may serve as vulnerabilities to the development of psychological and physical health problems. Childhood abuse often includes high levels of betrayal and chronicity, and interacts with children's developing cognitive and emotional symptoms. Research has demonstrated the adverse effects of child maltreatment on several developing cognitive, emotional, social, and biological systems (e.g., Cicchetti, 2002; Glaser, 2000; Silverman, Reinherz, & Giaconia, 1996; Teicher, 2002; Trickett, 1997). Many of these effects endure well into adulthood. For instance, rates of major depression in children, adolescents, and adults are substantially greater for individuals who have experienced childhood abuse than those without childhood abuse histories (Kaufman & Charney, 2001), as are rates of dysthymia (Horwitz, Widom, McLaughlin, & White, 2001). Neuroanatomical and neuropsychological research provides physical evidence of connections between psychological abuse and neglect and capacities for emotional awareness (Cicchetti, 2002; Schore, 2001, 2000). Though childhood emotional abuse and neglect may be viewed as less serious than physical or sexual abuse (e.g., Gracia, 1995), they often have extremely serious negative consequences across the lifespan. Emotional abuse and neglect have been linked with failure to thrive, academic problems, aggression, social difficulties, depression, low self-esteem, antisocial behavior, and suicide (Hart, Brassard, & Karlson, 1996).

Coping with chronic trauma

Surviving prolonged trauma, such as childhood abuse, demands thorough cognitive and emotional accommodation. Two models offer insight into the mechanisms individuals develop to cope with family abuse. Briere's (1992) abuse dichotomy explains how children living in abusive situations are faced with a cognitive and emotional conflict. Because their home environments are for the most part uncontrollable and inescapable, children living with abusive caregivers must find ways to either understand or disregard the treatment they receive. Either their parents' abusive treatment of them is unjustifiable, and reflects parental badness or incompetence, or it is a response to the children's own badness. Since children depend on their parents for caregiving, the former thought is untenable. Attributing abuse to one's own inherent badness inhibits the scarier prospect that a caregiver cannot be trusted, and may help create an illusion of control. Abusive treatment itself strengthens internalization processes through self-blame, since it is often accompanied by verbal abuse and other communications that the child is, in fact, bad.

Another helpful model is Freyd's (1996) betrayal trauma theory, which explains how children may isolate abuse experiences from memory and consciousness in order to maintain a necessary relationship with a caregiver. By selectively ignoring evidence of betrayal, people can survive and even engender caregiving in environments that would otherwise be hopeless. Since individuals employ these mechanisms to escape consciousness of their realities, they are conceptualized as implicit, and may later prove difficult to observe and change. Individuals who experience abuse may develop

attentional skills that allow them to selectively inhibit knowledge of threatening information (Becker-Blease, Freyd, & Pears, 2004; DePrince & Freyd, 2001; DePrince & Freyd, 1999).

Both models offer pathways through which children might resolve the cognitive dissonance they experience when their situation necessitates trusting someone who is hurting them. Briere's (1992) model indicates that children may come to internalize abusive treatment as deserved, while Freyd's (1996) model explains that knowledge isolation may facilitate survival in abused children. It is possible that both processes may operate in the same abused individual to produce dissociative and depressive tendencies.

Abuse, Neglect, and Alexithymia

Some aspects of abusive environments may strengthen the adaptations individuals employ to inhibit knowledge of their own emotional processes. Several psychologists describe the mechanisms through which individuals learn to separate their emotional processes from conscious awareness. Bowlby (1988) describes the ways that some parenting promotes the exclusion of certain emotional experiences from awareness, such as environments where parents tell their children not to cry or express negative emotions. Miller (1983) uses the term "poisonous pedagogy" to describe parents who train their children to be unaware of the abuse they experience and their emotional reactions. Linehan (1993) describes how invalidating environments may create deficits in individuals' abilities to identify and trust their own emotional experiences. These environments communicate that individuals are wrong in their

assessments of their own experience, and attribute individuals' experiences to their own unacceptable traits or characteristics. Consequently, individuals are not taught to accurately label private experiences, and therefore do not learn ways to appraise and modulate their arousal. Such environments preclude the development of trust in one's own experiences (Linehan, 1993), and the resulting deficits in awareness can have serious psychological ramifications.

McCann and Pearlman (1990) explain Kohut's assertion that repeated empathic failures by self-objects, such as caregivers, are a primary etiologic component of psychopathology. The quality of the abuse itself may involve ignoring or invalidating victims' experiences, feelings, and memories; these invalidations are likely to inhibit emotional awareness. Furthermore, in situations where trauma is inescapable, it may not be adaptive to develop awareness for one's own emotional experiences, because such awareness could threaten the information isolation that individuals use to cope with their environments.

Alexithymia, or a lack of words for feelings (Sifneos, 1973) is a useful construct in investigating emotional awareness. The alexithymia construct contains three elements: 1) difficulty identifying feelings; 2) difficulty describing feelings; and 3) an externally oriented cognitive style (Parker, Bagby, Taylor, Endler & Schmitz, 1993). Research has linked alexithymia with substance abuse disorders, posttraumatic stress disorders, depression, eating disorders, and reduced REM (rapid eye movement) density (Taylor, 2000). Since REM sleep is related to the memory, brain development, and learning, reduced REM sleep may be detrimental. Taylor, Bagby and Parker (1996)

state that “the etiology of alexithymia probably involves multiple factors, including constitutional-inherited variations in brain organization and deficiencies in the early family and social environment” (p. 37).

Recent empirical work provides support for such conceptualizations of the relation between relational trauma and alexithymia. Wearden, Cook, and Vaughan-Jones (2003) note a link between insecure adult attachment and alexithymia, even when controlling for negative affectivity. In a clinical sample, Zlotnik, Mattia, and Zimmerman (2001) found that increased levels of emotional and physical neglect, rather than abuse, were significantly linked with increased levels of alexithymia. Alexithymia also appears to be linked to emotional abuse and neglect in college students (Goldsmith & Freyd, in press).

Alexithymia seems to influence individuals’ responses to trauma experiences. Mazzeo and Espelage (2002) investigated the relation between childhood emotional and physical abuse and disordered eating in 820 college women. They determined that the relation between abuse and eating disorders was mediated by alexithymia and depression. The authors speculate that disordered eating may be a coping mechanism for alexithymic abuse survivors. In addition, alexithymia influences experiences of physical health symptoms (e.g., Deary, Scott, & Wilson, 1997). Taken together, these research studies indicate survivors of childhood abuse experience heightened levels of alexithymia, psychological symptoms, and physical health complaints.

Trauma, dissociation, and memory

Numerous studies document the general relation between trauma and dissociation (e.g., Draijer & Langeland, 1999; Kisiel & Lyons, 2001; Macfie, Cicchetti, & Toth, 2001; Ogawa, Sroufe, Weinfield, Carlson, & Egeland, 1997). Other research specifically investigates the relation between interpersonal trauma and dissociation. For instance, in a community sample of 749 homeowners, Goldberg and Freyd (under review) found that experiences of sexual abuse and/or physical abuse were more strongly related to dissociation than were non-betrayal traumas.

Extensive research documents the phenomenon of delayed accurate recall for trauma (e.g., Burgess, Hartman, & Baker, 1995; Cheit, 1998; Corwin & Olafson, 1997; Sheflin & Brown, 1996; Herman & Schatzow, 1987; Sivers, Schooler, & Freyd, 2002). Furthermore, the DSM-IV (APA, 1994) formulation of posttraumatic stress disorder (PTSD) identifies the “inability to recall an important aspect of the trauma” (p. 428) as a common symptom of this disorder. Impaired memory for trauma is likely to have emotional, cognitive, and physiological etiologic components. For example, Freyd’s (1996) betrayal trauma theory explains the emotional and cognitive motivations for separating abuse experiences from consciousness. Supporting neurophysiological evidence includes associations among stress, abuse and increased cortisol levels (e.g., Glaser, 2000). Heightened levels of cortisol adversely affect memory

Several factors appear to influence memory for trauma, including trauma chronicity, neurophysiological responses, and victim-perpetrator relationships. Fivush (1998) cites evidence showing that children have better memory for single events than for a single episode of a repeated event, and notes that the ability to recall an event

verbally is likely dependent on level of verbal skills at the time of its occurrence.

Other research indicates that stress may produce chronic damage to the developing nervous system and to neurological systems involved in memory (e.g. Bremner, 2002; Nelson & Carver, 1998). Research also demonstrates the importance of the victim-perpetrator relationship and memory stability. Individuals report significantly more memory disturbances for abuse experiences perpetrated by a caregiver than for abuse perpetrated by a non-caregiver (Couacaud, 1999; Freyd, 1996), even when controlling for age of victimization and trauma severity (Freyd, DePrince, & Zurbriggen, 2001).

Additional research has examined the ways in which memory for abuse changes over time (e.g., Corwin & Olafson, 1997; Fergusson, Horwood, & Woodward, 2000). Williams (1994) prospectively investigated traumatic memory by interviewing 136 women 17 years after emergency room visits that resulted from child sexual abuse. Thirty-eight percent of participants did not report the trauma, though they disclosed other highly personal information. Additional research has substantiated the phenomenon of impaired memory for trauma and subsequent retrieval. In a random sample of North Americans, Elliott (1997) reported that 72% of the 505 individuals who completed traumatic events survey reported having a traumatic experience. Of these, 32% reported some amount of delayed recall. The majority of participants who had forgotten a traumatic event and then remembered it identified the trigger as some form of media presentation, such as a film or a television show. Though some have viewed psychotherapy as unduly influencing memory for trauma, especially in women

(see Campbell, 2003), Elliott (1997) found psychotherapy was the least common trigger for remembering trauma. It is unclear, however, how the processes of remembering trauma might impact survivors' psychological functioning.

Perceptions and labeling of trauma experiences

Many people who experience trauma may fail to label the trauma as such. For instance, many survivors of rape and physical abuse describe the trauma behaviorally but do not categorize themselves as having been raped or physically abused (e.g., Koss, 1998; Varia & Abidin, 1999; Weinbach & Curtiss, 1986). Though a lack of awareness may be beneficial by facilitating peritraumatic and posttraumatic functioning in either inescapable, traumatic environments or in environments that invalidate the prevalence and impact of trauma, research demonstrates both costs and benefits of abuse awareness. Varia and Abidin (1999) investigated individuals' perceptions of childhood emotional abuse, their reported maltreatment experiences, and relationship satisfaction. They found that among those reporting comparable levels of emotional abuse, perceiving oneself as abused was negatively correlated with reported satisfaction in relationships. However, impaired awareness for trauma may contribute to the perpetuation of violence in families and in our society (Milburn & Conrad, 1996; Miller, 1983). Egeland and Susman-Stillman (1996) demonstrate that a lack of awareness for childhood abuse experiences increases risk for subsequent perpetration, contributing to the intergenerational transmission of abuse. Narang and Contreras (2000) identified dissociation as mediating the relation between participants' abuse experiences and their potential to physically abuse their own children.

One factor thought to influence awareness for trauma is the extent to which survivors share information about trauma experiences with others. Shareability theory (Freyd, 1983) proposes that the process of sharing information makes information more discrete, stable, and communicable. Therefore, memory and awareness for trauma should be related to disclosure. Some research demonstrates that disclosing information about trauma experiences can have psychological and physical health benefits. In general, written disclosure of trauma experiences facilitates mental and physical health (e.g., Pennebaker & Seagal, 1999; Pennebaker, 1997; Pennebaker, Kiecolt-Glaser, & Glaser, 1988). Accordingly, general changes in disclosure of trauma experiences over time may be related to improved mental and physical health.

Counseling and psychotherapy provide a forum for deeply personal sharing that may result in the communication of previously secret information. However, characteristics of psychotherapists, including theoretical orientations and clinical training, may interact with client features (including posttraumatic symptoms) to prevent discussions of links between trauma, emotional awareness, and mental health. Clinician discomfort, lack of time and resources, or a dearth of training regarding trauma are some of the reasons healthcare providers fail to ask about trauma (Read & Fraser, 1998a). Because both public consciousness and mainstream psychology offer little attention to the effects of trauma, and because traumatic responses include inhibiting awareness, victims of chronic trauma are most likely to seek psychological treatment for depression (Berliner & Elliott, 1996) or for negative feelings towards themselves (Briere, 2002) rather than for traumatic experiences, for which they may not have awareness, or which they may not have identified as problematic.

It is likely that changes in levels of awareness for trauma may be influenced by individuals' environments. deVries (1996) writes, "Trauma to some extent may be viewed as the product of a combination of the severity of the stress and the supportive capabilities of the environment" (p.409). Empirical support for combined effects of traumatic stressors and environments includes investigations of maternal support for sexually abused girls, in which maternal support following abuse disclosure is associated with better psychosocial outcomes (e.g., Berliner & Elliott, 1996; Everson, Hunter, Runyon, Edelsohn, & Coulter, 1989). Environments with little support for victims, or those that blame victims for their trauma experiences, may cause survivors more distress than the trauma itself (McFarlane & van der Kolk, 1996; Root, 1992). Ullman (2003) reviews literature examining the effects of disclosure for survivors of childhood sexual abuse, and notes that while nondisclosure may have negative effects, positive effects of disclosure may be contingent on the reactions survivors garner from those to whom they disclose abuse. Pervasive cultural denial regarding trauma and its effects is an important contributor to survivors' posttraumatic functioning (e.g., Herman, 1992; Milburn & Conrad, 1996). Herman (1992) describes a widespread cultural silencing of victims, and explains that many people are not prepared to listen to or believe survivors of trauma.

Changes in environments, such as leaving an abusive situation or beginning counseling with an empathic therapist, could facilitate shifts in the cognitive and emotional patterns individuals use to cope with trauma and in their awareness for trauma experiences. Cultural events or academic courses that address issues of trauma or violence could also serve as a catalyst for changes in awareness for personal trauma

experiences. When therapists or close others provide safe environments for victims' exploration of their experiences, respond empathically, tolerate strong affect, facilitate shareability, and respect clients as experts on their memories and feelings, they create a setting vastly different from the individuals' past traumatic, and possibly subsequent, traumatic environments.

Betrayal Trauma and the Posttraumatic Stress Disorder Diagnosis

Though survivors of betrayal trauma are likely to experience many of the symptoms related to the DSM-IV-TR (APA, 2000) posttraumatic stress disorder (PTSD) diagnosis, the PTSD diagnosis is unlikely to portray the extent of psychological distress that results from childhood abuse. In fact, interview methods using the diagnosis, such as the SCID-I diagnostic interview (First, Spitzer, Gibbon, & Williams, 1997) may fail to identify many individuals who have experienced betrayal trauma, including childhood abuse. A PTSD diagnosis requires the presence of a "criterion A" stressor: "The person has been exposed to a traumatic event in which both of the following were present: (1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity to self or others, and (2) the person's response involved intense fear, helplessness, or horror." (p. 467). These criteria may exclude childhood events which are not perceived as threats to life or integrity. As described above, individuals may have emotional and cognitive motivations that preclude these conceptions. The limitations of Criterion A are likely to influence the ability of health professionals to

identify clients' trauma experiences and symptoms. Research demonstrates that most mental health services do not detect clients' childhood trauma (Briere & Zaidi, 1989; Wurr & Partridge, 1996), primarily because mental health professionals often do not question clients about trauma (Read & Fraser, 1998; Young, Read, Barker-Collo & Harrison, 2001).

Other difficulties in applying the PTSD diagnosis to survivors of childhood abuse include inattention to the specific emotional sequelae of abuse, failure to distinguish between single-incident and chronic trauma, and PTSD's comorbidity with other disorders. Although many of the symptoms described in the DSM criteria for PTSD, such as reexperiencing the traumatic event, hyperarousal, and numbing, are experienced by survivors of betrayal trauma, the PTSD diagnosis emphasizes single-incident trauma and responses such as fear and anxiety, and pays less attention to other important responses to trauma such as dissociation and feelings of betrayal (Brett, 1996; DePrince, 2001). In addition, shame and guilt are also important emotional responses to interpersonal trauma (e.g., Lee, Scragg, & Turner, 2001). Overlap with other DSM-IV disorders is quite common (e.g., Stewart & Conrod, 2003).

A wealth of research demonstrates the many ways trauma interacts with DSM diagnoses other than PTSD. For instance, Zlotnick, Warshaw, Shea and Keller (1997) found that among 174 patients with concurrent anxiety and depression, patients with trauma histories had longer durations of depressive episodes, and reported more depressive episodes, than those who did not report trauma experiences. Briere (1992) notes that as an emergency room trauma psychologist, he has seen those suffering from child abuse trauma to initially present with a range of other difficulties, including

severe panic episodes, intense dissociative phenomena, major depression, HIV or AIDS status as a result of substance use and/or unsafe sexual practices, and recent or current suicidal ideation or intent. Though most health professionals report such disturbances as separate co-occurring diagnoses, Breslau, Chase, and Anthony (2002) point out that it is problematic for research to have one disorder with a specified etiological component, while other co-occurring disorders, such as substance use, do not have a specified etiological component. Though categories of psychological distress such as depression and anxiety are not necessarily pathognomonic for trauma experiences, their co-occurrence in traumatized individuals indicates for these persons, they are more likely to represent interrelated responses to trauma than distinct difficulties.

Alternate conceptualizations of trauma disorders

Two alternative diagnostic systems have been proposed to better capture the effects of long-term trauma such as child maltreatment. Herman (1992) proposed Complex Post-Traumatic Stress Disorder to better account for symptoms following prolonged, repeated trauma, in which the victims are under the control of their abusers. The major criterion for Complex PTSD is a history of having been under totalitarian control over an extended period. Symptoms can include alterations in affect regulation, consciousness, self-perception, perceptions of perpetrators, relations with others, and changes in systems of meaning.

Another diagnostic system has been proposed by Brown (1992) for the purpose of replacing existing criteria for Borderline Personality Disorder. The name of the new

disorder, Abuse and Oppression Artifact Disorder, reflects a corrective allocation of responsibility and attempts to remove the pejorative countertransference so often observed in connection with the word “borderline” (e.g., Linehan, 1993; Ross, 2000). The criteria are contingent on client and diagnostician agreement, a dynamic that helps empower clients and attenuates the effects of the abuses of power they may have experienced in previous relationships. Brown asserts that understanding posttraumatic phenomena following abuse and oppression involves ascertaining the context of the traumatic experience, including the frequency of exposure, nature of the consequences, and the developmental phenomena that interact with the stressor. Criteria include the existence of a stressor that can be out of the ordinary, but could be a fundamental condition of an individual’s cultural environment, such as racism or oppression (Brown, 1992). There may be more than one concurrent stressor. Additional criteria include 1) “persistent and painful behavioral patterns that represent developmental-stage appropriate survival strategies for coping with stressor(s)” (p. 244), such as learned helplessness and avoidant behaviors; 2) distortion or constriction of affective responsivity, which can include fear of others or emotional numbing; and 3) cognitive distortions that support the status quo, such as self-blame, shame, denial or minimization, and pessimism or despair. Finally, the pattern of symptoms has to be pervasive and long-term.

The systems proposed by Herman (1992) and by Brown (1992) reflect many of the psychological responses to childhood maltreatment demonstrated by empirical studies. For example, they reflect observed impairment in emotional awareness and regulation. They are also potentially less pathologizing than Borderline Personality

Disorder, a diagnosis commonly given to survivors of childhood abuse. However, the word “disorder” may perpetuate victim blame in that it does not convey a condition comprised of normative accommodations to traumatic environments. Both alternate systems are an improvement, however, over the DSM-IV-TR diagnosis in terms of depicting the effects of interpersonal trauma, and each provides descriptions that acknowledge environmental influences on abuse sequelae.

Studying childhood abuse

The complexity of survivors’ cognitive and emotional accommodations to chronic trauma makes research regarding the effects of such experiences challenging, especially as these processes are likely to be concurrent with childhood abuse. The majority of research relies on retrospective reports. Several psychologists have addressed the validity and reliability of retrospective reports of abuse. Brewin, Andrews, and Gotlib (1993) evaluate evidence from studies using retrospective recall of experience to address three possible causes of error. These include problematic validity and reliability for individuals’ autobiographical memory, the relation between psychopathology and memory impairment, and mood-congruent biases in memory associated with psychopathology. Though several psychologists have questioned the general reliability of retrospective reports, Brewin et al. demonstrate that such concerns are often exaggerated. They write, “memories retain a certain amount of specific information from the original phenomenal experience, but with time, or under the influence of strong schema-based processes, there may be considerable change in quantitative and qualitative judgments of past experience.” (p. 87). However, they

stress that adults are “generally accurate” (p. 87) regarding factual childhood details.

Brewin et al. address concerns regarding whether the symptoms trauma survivors experience may contribute to inaccurate memories, and note that most research pertaining to these concerns has focused on the potential of depression to increase memory deficits. Although people suffering from depression or anxiety often complain about memory difficulties, there is little research to suggest deficits in short- or long-term memory are linked with depression. Finally, the majority of studies investigating the ways in which mood affects the reliability of recall for childhood information do not support a relation between mood and reliability. Persons with psychopathology do not exhibit any less agreement between their memories and external corroboration than do controls (Brewin et al., 1993).

In order to assess the validity of retrospective methods, Hardt and Rutter (2004) review studies using adult retrospective reports of negative childhood experiences published between 1980 and 2001. They determine that adult retrospective reports include substantial measurement error and high rates of false negative reporting, and describe false positive reports of abuse as rare. Horwitz, Widom, McLaughlin, and White (2001) used prospective methods to assess the effects of child abuse on adult mental health by following 641 individuals with court documented abuse and 510 matched controls over a twenty-year period. Horwitz et al. conclude that the negative contributions of childhood victimization to adult psychological health are unlikely to represent artifacts of retrospective methods. In another study that provides evidence for a causal relation between trauma experiences and subsequent symptoms, Boney-McCoy and Finkelhor (1996) implemented a longitudinal, prospective method.

Their results demonstrate that victimization between measurement timepoints predicted trauma symptoms even after controlling for previous symptoms and the quality of family relationships.

Research findings regarding the stability of retrospective reports of abuse show variability. For example, Fergusson, Horwood, and Woodward (2000) note that in 983 young adults involved in a longitudinal study, there was extensive unreliability in reports of sexual and physical abuse. Specifically, they found that among those reporting childhood sexual abuse (CSA) or regular physical punishment at age 18, about 50% failed to report these events at age 21. Among those who reported CSA or regular physical punishment at age 21, about 50% had failed to report those events at age 18. Data indicated that abuse reporting was unrelated to psychiatric status, and that those reporting abuse at one time only did not differ from those who reported abuse consistently. In another longitudinal study, Paivio (2001) examined the reliability of retrospective self-reports of child abuse and neglect over a 6-month period. The timepoints of measurement occurred before and after emotionally focused therapy for 33 adults who had experienced childhood abuse. Though clients demonstrated reductions in psychological symptoms and changed perceptions of themselves and the treatment they experienced, their reports of abuse and physical neglect remained stable. In a community sample of 749 adult homeowners ranging in age from 18-85, Goldberg and Freyd (under review) reported 83% agreement for reported childhood traumatic events occurring before age 18 and 75% agreement for reported adult traumatic events over a three-year period.

Though different instruments were used in the Goldberg and Freyd (under review) study and the Fergusson, Horwood, and Woodward (2000) study, the large sample sizes in both studies renders the disparity in reliabilities for abuse reports striking. One possible reason for the difference in reported reliabilities could relate to developmental processes in coping with childhood trauma. Individuals who are 18-21 years of age may be experiencing more shifts in awareness for traumatic experiences than people who have had longer to assimilate and understand their trauma experiences. If the trauma experiences involved abuse by caregivers, young adults may have only recently removed themselves from abusive environments.

Goals of the present study

The present study assesses university undergraduates' mental and physical health, trauma histories, alexithymia, and patterns of memory, labeling, and disclosure over a two-year period. The study contributes to research in this area through investigating relations among perceptions of traumatic experiences, the continuity of self-reported memory for trauma, physical and mental health, alexithymia, impersonal versus interpersonal trauma, and changes and self-reported reasons for changes in trauma memory and perception. The study examines the following hypotheses: 1) many participants will inconsistently report trauma experiences, perceptions, and memories; 2) trauma perpetrated by close others will predict mental and physical health problems, dissociation, alexithymia, and impaired memory for trauma to a greater extent than will more impersonal trauma; 3) childhood emotional abuse and neglect will be significantly positively correlated with alexithymia; 4) childhood abuse and alexithymia will be

significantly positively correlated with physical health complaints and health care utilization; and 5) participants' changes in trauma labeling will be mediated by self-reported disclosure of traumatic events and related to psychological and physical health. Though interpretations of hypotheses 2, 3, and 4 are limited by correlational approaches, understanding connections among these factors will facilitate understanding of the ways that betrayal trauma relates to individuals' psychological and physical functioning.

The study includes several dimensions that can extend current research regarding interpersonal trauma, trauma perceptions, alexithymia, and health. Most research examining relations among trauma and physical health has focused on combat trauma, sexual and physical assault, and disasters (e.g., Friedman & Schnurr, 1995; Resick & Acierno, 1997; Weisberg et al., 2002). Research that specifically addresses connections between childhood abuse and physical health usually considers only physical and sexual abuse (e.g., Cloitre, Cohen, Edelman, & Han, 2001; Fillingim, Wilkinson, & Powell, 1999). The present study aims to specifically examine how emotional abuse and neglect affect participants' physical health. There have been few studies investigating relations between childhood abuse and alexithymia. Two of these (Berenbaum, 1996; Zlotnick, Mattia, & Zimmerman, 2001) used participants seeking psychological services, and one (Mazzeo & Espelage, 2002) used a female undergraduate sample. Therefore, only this study and one previous investigation (Goldsmith & Freyd, in press) have the potential to demonstrate connections between alexithymia and childhood abuse in a nonclinical sample of males and females.

Another unique contribution is the concurrent investigation of abuse, psychological symptoms, alexithymia and health. Though other research links alexithymia to physical health complaints and affective disorders (e.g., Taylor, Bagby, & Parker, 1996) and to childhood abuse (e.g., Berenbaum, 1996), the current study examines how childhood abuse and alexithymia contribute to physical health problems. Finally, only Fergusson, Horwood, and Woodward (2000) have assessed changes in abuse perceptions over time. Their study also used a sample of young adults, but queried only physical and sexual abuse, rather than emotional abuse. The present study inquires about physical, sexual, and emotional abuse perceptions, and attempts to uncover possible reasons participants may change their perceptions of abuse experiences.

University samples have consistently yielded sufficient numbers of students reporting considerable amounts of trauma experiences and sufficient numbers of students reporting little trauma (e.g., DePrince & Freyd, 2001; Rausch & Knutson, 1991; Sanders & Becker-Lausen, 1995). Though college students often comprise the subjects of trauma research, longitudinal studies of traumatic stress within this population are quite rare. By examining potential links between the quality of traumatic experiences, mental and physical health, and trauma perception and memory, as well as the changes over time among these connections, this study has the potential to inform several psychological disciplines, including trauma studies, health psychology, memory science, and clinical treatment.

CHAPTER II

METHOD

Participants

Baseline (Time 1) participants were 185 university students enrolled in introductory psychology or linguistics courses who indicated during a pre-screening session that they would be willing to participate in an experiment with an optional, \$10.00 follow-up component, and that they planned to be students at the university during the follow-up period. They received course credit for their participation at Time 1, and received their choice of course credit or \$10.00 cash for their participation at Time 2. Participants included 126 women and 59 men whose ages ranged from 18 to 32 years, with 88.6% of participants between the ages of 18 and 21. Eleven students identified as Asian-American; 4 identified as Black or African American; 5 identified as Hispanic, Latina/Latino, or Chicana/Chicano; 4 identified as Native American or American Indian; 153 identified as White, Caucasian, or European American; 5 identified as "other;" 1 identified as both Asian American and European American, and 1 identified as both Black and Hispanic. Twenty-one participants reported living alone; 4 reported living with a partner or spouse; 156 reported living with others, such as friends or roommates, 1 reported living with children, and 3 reported living with other relatives. Sixty-one participants reported having a job in addition to their classes.

Eleven students reported currently being in individual counseling, and 76 participants reported receiving individual counseling services at some point in their lives. Twenty-two participants indicated that they were currently taking prescribed psychotropic medications. None of the subjects refused to participate. The university's Institutional Review Board approved human subjects' participation in this study, and all participants signed an informed consent form.

All students who were reachable via phone or email were invited to participate in the follow-up portion of the study. The follow-up (Time 2) participants were 96 individuals (51.9%) from the original sample. These included 71 women and 25 men, and their ages ranged from 19-34, with 90.6% of participants ages 19-22. Six students identified as Asian American; 2 identified as Black or African American; 4 identified as Hispanic or Latina/Latino; 3 identified as Native American or American Indian; 75 identified as European American; 4 identified as "other," 1 student identified as Asian and 1 student identified as Japanese. Twelve participants reported living alone; 8 reported living with a partner or spouse; 70 reported living with friends or roommates; 1 reported living with children; and 3 reported living with other relatives. Ten students reported currently being in individual counseling, and 46 reported attending individual counseling in the past. Fourteen students reported currently taking prescribed psychotropic medications. No participant who attended a follow-up session refused to participate, and all signed informed consent forms.

There were no significant differences in the demographic characteristics of Time 1 and Time 2 participants, although the difference in the proportion of participants

currently in counseling at Time 1 and Time 2 approached significance ($X^2 (1) = 3.53$, $p = .06$). Table 1 compares some of the demographic information for Time 1 and Time 2 participants:

Table 1

Participant Demographic Characteristics for Time 1 and Time 2

	Time 1	Time 2
Total Participants	185	96
Gender		
Females	126 (68.1%)	71 (74%)
Males	59 (31.9%)	25 (26%)
Ethnicity		
Asian	0	2 (2.1%)
Asian American	11 (5.9 %)	6 (6.3%)
Black/African American	4 (2.2%)	2 (2.1%)
Hispanic/Latina/Latino	5 (2.7%)	4 (4.2%)
Native American/American Indian	4 (2.2%)	3 (3.1%)
White/European-American	153 (82.7%)	75 (78.1%)
Other	5 (2.7%)	4 (4.2%)
Multiethnic	2 (1.2%)	0
Unspecified	1 (0.5%)	0
Counseling experiences		
Currently in counseling	11 (5.9%)	10 (10.4%)
Past counseling experience	76 (41.1%)	46 (47.9%)

Materials

Survey packets included an opening set of questions along with instructions for creating an anonymous code for the purposes of matching up baseline and follow-up data. The opening section of questions contained demographic questions regarding individuals' sex, ethnic background, counseling experiences, hours of sleep the previous evening, and a question regarding current mood state, which contained five response options: "great," "good," "average," "poor," and "horrible." The opening section also included six questions regarding perceptions of physical, sexual, and emotional abuse. Three of these questions used the word "abused" (e.g., "Would you say that you were emotionally or psychologically abused as a child (before age 17)?"), and three questions used the word "maltreated" (e.g. "Would you say that you were sexually maltreated as a child (before age 17)?"). Therefore, there were two questions for each abuse subtype, one using the word "abused" and the other using the word "maltreated." Finally, the opening section included items querying the extent to which individuals talked to close friends about their most personal feelings and experiences, the number of dreams they felt they remembered in an average week, and the frequency with which they wrote in a diary or journal. The other measures consisted of the Toronto Alexithymia Scale-20 (Bagby, Taylor, & Parker, 1992), the Trauma Symptom Checklist-40 (Elliott & Briere, 1992), the Pennebaker Inventory of Limbic Languidness– time bound (PILL-t; Pennebaker, 1982), a group of questions concerning drug and alcohol use, the Brief Betrayal Trauma Survey (Goldberg & Freyd, under

review), the Child Abuse Trauma Scale (Sanders & Becker-Lausen, 1995), the Betrayal Trauma Inventory (Freyd, DePrince, & Zurbriggen, 2001), and the Relational Health Indices (Liang, Tracy, Taylor, Williams, Jordan, & Miller, 2002).¹

The Toronto Alexithymia Scale (TAS-20; $\alpha = .74 - .84$, Parker, Bagby, Taylor, Endler, & Schmitz, 1993) is the most frequently used measure of alexithymia (Taylor, 2000). Participants respond to statements regarding their thinking about and discussion of emotional content using Likert scales that range from 1-5, with higher scores representing a greater degree of alexithymia, except for reversed-scored items. Examples of statements include, "I am often confused about what emotion I am feeling," and "I don't know what's going on inside me." The TAS-20 contains three subscales: Difficulty Identifying Feelings (DIF; $\alpha = .73 - .83$), Difficulty Describing Feelings (DDF; $\alpha = .61 - .78$), and Externally Oriented Thinking (EOT; $\alpha = .60 - .71$; Parker, Bagby, Taylor, Endler, & Schmitz, 1993).

The Trauma Symptom Checklist-40 (TSC-40; $\alpha = .90$, subscales $.62 - .77$, Elliott & Briere, 1992) queries a range of posttraumatic symptoms. Previous research has demonstrated the construct validity of the TSC-40 (Elliott & Briere, 1992) and its convergent validity when compared with the SCL-90, a widely used psychological symptom inventory (Zlotnick, Shea, Begin, Pearlstein, Simpson, & Costello, 1996).

The scale has six subscales: dissociation, anxiety, sexual abuse trauma, sleep

¹ The study measures also included the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986) and the Revised Civilian Mississippi Scale for PTSD (RCM-PTSD; Norris & Perilla, 1996). Because the DES scale measure a range of dissociative experiences, from normal to pathological, the study's analyses used the dissociation subscale of the Trauma Symptom Checklist-40, rather than the DES, in order to reflect dissociative experiences conceptualized as responses to trauma. The RCM-PTSD was not used in the study's analyses because the study hypotheses resulted from conceptualizations of chronic trauma, rather than responses to a discrete event.

disturbance, sexual problems, and depression. Total TSC-40 subscales are computed by summing all items, and subscale scores are computed by summing the items that contribute to each subscale. This study used the depression, anxiety, and dissociation subscales in its analyses, since those symptoms are commonly present in individuals who have experienced different forms of interpersonal trauma.

The Pennebaker Inventory of Limbic Languidness – time bound (PILL-*t*; Pennebaker, 1982) is a 54-item scale that taps the frequency of occurrence of a group of common physical symptoms and sensations, ranging from almost never, to 2-3 times per year, to almost daily. This version of the PILL has been modified to be time-bound to the participants' last two weeks so that it can be used as a pre-test and post-test measure. The PILL also contains three questions regarding general health and health behaviors. One question asks students how many days were they sick in the past month; a second question asks how many times in the past month participants visited doctors or health care centers; and the third question asks participants how many days in the past month their activity has been restricted due to illness.

The study included a group of questions about drug and alcohol use. For each of 9 drugs (alcohol, tobacco, cannabis, cocaine, opium, heroin, methamphetamines, LSD, and ecstasy), participants were asked how many days out of the past 30 they had used the drug. There was also a space for “other” where students could write in additional drugs and their patterns of use.

The 12-item Brief Betrayal Trauma Survey (BBTS; Goldberg & Freyd, under review) asks respondents to indicate how many times they have experienced different interpersonal and non-interpersonal traumas both before and after age 18. Traumatic

experiences queried include natural disasters, accidents, witnessing death or injury, forced sexual contact, physical assault, and emotional or psychological maltreatment. The interpersonal items include those assessing experiencing and witnessing abuse perpetrated by a close other and those that assess experiencing and witnessing abuse perpetrated by a non-close other. This scale was included to assess traumatic events other than parent or caregiver maltreatment, since a range of traumatic experiences impacts psychological functioning. For this study, items were coded using the following scale: 0 = never, 1 = 1 time, 2 = 2-5 times, 3 = 6-20 times, 4 = 21-100 times, and 5 = more than 100 times. Items can also be coded into two continuous variables: trauma with more betrayal and trauma with less betrayal. The BBTS has good test-retest reliability. In a community sample of 749 adults assessed twice over a three-year period, Goldberg and Freyd (under review) found 83% agreement for self-reported childhood events and 75% agreement for self-reported events in adulthood.

The Child Abuse Trauma Scale (CAT scale; Sanders & Becker-Lausen, 1995) was designed to measure “the individual’s present, *subjective* perception of the degree of stress or trauma present in his/her childhood” [emphasis in the original] (p. 317). Examples of scale items include, “Did you feel safe living at home?” and “As a child, did you feel unwanted or emotionally neglected?” The measure uses a Likert scale of 0-4, where 0 denotes “never;” 1, “rarely;” 2, “sometimes;” 3, “very often;” and 4, “always.” A higher score signifies greater levels of maltreatment; some items, such as the first example above, are reverse coded. The CAT scale contains subscales measuring Punishment, Negative Home Environment/Neglect (which includes the items quoted above) and Sexual Abuse, and has strong test-retest reliability ($r = .71 -$

.91) and internal consistency ($\alpha = .63 - .90$; Kent & Waller, 1998). Kent and Waller (1998) added an Emotional Abuse subscale, comprised of the 7 items from the CAT scale they felt best reflected the construct; only 1 of these items overlaps with the Negative Home Environment subscale. The subscale appears to have good internal consistency ($\alpha = .88$). The present study uses the total CAT scale score, the Emotional Abuse subscale, and the Negative Home Environment/Neglect subscale.

The Betrayal Trauma Inventory (BTI; Freyd, DePrince, & Zurbriggen, 2001) was developed to gather detailed information about physical, sexual, and emotional abuse. It was adapted in part from the Abuse Perpetration Inventory (API; Lisak, Conklin, Hopper, Miller, Altschuler, & Smith, 2000), which has demonstrated good validity and has been validated for trauma research (Lisak et al., 2000). The first two sections of the BTI include items based on the API; the BTI adds a third section on emotional abuse, as well as follow-up questions that assess qualitative aspects of individuals' traumatic experiences. After each question regarding a betrayal traumatic experience, there are follow-up questions that assess aspects of the trauma, including individuals' relationships to the perpetrator and whether the perpetrator was a caregiver, the stability of their memory for the experience, and when and how many times they disclosed the experience. The first section contains 15 questions about physical abuse that range in severity from witnessing violence to being threatened with a knife or firearm. Because a majority of individuals reported being spanked by a caregiver, that item was not included for some analyses. The second section contains 20 questions regarding sexual abuse, and includes follow-up questions that assess the extent of force or coercion used by the perpetrator. The third section includes 12 items

that measure psychological abuse and neglect. Scoring for the BTI involves computing averages across items for each subscale to produce memory impairment scores. Two types of disclosure scores were computed. The first, disclosure frequency, denotes the number of times participants have talked about the event. The score is computed by dividing the total number of times individuals reported talking about traumas by the total number of traumas. The second, disclosure latency, concerns the length of time that elapsed between the event and the participants' disclosure to another person. This score was computed by dividing the average length of time individuals reported waiting before disclosing the trauma by the total number of traumas reported. These scores were computed separately for physical, sexual, and emotional abuse. In addition, scores for caregiver betrayal were computed by summing the total number of times participants reported abuse perpetrated by a caregiver.

The Relational Health Indices (RHI; Liang, Tracy, Taylor, Williams, Jordan, & Miller, J. B., 2002) query qualities of relationships and community in participants' lives. The scale contains three sections that assess the "growth-fostering" (p. 25) qualities of relationships with a close friend, a mentor, and with a community. Participants respond using a Likert scale where 1 = "never" and 5 = "always." Factor analyses for the RHI confirm a three-factor structure that allows for the calculation of three subscales: empowerment/zest, engagement, and authenticity. Though the authors report a high correlation between the engagement and empowerment/zest subscales, they note that individual items load strongly on their intended subscales. The three subscales have good internal consistency.

For the follow-up portion of the study, the questionnaires concluded with questions regarding abuse perceptions and memory for traumatic experiences. The first question read, “Since the first part of this study 1-2 years ago, did you change your perception of the treatment you received as a child (for instance, 1-2 years ago you marked “yes” to having been abused or maltreated, but this questionnaire session you wrote “no,” or the other way around)?” The second question asked participants, “If you did change your perception of the childhood treatment you received, what led you to change this perception?” The third question asked, “During this questionnaire session, did you report any traumatic events that you had not remembered during the first questionnaire session 1-2 years ago?” and the fourth question read, “If yes, what led you to remember these events?” After data for Time 2 collection had begun, one additional question was added that asked participants whether any of their courses at the university addressed issues of violence. Fifty-six individuals completed questionnaires that included the question.

The order of measures in the study was intentional. Posing global assessments of abuse status at the beginning of the questionnaire was designed to capture students’ self-concepts in this regard before cueing thinking about specific symptoms or memories. The study positioned the TAS-20 before measures assessing feelings and symptoms, because presentation of these words could influence participants’ thoughts regarding how much and in what ways they think about feelings. Finally, symptom measures were presented before the abuse measures, because thinking about abuse experiences could influence symptom endorsement.

Procedure

Participants did not know the topic of the study when they signed up for the study. When they arrived at the study site, they were given course credit for their participation and invited to complete an anonymous questionnaire about life experiences. Participants were told both verbally and via the informed consent that some of the questions were personal and potentially upsetting; the words “abuse” and “trauma” were not used. Both the consent and debriefing forms included phone numbers for counseling resources. Participants completed contact information sheets where they could provide multiple means of contacting them with an invitation to take part in follow-up data collection during the academic year of 2003-4. Participants completed a packet of self-report questionnaires in groups, with ample space between each person for privacy. They were told to refrain from writing their name or any other identifying information on the survey. The survey’s written instructions stated the importance of answering questions in order, and of not returning to previous sections. After completing the questionnaires, participants dropped them into a box to ensure anonymity. Participants then received debriefing forms that explained the rationale for the measures used in the survey packets.

Participants were contacted one to two years after baseline data collection. They were invited via telephone and email contact to participate in an optional follow-up portion of the study, and offered their choice of \$10.00 cash or course credit for their participation. Course credit was, however, only an option for students currently enrolled in psychology or linguistics courses whose instructors offered credit for their

participation. When participants were contacted, they were told that the study involved completing a questionnaire about life experiences, including traumatic events. Ninety-six individuals agreed to participate in the follow-up portion of the study and completed Time 2 questionnaires. Three students were reached and expressed willingness to participate in the follow-up portion of the study, but were not able to participate due to scheduling difficulties. Seven participants indicated they were not interested in participating in the follow-up portion of the study. Fifteen students were reached, but no longer lived in the university area, so could not participate. The remaining 64 students were not successfully contacted by phone or email.

When participants arrived to complete the follow-up portion of the study, they received their \$10.00 or course credit, and were given informed consent forms. Once again they were told both via the consent form and verbally that the questionnaire contained personal questions that were potentially upsetting, and that the debriefing forms contained phone numbers for counseling resources should they want to speak with a counselor regarding issues related to the content of the questionnaire. They were reminded not to write identifying information on the questionnaires. After dropping their surveys in a box, participants were given debriefing forms that articulated the study's goals of examining relations among students' self-reported experiences, their feelings and memories of these experiences, and their mental and physical health, and the ways those relations may change over time.

Data Analysis

Data were entered into a computer file using participant numbers and the non-identifying codes students created according to instructions. Participants' scores were computed for each measure and measure subscale. Descriptive statistics were run to assess patterns regarding rates and ranges of abuse experiences. To examine gender differences in specific types of trauma assessed by the BBTS, *t*-tests were used to compare mean differences in the number of times males and females experienced different types of trauma, and chi-squares were used to compare numbers of males and females experiencing each trauma. Female gender was coded as "1" and male gender was coded as "2." When Levene's test for equality of variances was significant, the Welch's *t* statistic was reported. Zero-order correlations between measures, measure subscales, and specific items were examined. When these were significant, hierarchical regression analyses were used to determine the extent of the unique contributions of continuous variables such as scores on the CAT scale and the extent of betrayal trauma as measured by the BBTS in predicting outcome variables such as PILL total scores or alexithymia. Zero-order correlations were also run to determine test-retest reliability between individuals' baseline and follow-up data. In order to investigate some of the differences between individuals experiencing higher and lower levels of childhood abuse, individuals were split into two groups using the criteria of a total score on the CAT scale that was equal to or higher than the mean total score at Time 1. To assess changes in symptoms and reported trauma over time, difference scores were computed by subtracting Time 1 scores from Time 2 scores for TSC-40 subscale scores, PILL

total scores, BTI disclosure scores, and CAT scale total scores. A MANOVA analysis was used to determine differences between groups with different self-labeling styles on psychological and physical outcome measures. All data analysis utilized SPSS 12.0.

CHAPTER III

GENERAL RESULTS AND DISCUSSION

Results

Of the 185 individuals who completed the Time 1 portion of the study, 5 did not indicate a code. Five individuals indicated codes at Time 2 that could not be matched to Time 1 participant codes. This result left 91 individuals who provided matched Time 1 and Time 2 data. Individuals completed the Time 2 portion 18-28 months after the Time 1 portion of the study, with a mean of 20.27 months between Time 1 and Time 2.

Descriptive Statistics

Table 2 indicates measure minima, maxima, means, and standard deviations for the study's scales at Time 1, and Table 3 indicates these descriptive statistics for instruments at Time 2.

Table 2

Time 1 Descriptive Statistics for Study Measures

<u>Measure or subscale</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Mean</u>	<u>Standard Deviation</u>
TAS-20 total	24	71	45.60	10.79
TAS-20 subscales:				
DIF	7	31	14.97	5.81
DDF	5	23	12.18	4.24
EOT	9	30	18.45	4.04
TSC-40 total	1	70	24.28	14.04
Depression	1	18	6.40	3.51
Anxiety	0	18	4.88	3.77
Dissociation	0	9	2.57	1.93
CAT scale total	4	90	25.87	16.24
CAT subscales:				
Negative Home Environment	0	40	10.96	9.00
Emotional Abuse	1	28	6.70	4.88
Sexual Abuse	0	7	.53	1.27
Punishment	0	18	7.36	3.35
PILL total	9	138	66.64	23.43
Pill A	0	12	.61	1.34
Pill B	0	31	3.58	5.11
Pill C	0	31	2.18	5.30

Table 3

Time 2 Descriptive Statistics for Study Measures

<u>Measure or subscale</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Mean</u>	<u>Standard Deviation</u>
TAS-20 total	25	70	45.32	11.40
TAS-20 subscales:				
DIF	7	30	14.77	5.30
DDF	5	21	12.68	4.23
EOT	10	29	17.80	4.22
TSC-40 total	4	68	25.39	16.15
Depression	0	19	6.92	4.48
Anxiety	0	16	5.23	3.81
Dissociation	0	9	2.41	2.00
CAT scale total	4	89	28.91	19.42
CAT subscales:				
Negative Home Environment	0	37	12.57	10.25
Emotional Abuse	1	26	7.47	5.79
Sexual Abuse	0	10	.59	1.51
Punishment	1	18	7.32	3.89
PILL total	2	142	66.72	228.43
Pill A	0	3	.37	.73
Pill B	0	25	2.81	4.20
Pill C	0	14	1.41	2.51

Gender differences in reported trauma

The BBTS asks about specific traumas both before and after age 18; the two age categories are denoted below by the letters “a” and “b.” Table 4 shows the numbers and percentages of women and men experiencing each type of trauma queried by the BBTS at Time 1 and at Time 2, and Table 5 demonstrates the mean number of times trauma experiences were reported for each gender using the coding system for BBTS responses described above.

Men reported experiencing more accidents, witnessing violence against people with whom they were not close, being severely physically attacked by someone with whom they were not close, and traumatic events not covered by other BBTS questions.

Table 4

Numbers of Men and Women Endorsing BBTS Items at Times 1 and 2

BBTS item #	Time 1 women	Time 1 men	Time 2 women	Time 2 men
1a – major natural disaster before 18	24 (19%)	11(18.6%)	15 (21%)	9(36%)
1b –after 18	6 (4.8%)	2 (3.4%)	4 (5.6%)	1 (4%)
2a – major vehicle or industrial accident before 18	23 (18.3%)	16 (27.1%)	10 (14%)	10 (40%)
2b - after 18	6 (4.8%)	6 (10.2%)	5 (7%)	4 (16%)
3a – witnessing someone with whom you were very close being violently injured before 18	17 (13.5%)	9 (15.3%)	3 (4.2%)	4 (16%)
3b – after age 18	9 (7.1%)	5 (8.5%)	3 (4.2%)	2 (8%)
4a – witnessing someone with whom you were not close being violently injured before age 18	31 (24.6%)	26 (44.1%)	15 (21%)	12 (48%)
4b – after age 18	20 (15.9%)	15 (25.4%)	17 (23.9%)	6 (24%)

(Table 4 continued)

BBTS item #	Time 1 women	Time 1 men	Time 2 women	Time 2 men
5a – witnessing someone with whom you were very close deliberately attack another family member before age 18	27 (21.4%)	8 (13.6%)	15 (21%)	3 (12%)
5b – after age 18	7 (5.5%)	0	3 (4.2%)	1 (4%)
6a – being deliberately severely attacked by someone with whom you were very close before age 18	24 (19%)	9 (15.3%)	9 (12.7%)	3 (12%)
6b – after age 18	9 (7.1%)	0	4 (5.6%)	0 (0%)
7a – being deliberately severely attacked by someone with whom you were not close before age 18	3 (2.4%)	14 (23.7%)	4 (5.6%)	6 (24%)
7b – after age 18	1 (0.8%)	4 (1.7%)	1 (1.4%)	2 (8%)
8a – forced sexual contact by someone with whom you were very close	24 (19%)	4 (1.7%)	11 (15.5%)	3 (12%)
8b – after age 18	17 (13.5%)	4 (1.7%)	7 (9.9%)	4 (16%)
9a – forced sexual contact by someone with whom you were not close before age 18	19 (15%)	4 (1.7%)	8 (11.3%)	4 (16%)
9b – after age 18	11 (8.7%)	2 (3.4%)	6 (8.5%)	3 (12%)
10a – emotionally or psychologically mistreated over a significant period of time by someone with whom you were very close before age 18	35 (27.8%)	12 (20.3%)	24 (33.8%)	4 (16%)
10b – after age 18	24 (19%)	7 (11.9%)	16 (26.8%)	4 (16%)
11a – Experienced the death of one of your own children before age 18	0	0	0	0 (0%)
11b – after age 18	0	0	0	0 (0%)
12a – other seriously traumatic event before age 18	41 (32.5%)	29 (49.2%)	15 (21%)	13 (54%)
12b – after age 18	18 (14.3%)	14 (23.7%)	17 (23.9%)	6 (24%)

Table 5

Gender Differences in Mean Scores for BBTS Items at Times 1 and 2

BBTS item #	Time 1 mean for women	Time 1 mean for men	Gender differences	Time 2 mean for women	Time 2 mean for men	Gender differences
1a	.30	.29	$t(182) = .076$	.25	.60	Welch's $t(30) = -1.88$
1b	.07	.05	$t(176) = .244$	.08	.04	$t(94) = .57$
2a	.22	.41	Welch's $t(84) = -2.11^*$	.17	.64	Welch's $t(29) = -2.61^*$
2b	.05	.17	Welch's $t(60) = -1.66$	.08	.24	Welch's $t(38) = -1.24$
3a	.24	.22	$t(182) = .14$	.13	.28	$t(94) = -1.05$
3b	.11	.09	$t(175) = .22$	.07	.08	$t(94) = -.128$
4a	.37	.84	Welch's $t(80) = -3.62^{**}$	.35	.88	Welch's $t(33) = -2.31^*$
4b	.23	.39	Welch's $t(80) = -1.54$	.32	.46	Welch's $t(32) = -.42$
5a	.39	.24	Welch's $t(140) = 1.29$	.41	.16	Welch's $t(78) = 1.77$
5b	.10	.00	Welch's $t(120) = 2.6$, $p = .010^*$	.10	.04	$t(93) = .60$
6a	.34	.22	Welch's $t(152) = 1.17$	.24	.20	$t(93) = .27$
6b	.12	.00	Welch's $t(122) = 2.77^{**}$	.11	.00	Welch's $t(70) = 1.9$
7a	.04	.36	Welch's $t(64) = -3.22^{**}$	.11	.44	Welch's $t(30) = -1.79$ ($p = .09$)
7b	.02	.09	Welch's $t(67) = -1.5$	.03	.12	Welch's $t(30) = -.99$
8a	.46	.22	Welch's $t(138) = 1.6$	.34	.32	$t(93) = .11$
8b	.39	.25	$t(176) = .79$	.17	.56	Welch's $t(28) = -1.35$
9a	.24	.15	$t(181) = .91$	.20	.20	$t(92) = .02$
9b	.11	.07	$t(175) = .65$	.09	.16	$t(93) = -.93$
10a	.83	.53	Welch's $t(150) = 1.51$	.94	.52	$t(93) = 1.21$
10b	.47	.31	$t(174) = .98$	.62	.40	$t(92) = .77$
11a	.00	.00	n/a	.00	.00	n/a
11b	.00	.00	n/a	.00	.00	n/a
12a	.46	.79	Welch's $t(86) = -2.29^*$	.29	.76	Welch's $t(32) = -2.50^*$
12b	.21	.39	Welch's $t(75) = -1.55$	.32	.28	$t(92) = .78$

Welch's t is used when Levene's test for equality of variances is significant.

* $p < .05$

** $p < .01$

Item 2a asks whether participants have been in a major vehicle or industrial accident before age 18. During Time 1, men reported more of this type of trauma than women, Welch's $t(84) = -2.11, p < .05$. Male participants during Time 2 also reported more of this type of trauma than female participants, Welch's $t(20) = -2.61, p < .05$. BBTS item 4a asks participants the number of times before age 18 they witnessed someone with whom they were not close being killed, committing suicide, or being injured severely enough to produce marks, burns, broken bones, or bruises. Time 1 data indicated that males were more likely to have experienced this type of trauma than females ($X^2(1) = 7.14, p < .01$), and males reported more experiences of this type of trauma than did females at Time 1, Welch's $t(80) = -3.62, p < .01$, and at Time 2, Welch's $t(33) = -2.31, p < .05$. Item 7a asks participants for the number of times before age 18 they were severely attacked (resulting in "marks, bruises, blood, broken bones, or broken teeth") by someone with whom they were not close. Men were more likely to have experienced this type of trauma than women at both Time 1 ($X^2(1) = 21.95, p < .001$), and reported more instances of this type of trauma at Time 1 (Welch's $t(64) = -3.22, p < .01$). At Time 1, men also endorsed having had this type of trauma after age 18 more frequently than women ($X^2(1) = 5.48, p < .05$). BBTS item 12 asks participants for the number of times they experienced a seriously traumatic event not covered by the measure items. Significantly more males endorsed having had such an experience before age 18 than did females at Time 1 ($X^2(1) = 4.72, p = .03$); and at Time 2 the gender differences for "other" types of trauma before age 18 approached significance ($X^2(1) = 3.21, p = .07$).

Men endorsed having had such experiences before age 18 to a greater extent than women at both Time 1 (Welch's $t(86) = -2.29, p < .05$), and at Time 2 (Welch's $t(32) = -2.5, p < .05$).

There were some trauma experiences women endorsed to a greater extent than men during Time 1. These included BBTS item 5b, which asks participants the number of times they witnessed someone with whom they were close deliberately attack another family member after age 18. More females than males indicated they had had this experience at Time 1 ($X^2(1) = 3.41, p = .07$), and reported a greater number of instances of this experiences than males ($t(120) = 2.6, p = .01$). BBTS item 6b asks participants how many times they were severely physically attacked by someone with whom they were very close after age 18. Females reported this experience more frequently than males at Time 1 ($X^2(1) = 4.43, p < .03$), and reported a greater number of instances of this trauma than men ($t(122) = 2.77, p < .01$). However, at Time 2, females did not endorse having had either of these two experiences significantly more often or more times than did males. Females were more likely than males to have experienced BBTS item 8a, which queries forced sexual contact by someone close prior to age 18 ($X^2(1) = 4.71, p < .03$). Finally, women endorsed significantly more instances of item 10a than males at Time 2 ($X^2(1) = 4.71, p < .05$). This item asks whether participants experienced emotional or psychologically mistreatment over a period time by someone with whom they were close prior to age 18.

When BBTS items representing trauma with more betrayal and BBTS items representing trauma with less betrayal were aggregated into two betrayal categories, males were more likely than females to report one or more instances of trauma with less betrayal at Time 1 ($X^2(1) = 7.14, p < .01$). At Time 1, females were not more likely than males to report at least one instance of trauma with more betrayal ($X^2(1) = 1.17, p = .28$). Males were not more likely than females to report one or more instances of trauma with less betrayal at Time 2 ($X^2(1) = 1.43, p = .23$). Females were more likely to report at least one instance of trauma with more betrayal at Time 2 ($X^2(1) = 4.71, p < .05$). Goldberg and Freyd (under review) found that males were more likely than females to have experienced at least one trauma with less betrayal, and females were more likely than males to have experienced at least one trauma with more betrayal. Though the findings above do not consistently echo those results, the absence of a clearer replication may be due to the study's small sample size as compared to Goldberg and Freyd's sample of 749 participants.

There were no gender differences in reported child abuse trauma as measured by the CAT scale total at Time 1, $t(167) = .21, p = .83$, or at Time 2, $t(89) = -.31, p = .76$.

Gender differences in reported symptoms

Table 6 provides the mean scores for women and men for the TSC-40 depression, anxiety, and dissociation subscales, and for the continuous variables of trauma with more betrayal and trauma with less betrayal as measured by the BBTS.

At Time 1, women reported more anxiety, Welch's $t(139) = 2.8, p < .01$, and dissociation, Welch's $t(151) = 3.04, p < .01$, than men. When both gender and betrayal trauma were entered into a regression model, the model significantly predicted anxiety

Table 6

Mean Scores for Males and Females on TSC-40 Subscales and BBTS Trauma with More and Less Betrayal at Times 1 and 2

Timepoint	Variable	Female mean scores	Male mean scores
Time 1	Anxiety	5.39	3.84
	Depression	6.55	6.08
	Dissociation	2.84	2.02
	Trauma with more betrayal	3.24	2.19
	Trauma with less betrayal	1.57	2.81
Time 2	Anxiety	5.30	5.00
	Depression	6.89	6.87
	Dissociation	2.55	2.09
	Trauma with more betrayal	3.19	3.61
	Trauma with less betrayal	1.45	3.77

at Time 1 ($R^2(2, 161) = .17, p < .001$). Both variables were significant independent predictors of anxiety, though betrayal trauma predicted anxiety to a greater extent than gender (Standardized $\beta = .37$ and $-.15, p < .001$ and $.05$, respectively). Table 7 demonstrates the contributions of both variables in predicting anxiety using hierarchical regression.

The same pattern was evident for dissociation. A regression model with both gender and trauma with more betrayal significantly predicted dissociation ($R^2(2, 165) = .18, p < .001$). Again, both betrayal trauma and gender were significant independent

Table 7

Summary of Hierarchical Regression Analysis for Variables Predicting TSC-40 Anxiety Scores at Time 1 (N = 185)

Variable	<i>B</i>	<i>SE B</i>	β
Step 1			
Gender	-1.53	.62	-.19*
Step 2			
Gender	-1.22	.58	-.15*
Trauma with more betrayal	.29	.06	.37**

Note. $R^2 = .04$ for Step 1; $\Delta R^2 = .13$ for Step 2 ($ps < .001$).

* $p = .05$

** $p < .001$

predictors of dissociation, but betrayal trauma was a greater predictor than was gender (Standardized $\beta = .37$ and $-.17, p < .001$ and $.05$, respectively). Table 8 shows the contributions of gender and trauma with more betrayal in predicting TSC-40 dissociation scores using hierarchical regression analysis.

These results were not replicated at Time 2. At Time 2, there were no gender differences in reported levels of anxiety ($t(92) = .98, p = .32$), depression ($t(90) = .33, p = .75$), or dissociation ($t(90) = .98, p = .75$). There were no significant gender differences on the TSC-40 depression subscale, the TAS-20, or total number of

physical health complaints (PILL total) at Time 1 or at Time 2. At Time 2, women reported being sick more days during the past month than did men, Welch's $t(77) = 2.51, p < .05$.

Table 8

Summary of Hierarchical Regression Analysis for Variables Predicting TSC-40 Dissociation Scores at Time 1 (N = 185)

Variable	B	SE B	β
Step 1			
Gender	-.85	.31	-.21*
Step 2			
Gender	-.70	.29	-.17*
Trauma with more betrayal	.15	.03	.37**

Note. $R^2 = .04$ for Step 1; $\Delta R^2 = .14$ for Step 2 ($ps < .001$).

* $p = .05$

** $p < .001$

Correlations between measures at Times 1 and 2

Measures of symptoms and trauma scales were highly correlated at both timepoints. Table 9 provides the zero-order correlations among the CAT scale, the PILL, the TAS-40, the TSC-40, and BBTS items with more and less betrayal.

Table 9

Zero-order Correlations between Trauma and Symptom Measures at Times 1 and 2

<u>Time 1</u>	CAT scale	PILL	TAS-20	TSC-40	BBTS more Betrayal
PILL	.31**				
TAS-20	.30**	.38**			
TSC-40	.40**	.63**	.55**		
BBTS – more betrayal	.58**	.22**	.28**	.43**	
BBTS – less betrayal	.16	.22**	.25**	.16*	.39**
<u>Time 2</u>					
PILL	.27**				
TAS-20	.24**	.23**			
TSC-40	.59**	.75**	.38**		
BBTS more betrayal	.61**	.27*	.16	.42**	
BBTS less betrayal	.23*	.15	.22**	.19	.33**

* $p < .05$ ** $p < .01$ *Betrayal trauma and posttraumatic symptoms*

Betrayal trauma was highly correlated with the anxiety, depression, and dissociation subscales of the TSC-40. Table 10 provides correlation matrices for TSC-20 subscales and the BBTS categories of trauma with more and less betrayal.

At Time 1, regression analyses showed that trauma with more betrayal significantly predicted depression ($R^2(1, 160) = .11, p < .001$; Standardized $\beta = .33, p < .001$). When trauma with less betrayal was added, the model did not change significantly (R^2 change = .003, $p = .45$). Trauma with more betrayal predicted anxiety

(R^2 (1, 155), $p < .001$; Standardized $\beta = .36$, $p < .001$), and when trauma with less betrayal was added to the model, the model was not significantly changed (R^2 change = .004, $p = .42$). Trauma with more betrayal significantly predicted dissociation (R^2 (1, 159) = .13, $p < .001$; Standardized $\beta = .33$, $p < .001$), and the model was not significantly changed with the addition of trauma involving less betrayal (R^2 change (1, 158) = .004), $p = .41$).

Table 10

Zero-order Correlations between TSC-40 Subscales and BBTS Categories

	Trauma with more betrayal	Anxiety	Depression	Dissociation
<u>Time 1</u>				
Anxiety	.38**			
Depression	.35**	.77**		
Dissociation	.39**	.68**	.57**	
Trauma with less betrayal	.39**	.07	.16*	.18*
<u>Time 2</u>				
Anxiety	.37**			
Depression	.36**	.83**		
Dissociation	.38**	.76**	.74**	
Trauma with less betrayal	.33**	.10	.12	.12

* $p < .05$
** $p < .01$

The same pattern emerged at Time 2. Trauma with more betrayal significantly predicted depression ($R^2(1, 84) = .13, p = .001$; Standardized $\beta = .34, p < .01$), and trauma with less betrayal did not significantly contribute to the model (R^2 change (1, 83) = .003, $p = .62$). Trauma with more betrayal significantly predicted anxiety ($R^2(1, 86) = .14, p < .001$; Standardized $\beta = .37, p < .001$), and adding trauma with less betrayal did not significantly change the model (R^2 change (1, 85) = .000, $p = .84$). Trauma with more betrayal significantly predicted dissociation ($R^2(1, 86) = .14, p < .001$; Standardized $\beta = .37, p < .001$), and the addition of trauma with less betrayal did not produce significant change (R^2 change (1, 85) = .003, $p = .62$).

Trauma and memory impairment

Table 11 reports below the number of individuals who reported some degree of memory impairment for instances of each abuse subtype. Few individuals reported impaired memory for abuse. If at least one of the incidents for which participants indicated memory impairment involved abuse by a caregiver, participants are categorized below in the caregiver category. Because spanking is very common and often occurs at very young ages, the number of individuals reporting physical abuse instances other than spanking and the number reporting impaired memory for abuse experiences other than spanking are indicated in parentheses. Due to the small sample sizes in each category, additional analyses were not conducted.

Test-retest reliability

The CAT scale had high test-retest reliability ($r = .85$). The PILL had a test-retest reliability of $r = .69$, and the TAS-20 had one of $r = .65$. The test-reliability for the TSC-40 was high ($r = .80$). BBTS total scores had a reliability of $r = .49$. When only items querying events before age 18 were used, reliability was $r = .54$. Reliability was $r = .66$ for traumas with more betrayal and $r = .55$ for items with less betrayal.

Table 11

Numbers of Individuals with Memory Impairment by Abuse Category

Abuse subtype	Number of participants endorsing memory impairment on the Betrayal Trauma Inventory	
<u>Sexual Abuse</u>		
Time 1	Caretaker	1
	Noncaretaker	5
Time 2	Caretaker	4
	Noncaretaker	4
<u>Physical Abuse</u>		
Time 1	Caretaker	11 (3)
	Noncaretaker	1 (1)
Time 2	Caretaker	8 (4)
	Noncaretaker	2 (3) ²
<u>Emotional Abuse</u>		
Time 1	Caretaker	6
	Noncaretaker	4
Time 2	Caretaker	3
	Noncaretaker	4

² Participant 133 reported impaired memory from spanking by a caregiver and impaired memory for BTI item 9a by a non-caregiver. Therefore, she falls into the impaired memory for physical abuse by caregiver column if both scores are considered, but not when spanking is removed.

The BTI did not demonstrate test-retest reliability for the numbers of instances of physical abuse participants reported at Times 1 and 2 ($r = .16, p = .14$), emotional abuse ($r = .10, p = .35$). On the BTI, disclosure frequency for physical abuse scores at Times 1 and 2 were correlated at $r = .37$, and disclosure latency scores for physical abuse were correlated at $r = .14$. For sexual abuse, disclosure frequency scores were correlated at $r = .48$, and disclosure latency scores were correlated at $r = .68$. For emotional abuse, disclosure frequency was correlated at $r = .69$, and disclosure latency scores were correlated at $r = .29$.

Disclosure

Disclosure frequency and disclosure latency were not correlated with counseling at Time 1, and were not related to the depression, anxiety, or dissociation subscales of the TSC-40. Disclosure latency (length of time before disclosing abuse) was correlated with dissociation at $r = .25, p < .01$ at Time 1. Both disclosure latency for physical abuse and total amount of childhood abuse emerge as significant independent predictors of dissociation at Time 1 ($R^2(2, 115) = .11, p < .001$; Standardized $\beta = .21$ and $.23, p < .05$ and $p < .01$, respectively). The number of times participants reported talking about emotional abuse experiences was significantly negatively correlated with all TAS-20 subscales at Time 1 at levels of $p < .05$, but was not correlated with TAS-20 subscales at Time 2.

Social support

Social support was only measured at Time 2, using the Relational Health Indices. Total social support, as measured by adding items assessing support by a peer, a mentor, and community, was negatively correlated with depression ($r = -.35, p < .01$), anxiety ($r = -.31, p < .01$), and dissociation ($r = -.29, p < .01$). The empowerment/zest subscale was significantly negatively related to depression ($r = -.30, p < .01$), anxiety ($r = -.27, p < .05$), and dissociation ($r = -.24, p < .05$). The engagement subscale was also negatively related to depression ($r = -.38, p < .001$), anxiety ($r = -.31, p < .01$), and dissociation ($r = -.28, p = .01$). The relations between the authenticity scale and these TSC-40 subscales approached significance. Authenticity was negatively correlated with depression ($r = -.24, p = .05$), anxiety ($r = -.20, p = .09$) and dissociation ($r = -.21, p = .08$).

Counseling experiences

At Time 1, those individuals who reported having had counseling experiences did not report significantly more depression ($t(177) = -1.67, p = .10$), anxiety ($t(172) = -1.66, p = .10$) or dissociation ($t(177) = -.78, p = .43$) as measured by the TSC-40. They did, however, report higher levels of childhood abuse using the CAT scale total score, (Welch's $t(166) = -2.64, p = .01$), and higher scores on both the CAT Negative Environment subscale (Welch's $t(115) = -3.72, p < .001$) and the CAT Emotional Abuse subscale (Welch's $t(120) = -2.67, p < .01$).

At Time 2, those individuals who reported counseling experiences did report higher levels of depression (Welch's $t(82) = -2.28, p < .05$), anxiety (Welch's $t(80) = -3.49, p = .001$), and dissociation (Welch's $t(84) = -2.79, p < .01$) assessed by TSC-40 subscales. However, these individuals also reported higher rates of childhood abuse than individuals who did not endorse having had counseling experiences. Their CAT scale total scores were higher (Welch's $t(61) = -4.07, p < .001$), as were their CATS NEG subscales (Welch's $t(74) = -4.68, p < .001$) and their CATS EA subscales (Welch's $t(76) = -3.43, p = .001$). When partial correlations were computed controlling for CAT scale total scores, counseling experiences were not related to depression ($r = .01, p = .96$), anxiety ($r = .13, p = .25$), or dissociation ($r = .09, p = .42$).

Changes in physical and emotional health over time

Change scores were computed by subtracting Time 1 scores from Time 2 scores. Change scores for CAT scale scores, TSC-40 subscale scores, TAS-20 subscale scores, and PILL total scores were not correlated with the length of time between individuals' Time 1 and Time 2 participation. Table 12 depicts descriptive statistics of individuals' change scores for TSC-40 subscales and for changes in the total number of physical health complaints individuals reported on the PILL.

Table 12

Descriptive Statistics of Change Scores for TSC-40 Subscales, CAT and PILL Scales

	<u>Minimum</u>	<u>Maximum</u>	<u>Mean</u>	<u>Standard Deviation</u>
Depression	-9	6	.48	3.01
Anxiety	-10	8	.15	3.25
Dissociation	-6	5	-.22	1.79
PILL total	-49	54	-.50	20.29
CAT scale total	-18	27	.74	8.74

The extent of changes for anxiety, depression, and physical health complaints were highly positively intercorrelated, and significantly related to changes in CAT scale total scores. Table 13 indicates the zero-order correlations among individuals' change scores for the PILL and for the TSC-40 subscales of depression and anxiety.

Table 13

Intercorrelations Among Changes on TSC-40 Subscales and CAT Scale Totals

	<u>CAT change</u>	<u>Depression Change</u>	<u>Anxiety Change</u>
Depression change	.19		
Anxiety change	.23*	.50**	
PILL change	.37**	.38**	.29**

Changes in symptoms were unrelated to changes in disclosure, except that changes in the number of times individuals reported talking about physical abuse incidents on the BTI was related to changes on the TAS-20 ($r = .31, p < .05$).

Coursework addressing issues of violence

Fifty-six participants completed questionnaires at Time 2 with the additional question regarding whether their coursework addressed issues of violence. Thirty-eight participants indicated that they had taken such courses. For both this group and a subgroup of 16 individuals who also had CAT scale total scores of 26 or higher, coursework addressing issues of violence was unrelated to scores on the PILL, TSC-40 subscales, or trauma with more betrayal.

Discussion

The results of this study show that trauma experiences are related to alexithymia, depression, anxiety, dissociation, and physical health complaints. Scores on these measures did not change substantially over time. Trauma with more betrayal predicted posttraumatic symptoms at both Time 1 and Time 2, while trauma with less betrayal did not. The results regarding gender differences and betrayal trauma replicate the effects identified by Goldberg and Freyd (under review). Though betrayal trauma contributed substantially to the posttraumatic symptoms participants experienced, the result that gender also predicted anxiety and dissociation suggests that there may be differences among males' and females' trauma sequelae. Relations between betrayal trauma, childhood emotional abuse and neglect, alexithymia, and health are further explored in subsequent chapters, as are relations between labeling and trauma symptoms.

As the disclosure variables incorporated the amount of trauma individuals reported on the BTI, it is somewhat surprising that there was not an observable relation between disclosure scores and TSC-40 subscales. Given that individuals' reports of trauma before age 18 on the BTI were highly inconsistent, evaluating the impact of disclosure and disclosure change may be problematic. Written disclosure has been shown to have psychological benefits (e.g., Pennebaker & Seagal, 1999; Pennebaker, 1997). However, the benefits of other forms of disclosure appear more complex. Southwick, Morgan, and Rosenberg (2000) noted that for Gulf War veterans, the degree to which individuals reported talking to family and friends about their experiences was positively correlated with depression. In that instance, interpreting causality is not possible; depressed individuals may have felt more need to discuss their experiences with friends or family, and the care they received following their disclosures may have mediated the effects of disclosure on their depressive symptoms. Indeed, other research demonstrates that the level of support individuals receive following disclosure exacerbates or ameliorates symptoms following trauma. McFarlane and van der Kolk (1996) assert that victim blame may be even more painful than the trauma itself. Empirical support for combined effects of traumatic stressors and subsequent environments includes investigations of maternal support for sexually abused girls, with maternal support following abuse disclosure associated with better outcomes (Berliner & Elliott, 1996). Ullman (2000) developed the Social Reactions Questionnaire (SRQ) to assess responses to disclosure of sexual abuse. The instrument could likely be modified to query responses to disclosures of other forms of abuse as

well. Such developments represent an important step in empirically examining the ways trauma interacts with posttraumatic environments to contribute to stress, and future studies could benefit from the inclusion of this instrument.

The finding that counseling experiences were related to higher scores on the CAT scale is somewhat difficult to interpret. On the one hand, individuals with severely abusive childhood environments experience increased psychological symptoms, and may seek counseling to address those emotional difficulties. Conversely, counseling experiences might cause individuals to have increased cognitive and emotional access to past events and their consequences. In this case, clients who have had counseling might report more trauma than those who experienced an equivalent amount of trauma but who have not had counseling. The quality and content of therapeutic relationships and psychological treatments could influence connections between past experiences and symptoms in abuse survivors. As this quality and content varies among therapists and treatments, it is unfortunately possible that some counseling experiences could have an iatrogenic effect.

This study has important limitations. The small sample size, especially for males, may prevent analyses from clearly capturing some of the relations among variables in this study. For instance, the relations between gender and betrayal trauma category varies with respect to statistical significance at Times 1 and 2. Because the patterns in relations between these variables reflect those reported by Goldberg and Freyd (under review) in a much larger sample, it is likely that fluctuations in levels of significance are a product of limited statistical power. The sample's demographic variables demonstrate extreme ethnocultural homogeneity, which prevents the

examination of cultural components that may affect trauma experiences and responses. Research demonstrates that cultural groups may respond differently to trauma (e.g., Kenny & McEachern, 2000). For instance, abuse may represent a distal outcome of historical trauma or the reenactment of cultural oppression (Comas-Diaz, 1995), and facets of cultural identity can both protect against and increase the risk for child maltreatment (Okamura, Heras, & Wong-Kernberg, 1995).

The similarity in age among study participants is another important consideration. The study aims to examine features of trauma responses in young adults. It is certainly possible, however, that relations among trauma experiences, symptoms, and behaviors such as disclosure could operate differently across the lifespan.

CHAPTER IV

EMOTIONAL ABUSE AND ALEXITHYMIA

Background

Many psychologists assert that emotional abuse underlies all forms of child maltreatment (e.g., Brassard & Gelardo, 1987; Garbarino, Guttman, & Seeley, 1986; Hart & Brassard, 1987; Schore, 2001). Indeed, it is questionable whether childhood sexual or physical abuse could be perpetrated by one's caregiver in the absence of psychological abuse. Emotional abuse has been the most recent abuse subtype to emerge in the child maltreatment literature, and is likely the least understood and the most underreported type of abuse (e.g., Gracia, 1995). Definitions of emotional abuse remain rather vague (Giovannoni, 1989). Psychologists' terms for this topic include "emotional abuse," "psychological abuse," "emotional maltreatment," and "psychological maltreatment." Though these terms are used interchangeably here, it is possible that their nuances may convey different meanings to psychologists, patients, and research participants. However, there does not appear to be a consensus within the field regarding any one definition or distinctions between these terms.

Cicchetti and Barnett (1991) identify the need for a nosology of child abuse that incorporates the following aspects: (1) symptom pattern or maltreatment type; (2) etiology; (3) developmental effects; and (4) treatment response. They also articulate the

importance of attending to severity, frequency, chronicity, and the developmental period during which maltreatment occurs. Cicchetti and Barnett identify subtypes that include physical abuse, physical neglect, sexual abuse, emotional maltreatment, and moral/legal/educational maltreatment. Manly, Kim, Rogosch, and Cicchetti (2001) operationalize child maltreatment to incorporate four different subtypes: emotional maltreatment, physical neglect, physical abuse, and sexual abuse. They report that the majority of their sample's 492 maltreated children experienced more than one subtype of abuse, and that 15 distinct subtype combinations were represented. Erickson and Egeland (1996) separate child neglect into five subtypes: physical neglect, emotional neglect, medical neglect, mental health neglect, and physical neglect.

The three iterations of the National Incidence Study (NIS-I, in 1981; NIS-II, in 1986; and NIS-III; 1993), a congressionally mandated study of the National Center on Child Abuse and Neglect, comprised the first attempt to gather estimates of abuse incidence using standardized definitions. The NIS sample includes cases investigated by Child Protective Services and by community professionals in counties that constitute a nationally representative sample of the United States. Changes in the definitional criteria between the first two incidence studies were implemented to reflect the 1984 congressional Child Abuse Amendments (Cicchetti & Barnett, 1991), and produced much higher incidence estimates. Similarly, expanded definitions for the NIS-3 resulted in a 67% increase in incidence estimate. This included a 183% increase in the number of emotionally abused children (an estimate of 188,100 in 1986 contrasted with an estimate of 532,200 in 1993), and a 188% increase in the estimate of emotionally neglected children (an estimate of 203,000 in 1986 versus one of 585,100 in 1993).

According to the NIS-3, more children are victims of neglect than any other subtype. Though child neglect is the most prevalent form of child maltreatment, it remains the least recognized and researched subtype.

Although efforts to understand and prevent or treat the effects of abuse necessitate identifying and defining its distinct forms, focusing exclusively on maltreatment subtypes may obscure important connections. Several psychologists, noting the separation of funding priorities and research endeavors into different subtypes of maltreatment, have called for research addressing similarities among abuse subtypes (e.g., Finkelhor & Dzuiba-Leatherman, 1994; Garrison, 1987). Survivors are likely to have experienced more than one subtype of maltreatment (e.g., Moeller, Bachmann, & Moeller, 1993), and it is often the psychological aspects of physically and sexually abusive acts, as much as the acts themselves, that contribute to post-traumatic symptoms (e.g., Claussen & Crittenden, 1991; Gross & Keller, 1992; Vissing, Strauss, Gelles, & Harrop, 1991).

Emotional abuse and neglect

Brassard, Hart, and Hardy (1993) describe psychological maltreatment as “a repeated pattern of behavior that conveys to children that they are worthless, unloved, unwanted, or only of value in meeting another’s needs” (p. 715). Hart, Brassard, and Karlson (1996) explain that tracking the incidence and prevalence of emotional abuse is extremely challenging, as a very small proportion of cases are reported. They identify the established relation of emotional abuse to attachment, social competence, educational achievement, and cognitive ability. The present study incorporates

measures that operationalize the following kinds of emotional abuse: rejecting, degrading/devaluing, terrorizing, isolating, corrupting, exploiting, denying essential stimulation, emotional responsiveness or availability, and unreliable or inconsistent parenting (Briere, 1992; Hart & Brassard, 1987; Garbarino, Guttman, & Seeley, 1986). The diversity of behaviors identified above as emotionally abusive indicates a wide spectrum of abusive environments. Qualitative differences in emotional abuse experiences are likely to differentially affect those who experience them, just as different general abuse subtypes contribute to diverse outcomes.

Emotional abuse is linked to a range of negative psychosocial outcomes. Research demonstrates connections between emotional abuse and adult depression (e.g., Gibb, Butler, & Beck, 2003; Gross & Keller, 1992; Steinberg, Gibb, Alloy, & Abramson, 2003), suicidality (Bifulco, Morn, Baines, Bunn, & Stanford, 2002), anxiety (Harkness & Wildes, 2002; Kent & Waller, 1998), dissociation (Harkness & Wildes, 2002), and drug and alcohol use among college students (Jelley, 2003). Kent, Waller, and Dagnan (1999) found emotional abuse to be the only type of abuse that predicted unhealthy eating attitudes among adult women, and Kent and Waller (1998) discovered that emotional abuse predicted more depression and anxiety than other forms of abuse.

As many psychologists consider neglect to be one form of abuse, emotional neglect may be conceptualized as comprising one type of emotional abuse. Erickson and Egeland (1996) use the term “psychological unavailability” to describe a common form of emotional neglect; this definition overlaps somewhat with some of the definitions of emotional abuse described above. Emotional neglect often originates when children are preverbal and may be quite unaware their needs are not being met.

Emotional neglect is often most damaging in infancy, with extreme emotional neglect resulting in failure to thrive and subsequent fatality. Children who experience emotional neglect demonstrate anxious attachment (e.g., Egeland & Sroufe, 1981) and internalizing problems (Erickson & Egeland, 1996). Though little research has focused on long-term effects of emotional neglect, psychologists have found a relation between emotional neglect and major depression (e.g., Yamamoto, Iwata, Tomoda, Tanaka, Fujimaki, & Kitamura, 1999). In a longitudinal study of a community sample, Johnson, Smailes, Cohen, Brown, and Bernstein (2000) found childhood emotional neglect to be associated with the development of personality disorders in early adulthood. Further demonstrating the relation between emotional neglect and negative outcomes, Loos and Alexander (1997) found that emotional neglect was related to loneliness and social isolation to a greater degree than any other maltreatment subtype.

Emotional abuse and alexithymia

The cognitive processes necessary for accommodation or adaptation to maltreatment and for subsequent recovery are quite complex. For children who have experienced trauma, a secure attachment with a caregiver protects against long-term negative symptoms (van der Kolk & Fislser, 1994). When it is the parents themselves, however, who are the source of trauma, children develop cognitive and emotional patterns to cope with maltreatment, such as those proposed by Briere (1992), Linehan (1993), and Freyd (1996).

The quality of emotional abuse itself may directly impact the development of emotional awareness. In maltreating environments, children can learn that it is unacceptable, threatening, or dangerous to express emotions, especially negative ones. Because abuse and neglect produce strong negative emotions, children may adapt to abuse with general deficits in emotional awareness. Bowlby (1988) describes a parenting style that requires the denial of certain emotions, such as environments where parents instruct their children not to cry or express negative emotions, as contributing to learned deficits in emotional awareness. Children learn that they must distance themselves from their own needs and feelings to obtain love and care.

Previous studies have demonstrated links between alexithymia and abuse (Berenbaum, 1996; Goldsmith & Freyd, under review; Zlotnick, Mattia, & Zimmerman, 2001) and a negative relation between alexithymia and self-expressiveness in the family (Yelsma, Hovestadt, Nilsson, & Paul, 1998). Yelsma, Hovestadt, Nilsson, and Paul (1998) found a highly significant negative correlation ($r = -.52, p < .0001$) between counseling clients' perceptions of positive expression with their families and their levels of alexithymia as measured by the TAS-20; the authors found that family negative expressiveness was also correlated with alexithymia, but to a lesser degree ($r = .34, p < .01$). Their findings certainly indicate that emotional neglect, in the form of a lack of positive expression, may be even more strongly related to alexithymia than is emotional abuse.

Abuse, alexithymia and the developing brain

Neuroanatomical and neuropsychological research provides physical evidence of connections between psychological abuse and neglect and capacities for emotional awareness. Environments that inhibit the development of the skills with which children are able to identify and modulate their emotional experiences can lead to long-term deficits in these areas. Cicchetti (2002) explains that children with originally normal brains can experience changes in brain structure, function, and organization as a result of experiences such as poverty, community violence, physical, sexual, or emotional abuse, and neglect, and that children's brains are especially vulnerable during periods of rapid creation or modification of neuronal connections. While both normal and abnormal brain development are self-organizing, dynamic processes, normal brain development proceeds from a state of less functional and structural differentiation to one of greater complexity, flexibility, and specialization. Conversely, in abnormally developing brains, structural changes inhibit flexibility. For instance, Teicher (2002) describes his lab's findings of brain-wave abnormalities in electroencephalograms (EEGs) of children and adolescents who had suffered early psychological, sexual, or emotional abuse. Among data from 115 consecutive admissions, 54% of children who survived physical and sexual abuse had irregular EEGs as compared with 27% of nonabused patients. The abnormalities were in the frontal and temporal regions, and were lateralized to the left hemisphere. Brain abnormalities in maltreated children may be the result of the brain's attempt to cope with unsafe environments. For instance, the lateralization of right hemisphere activity is considered a reflection of assessing the

emotional importance of experiences and in regulating hormonal and autonomic functioning (van der Kolk, 1996), a skill that is essential to survival in environments of questionable safety.

Schore (2000, 2001) offers illuminating descriptions of the pathways through which early abuse and neglect impact regions of the brain involved in emotional awareness. Schore (2001) specifies that “purely ‘psychological’ relational trauma” (p. 222) produces alterations in neuroanatomical and neurophysiological development. Specific damage includes the overpruning and retraction of dendrites, which results in fewer synaptic connections to other cortical and subcortical areas. Schore (2000) explains that the maturation of the orbitofrontal cortex, which assesses internal states to allocate coping resources and participates in learning about emotions, is experience-dependent. Schore incorporates the neuroimaging and EEG data of Ryan, Kuhl, and Deci (1997) to explain how positive parent-child interactions influence the development of cortical and subcortical networks within the right hemisphere that are important to emotion regulation. Schore hypothesizes that “growth-inhibiting” intergenerational patterns of stress and coping result from the suboptimal development of corticolimbic structures that occur as a consequence of aversive environments.

Schore (2001) offers compelling explanations of the ways coping with abuse affects early development. How might these coping mechanisms operate after individuals leave their home environments? Learning models suggest that both the repeated nature of family abuse and the depth of processing in the mechanisms described above would render coping techniques difficult to extinguish. The concurrent timing of these processes and individuals’ overall cognitive development further

deepens their incorporation. Finally, the brain changes in the orbitofrontal regions Schore describes are likely to endure and reinforce patterns of emotional unawareness. Evidence linking the development of dissociation with the orbitofrontal cortex supports the enduring cognitive and neurological effects of accommodation to chronic abuse.

Alexithymia and posttraumatic symptoms

Research provides some illumination regarding the relation of such learned emotional unawareness to other traumatic symptoms. For instance, Badura (2003) examined relations between combat exposure, PTSD, and alexithymia in 274 male veterans. Using principal components analysis, Badura did not find independence between alexithymia and PTSD subscales, and uses this finding to support the case that alexithymia reflects the numbing symptoms that form one component of PTSD. Badura reviews research demonstrating that alexithymia is better conceptualized as a state than a trait and is a response to anxiety or stress that guards against negative emotions. For example, Haviland, Hendryx, Shaw, and Henry (1994) demonstrate that anxious states predict depression and alexithymia, and that depression predicts alexithymia. Badura also reviews Litz et al.'s (1997) descriptions of posttraumatic emotional numbing, in which three hypotheses for pathways to emotional numbing are advanced. The first possibility is that traumatized individuals may employ emotional numbing to avoid trauma triggers, including situations that provoke emotion, including internal emotional cues. Another possibility is that individuals use so many emotional and physiological resources in coping with hyperarousal that these resources become tapped and emotional numbing results. A third scenario considers emotional unresponsiveness in

traumatized persons to represent symptoms of comorbid disorders, such as depression or substance use. In evaluating these conceptualizations, Litz et al. (1997) found the quantity of hyperarousal symptoms to be the best predictor of emotional numbing, followed by avoidance symptoms, and that comorbid diagnoses were not reliable predictors. It is also likely that alexithymia is differentially related to acute and chronic trauma. Zeitlin, McNally, and Cassiday (1993) found in a sample of 24 rape victims and 12 controls that individuals who had been raped more than once were more alexithymic than individuals who had only been raped one time.

Gender and alexithymia

Many research studies indicate that males have higher levels of alexithymia than females (e.g., Carpenter & Addis, 2000; Le, Berenbaum, & Raghavan, 2002; Levant, 2001). Le, Berenbaum, and Raghavan (2002) found that parental emotion socialization mediated gender differences in alexithymia. This research demonstrates that the environmental messages males receive regarding emotional awareness may account for the observed gender differences in alexithymia. If emotional awareness is perceived to be a feminine quality, gender role expectations may contribute to male alexithymia. Carpenter and Addis (2000) examined relations between gender, alexithymia, and a measure called the Responses to Depression Analog Questionnaire (RDAQ), which asks participants to imagine they are experiencing specific depressive symptoms and presents six questions asking how they would respond in terms of seeking professional help or social support. In their sample, men scored significantly higher than women on the TAS-20. They found that both men and women who scored higher on the TAS-20

reported they would be less likely to seek help from a health professional or from friends than those with lower TAS-20 scores. They also found that for both genders, difficulty describing feelings, rather than difficulty identifying feelings, was related to scores on the RDAQ. Interestingly, Carpenter and Addis found that alexithymia accounted for some of the effects for gender differences on the RDAQ. With alexithymia in the model, the significance for gender affecting the likelihood of talking to friends (women were more likely to endorse talking to friends as a response to depression) was reduced, but female gender still predicted the likelihood of seeing a health professional.

Goals of the current study

Though researchers have begun to investigate connections between emotional abuse and impaired emotional awareness, relations between abuse experiences and alexithymia in nonpsychiatric samples of young adults remain less explored. Zlotnick, Mattia, and Zimmerman (2001) found connections between emotional and physical neglect and alexithymia in 252 psychiatric outpatients, and Berenbaum (1996) discovered links between childhood abuse and alexithymia in 60 individuals receiving outpatient psychotherapy. The current study examines relations among abusive childhood environments and alexithymia in a sample of college students that is primarily comprised of young adults. Given that several psychologists articulate the ways emotionally abusive and neglectful environments contribute to impairments in

emotional awareness, the study closely examines relations among Emotional Abuse and Negative Home environment subscales of the CAT scale and the subscales of the TAS-20.

Results

Correlations between CAT, TAS-20, and TSC-40 subscales

Subscales of the Child Abuse Trauma scale (CAT scale), the Toronto Alexithymia Scale-20 (TAS-20), and the Trauma Symptom Checklist-40 (TSC-40) were highly intercorrelated. Table 14 provides correlation matrices for the relations among the CAT scale subscales of emotional abuse (CATS EA) and negative home environments (CATS NEG), the subscales of the TAS-20, including the Difficulty Identifying Feelings (DIF) subscale, the Difficulty Describing Feelings (DDF) subscale, and the Emotionally Oriented Thinking (EOT) subscale, and the TSC-40 subscales of dissociation, anxiety, and depression.

Regression analyses

At Time 1, the CAT scale Negative Home Environment/Neglect subscale significantly predicts scores on the TAS-20 DIF subscale ($R^2(1, 168) = .19, p < .001$). When the depression subscale of the TSC-40 subscale is added, the model changes significantly (R^2 change $(1, 167) = .22, p < .001$). Thus, negative home environments and neglect predicted difficulty identifying feelings for this sample (Standardized $\beta = .22$ and $.52, p = .001$ and $p < .001$, respectively). When anxiety is added to the model, it

does not change significantly (R^2 change = .01, $p = .09$). The emotional abuse subscale also did not have predictive power when added to the model (R^2 change < .001, $p = .77$). Table 15 shows the results of the hierarchical regression for Time 1.

Table 14

Correlation Matrices for CAT Scale, TAS-20, and TSC-40 Subscales

	CATS NEG	DIF	DDF	EOT	Dissociation	Anxiety	Depression
<u>Time 1</u>							
DIF	.43**						
DDF	.26**	.58**					
EOT	-.04	.13	.39**				
Dissociation	.35**	.43**	.26**	-.02			
Anxiety	.43**	.56**	.32**	.02	.68**		
Depression	.43**	.62**	.41**	.08	.57**	.77**	
CATS EA	.81**	.32**	.24**	-.04	.30**	.35**	.43**
<u>Time 2</u>							
DIF	.31**						
DDF	.13	.65**					
EOT	-.20	.38**	.56**				
Dissociation	.48**	.18	.18	-.02			
Anxiety	.45**	.44**	.25*	-.07	.76**		
Depression	.45**	.53**	.30**	.01	.74**	.83**	
CATS EA	.83**	.30**	.19	-.12	.44**	.47**	.45**

* $p < .05$

** $p < .01$

Table 15

Summary of Hierarchical Regression Analysis for Variables Predicting TAS-20 Difficulty Identifying Feelings at Time 1 (N = 185)

Variable	B	SE B	β
Step 1			
CATS NEG subscale score	.29	.64	.44**
Step 2			
CATS NEG subscale score	.14	.04	.22*
TAS-40 depression score	.86	.11	.52**

Note. $R^2 = .19$ for Step 1; $\Delta R^2 = .22$ for Step 2 ($ps < .001$).

* $p = .001$

** $p < .001$

At Time 2, the CATS NEG subscale significantly predicted TAS-20 DIF subscale scores ($R^2(1, 89) = .30, p < .01$). Adding depression significantly changed the model (R^2 change $(1, 88) = .19, p < .001$), and CATS NEG no longer emerged as a significant independent predictor (Standardized $\beta = .08, p = .44$). Table 16 presents these results.

Table 16

Summary of Hierarchical Regression Analysis for Variables Predicting TAS-20 Difficulty Identifying Feelings at Time 2 (N = 96)

Variable	B	SE B	β
Step 1			
CATS NEG subscale score	.15	.05	.30*
Step 2			
CATS NEG subscale score	.04	.05	.08
TAS-40 depression score	.58	.12	.50**

Note. $R^2 = .30$ for Step 1; $\Delta R^2 = .19$ for Step 2 ($ps < .001$).

* $p = .01$

** $p < .001$

Gender differences for individuals reporting high levels of abuse on the CAT scale

At Time 1 and at Time 2, men and women did not significantly differ in their TAS-20 scores or subscales. Table 17 indicates the mean scores for males and females on the three TAS-20 subscales.

However, men and women who experienced high levels of trauma, operationalized as scoring above the mean CAT scale total score for Time 1, did score significantly differently on the DIF subscale of the TAS-20. Since the mean CAT scale score for Time 1 was 25.87, individuals were separated into two groups: those scoring below 26 on the CAT scale and those scoring above 26.

Table 17

Male and Female Mean Scores for TAS-20 Subscales

	<u>Gender</u>	<u>DIF</u>	<u>DDF</u>	<u>EOT</u>
Time 1	Male	15.17	12.25	19.15
	Female	14.88	12.14	18.11
Time 2	Male	15.83	12.91	18.26
	Female	14.44	12.63	17.67

Table 18 shows the mean Time 1 scores for men and women who scored at least 26 for their CAT scale total score, which was above the mean CAT scale total score for the Time 1 sample.

Table 18

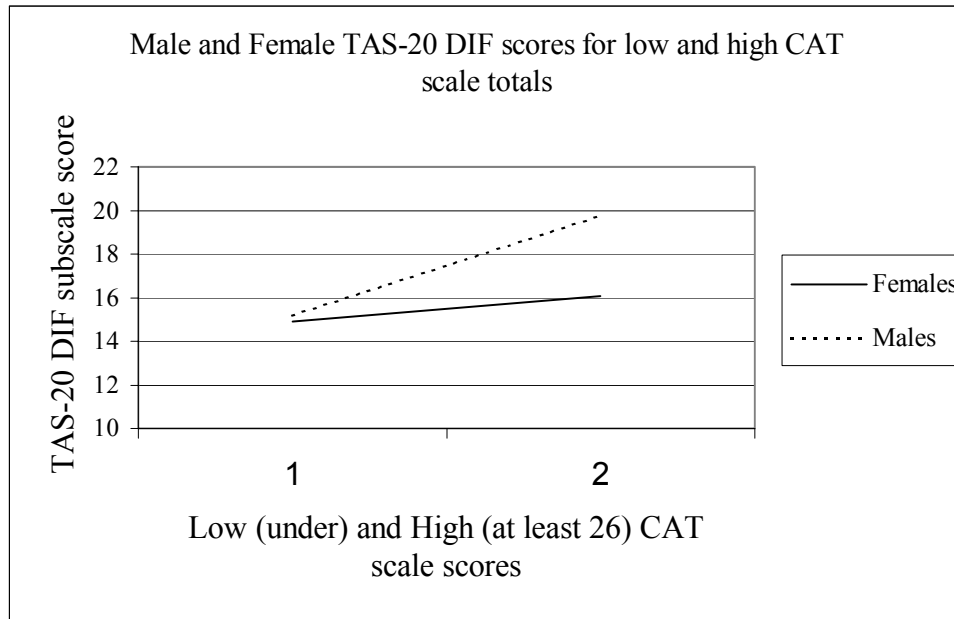
Mean Scores for Individuals Scoring at least 26 on the CAT Scale

	Gender	N	DIF	DDF	EOT
Time 1					
	Male	24	19.75	14.04	19.75
	Female	43	16.05	12.43	17.95
Time 2					
	Male	10	17.60	13.80	18.50
	Female	22	14.82	12.50	17.09

Using t-tests to compare individuals who scored at least 26 on the CAT scale, men emerge as having significantly higher DIF scores than women, $t(65) = -2.41, p < .05$. For these individuals, the difference between genders on the DDF subscale was not significant, $t(66) = -1.26, p = .21$; however, the difference on the EOT subscale approached significance, $t(66) = -1.80, p = .08$. Figure 1 demonstrates the differences in TAS-20 DIF scores for females and males scoring either under 26 on the CAT scale total or 26 or higher.

Figure 1

Male and Female TAS-20 DIF Scores for Individuals with Low and High CAT Scale Total Scores at Time 1



For Time 2, t-tests did not reveal significant differences in TAS-20 subscales for males and females scoring above 26 on the CAT scale. To evaluate whether individuals' levels of alexithymia at Time 1 were related to whether or not they participated in the Time 2 portion of the study, a t-test was conducted. However, there was no relation between Time 2 participation and Time 1 TAS-20 scores. In addition, t-tests revealed no differences in TAS-20 subscale scores for those men who scored at least 26 on the CAT scale at Time 1 and who participated in the Time 2 portion of the study and those male high-scorers who did not participate in the Time 2 portion.

Separate correlational analyses for relations between men and women's TAS-20 subscale scores and the amount of trauma with more and less betrayal they reported on the BBTS indicates additional variation in trauma responses according to gender. For females at Time 1, trauma with more betrayal was correlated with the TAS-20 DIF subscale at $r = .28$ ($p < .01$), and was correlated with the TAS-20 DDF subscale at $r = .23$ ($p < .05$). Trauma with less betrayal was not significantly correlated with the TAS-20 DIF subscale ($r = .09$, $p = .32$), or with the TAS-20 DDF subscale ($r = .10$, $p = .28$). For females at Time 2, trauma with more betrayal was again correlated with the TAS-20 DIF and DDF subscales ($r = .35$ and $.25$, $p < .01$ and $< .05$, respectively). Trauma with less betrayal was correlated with the TAS-20 DIF subscale ($r = .29$, $p < .05$), but was not significantly correlated with the TAS-20 DDF subscale ($r = .12$, $p = .35$).

For males at Time 1, trauma with more betrayal was correlated with the TAS-20 DIF subscale ($r = .57$, $p < .001$) and with the TAS-20 DDF subscale ($r = .45$, $p < .01$). Trauma with less betrayal was also significantly correlated with the TAS-20 DIF subscale ($r = .35$, $p < .05$) and with the TAS-20 DDF subscale ($r = .4$, $p < .01$). At Time 2, neither trauma with more betrayal nor trauma with less betrayal was correlated with any TAS-20 subscales.

Discussion

These results echo theoretical models and research showing that accommodations to abuse are often generalized and persistent (e.g., Briere, 1992; DePrince & Freyd, 1999). The current results support the hypothesis that individuals' experiences with emotional abuse and neglect are related to current levels of emotional awareness,

especially identifying feelings. The study's examination of the unique contributions of emotional neglect and depression to alexithymia indicates that these factors are all important in the emotional functioning for survivors of childhood emotional abuse. Because alexithymia was assessed using a self-report measure, it is somewhat questionable whether individuals have a level of "meta" emotional awareness; that is, awareness regarding their levels of awareness. However, individuals may be quite aware of their impaired abilities to identify and describe emotions, and these deficits may contribute to experiences of depression.

Results also indicated that trauma experiences differentially affect men's and women's ability to identify their feelings. Though males had higher scores than females on the TAS-20, gender differences on TAS-20 scores were not significant. This finding contrasts with extensive research that documents increased levels of alexithymia among males. However, gender differences in TAS-20 scales were not found in a previous sample of 80 university students (Goldsmith & Freyd, under review). In the Time 1 sample, both trauma with more betrayal and trauma with less betrayal are more strongly correlated with TAS-20 subscales for males than for females. This pattern suggests that males respond to trauma with increased levels of alexithymia. The absence of a similar effect at Time 2 is likely due to the small sample of males at that timepoint. This study also demonstrates that low and high levels of childhood abuse may differentially impact emotional awareness in males and females. Perhaps emotionally abusive experiences interact with other environmental factors to contribute to the development of emotional awareness and unawareness among abused males.

It is notable that the Negative Home Environment/Neglect subscale was most closely tied to alexithymia in this sample. This evidence that emotional neglect is specifically related to alexithymia extends Zlotnick, Mattia, and Zimmerman's (2001) finding of this relation in psychiatric outpatients to a more general sample. Though the theoretical models detailing the relation between these variables consider emotional neglect to be a form of abuse, it is likely that many psychologists and non-psychologists do not consider emotional neglect to be one of the most important features of abusive environments. Acts of omission may be less salient than acts of commission, and researchers are often biased towards looking for the presence of a particular variable as opposed to its absence (Hearst, 1991).

Though based on correlational analyses, these results provide some support for the theoretical conceptualizations of chronic emotional unawareness as a response to emotionally neglectful environments, and augment the empirical literature documenting the cognitive, emotional, and physiological mechanisms that support these connections. The present results clearly support the hypothesized relation between emotionally neglectful environments and the development of alexithymia. Individuals experiencing emotional neglect and negative home environments are unlikely to receive the care, sense of safety, and emotional responsiveness necessary to activate and develop their experience-dependent systems of emotional regulation. However, another causal explanation to consider is that children with alexithymic tendencies are less able to direct their caregivers' attentions towards their emotional needs, resulting in emotional neglect. The study also indicates that alexithymia and depression may develop together as part of a constellation of abuse responses and adaptations. The futility of emotional

awareness in a situation where such awareness is maladaptive may represent a form of learned helplessness (e.g., Seligman, 1975) that overlaps with the development of depression in abused individuals. Depression may develop in emotionally abused and neglected individuals for many reasons, including the internalization and self-blame asserted by Briere (1992). Future research may further elucidate connections among emotional neglect, alexithymia, and depression. Until then, awareness of their interrelations can inform conceptualizations of these issues and treatment approaches.

CHAPTER V

BETRAYAL TRAUMA, PHYSICAL HEALTH, AND HEALTH CARE UTILIZATION

Background

Trauma extensively impacts survivors' psychological and physical health (e.g., Lisak & Miller, 2003; Ross, 2000; Teicher, 2002; Zlotnick, Warshaw, Shea, & Keller, 1997; Wurr & Partridge, 1996), and has been linked with increased levels of health care utilization (e.g., Sansone, Wiederman, & Sansone, 1997). For instance, in one study, women who were victims of rape used non-psychological medical services to a greater extent than matched controls at both four months and one year after victimization (Kimerling & Calhoun, 1994). Walker et al. (1999) note that in a random sample of 1225 women members of a health maintenance organization, those who reported any abuse or neglect had a median of \$97 more in health care costs than those reporting no abuse or neglect, and those reporting sexual abuse had \$245 more in health care costs. Victims of trauma often present to primary care settings rather than to mental health agencies for help with symptoms related to trauma (e.g., Samson, Bensen, Beck, Price, & Nimmer, 1999), and trauma experiences are commonly reported by patients who present with medical symptoms without clear pathologies (e.g., Katon, Sullivan, & Walker, 2001).

The quantity and severity of trauma experiences affect survivors' experiences of symptoms and their use of medical services. For instance, Vietnam combat veterans

reported more health difficulties than Vietnam veterans who did not experience combat, even though health professionals failed to confirm medical differences (Center for Disease Control, 1988a). In a sample of females who were frequent utilizers of medical services, Arnow, Hart, Hayward, Dea, and Taylor (2000) found that survivors of combined physical and sexual abuse utilized medical services, including emergency rooms, to a greater extent than those who experienced sexual abuse only. However, they noted that those who experienced both forms of abuse reported more severe sexual abuse than those who experienced sexual but not physical. Survivors of multiple abuse subtypes reported health complaints that included significantly more chronic pain complaints and significantly more emergency room visits made with specific complaints of headaches. Walker et al. (1999) found that after controlling for chronic medical diseases, health care costs for survivors of abuse increased significantly according to the number of maltreatment categories patients endorsed. They acknowledged, however, that their results could be confounded with other psychosocial risk factors. To explain the ways abuse may contribute to subsequent physical symptoms, Kendal-Tackett (2000) identifies links between the hyperarousal experienced by victims during childhood abuse and the physiological hyperarousal that contributes to chronic medical conditions in adult survivors.

Abuse, health complaints, and health behaviors appear linked in samples other than those from medical settings. Fillingim, Wilkinson, and Powell (1999) examined histories of sexual and physical abuse in childhood and adulthood, health care utilization (using the PILL), pain, somatization, and perceptions of health status in 426 college students. They found that women reported higher rates of all types of abuse except for

childhood physical abuse. Participants with abuse histories reported more pain, health care utilization, and depression than those without abuse histories. When the covariates of depression and somatizing were assessed, the differences between abused and non-abused individuals' health care utilization and pain complaints were no longer significant.

Several researchers have identified connections between childhood abuse histories, posttraumatic symptoms, and physical health. Batten, Aslan, Maciejewski, and Mazure (2004) use data from over 5000 individuals in the National Comorbidity Survey to note that child maltreatment (defined as sexual abuse, physical abuse, or neglect) is a risk factor for lifetime depression for both men and women, and also is a significant predictor of cardiovascular disease for women. Friedman and Schnurr (1995) hypothesized that PTSD mediates the relation between trauma and health; their results supported this conceptualization. In their sample, PTSD was related to increased use of medical services. Similarly, Deykin et al. (2001) noted that the extent of depressive symptoms was associated with health service utilization and PTSD status for 156 male veterans.

In addition to other posttraumatic symptoms, research indicates that alexithymia is specifically related both to abuse histories (Berenbaum, 1996; Goldsmith & Freyd, under review; Zlotnick, Mattia, & Zimmerman, 2001) and to subjective measures of illness (Lumley, Tomakowsky, & Torosian, 1997). In discussing the results of a study examining the relation between alexithymia and medically unexplained symptoms, Deary, Scott, and Wilson (1997) speculate that alexithymia "might be a parameter that affects signal recognition, rather than signal detection." (p. 562). Therefore, individuals who are alexithymic may have difficulty differentiating between emotions and physical symptoms. Using the Toronto Alexithymia Scale-20 (TAS-20) subscales, the researchers

found that the Difficulty Identifying Feelings Subscale (DIF) was highly correlated with medically unexplained symptoms, and that the Difficulty Describing Feelings (DDF) subscale was somewhat correlated with medically unexplained symptoms. The third subscale, Externally Oriented Thinking (EOT), was not correlated with any health variables. Carpenter and Addis (2000) expected that alexithymic individuals would be more likely to seek help from a medical doctor than a therapist in responses to depression, but their data from 172 adults ranging from ages 22-67 did not support a distinction for seeking help from these two types of health professionals.

The present study assesses relations among university undergraduates' mental and physical health, trauma histories, and alexithymia. The study investigates the hypothesis that trauma with more betrayal as measured by the BBTS will predict mental and physical health problems and health care utilization to a greater extent than will trauma with less betrayal. Another hypothesis is that experiences with emotional neglect and abuse and alexithymia will contribute to the quantity of medical symptoms students report and their health care utilization behaviors.

Results

Correlations

At Time 1, zero-order correlations revealed that the TAS-20 subscale of difficulty identifying feelings (DIF) was significantly related to PILL total scores ($r = .51, p < .01$), as was the difficulty describing feelings subscale (DDF), $r = .28, p < .01$. The CAT scale total score was correlated with trauma with more betrayal ($r = .61, p < .01$) and with trauma with less betrayal ($r = .23, p < .05$) as measured by the BBTS. The CAT scale

total score was correlated with PILL total scores ($r = .31, p < .01$), and the CAT scale negative home environment (CATS NEG) and emotional abuse subscale (CATS EA) were also related to the total number of physical health complaints as reported on the

Table 19

Correlations Among TAS-20 Subscales, CATS NEG Subscale Scores, and PILL Scores

	DDF	EOT	PILL total	Health Visits	Days Sick	Restricted activity	CATS NEG
<u>Time 1</u>							
DIF	.58**	.13	.51**	.15*	.15	.04	.43**
EOT	.39**						
PILL total	.28**	-.03					
Health visits	.00	-.09	.19*				
Days sick	.03	.00	.22**	.49**			
Restricted Activity	-.13	-.14	.17*	.66**	.57**		
CATS NEG	.26**	-.04	.36**	.16*	.22**	.01	
<u>Time 2</u>							
DIF	.65**	.38**	.39**	-.11	-.02	.001	.31**
EOT	.56**						
PILL total	.39**	-.04					
Health visits	-.05	-.08	.09				
Days sick	-.05	-.06	.30**	.16			
Restricted Activity	-.05	-.04	.23*	.14	.66**		
CATS NEG	.31**	-.20	.33**	-.03	.11	.03	

PILL ($r = .36$ and $.30$ respectively, $p < .01$). Similar patterns emerged at Time 2. Table 19 presents the zero-order correlations for Times 1 and 2 among the TAS-20 subscales, PILL total scores, CATS NEG scores, reported health care utilization and the number of days individuals reported being sick in the past month.

Experiences of trauma as measured by the BBTS were also related to PILL total scores and to health care utilization. At Time 1, both trauma with more betrayal and trauma with less betrayal were correlated with PILL total scores at $r = .22$, $p < .01$. Trauma with more betrayal was correlated with the number of days participants reported being sick in the past month ($r = .24$, $p < .01$), while trauma with less betrayal was not ($r = -.02$, $p = .83$). Trauma with more betrayal was linked with the number of healthcare visits participants made in the past month ($r = .26$, $p < .01$), but trauma with less betrayal was not ($r = -.02$, $p = .85$). Neither trauma with more betrayal nor trauma with less betrayal was related to the number of days students reported being restricted from activity due to illness. Correlations for both relations were identical, $r = .02$, $p = .83$.

At Time 2, trauma with more betrayal was significantly related to total scores on the PILL ($r = .27$, $p < .01$), but the relation between trauma with less betrayal and PILL total scores was not significant ($r = .15$, $p = .17$). Neither trauma with more betrayal nor trauma with less betrayal was significantly related to the number of days participants reported being sick during the past month ($r = -.01$ and $-.03$, $p = .94$ and $.74$, respectively). Neither betrayal category was related to health care visits ($r = .13$ and $.17$,

$p = .21$ and $.16$, respectively), or to the number of days participants reported their activity was restricted due to illness ($r = .14$ and $.01$, $p = .19$ and $.94$, respectively).

Regression analyses

For Time 1, CATS NEG was a significant predictor for total physical health complaints ($R^2(1, 169) = .13$, $p < .001$). When the Difficulty Identifying Feelings (DIF) subscale of the TAS-20 was added to the model, the model's predictive power was significantly improved (R^2 change $(1, 168) = .16$, $p < .001$). Both CATS NEG and TAS-20 DIF emerged as significant independent predictors of PILL total scores (Standardized $\beta = .17$, $p < .05$, and Standardized $\beta = .44$, $p < .001$, respectively). Table 20 below demonstrates the variables that predicted PILL total scores at Time 1.

Table 20

Summary of Hierarchical Regression Analysis for Variables Predicting PILL Total Scores at Time 1 (N = 185)

Variable	<i>B</i>	<i>SE B</i>	β
Step 1			
CATS NEG subscale score	.94	.19	.36**
Step 2			
CATS NEG subscale score	.43	.19	.17*
TAS-20 DIF subscale score	1.76	.29	.44**

Note. $R^2 = .13$ for Step 1; $\Delta R^2 = .16$ for Step 2 ($ps < .001$).

* $p = .01$

** $p < .001$

The same pattern emerged for Time 2, where CATS NEG predicted PILL total scores ($R^2(1, 87) = .11, p < .01$), and adding TAS-20 DIF subscale scores significantly improved the model's predictive power (R^2 change $(1, 86) = .09, p < .01$). Table 22 illustrates these results.

Table 21

Summary of Hierarchical Regression Analysis for Variables Predicting PILL total scores at Time 2 (N = 96)

Variable	B	SE B	β
Step 1			
CATS NEG subscale score	.91	.28	.33**
Step 2			
CATS NEG subscale score	.65	.28	.23*
TAS-20 DIF subscale score	1.73	.54	.32**

Note. $R^2 = .11$ for Step 1; $\Delta R^2 = .09$ for Step 2 ($ps < .01$).

* $p = .05$

** $p < .01$

Trauma with more betrayal emerged as the only significant predictor of the number of days students reported being sick at Time 1 (Standardized $\beta = .33, p < .01$). Neither BBTS betrayal category predicted the number of days participants reported being sick at Time 2. When predicting visits to a health care professional at Time 1, neither CATS NEG, the TAS-20 DIF subscale, trauma with less betrayal as measured by the BBTS, nor PILL total scores emerged as significant independent predictors (Standardized $\beta = .08, .05, \text{ and } .02; p = .34, .57, \text{ and } .17$, respectively). Trauma with

more betrayal emerged as the only significant predictor of healthcare visits (Standardized $\beta = .38, p < .05$). Because no trauma variables were correlated with health visits at Time 2, regression analyses were not computed for that data.

Discussion

The results demonstrate that abusive childhood environments, betrayal trauma, and alexithymia contribute to individuals' health complaints and behaviors. Negative home environments and alexithymia, conceptualized as etiologically linked, each independently contributed to the amount of physical symptoms participants identified at both Time 1 and Time 2. It is possible that the difficulties in identifying feelings that often develop in emotionally abusive environments result in increased experiences of physical symptoms.

The results also indicate that betrayal trauma is associated with significantly more days of illness per month and medical service utilization than non-betrayal trauma. The finding that betrayal trauma is significantly correlated with the number of days students reported being sick and to health care utilization, but not to specific health symptoms, suggests some level of unawareness regarding the source of psychological and physical difficulties. The constructs of negative childhood environments and betrayal trauma, while related, appear to differentially impact physical health experiences and behaviors. Negative childhood environments were more closely related to physical health complaints than were betrayal trauma experiences, while betrayal trauma was more closely related to the number of days students reported being sick and visits to health

professionals. These results should be interpreted with caution, however, since the study's small sample size may obscure additional relations among these variables.

Findings such as these illustrate that delineating abuse according to specific subtypes may fail to capture important features of maltreatment, such as betrayal. They also provide further evidence that emotional abuse and neglect can have serious physical health consequences. Finally, these findings have important clinical implications. Connections between trauma experiences and health functioning necessitate that health professionals assess patients' trauma histories, including relational aspects of victimization. Understanding relations among betrayal trauma, adverse childhood environments, and health experiences can greatly contribute to psychologists' and medical doctors' treatment of abused individuals.

CHAPTER VI

PERCEPTIONS AND LABELING OF CHILDHOOD ABUSE

Background

Despite established links between child abuse and psychological symptoms such as depression, dissociation, and anxiety, many abuse survivors experience awareness of specific abuse instances or abuse-related symptoms without acknowledging the abuse itself. In their review of psychological literature regarding retrospective abuse reports published between 1980 and 2001, Hardt and Rutter (2004) state the ubiquitous finding that even with substantiated severe abuse and neglect, approximately one-third of individuals deny abuse occurrences when specifically queried as adults. For instance, survivors of rape and physical abuse describe trauma behaviorally but do not categorize themselves as having been raped or physically abused (e.g., Varia & Abidin, 1999; Koss, 1998; Weinbach & Curtiss, 1986).

Several studies illustrate the dramatic differences between abuse experiences and abuse awareness. Knutson and Selner (1994) obtained data from 11,660 college students over a period of ten years. They noted that most participants who reported severe physical abuse did not categorize those experiences as abusive. Over the ten-year period of the study, 1.9% - 4.7% of individuals responded affirmatively to the item, "I was physically abused by my parents when I was a child." Knutson and Selner

report that 26% of those whom they categorize as receiving severe physical punishment endorsed this item. They note that even among those requiring medical attention for physical injuries deliberately inflicted by a parent, only 24.7% of women and 20.5% of men self-identified as abused.

The disparity between abuse experiences and abuse labeling is especially striking in Rausch and Knutson's (1991) study of 1, 526 university students. The researchers found that although participants reported receiving punitive treatment similar to that of their siblings, they were more than twice as likely to identify their siblings' experiences as abusive than they were to label their own. The authors also reported that participants were likely to interpret parental treatment towards themselves, but not parental treatment towards their siblings, as deserved, and therefore not abusive. Perhaps this discrepancy relates to the motivational aspects of unawareness for parental abuse described above.

The gap between individuals' abuse experiences and their awareness of themselves as abused affects psychologists' estimates of abuse prevalence. Researchers have found that self-identified categorization of abuse produces lower rates of abuse than do researcher-defined methods of abuse assessment (Carlin et al., 1994; Knutson & Selner, 1994; Silvern, Waelde, Baughan, Karyl, & Kaersvang, 2000). Wekerle et al. (2001) describe a consensus in the abuse literature that victim underreporting, rather than overreporting, is a more serious impediment in assessing abuse prevalence, because of the "stigmatic and secretive nature" (p. 850) of abuse.

Individuals who experience abuse but fail to consider themselves as abused may be influenced by the failure of professionals and the public to agree upon a

definition of child maltreatment. In addition, many mental health providers focus on anxious, depressive, or other symptoms without investigating the possibility of childhood abuse (e.g., Ross, 2000). An important consideration, explored above, is that the adaptive cognitive styles abuse survivors develop preclude awareness of abuse. Furthermore, a culture that considers child-rearing to be a private matter may prevent individuals from questioning their own or others' experiences. Milburn and Conrad (1996) explain that children who experience parental physical punishment often become adults who maintain the flawed syllogism along the lines of "I received this treatment and turned out well; therefore, this form of punishment is beneficial." Miller (1983) explains how thinking such as this serves the function of preserving loyalty towards one's parents and their child-rearing practices. Because acknowledging the distress that results from adverse parental treatment may be unsafe during childhood and unacceptable during adulthood, abuse survivors may direct feelings of disempowerment towards their own children or towards oppressed individuals or groups whose maltreatment is culturally sanctioned. Finally, abuse awareness may incite societal stigma both from thinking badly of one's parents and from attending to the taboo topic of family trauma. Differences in the contributions of these features and motivations are likely to produce differing levels of awareness in abuse survivors.

Psychological correlates of abuse awareness

Much research has demonstrated negative consequences of childhood abuse. Varia and Abidin (1999) investigated individuals' perceptions of childhood emotional abuse, reported maltreatment experiences, and relationship satisfaction among three

groups: “Non-abused,” persons not reporting psychological abuse; “Acknowledgers,” those reporting and acknowledging childhood emotional abuse; and “Minimizers,” those reporting comparable levels of psychological abuse but not considering themselves abused. Participants in the “Non-abused” group reported the highest levels of relationship satisfaction, followed by the “Minimizers,” and finally, the “Acknowledgers.” These results indicate that in at least one aspect of life, survivors fare better with less explicit awareness. However, interpreting this relation presents some challenges. Is acknowledging their abuse experiences related to the relationship dissatisfaction reported by the “acknowledgers”? Another explanation could be that minimizing or acknowledging abuse relates to a general lack of emotional awareness reflected in survivors’ assessments of both their present relationships and past experiences.

In a study investigating different types of abuse acknowledgment, Carlin et al. (1994) examined “objective and subjective” (p. 393) definitions of physical abuse and lifetime depression prevalence in 280 female clients of a family medical clinic. Their questionnaires included a measure of emotional and physical abuse that used a Likert-type scale measuring frequency of occurrence, from “Never” to “Very Frequently,” with an item that asks participants to categorize themselves as physically abused or not. Carlin et al. found that more participants met “objective” criteria for abuse (28.2%) than “subjective” criteria (11.4%). Researchers’ criteria for abuse included anyone who endorsed one of nine major instances of physical assault (e.g., teeth knocked out, being burned on purpose, or bones broken) or endorsing five other physical assault items that occurred with a frequency of 3 or higher (e.g., being shaken, pinched, or hit with a

board). Analyses compared women who met both criteria for abuse, those who were considered abused by the researchers, and those who did not identify as abused and were not identified as abused by the researchers. They found that the first group scored highest on both abuse and depression measures, followed by the second group, and finally by the third group. The first group had a lifetime prevalence rate for depression of 83%, followed by the next group at 56%, and the third group at 35%.

Silvern, Waelde, Baughan, and Kaersvang (2000) compared two formats of assessing physical and sexual abuse in 542 college students using researcher-defined and self-defined categorization. They assessed participants' self-defined abuse by embedding questions of whether they were abused (using the term "abused") among 106 general demographic questions. Participant response options included "yes," "no," and "uncertain." The researchers defined sexual abuse as whether clients endorsed a sexual experience when they were younger than 18, and the perpetrator was at least 13 years old and at least 5 years older than the victim. The researchers excluded common corporal punishments, such as slapping or spanking, from their physical abuse criteria. They defined physical abuse if individuals identified any of the following experiences: being pushed into a hard object or wall; being hit with an object; or being hit with a fist, bitten, kicked, or beaten up, threatened with a weapon, or hurt with a weapon. Silvern et al. found that of those who self-defined as abused, 85.8% met researcher definitions for abuse. For all those that met researcher definitions of abused, 8.4% of men self-identified as abused, and 21.3% of women self-identified as abused. However, hierarchical logistic regression analyses demonstrated that gender did not influence the relation between researcher-defined sexual abuse and self-defined abuse beyond the

fact that women were more often sexually abused. Silvern et al. found that depression and other posttraumatic symptoms were significantly more strongly predicted by researcher-defined abuse. They also found that relations between psychological functioning and researcher-defined abuse were independent of self-defined abuse. They noted that people who reported physical abuse only were less likely to self-define as abused, compared to those who experienced sexual and physical abuse.

Wekerle et al. (2001) examined relations between self-reported maltreatment and abuse labeling in a sample of 1239 high school students and a sample of 224 adolescents served by Child Protective Services (CPS). They assessed self-labeling by using items on the Child Trauma Questionnaire (CTQ, Bernstein et al., 1994, 1997) that they felt came closest to a subjective self-evaluation. These items, for example, stated “When I was growing up I believe that I was sexually abused.” They compared responses on these items with responses on three CTQ items they considered to be more objective evaluations of childhood abuse. For physical abuse, this item was, “People in my family hit me so hard that it left me with bruises or marks.” For sexual abuse, the item was “someone molested me,” and for emotional abuse, it was “I was frightened of being hurt by someone in my family.” Many more CPS adolescents viewed themselves as having been physically, sexually, or emotionally “abused” compared to the school sample. For the school sample (grades 9-12), 7.69% of males and 7.63% of females identified as physically abused; 6.34% of males and 6.90% of females identified as sexually abused, and 7.27% of males and 8.09% of females identified as emotionally abused. Among those endorsing severe physical abuse or

sexual abuse, self-labelers of physical abuse or sexual abuse did not differ from non-self-labelers in terms of TSC-40 scores. For emotional abuse, among the people who endorsed the frightened item and self-labeled as abused, abuse labeling was associated with higher TSC-40 scores and with experiences of dating victimization.

Individuals may experience differing levels of abuse awareness and consequent symptoms according to their developmental stage and their environments. deVries' (1996) depiction of trauma as the amalgamation of the severity of stress and the capacities of the environment to provide care and healing illuminates the ways environments can assuage or worsen trauma symptoms. Accordingly, qualities of individuals' peritraumatic and posttraumatic environments may contribute to abuse awareness. As described previously, during the time of abuse, awareness is often maladaptive. Abuse awareness may continue to be maladaptive for college students, as most have only recently left their home environments. Though individuals do not have the same motivations to retain relationships with their caregivers after leaving their home environments, many (including most college students) continue to depend on those same caregivers for social, emotional, and/or financial support. In addition, societal stigma around abuse may prevent the revision of the cognitive processes described above. Changing abuse perceptions and attributions may provoke a period of great psychological distress.

Though most research describes the negative consequences of self-labeling as abused, some research has identified positive consequences of abuse awareness. Awareness appears to positively impact survivors' parenting. Egeland and Susman-Stillman (1996) found that for mothers with childhood abuse, dissociative tendencies

and idealization of childhood experiences contributed to abuse towards their own children. Psychohistorians Miller (1983) and DeMause (2002) describe unawareness for trauma as contributing to not only intergenerational transmission of abuse, but to the perpetuation of trauma in our culture.

Goals of the current study

The current study offers additional insight into relations among abuse awareness and psychological symptoms in young adults by examining differences in abuse self-labeling, including labeling of emotional abuse, over time. In addition to assessing relations between self-labeling as abused, trauma symptoms and childhood abuse experiences, it also aims to examine how alexithymia and disclosure might contribute to abuse self-labeling. Finally, it also adds information by including a section in which individuals can describe the reasons they feel their perceptions of their abuse experiences may have changed.

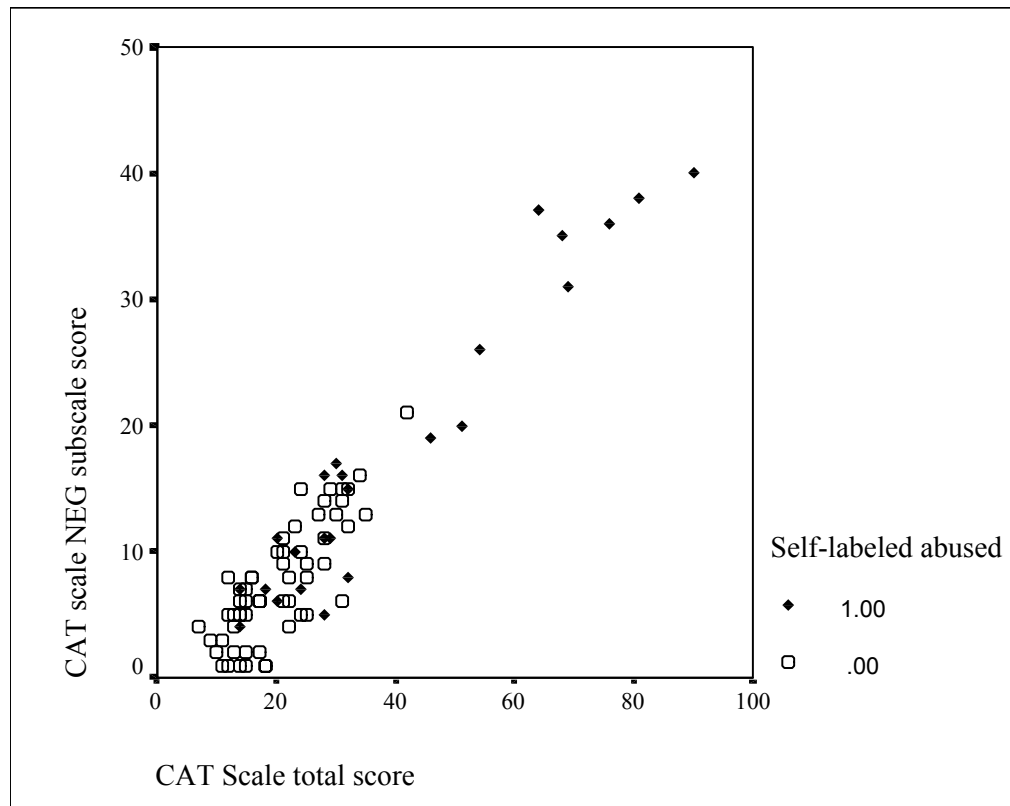
Results

At Time 1, 44 individuals (23.8 %) labeled themselves as having been abused or maltreated. At Time 2, 29 individuals (30%) labeled as abused or maltreated. The change in those rates of abuse labeling from Time 1 to Time 2 was not significant. At Time 1, eight individuals considered themselves to have been “sexually abused;” 10 regarded themselves as having been “physically abused;” and 29 identified as “emotionally abused.” Eleven identified as “sexually maltreated;” 9 identified as “physically maltreated;” and 30 self-labeled as “emotionally maltreated.” At Time 2,

eight individuals self-labeled as “sexually abused;” five self-labeled as “physically abused;” and 21 self-labeled as “emotionally abused.” Eleven self-labeled as “sexually maltreated;” eight self-labeled as “physically maltreated;” and 21 self-labeled as “emotionally maltreated.” Twelve individuals reported that they had changed their perceptions regarding whether they were abused or maltreated, but 24 individuals had responses to the six self-labeling questions at Time 2 that differed from their Time 1 responses.

Figure 2

CAT Scale Total Scores, Negative Home Environments, and Abuse Self-labeling



At Time 1, abuse labeling was correlated at $r = .60$ ($p < .001$) with total childhood abuse. This proved to be the exact correlation between these variables at Time 2. Figure 2 illustrates the relationship of labeling abuse to the CAT scale total scores and the CATS NEG subscale, where values of 1 indicate individuals who self-identified as abused, and values of 0 denote those who did not self-identify as abused.

When using partial correlations to control for the contribution of the extent of childhood abuse using the CAT total score, labeling abuse was not correlated with the TSC-40 subscales of depression ($r = .02$, $p = .67$), anxiety ($r = .05$, $p = .57$), dissociation ($r = -.07$, $p = .36$) or physical health complaints ($r = -.02$, $p = .84$) at Time 1. At Time 2, labeling abuse was related to depression ($r = .33$, $p < .01$), anxiety ($r = .31$, $p < .01$), physical health complaints ($r = .27$, $p < .05$), and visits to a health professional ($r = .26$, $p < .05$), even after controlling for CAT scale total scores. Regression analyses confirmed that at Time 2, CAT scale totals significantly predicted depression ($R^2(1, 85) = .26$, $p < .001$). Adding abuse labeling significantly improved the model (R^2 change (1, 84) = .05, $p < .01$). Therefore, CAT scale total scores and labeling abuse both emerged as significant independent predictors for depression (Standardized $\beta = .35$ and $.28$, $p < .01$ and $p < .05$, respectively). Table 22 demonstrates the contributions of these variables to TSC-40 depression scores.

Results revealed similar relations for anxiety and CAT scores. CAT scale total scores significantly predicted anxiety ($R^2 = (1, 86) = .28$, $p < .001$), and adding labeling significantly improved the model (R^2 change (1, 85) = .07, $p < .01$). Standardized beta

weights were $\beta = .34, p < .01$ and $\beta = .33, p < .01$ for CAT scale total and abuse labeling, respectively. Table 23 demonstrates the contributions of CAT scale total scores and abuse labeling to the TSC-40 anxiety scores at Time 2.

Table 22

Summary of Hierarchical Regression Analysis for Variables Predicting TSC-40 Depression Scores at Time 2 (N = 96)

Variable	B	SE B	β
Step 1			
CAT scale total score	.12	.02	.52**
Step 2			
CAT scale total score	.08	.03	.35**
Abuse labeling	2.75	1.10	.28*

Note. $R^2 = .26$ for Step 1; $\Delta R^2 = .05$ for Step 2 ($ps < .05$).

* $p = .05$

** $p < .01$

Table 23

Summary of Hierarchical Regression Analysis for Variables Predicting TSC-40 Anxiety Scores at Time 2 (N = 96)

Variable	B	SE B	β
Step 1			
CAT scale total score	.11	.02	.53**
Step 2			
CAT scale total score	.07	.02	.34*
Abuse labeling	2.75	.90	.33*

Note. $R^2 = .28$ for Step 1; $\Delta R^2 = .07$ for Step 2 ($ps < .01$).

* $p = .01$

** $p < .001$

Self-labeling as abused was not entirely consistent between Times 1 and 2.

Of the 44 individuals who labeled themselves as either abused or maltreated at Time 1, 25 participated in the Time 2 portion of the study. Fifteen individuals changed their self-categorization as abused between Times 1 and 2. Table 24 indicates the number of individuals who completed the follow-up portion of the study and their self-labeling as either abused or maltreated.

Table 24

Numbers of Time 2 Participants Self-labeling as Abused at Times 1 and 2

	Labeled Abused Time 1	Did Not Label Abused Time 1
Labeled Abused Time 2	19	10
Did Not Label Abused Time 2	5	56

Labeling abuse was not related to counseling experiences or alexithymia at either timepoint. It was not related to the question posed at Time 2 regarding coursework that addressed violence ($r = -.07, p = .63$), even for the 16 individuals who had coursework addressing violence as well as CAT scale total scores of 26 or higher ($r = -.03, p = .87$). MANOVA contrasts revealed significant differences in dependent variables between those who never self-labeled as abused/maltreated and those who self-labeled as abused at either Time 1 or Time 2: Pillais' $V = .24, F(7, 73) = 3.26, p =$

.005, effect size = .24. There is considerable overlap among variables representing depression, anxiety, dissociation, health complaints, and difficulty identifying feelings. Zero-order correlations between each dependent variable and canonical variable demonstrated that depression, dissociation, anxiety and health complaints each contribute considerably towards distinguishing people who never labeled from people who labeled one time. However, additional MANOVA contrasts demonstrated no significant differences between those endorsing abuse at Time 2 only and those who endorsed abuse at both timepoints: Pillais' $V = .10$, $F(7, 73) = 1.16$, $p = .34$. In addition, there was no difference between those self-labeling abused at Time 1 only and those who self-labeled as abused at Time 2 only, Pillais' $V = .09$, $F(7, 73) = 1.04$, $p = .41$.

Samples of participant responses to reasons for changes in self-labeling

Study participants provided rich descriptions of their understanding of the processes that impacted their changing perceptions of their abuse experiences. For example, participant #53, a 20 year-old European American female, self-labeled as emotionally abused both timepoints, though she claims to have changed her abuse perception. She wrote that she changed her perceptions because of “2 more years of living, being apart from the person who maltreated me, changes in and a better relationship with the person who maltreated me.” Participant #31, a 21-year-old Asian American female did not self-label as abused or maltreated at either timepoint, but wrote that, “my reasoning changed after taking psychology classes.” Participant #183, a 21-year-old European American female currently in individual counseling, did not self-

label as abused or maltreated at Time 1, but at Time 2 self-labeled as emotionally maltreated. She wrote: “I realized my parents are both alcoholics and a lot of their behavior towards me was stressful and inappropriate.” Other individuals may be unaware of the reasons for their changes in perceptions. Participant #159, a 20-year-old European American female who did not self-label as abused or maltreated at Time 1, but self-labeled as sexually maltreated at Time 2, wrote that “something triggered me to see it more clearly.”

Discussion

The results demonstrate that young adults’ appraisals of their experiences as “abuse” or “maltreatment” are somewhat inconsistent. The results replicate the connection between abuse severity and abuse labeling identified by Silvern, Waelde, Baughan, and Kaersvang (2000). They also suggest that relations between labeling and trauma symptoms may change over time.

Limitations of the present study include the sample’s limited age range and ethnocultural homogeneity. It is certainly possible that abuse awareness could differentially affect psychosocial outcomes depending on individuals’ ages and ethnocultural environments. The trauma experiences investigated and the questions assessing self-labeling were somewhat limited. For instance, the study did not investigate experiences of oppression and discrimination in forms such as racism, sexism, or homophobia, which are likely to have serious consequences for individuals’ psychological functioning. The study also did not use the word “neglect” in questions thought to reflect explicit consciousness of abuse experiences; including this question

with the other self-labeling questions may have produced different results. The order of the measures may also influence participants' responses. Because considering specific experiences might influence people's abuse perceptions, the measures querying abusive experiences were positioned several pages after the abuse perception questions. The decision to assess abuse perception before querying abuse behaviors differed from that of Varia and Abidin (1999), who had participants complete abuse perception questions immediately following each abuse measure.

Why might self-labeling affect psychological symptoms beyond the effects of abuse severity at Time 2 but not at Time 1? Though the small numbers of individuals in labeling categories temper interpretations of the analyses above, it is interesting to ponder some of the possible reasons for this disparity. One possibility has to do with the age range and experiences of the sample. At Time 1, many individuals were in their first year of college. This may have been the first time they were away from an abusive childhood environment. Perhaps the freedom from that experience and the cessation of that pain attenuated the negative consequences of awareness. During Time 2, the benefits of the contrast in freedom may have dissipated, and could have been replaced with the awareness of enduring abuse-related symptoms. It is likely that those who self-label as abused may have invested greater levels of introspection regarding their negative experiences, a process which may have been difficult. Those who self-identified as abused may experience distress from the combination of abuse experiences and subsequent unsupportive environments. Finally, the process of recovering from childhood abuse may be one that gets worse before it gets better. In fact, Shalev (1996) posits that PTSD symptoms may reflect different processes that operate in discrete

stages following trauma. At both Time 1 and Time 2, participants in this study would be in the early stages of understanding and interpreting experiences in their families of origin, and those who experienced betrayal trauma perpetrated by caregivers may be just beginning their recovery processes.

Another possibility is that the initial questionnaire experience served as an intervention. It is questionable whether individuals had ever been asked whether they had been abused or about specific childhood abuse experiences. It is possible that someone who survived an adverse childhood environment said yes when asked straight out. Because the TSC-40 asks about the past two months, and the PILL health care utilization questions ask about the past month, if the questionnaire began processes of changes in cognitive, emotional, and physical health domains, the initial questionnaires would not reflect such processes. No individuals wrote, however, that the initial questionnaire had affected their abuse perceptions or memories. The Time 1 questionnaire may have instigated reappraisals of past experience without instilling explicit awareness for such changes.

A third possibility involves the larger cultural forces that may help shape individuals' psychological functioning. World events have been extremely unstable over the period of 2002-4. For example, the United States declared war on Iraq in March, 2003, and the nation became increasingly polarized into positions reflecting levels of support for the war and evaluations of its success. Unfortunately the study did not measure anxiety or depression as related to issues other than personal experiences of trauma. However, research cited above indicates that the effects of negative childhood experiences may interact with subsequent environments to influence

individuals' functioning. For instance, Moyers (1996) found that Vietnam veterans had an increase of PTSD symptoms following the Oklahoma City bombing. A sense of the world as unsafe may be especially painful for individuals who grew up feeling unsafe, and may exacerbate their posttraumatic symptoms. Such additive effects of traumatic environments are consistent with the models of posttraumatic functioning described by Herman (1992) and Brown (1992).

Another reason for potential changes related to abuse labeling pertains to state-dependent assessments. Individuals experiencing symptoms such as depression or anxiety may be more likely to label as abused. People who have had childhood abuse experiences who are depressed may, in fact, evaluate their experiences more accurately. Others who are feeling more positive may attempt to distance themselves from negative affect, and this may preclude metaconsciousness of abuse experiences. Isen (1993) reviews research demonstrating that inducing positive affect cues positive memories. However, research does not demonstrate that the reverse was true; that is, inducing negative affect does not cue retrieval for negative memories. It is uncertain whether inducing negative affect is comparable to the experience of actual depression. Schwarz (2001) notes that mood effects contribute to general evaluative judgments regarding past experiences, which may influence mood-congruent memories.

The language researchers and clinicians choose in questioning participants about abuse experiences doubtless influences responses, especially given that the mechanisms we investigate involve the ways abuse survivors use language to express or internalize their emotions and experiences. The impact of specific language in abuse

acknowledgement questions is evident in the differing numbers of individuals who identified as “abused” versus those who identified as “maltreated.”

Investigations of awareness for abuse experiences can inform psychologists with different goals and questions. Silvern, Waelde, Baughan, and Kaersvang (2000) question the utility of asking individuals whether or not they identify as abused for determining the presence and prevalence of abuse experiences. Since explicitly asking individuals whether they have been abused consistently produces lower rates of abuse than researcher-defined estimates, asking individuals to self-label as abused seems ineffective for assessing the presence or prevalence of abuse. The disparity between self-labeling of abuse and reported abuse experiences indicates pervasive unawareness for abuse that may result from both accommodations to abusive environments and general societal unawareness, or even denial, regarding abuse and its effects. Processes involved in abuse perception and labeling appear to be connected to individuals’ psychological functioning. Furthermore, the quotations above from participants regarding changes in abuse awareness illustrate that several factors contribute to perceptions of childhood treatment, and demonstrate the diversity of awareness processes. Awareness of abuse experiences may determine the resources survivors seek and influence approaches to their symptoms during treatment.

CHAPTER VII

SUMMARY AND IMPLICATIONS

This study demonstrates that young adult survivors of childhood abuse are likely to experience depression, anxiety, dissociation, health complaints, and difficulty identifying their feelings. Perhaps most importantly, the study demonstrates that emotional abuse and neglect, alexithymia, and depression are likely to develop in concert, and that the diverse effects of childhood maltreatment are better understood as a constellation of coping mechanisms rather than discrete responses.

The study results illuminate several aspects of responses to betrayal trauma. Levels of emotional neglect and depression predicted the extent to which individuals experienced difficulties identifying their feelings. Abusive environments may impact emotional awareness to a greater extent in males than in females. The study also indicated that abusive childhood environments contributed to the quantity of individuals' reported health symptoms, whereas betrayal trauma experiences predicted students' reports of number of days they were sick and the number of visits they made to health professionals. Many individuals report abuse experiences but do not label themselves as abused. Abuse acknowledgment is related to abuse severity, and may be linked to higher levels of posttraumatic symptoms in college students.

Important limitations of this study include the sample's homogeneity in terms of age and cultural background. In addition, the strong correlations between several study measures render relations among constructs challenging to interpret. Small sample sizes, especially for labeling and memory impairment, inhibit the strength conclusions based on group comparisons. Finally, investigating abuse awareness using self-report methodology presents a challenge resulting from abuse survivors' variabilities in memory and awareness. Since a wealth of prior research demonstrates the phenomenon of impaired memory for trauma, it is quite likely that some participants in the study experienced traumatic experiences that they failed to remember or report. Other participants' levels of awareness for trauma experiences are likely to be influenced by adaptive coping mechanisms such as denial, dissociation, or minimization; such adaptations would affect abuse reporting in this study,

The study results also support conceptualizations of stress and trauma that differ somewhat from those in the current DSM. For instance, the interrelations among childhood abuse, dissociation, depression, and anxiety suggest that for abuse survivors, such symptoms are better understood as responses to trauma than as distinct pathologies. High levels of co-occurrence between types of psychological distress in general (e.g., Kessler, 1994) and specifically for those experiencing posttraumatic symptoms (e.g., Kessler, 1995) may be explained in part by trauma as an etiology (e.g., Ross, 2000). Kohut theorized that repeated empathic failures by parents, together with children's responses to these failures, serve as the basis for almost all psychopathology (Baker & Baker, 1987). Investigations of features of psychological distress related to trauma may miss important aspects of psychological processes if they fail to consider

the contributions of a spectrum of trauma experiences, including betrayal trauma. Practices within mainstream psychology may prevent practitioners from viewing distress as related to environmental factors. Efforts to localize dysfunction within the individual may be at the root of psychology's interpretation of the medical model. Ross (2000) explains that a true medical model of psychiatry would have to account for the effects of germs and injury, and compares the impact of traumatic stress on psychological functioning to the roles of germs and bacteria in physical health. van der Kolk and McFarlane (1996) hypothesize that the search for predisposing factors to explain posttraumatic symptoms likely stems from psychologists' need to deny that any person can suffer stress beyond his or her coping capabilities. Increased associations between pharmaceutical companies and researchers, especially for those more advanced in terms of professional development (Balon, 2001) are likely to influence research agendas (e.g., Balon, 2001; Healy & Thase, 2003). Such associations also promote and profit from emphases on individual symptoms rather than considerations of environmental factors contributing to distress.

The profound relationship between betrayal trauma, emotional abuse experiences, and affective experience highlights the necessity for clinicians to assess family abuse when evaluating psychiatric disorders. Clients in all diagnostic categories may have experienced betrayal trauma or childhood abuse. For instance, several researchers have noted the role of abuse histories in clients with psychosis (Briere, Woo, McRae, Foltz, & Siytzman, 1997; Read, Perry, Moskowitz & Connolly, 2001; Ross, Anderson & Clark, 1994). Mental health service centers should incorporate policies and training procedures regarding when and how to take clients' trauma

histories (Briere, 1999; Young, Read, Barker-Collo & Harrison, 2001) as well as how to respond to disclosures (Agar & Read, 2002; Read & Fraser, 1998b).

This study has implications for therapist conceptualizations of emotional processes in trauma survivors and for treatment planning. For instance, some forms of therapy identify specific goals at the beginning of treatment (e.g., Cognitive Behavior Therapy; Beck, 1995). Even if a therapist is flexible regarding these goals, the content and focus of therapy are often viewed as analogous to a medical model, where a clear assessment and diagnosis are made before treatment begins. If alexithymia is one response to childhood abuse, clients may be unaware of what exactly has led them to seek counseling. At this point in time, it is unclear whether attending to the causes of depression and alexithymia in abused individuals, rather than focusing on their symptoms alone, is important for successful treatment. Classen, Koopman, Nevil-Manning, and Spiegel (2001) randomly assigned female survivors of childhood sexual abuse to trauma-focused psychotherapy, present-focused psychotherapy, or waitlist conditions. Though both forms of therapy reduced trauma symptoms, their small sample size did not allow them to determine which treatment group was more successful. Another issue with important implications for therapeutic interventions is the relational nature of betrayal trauma and its effects on individuals' subsequent relational schemas and capacities (e.g., Briere, 2002; Freyd, 1996). Repairing the client's trust in relationships may constitute an important part of therapy (e.g., Briere, 2002; Herman, 1992).

Research on attachment and subsequent outcomes demonstrates that systems of emotion regulation are disrupted in survivors of child maltreatment (e.g., George, 1996). This indicates that therapeutic treatment that emphasizes rebuilding emotion regulation systems that are more functional than those in place following childhood maltreatment, such as Dialectical Behavior Therapy (DBT; Linehan, 1993) and Self-trauma therapy (Briere, 1992) would be effective with this population. Though empirical study of treatment is in its infancy, outcome studies will provide much-needed information regarding effective treatments for adult survivors of childhood abuse.

For individuals seeking treatment for abuse sequelae, deficits in awareness regarding trauma and its effects among health professionals are likely contribute to victims' levels of awareness for abuse. Attention to trauma and its effects forms only a small part of most therapists' training (Courtois, 2002). Mental health workers often fail to ask about trauma experiences (Read & Fraser, 1998a; Young, Read, Barker-Collo & Harrison, 2001), and most mental health services do not detect clients' exposure to childhood trauma (Briere & Zaidi, 1989; Wurr & Partridge, 1996). Mental health professionals identify higher rates of abuse when they ask specific questions regarding abuse experiences than when they utilize general screening questions (Dill, Chu, Grob & Eisen, 1991). Mental health workers commonly fail to detect emotional abuse, just as they often fail to detect sexual and physical abuse (Thompson & Kaplan, 1999). In addition, trauma victims most commonly seek professional help not because of the trauma itself, but for depression (e.g, Berliner & Elliott, 1996), or complaints about themselves or their relationships (Briere, 2002).

Folette, Rozek, and Abueg (1998) describe a contextual-ecological approach that considers symptoms and problems in the context of the past and present environments in which they were developed and are maintained. Impaired emotional awareness and inaccurate cognitions regarding oneself and the world may have been strategies to cope with abuse. Individuals may have inhibited awareness for information that could have threatened attachment relationships or elicited retribution from abusers. Understanding the processes through which they developed strategies that were initially adaptive and later maladaptive may lessen the self-blame abuse survivors may experience regarding their psychosocial symptoms. Schore (2001) articulates that forming a coherent trauma narrative may help to repair some of the damage in the brain's orbitofrontal regions that is caused by abuse and neglect. Moreover, psychotherapy with abuse survivors that addresses emotional awareness can lessen the possibility of intergenerational transmission. For instance, Egeland (1998) notes that the mothers who broke cycles of abuse were distinguished by participation in therapeutic interventions that brought about increased emotional maturity.

Clinicians should also be sensitive to the costs and benefits of abuse awareness. Identifying abuse could assuage depression in survivors through a reversal of the reasoning hypothesized in Briere's (1992) abuse dichotomy. If individuals no longer identify their own badness as the source of parental maltreatment, they may develop healthier self-perceptions. However, long-term learning processes and guilt may constitute obstacles to abuse recovery. The nature of emotional abuse as an inescapable environmental constant implicates repeated conditioning that one is bad. Feelings accompanying this conditioning may be internalized and remain despite an intellectual

understanding that one's own badness did not produce the abusive treatment.

Identifying treatment as abusive may provoke feelings of guilt from questioning one's family environment, and can result in isolation and blame that exacerbate trauma (Root, 1992). When individuals acknowledge abuse, however, they may be less likely to blame themselves, consciously or unconsciously, for the treatment they endured.

Therapeutic relationships that provide safety and validation for a range of emotional experiences contrast with clients' experiences of abuse and neglect, and can facilitate the development of emotional awareness.

Our culture's current increasing attention to trauma demonstrates some changes in public and professional consciousness of trauma's effects. Awareness of trauma and its effects has "waxed and waned" in psychology and psychiatry, functioning much like individual traumatic memories (Herman, 1992; van der Kolk, Weisaeth, & van der Hart, 1996). However, there is some indication that professional and public attention to trauma and its effects have increased in recent years. Ross (2000) explained that he was explicitly taught to ignore trauma in his patients during his psychiatric residency. Terr (1990) recounts the story that no one called for a psychologist, psychiatrist, or mental health worker following the 1976 Chowchilla school bus kidnapping, since the children involved were returned to their families and appeared to be in good health. When the parents themselves invited a child psychiatrist to speak at a meeting, the psychiatrist hypothesized that only one of the 26 abducted children would experience long-term psychological effects. By comparing the level of consciousness about trauma and its effects in the example above to the rapid dissemination of information regarding post-

traumatic symptoms following the terrorist attacks on September 11, 2001 in New York City and in Washington, DC, it is evident that our culture has to some extent acknowledged the normalcy of posttraumatic responses.

There is likely to be, however, a cultural disparity regarding the recognition of public vs. private trauma, and differences regarding the acceptability of discussing different traumatic events (Herman, 1992). Sustained public and professional dialogue regarding these issues and safe environments for their discussion would be likely to bring about conditions more likely to prevent abuse and support recovery processes.

Over the last several decades, there has been substantial progress in defining qualitative differences in traumatic experiences and the ways these features affect psychological and physical health. Connections between the emotional qualities of trauma experiences and subsequent psychological and physical symptoms demonstrate the importance of continued attention towards both the commonalities among trauma experiences and the ways specific characteristics may contribute to survivors' functioning.

Future investigations could benefit from investigating samples with greater diversity in terms of age and cultural background, and from attention to additional traumatic experiences and environmental features. Examining changes in perception over a longer period of time could provide additional insight regarding the processes of these changes and their effects. Another dimension that future studies might incorporate is a measurement of posttraumatic growth, in order to assess in what ways awareness may be beneficial. For instance, Calhoun and Tedeschi (2001) identify themes of post-traumatic growth as changes in relationships, self-perceptions, and philosophy of life.

Other studies indicate that post-traumatic growth may be related to communication regarding trauma experiences (e.g., Cordova, Cunningham, Carlson, & Andrykowski, 2001), as well as increased awareness of trauma and social support (Cadell, Regehr, & Hemsworth, 2003).

Though some research indicates support for the cliché, “ignorance is bliss,” and the reworked cliché that awareness “adds insight to injury,” increased levels of professional and societal awareness regarding betrayal trauma and its effects are necessary to reduce its incidence and to support survivors. Herman (1992) cautions that “repression, dissociation, and denial are phenomena of social as well as individual consciousness” (p. 9). Increased understanding of the complex relations among trauma characteristics, emotional responses, and physical and emotional health has the potential to inform psychologists, physicians, survivors, and the general public, and could facilitate the development of healthier individuals and environments.

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