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The role of childhood sexual abuse, social support, and optimism in the development of posttraumatic stress disorder

Ryan Lorraine Monahan

THE ROLE OF CHILDHOOD SEXUAL ABUSE, SOCIAL SUPPORT, AND OPTIMISM IN THE DEVELOPMENT OF POSTTRAUMATIC STRESS DISORDER

A Thesis

Presented to the

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by

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Approved by:

[redacted]

David Chavez, Chair, Psychology — 2/25/08 Date

[redacted]

Yuchin Chien

[redacted]

M. Jean Peacock

ABSTRACT

Studies have shown that there are many variables often associated with the development of Posttraumatic Stress Disorder (PTSD), however many issues relating to the etiology of the disease are still unknown. Understanding the variables that are often linked with PTSD will help researchers and mental health professionals understand the disease and provide proper treatment. The purpose of this study was to examine the role childhood sexual abuse (CSA), social support, and a person's worldview (i.e., optimistic or pessimistic attitudes) had on PTSD. There were a total of 427 women, 162 of these women had experienced CSA and 265 had not experienced CSA. Participants were asked to fill out questionnaires that assessed PTSD symptoms, degree of social support, and worldview. A correlational-regressional approach was used to investigate the relationship between PTSD and the above-mentioned variables. It was predicted that there would be a significant positive relationship between severity of CSA and level of PTSD. It was also predicted that there would be a significant negative relationship between level of optimism and level of PTSD. Moreover, it was predicted that there would be a significant negative relationship between level of social support and level of

PTSD. Finally, it was predicted that level of optimism and level of social support would predict PTSD above and beyond previously entered variables. That is, with the severity of CSA controlled for, it was predicted that the level of optimism would significantly predict the level of PTSD symptoms. And with both the severity of CSA and level of optimism controlled for, a significant amount of the variability of PTSD severity would be attributed to level of social support. Only participants from the CSA group were tested for the above mentioned hypotheses. The present study found there to be no significant relationship between levels of CSA and levels of PTSD. On the other hand, the study did find a negative relationship between optimism and PTSD. Additionally, the study found there to be a negative relationship between social support and PTSD. Finally, although the correlation between CSA and PTSD was not significant, both of the resiliency factors in this study (i.e., social support and optimism) accounted for a significant amount of the variability in PTSD symptoms. The present study adds information about the variables that may play a role in the development of PTSD following the occurrence of CSA. Understanding this will help health professionals better understand, recognize and treat the disorder.

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CHAPTER ONE

INTRODUCTION

Posttraumatic Stress Disorder

While the link between war and psychological problems has long been noted, contemporary views began with the recognition of trauma-caused emotion problems in Vietnam Veterans in the early 1960s. Terms such as "shell shock" and "war neurosis" were used to describe the emotional and/or mental turmoil that was often seen in Vietnam solders (Foa & Meadows, 1997). However, since these trauma-related disturbances were often linked to the horrible conditions of war, it was soldiers and veterans that received most of the attention in this area of study. In relatively recent years, health professionals and researchers have identified a set of related symptoms, affecting many trauma persons, as Posttraumatic Stress Disorder (PTSD). The diagnosis of PTSD was later classified as a disorder in 1980 (Hamblen, 2005). Following the development of this formal, diagnostic label, clinical assessment and research has led to the recognition that PTSD is not only seen in those who have experienced the trauma of war but also in those who have experienced trauma from a wide variety of factors such as

rape (Griffen, Resick, & Mechanic, 1997), incest (Foe & Meadows, 1997), physical abuse (Martsolf & Draucker, 2005), violent crimes (Birmes et al., 2001), sexual abuse (Johnson, Pike, & Chard, 2001; Ullman & Filipas, 2005), and motor vehicle accidents (Ehlers, Mayou, & Bryant, 1998).

Posttraumatic Stress Disorder Symptomatology

In order to receive a Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) diagnosis of PTSD, a person must experience symptoms that last at least one month and include: re-experiencing the event, avoiding events and situations that are reminders of the trauma, and an increase in emotions triggered by the event (American Psychiatric Association, 1994). Re-experiencing the event often occurs through memories, dreams, or sometimes by something as simple as finding themselves in a similar environment in which the traumatic event occurred. This may cause the person to experience the unwanted emotions they were felt during the trauma. In turn, these people may try to avoid the situations, places, and people that remind them of the trauma. The increased arousal seen in those who experience PTSD can cause a variety of physical and mental disturbances (American Psychiatric Association). More specifically,

victims suffering from PTSD often experience depression, later abuse, and low self-esteem (DeClemente et at., 2005).

In recent years, researchers and health professionals have learned a great deal about the disorder, however many things about PTSD are still unknown. For example, it is still unknown if there are certain aspects of a person's personality that will increase or decrease the likelihood of developing the disorder or what type of environmental factors are related to PTSD (Johnson et al., 2001). Additionally, although PTSD is often related to certain traumas, what exactly causes the disorder is still unknown (Wolfe, Sas, & Wekerle, 1994). In short, researchers are still trying to understand why some trauma victims will develop PTSD, while others who experience the same trauma will not.

Childhood Sexual Abuse and Posttraumatic Stress Disorder

It has been found that those who have experienced the trauma of childhood abuse often exhibit a higher degree of emotional and psychological problems later in adulthood compared to children who did not experience any type of abuse (Martsolf & Draucker, 2005). In regard to childhood abuse, both physical and sexual abuse can be detrimental

to a child. These problems have been reported to include depression (DiClemente et al., 2005), personality disorders (Rowan, Foy, Rodriquez, & Ryan, 1994), low self-esteem and substance abuse problems (Stein, Leslie, & Nyamathi, 2002).

However, much of the focus regarding the trauma associated with PTSD has been given to examining the relationship between childhood sexual assault (CSA) and PTSD. CSA has been defined as "contact or interaction between a child and an adult when the child is used for the sexual stimulation of an adult or another person" (National Clearinghouse on Child Abuse and Neglect, 2005, p. 1). This definition also encompasses "an act committed by another minor when that person is either significantly older than the victim (often defined as more than 5 years) or when the perpetrator is in a position of power or control over the child" (National Clearinghouse on Child Abuse and Neglect, p. 1). Many researchers have found CSA to be a significant predictor of PTSD (Brissette, Scheier, & Carver, 2002; Hetzel & McCanne, 2005). For example, in one particular study Hetzel and McCanne (2005) divided participants who suffered from PTSD into groups based on whether they suffered physical abuse only, sexual abuse only, physical and sexual abuse combined, and no type of

abuse. The results indicated that symptoms of PTSD were found more often in the sexual abuse and combined group than in the physical abuse or no abuse groups (Hetzel & McCanne). Research has shown that CSA is a better predictor of PTSD than other types of childhood abuse (i.e., physical or emotional abuse) (Peter, 1997). As a result, many researchers have focused their attention exclusively on victims of CSA to further examine the nature of its relationship to PTSD. For example, Burgess, Hartman, McCausland, and Powers (1984) studied CSA victims who were subjected to pornography and sex rings. They found that 45 out of the 60 children exhibited signs of PTSD symptoms and other problematic physical symptoms. McLeer, Deblinger, Henry, and Orvaschel (1992) studied 92 CSA children and found that 43.9% met the criteria for PTSD. In addition, of those who did not meet the full criteria, many still had partial PTSD symptoms. Wolfe et al. (1994) examined 90 victims of CSA who had been referred to a child witness protection program. Of these children, approximately half of the children met the criteria for PTSD. The authors also reported that the severity of PTSD symptoms were related to the type of abuse (i.e., increase symptoms were found in those who

experienced excessive force, or had a close relationship to the perpetrator).

Similar to other researchers, Peter (1997) also studied those who had experienced CSA but narrowed the field by focusing exclusively on women victims. His research concluded that women who have experienced CSA are more likely to experience PTSD than those who did not experience CSA. Moreover, the author found the level of the PTSD symptoms was significantly related to the patients' overall mental well-being. Like other researchers, Peter found PTSD symptoms were linked to the nature of the type of abuse. His study found that there was an increase in PTSD symptoms among those who had experienced penetration.

Previously Studied Characteristics of Childhood Sexual Assault and Posttraumatic Stress Disorder

In addition to the presence of sexual abuse and type of abuse, there are other characteristics of the abuse that are believed to play a role in the potential development of PTSD. Variables such as age, dissociation, and duration of abuse have also been studied in conjunction with PTSD. They are presented briefly below in order to provide some additional information about

variations within the scope of CSA that are believed to contribute to the development of PTSD.

Age

When studying the relationship between CSA and PTSD, researchers have found that the child's age at the time of abuse is an important factor that may increase the likelihood of the development of this disorder. Some researchers believe that younger CSA victims will be more traumatized by the event and experience more emotional problems later in life compared to older CSA victims (Rodriguez, Ryan, Rowna, & Foy, 1996). On the other hand, other researchers believe PTSD is less likely to occur when CSA happens at a very young age (Browne & Finkelhor, 1986). Browne and Finkelhor suggest this may be because the child is too young to be aware of the negative social reactions that are often associated with sexual abuse. Furthermore, Alexander et al. (2005) believe that the victim's accurate memory of the event plays a role in the development of PTSD. More specifically, the better able the victim was at accurately recalling the event, the greater the PTSD symptoms.

Dissociation

Another factor that may increase the likelihood of abused children developing PTSD is whether or not

dissociation was present (Johnson et al., 2001). More specifically, it is believed that victims of CSA who dissociated during the event experience more severe PTSD symptoms than those who did not (Herman & Schatzhow, 1987). Johnson et al. (2001) believe those who dissociate during the abuse are unable to fully process the experience and thus the experiences may re-appear as symptoms of PTSD and/or depression later in life.

Duration of Abuse

Finally, the duration of the abuse is also a variable that is believed to play a role in the potential development of PTSD (Wolfe et al., 1994). The authors found that long-term exposure to sexual abuse was more harmful to a child than a single or short-term exposure. In a study that examined a number of variables and PTSD, Rodriguez et al. (1996) found that duration of abuse was a more important factor and accounted for more of the variance than age, number of perpetrations, or force.

I mention these characteristics of CSA that are believed to play a role in the development of PTSD to provide some additional information about the relationship between these two variables (i.e., CSA and PTSD). However, for the purpose of this study, we will be examining CSA, optimism, and social support along with PTSD.

However, the question still remains as to why some victims of CSA develop PTSD and others do not. In an attempt to understand this, some researchers have examined the relationship between PTSD and other variables that are not characteristics of the abuse itself. For example, one study found that PTSD symptoms were less severe in participants that had healthy coping strategies and felt in control of their lives compared to those who had unhealthy coping strategies and felt that the outcome of situations was beyond their control (Solomon, Mikulincer, & Avitzur, 1988).

Optimism and Positive Psychological Functioning

In further attempt to understand the relationship between personality factors and the development of PTSD, researchers had examined the relationship between personality factors such as optimism (i.e., possessing a more positive outlook on life) and pessimism (i.e., possessing a more negative outlook on life) and a person's overall psychological well-being (Montgomery, Haemmerlie, & Ray, 2003). In fact, one study found there to be a significant relationship between a participant's psychological functioning and optimism. More specifically, an optimistic outlook was related to higher levels of

adjustment (social, academic, personal, and goal commitment) and also higher levels of self-esteem (Mongomery et al.). To further demonstrate the relationship between a person's psychological functioning and his or her outlook, a study conducted by Chang and D'Zurilla (1994) examined the relationship between college students' outlook on life (i.e., optimistic and pessimistic views), grade point average (GPA), and stress level. The students' optimistic and pessimistic attitudes were determined using Scheier and Carver's (1985) Life Orientation Test. The authors found that the amount of stress the students reported was related to the optimistic or pessimistic attitudes they had. Higher pessimist scores were significantly associated with higher stress levels, while higher optimistic scores were associated with lower stress levels (Chang & D'Zurilla).

It had been demonstrated that a positive outlook plays a role in reducing stress and adopting helpful coping strategies (Scheier et al., 1994 ; Solmon et al., 1988). Additionally, there is evidence to suggest that optimists use a different set of coping strategies than pessimists. It is believed that optimists use a type of coping mechanisms called problem-focused strategies that aims to solve a problem using problem solving techniques

(Billings, Cronkite, & Moos, 1983). On the other hand, pessimists use emotion-focused strategies that attempt to solve a problem using "intrapsychic coping," such as denial (Billings et al.). Those who use emotion-focused technique suffer more from psychological dysfunction compared to those who use problem-focused technique (Billings et al.). Iwanaga, Yokoyama, and Seiwa (2004) examined the relationship between outlook and coping strategies in a controlled and uncontrolled environment. To do this, the researchers used an anagram task that involved assigning letters into meaningful words. In the controllable condition, the number of answerable tasks was gradually increased. In the uncontrolled condition, the number of answerable tasks was gradually decreased. At the end of the test, participants were asked to report both their stress level and the coping strategies they used during the task. The researchers found those who were pessimists had higher levels of stress regardless the amount of controllability they had over the experiment. However, optimists showed lower levels of stress and were more likely to use problem-focused coping techniques during the experiment.

Optimism and Childhood Sexual Assault

Although there is much research linking optimism to a more positive psychological state overall, there remains little research examining the role between optimism, victims of CSA, and PTSD. A recent study examined optimism in a three-factor structure which assessed the participants' feelings of "loss" due to CSA (Murthi & Espelage, 2005). For this study, loss of optimism, loss of self, and loss of childhood were all considered to be CSA-related losses. The authors found that the participants that had reported feeling these CSA-related losses were more likely to have higher levels of depression, lower self-esteem and negative coping strategies. As mentioned before, although there is little research directly examining optimism and CSA, there is even less examining the relationship between optimism, CSA, and the development of PTSD. Thus, one of the purposes of this study is to determine whether optimism, above and beyond CSA is a significant predictor of PTSD.

Social Support and Positive Psychological Functioning

Unlike optimism, which is a personal resource, social support is a post-abuse variable that includes the person's external resources. That is, all the other

variables mentioned thus far have dealt with factors that were characteristics of a particular person or characteristics of the abuse itself. However, social support is a variable that plays a role in the potential development of PTSD after the abuse has already occurred (Brissette et al., 2002). A recent study of social support and/or social reactions to adult survivors of CSA reported that unsupportive responses or negative social support was associated with negative psychological symptoms (Ullman, 2003). Yap and Develly (2004) examined the role between the perceived social support a person has and his or her level of distress. These researchers found that when a person experiences chronic trauma such as long-term sexual assault, the victim may perceive that he or she has less social support available to him or her and thus experiences higher levels of distress.

To demonstrate the relationship between social support and PTSD, researchers studied those who were affected by a major earthquake. They found that 42% of the survivors met the criteria for PTSD one month after the earthquake occurred (Altindag, Ozen, & Sir, 2005). The researchers claimed that those who sustained injury and those who received less social support were more likely to be later diagnosed with PTSD. Thirteen months later a

follow-up assessment showed that only 23% of the survivors still had symptoms of PTSD. The authors believe that decreases in PTSD symptoms were seen in those who had good living conditions and received social support following the earthquake.

Social Support and Posttraumatic Stress Disorder

Disclosure of abuse is thought to be related to the amount of social support a person receives and, in turn, may be related to PTSD symptoms (Arata, 1998). Arata found that college women with a history of CSA, who did not disclose their abuse, had more PTSD symptoms than women who were open about the abuse and received some type of support. Furthermore, Arata studied victims of CSA who were victimized by someone close to them and found that those who concealed the abuse were more likely to experience continued abuse and experience more violent abuse than victims who initially reported the abuse. The author hypothesized that, if the perpetrator is someone close to the victim, the non-disclosure of the situation may led to continued abuse and increase the chances of the child developing PTSD as an adult (Arata). Wolfe et al. (1994) additionally hypothesizes that when the perpetrator is someone close to the abuse victim, the child may have been threatened and is therefore scared that he or she may

get into trouble if they were to tell another adult. As a result, the child keeps the abuse to him or herself and is unable to receive the necessary and helpful support (Wolfe et al.).

Relationship Between Social Support and Optimism

An important study by Brissette et al., (2002) ties together the relationship between social support, a person's optimistic/pessimistic views, and their overall well-being. The participants included 89 freshman college students beginning their first semester. Data was gathered on the students regarding coping, perceived social support, friendship network size, perceived stress, and depression. These authors found that optimistic students received more social support and had a more positive sense of mental well-being than pessimistic students did and the pessimistic students reported more feelings of stress. It is believed that students with an optimistic outlook are more likely to attract potential friends and relationship partners (Brissette et al.). The authors further demonstrated that the findings regarding optimism, social support, and adjustment could not be attributed to differences in self-esteem.

Current Study

The present study expanded on previous studies by examining the interrelationships among CSA, optimism, social support, and the role they play in the development of PTSD.

Hypotheses

Hypothesis 1

It was predicted that there would be a significant positive relationship between severity of CSA and level of PTSD.

Hypothesis 2

It was also predicted that there would be a significant negative relationship between level of optimism and level of PTSD.

Hypothesis 3

It was expected that there would be a significant negative relationship between level of social support and level of PTSD.

Hypothesis 4

It was predicted that level of optimism and level of social support would each predict PTSD above and beyond previously entered variables. That is, with CSA controlled for, it was predicted that the level of optimism would significantly predict the level of PTSD symptoms. And with

both the severity of CSA and level of optimism controlled for, a significant amount of variability of PTSD severity would be attributed to level of social support.

CHAPTER TWO

METHOD

Sample and Procedures

Participants

The data presented was archival data collected as part of a larger study conducted at California State University, San Bernardino (CSUSB) that examined victims of CSA (Principal Investigator: Dr. David Chavez). Participants were 427 women that were recruited from rape crisis centers and women's health centers in the Inland Empire and Coachella Valley communities as well as various Psychology and Human Development students enrolled in courses at CSUSB. All participants were at least 18 years of age. Of these 427 women, 162 reported having been sexually assaulted in childhood and 265 women reported that they had not been sexually assaulted in childhood. The CSA sample (n = 162) was used to test the proposed hypotheses. The non-CSA sample (n = 265) was used during a post-hoc analysis. All volunteers were treated in accordance with the "Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association, 1992).

Measures

Informed Consent

An informed consent form was used to inform the participants of the following information: the identification of the researcher, the explanation of the nature and purpose of the study, duration of the study, description of how confidentiality and anonymity would be maintained, participants' rights, voluntary nature of their participation, and contact information.

Demographics

A demographic sheet was used to collect the following information: age, gender, marital status, ethnicity, highest level of education completed, and yearly gross income.

Childhood Trauma Questionnaire

The Childhood Trauma Questionnaire (CTQ) (Bernstein, Flink, Handelsman, & Fotte, 1994) was used to measure sexual abuse. The CTQ is a 25-item self-report measure designed to provide brief, strong, reliable, and valid assessments of a range of childhood traumatic experiences. The five factors the CTQ evaluates are the following: emotional neglect, physical abuse, emotional abuse, sexual abuse, and physical neglect.

Childhood Trauma Questionnaire Sexual Abuse Subscale. For the purpose of this study only the items that measure sexual abuse were used to measure the level of CSA. This subscale includes five questions regarding any sexual abuse the participant may have experienced. Possible responses to each item include 1 (never true), 2 (rarely true), 3 (sometimes true), 4 (often true), and 5 (very often true). Each participant's responses to the five items were summed together yielding a total score that could range from 5 to 25 with a higher score indicating a higher severity of sexual abuse. An example of a sexual abuse question was "When I was growing up...Someone tried to touch me in a sexual way, or tried to make me touch them." A participant would be classified as a CSA victim if the participant reported a total score of 6 or higher on the Child Trauma Questionnaire subscale. This scale has good internal consistency (alpha = .93).

Penn Inventory for Posttraumatic Stress Disorder

Posttraumatic Stress Disorder was assessed using the Penn Inventory for Posttraumatic Stress Disorder (Hammarberg, 1992). The questionnaire is composed of 26 items that measure the severity, frequency and intensity of PTSD symptoms. The items are rated on a 4-point scale from A (little or no PTSD symptoms) to D (strong

indication of PTSD symptoms). For example, participants were asked to circle the appropriate response indicating how they felt about the following statements: A (I don't have any past traumas to feel overly anxious about), B (When someone reminds me of my past traumas I feel anxious but I can tolerate it), C (When someone reminds me of my past traumas I feel very anxious and must really make an effort to tolerate it), and D (When someone reminds me of my past traumas I feel so anxious I can hardly stand it and have no way to tolerate it). Letter scores were then given a numerical value whereas A = 0, B = 1, C = 2, and D = 3. Each participant's responses to the 26 items were summed together yielding a total score that could range from 0 to 78 with greater scores indicating higher levels of PTSD. The scale has good internal consistency (alpha = .86).

Social Support Inventory

Social support was assessed using the Social Support Inventory (McCubbin, Sussman, & Patterson, 1983). This questionnaire is composed of 17 Likert-type items. The items were rated on a 5-point scale including 1 (strongly disagree), 2 (disagree), 3 (neither agree nor disagree), 4 (agree), and 5 (strongly agree). Each participant's responses to the 17 items were summed together yielding a

total score that could range from 17 to 85 with greater scores indicating a higher level of social support. An example of this type of statement was "Members of my family seldom listen to my problems or concerns". The scale displayed adequate internal consistency (alpha = .81).

The Revised Life Orientation Test

The participants' worldview was assessed using the Revised Life Orientation Test (LOTR; Scheier et al., 1994). The questionnaire is composed of six items that rate the level of optimism and/or pessimism the participants report feeling. Responses are rated on a 4-point scale that include 0 (Strongly Disagree), 1 (Disagree), 2 (Neutral), 3 (Agree) and 4 (Strongly Agree). Items 2, 5, 6, and 8 were filter items and not used for scoring. The negatively worded items (i.e., items 3, 7, and 9) were reverse coded and then summed to the positively worded items (i.e., items 1, 4, and 10) to determine an overall optimism score. A total score could range from 0 to 24 with a higher score indicating a higher level of optimism. An example of an optimistic question would be "In uncertain times, I expect the best". An example of a pessimistic question would be "I hardly ever expect things to go my way" The scale has adequate

internal consistency (alpha = .78). Materials used in this study are given in Appendix A.

Procedure

As mentioned earlier in the Participants Section, the data presented in this study were part of a larger set of archival data. The original data set was collected from women in several rape crisis centers and women's health centers (in the Inland Empire and Coachella Valley) and from students attending California State University, San Bernardino (Principal Investigator: Dr. David Chavez). University and community samples were recruited and participants were able to meet with a research assistant who administered the informed consent form, questionnaires, and later provided the participants with debriefing. The questionnaires came in two separate packets. The first packet included the informed consent, demographic sheet, the ethnic identity measure and psychiatric measures. The participants returned it before being given the second packet that contained the following questionnaires: Childhood Trauma Questionnaire, Penn Inventory for Posttraumatic Stress Disorder, Social Support Inventory, and the Revised Life Orientation Test. The participants remained present while the research

assistant scored each questionnaire. Then, those who met clinical criteria for PTSD were referred for follow-up with a mental health agency. Additionally, all participants were given a resource packet with various contact numbers for sexual assault, domestic violence, mental health and other agencies.

Design

In this study, a correlational-regressional approach was adopted to test the hypotheses. The predictor variables were severity of CSA, level of optimism, and level of social support. The criterion variable was level of PTSD. The three predictor variables were measured by the sexual abuse subscale of the Childhood Trauma Questionnaire (CTQ), the Revised Life Orientation Test (LOTR), and the Social Support Inventory, respectively. The criterion variable was measured by the Penn Inventory for Posttraumatic Stress Disorder. All four variables were quantitative, continuous variables.

Analyses

In order to test the first three hypotheses, Pearson product-moment correlation coefficients between the criterion variable (level of PTSD) and each of the predictor variables (severity of CSA, level of optimism,

and level of social support) were calculated, and their significance were tested. Moreover, hierarchical multiple regression analyses were conducted to test the fourth hypothesis. A significance level of $p = .05$ was adopted to conclude statistical significance for the results.

CHAPTER THREE

RESULTS

Overall Results

Descriptive statistics were conducted on each of the relevant variables. The data consisted of 427 women. For the purpose of this study, the data from the 162 women who made up the CSA group were used to test the four hypotheses proposed in this study. The data from all participants, including the 265 women who made up the non-CSA group, were used for a post-hoc analysis. The age range for the CSA group was from 18 years to 55 years of age, with a mean of 25.9 years of age. The age range for the non-CSA group was from 18 years to 58 years of age, with a mean of 24.4 years of age. For the CSA group, 36 (22.2%) of these women were White/Euro-American, 30 (18.5%) Hispanic/Latino, 34 (21%) Black/African American, 35 (21.6%) Mexican American/Chicano, 11 (6.7%) Asian American and 16 (10%) were defined as "Other". For the non-CSA group, 79 (29.8%) of these women were White/Euro-American, 48 (18.1%) were Hispanic/Latino, 30 (14.7%) Black/African American, 57 (21.5%) Mexican American/Chicano, 20 (7.6%) Asian American and 22 (8.3%) were defined as "Other". The education distribution for

the CSA group was as follows: 10 participants (6.2%) had a High School Diploma or a General Education Diploma, 62 (38.3%) had some college, 78 (48.1%) had an Associate's Degree, 11 (6.8%) had a Bachelor's Degree, and 1 (.6%) had a Post Graduate Degree. The education distribution for the non-CSA group was as follows: 31 participants (11.7%) had a High School Diploma or a General Education Diploma, 106 (40%) had some college, 114 (43%) had an Associate's Degree, 13 (4.9%) had a Bachelor's Degree, and 1 (.4%) had a Post Graduate Degree. See Tables 1, 2, and 3, for age, ethnicity, and education distributions, respectively. The range of scores for PTSD symptoms was from 3 to 52 with a mean of 21. The range of scores for CSA was from 6 to 25 with a mean of 11.6. Optimism scores ranged from 0 to 24 with a mean of 14. Finally, social support scores ranged from 28 to 78 with a mean of 60. The Pearson Product Moment Correlation coefficients between the criterion variable (i.e., level of PTSD) and each of the predictor variables (i.e., severity of CSA, level of optimism, and level of social support) and the coefficients between any two of the three predictors are given in Table 4.

Hypothesis 1

The first hypothesis predicted that there would be a significant positive relationship between severity of CSA

and PTSD. The hypothesis was not supported in that CSA was not significantly correlated with PTSD. That is, higher levels of CSA were not associated with higher levels of PTSD.

Hypothesis 2

The second hypothesis stated that there would be a significant negative relationship between level of optimism and level of PTSD. This hypothesis was supported; there was a significant negative relationship between PTSD and optimism ($r(160) = -.50$, $p < .01$). The data demonstrated that the more optimism a person reported having, the less severe PTSD symptoms they reported experiencing.

Hypothesis 3

It was hypothesized that there would be a significant negative relationship between level of social support and level of PTSD. As predicted, there was a significant negative relationship between these variables, ($r(160) = -.48$, $p < .01$). More specifically, the more social support the participant reported having, the less severe the PTSD symptoms they reported.

Hypothesis 4

The fourth hypothesis predicted that level of optimism and level of social support would predict PTSD

above and beyond previously entered variables. That is, with CSA controlled for, it was predicted that the level of optimism would significantly predict the level of PTSD symptoms. And with both the severity of CSA and worldview controlled for, a significant amount of variability of PTSD severity would be attributed to social support. While the simple correlation between CSA and PTSD was not significant, it still was deemed worthwhile to run a hierarchical multiple regression to determine the independent contribution of the resiliency factors (i.e., social support and optimism). In order to test our fourth hypothesis, CSA was entered into the equation first, worldview (level of optimism) was entered second, and social support entered third. CSA accounted for 1.4% of the variance ($p > .05$) in PTSD and was not significant. At step 2, worldview explained a significant 22.6% of the variance in PTSD, for a combined 24% of the variance explained, $R^2 = .24$, R^2 change = .23, $p < .01$. At step 3, social support explained an additional significant 10% of the variance in PTSD, for a total explained variance of 34%, $R^2 = .34$, R^2 change = .10, $p < .01$. The results of the hierarchical regression are shown in Table 5.

A Post-Hoc Comparison Between the Childhood Sexual Abuse Group and the Non-Childhood Sexual Abuse Group

The non-significant correlation between severity of CSA and level of PTSD was somewhat unexpected. Therefore, an independent *t*-test comparing the level of PTSD exhibited by the CSA group with that exhibited by the non-CSA group was performed. In order to do this, the variable of CSA was converted from a continuous variable into a categorical variable. More specifically, if a person reported a score of 1 (never true) to all five items that measured sexual abuse and received a total score of 5, then she was classified into the non-CSA group. If a person reported a total score of 6 or higher, then she was classified into the CSA group (i.e., having experienced CSA at least to some degree). There were 162 participants that had experienced CSA and 265 participants that had not experienced CSA. The mean of the PTSD score for the CSA group was 21.1 with a standard deviation of 10.3 compared with the mean of the PTSD score for the non-CSA group at 17.4 with a standard deviation of 8.6. The results from the t-test indicated that CSA victims experienced a higher level of PTSD symptoms compared to those who had not experienced CSA $t(425) = 3.9$, $p < .01$. Therefore, although the severity of CSA was shown to be a

non-significant predictor of the severity of PTSD, similar to the findings of many studies reviewed in the Introduction Section, it appears that the existence of CSA can be a reliable indicator for the development of PTSD.

CHAPTER FOUR

DISCUSSION

Overall Discussion

The goal of the current study was to examine variables that were believed to be related to PTSD. More specifically, this study examined the role of CSA, optimism, and social support in the development of this disorder. The study was conducted in the hopes of adding additional information to the field of study in an effort to better understand this disorder.

Severity of Childhood Sexual Assault as it Relates to the Severity of Posttraumatic Stress Disorder

The relationship between the severity of CSA and the severity of PTSD was tested for those in the CSA group. Our first hypothesis that CSA would have a significant positive relationship with PTSD was not supported. That is, it was not found that the more severe the degree of CSA a person experienced, the more severe the degree of PTSD. This set of results is in contrast to the results from other studies that have indicated a significantly positive relationship between severity of CSA and severity of PTSD symptoms (Briggs & Joyce, 1997; Wolfe et al., 1994).

The Experience of Childhood Sexual Assault and Posttraumatic Stress Disorder

To clarify the unexpected result, a *t*-test was conducted to see whether a difference in the severity of PTSD between the CSA and the non-CSA groups (i.e., level of PTSD for the CSA group > level of PTSD for the non-CSA group), which was suggested by several past studies, could also be found in our sample. For example, as mentioned in the Introduction Section, Hetzel and McCanne (2005) divided participants who suffered from PTSD into distinct categories depending on what type of abuse they had experienced. These categories were sexual abuse, physical abuse, sexual and physical combined, and no abuse. The results indicated that symptoms of PTSD were found more often in the sexual abuse and combined group than in the physical abuse or no abuse groups. Similarly, Schaaf and McCanne (1998) also studied the difference between groups of women who had experienced CSA compared to women who had not experienced CSA and found similar results. That is, these researchers found that those who experienced CSA were more likely to develop PTSD than those who had not experienced CSA.

The *t*-test result from the current study confirms the robust findings given in previous studies; that is,

compared to their non-CSA counterparts, the CSA participants indicated significantly higher levels of PTSD. Our result further verifies that the existence of CSA is a reliable indicator for the development of PTSD.

As reviewed in the Introduction Section, in addition to many studies that have shown a relationship between CSA and PTSD, there are many studies that also demonstrated that factors such as the child's age at time of abuse (Rodrigues et al., 1996), duration of the abuse (Wolfe et al., 1994), and the relationship to the perpetrator (Wolfe et al.) may be specific aspects of abuse leading to the development of PTSD. What this current study and other studies (McClure, Chavez, Agars, Peacock, & Matosian, 2007) have also suggested is that there are resiliency factors such as social support (Brissette et al., 2002) and optimism (Scheier, Carver, & Bridges, 1994) that may be implicated in the severity of the PTSD symptoms the victim may develop. The occurrence of CSA seems to be an important predictor in whether or not PTSD develops. However, our results suggest that the outlook a victim has towards her life and the type of support she receives after the incident seem to make a difference in how severe the PTSD symptoms are to a greater extent than the severity of the abuse itself.

Optimism and Posttraumatic Stress Disorder

The second hypothesis, that there would be a negative relationship between optimism and PTSD, was supported. More specifically, the more optimistic a person was, the less likely she was to suffer from PTSD symptoms.

In regard to optimism and PTSD, the research exploring a direct link between these two variables is still scarce. However, research exists that demonstrates a negative relationship between optimism and many of the characteristics that are consistent with PTSD. That is, those with high levels of optimism show lower levels of characteristics associated with PTSD (such as high levels of stress and less psychological well-being) and those with low levels of optimism show higher levels of these characteristics. For example, Brissette et al., (2002) studied the effects optimism had on the psychological well-being of college students. They found that the greater the optimism, the better adjusted the students were to stressful life events. The researchers believe that those who look at the world in a positive manner are more likely to look at stressful situations more positively and are thus better able to cope. There have also been studies that demonstrate the role of coping techniques (Zeidner, 2004) and locus of control (i.e.,

attributing environmental events to themselves) in the development of PTSD symptoms (Solomon et al., 1998). These researchers believe that those with problem-focused coping skills are better adjusted to stressful situations thus decreasing maladaptive outcomes, such as PTSD. These same researchers also found that an internal locus of control, another resilience characteristic similar to optimism, was also associated with less psychological dysfunction. These researchers' findings, coupled with the present finding, suggest that the way a person perceives his or her world and how he or she deal with life events plays a role in his or her psychological well-being and consequently the development of such disorders as PTSD.

Social Support and Posttraumatic Stress Disorder

The third hypothesis was that there would be a significant negative relationship between social support and PTSD. This hypothesis was also supported. Hyman, Gold, and Cott (2003) also found a negative correlation between social support and PTSD. They found that those who had received more social support had higher levels of self-esteem and lower levels of PTSD symptoms. These researchers believe that social support helps the victim learn to cope and deter any feelings of self-blame the person may have (Hyman et al.). Similarly, a study by

Arata (1998) found that the more a person discloses about the abuse to others, the less PTSD symptoms the victim experienced.

The studies mentioned above, along with other past studies, have tried to explain some of the reasons why social support is beneficial to the victim of CSA. Although there is still much research needed in this area to fully understand the role of social support, the current study, along with other studies, suggests that there is a clear difference between CSA victims who have and have not received social support. Specifically, those who receive more social support experience less PTSD symptoms than those who receive less social support.

The research by Brissette et al. (2002) ties together the social support variable and worldview. These authors suggest a person's personality may be a factor in how efficient social support is when dealing with different problems. They found that those who were optimistic reported having more social support in their lives. On the other hand, those who were pessimistic reported receiving less social support. More specifically, a person's personality can influence the amount of social support they perceive and thus contribute to their overall adjustment.

Limitations in the Present Study and Recommendations

A limitation of the present study deals with the ability to generalize our sample results to the general population. Given the primary recruitment occurring in a campus community, much of our sample consisted of college students. Hence, our education distribution is consistent with what one would likely find from a college setting. More specifically, 93.8% of the CSA group and 88.3% of the non-CSA group indicated having at least some college. Less than only 7% of the CSA group indicated having no college experience. Since, the CSA survivors in our study are largely attending classes and focusing on improving their future, this may suggest that these victims represent the more adaptive, healthier end of the spectrum. Victims who were affected extremely by the CSA or those suffering greatly from PTSD may be less likely to be found in college settings. Researchers studying resilience factors in CSA survivors define the term as "the absence of psychopathology" (Luthar, Cicchetti, & Becker, 2000). Studies have found "academic competence" as an indicator of resilience (Garmezy, Masten, & Tellegen, 1984; McClure et al., 2007). In addition to this, students more often surround themselves with friends, teachers, and mentors

than a person who is not in college. Therefore, those attending college may feel they have more social support. It would be helpful for future studies to sample from a larger and more diverse population. Likewise, the study was limited in that only women were studied. Further research would be needed to determine whether the findings applied to men as well.

Applications

The findings of this study are important additions to the body of research attempting to understand PTSD and the factors associated with it. First, understanding that CSA is associated with PTSD is important so that those who have been a victim can get the proper help and education he or she needs after the abuse has occurred. It is important for not just the victim but also his or her parents, family, and friends to understand what has happened, what to expect, and that these CSA victims may develop PTSD later in life. Next, the understanding that social support is a factor that may decrease the severity of the PTSD symptoms is also important. Again, this is not only helpful for the victim but also for his or her family and friends. Understanding the importance of social support may help parents and friends reach out to the victim or for the victim to reach out to them.

Additionally, understanding the benefits of social support may better help health professionals treat their victims by teaching them, their family, and/or their friends how to productively communicate with one another. Finkelhor and Berliner (1995) believe social support is an important part of therapy and important for the healing process. They believe that therapy is most useful when it focuses on the patient's relationship with his or her family and this social support is crucial for the healing process. Next, it is important to understand that optimism is an important factor in decreasing the severity of PTSD symptoms. Unfortunately, there is a difference of opinions in the field of psychology on the stability of this, and other, personality traits. For example, Dougall, Hyman, Hayward, McFeeley, and Baum (2001) believe that levels of optimism remain stable over time, while Segerestrom (2006) shows that optimism levels have low test-retest reliability and are less stable than other personality traits. If optimism is a characteristic that can be changed, learned, or improved in a person, understanding its link to PTSD can help friends, family, and health professionals to focus on strengthening this characteristic. Currently, there is therapy for those who suffer from PTSD that is personality based. Some

researchers, for example, Cahill, Llewelyn, and Person (1991), feel it is important to focus on a patient's personality factors during therapy. They feel that patients will benefit most from treatment that focuses on building their self-image. They also believe it is important for the patient to re-live the experience through "one-on-one" therapy sessions.

As one can see, there are many different factors that health professionals feel are important in the treatment of PTSD, as there are many different factors involved with PTSD itself. The understanding that CSA can lead to PTSD and resiliency factors such as social support and optimism may lessen PTSD symptoms may further aid health professionals in focusing on better understanding and treatment of this disorder.

APPENDIX A

MATERIALS

Informed Consent Form

The following study is designed to measure potentially traumatic experiences in childhood and adulthood as well as factors that may facilitate resiliency in women. This study is being conducted by Kimberly Glass, Sandra Mattarollo, Tori Vargas, Teri Regan, and Mariela Medrano under the supervision of Dr. David Chavez, Associate Professor of Psychology at the California State University, San Bernardino (CSUSB). This study has been reviewed and approved by the Institutional Review Board of CSUSB. The University required that you give your consent before participating in this study.

In this study you will be asked to complete a packet of questionnaire designed to measure traumatic experiences, resiliency, and mental health. The packet should take approximately 45 min to 1 hour to complete. All of your responses will be anonymous. At no time will your name be requested or recorded during your participation. Presentation of results will be reported in group format only. Upon completion of this study (July, 2005), you may receive a report of the group results.

Your participation is the study is entirely voluntary. You are free to withdraw your participation at any time during the study without penalty or remove any data at any time. No services currently being provided to you will be affected in you choose not to participate. When you complete the packet of questionnaires, you will receive a debriefing statement describing the study in more detail and if you are a CSUSB student, at you instructor's discretion, you may receive a slop for five units of extra credit.

If you have any questions concerning this study or your participation in this research, please feel free to contact Dr. David Chavez at (909) 537-5572.

I acknowledge that I have been informed of, and understand the nature and purpose of the study, and I freely consent to participate. I acknowledge that I am at least 18 years of age.

_____ _____

Place and "X" above indicating your agreement

Date

Thank You.

Demographics Page

Your age: _____

Your gender (circle one): Male Female

Marital Status (circle one): Single Married Divorced/Separated Other _____

Ethnicity
Check the statement that best describes your ethnic background

____ Asian American
____ Black/African American
____ Mexican American/Chicano
____ Other (please specify) _____
____ Hispanic/Latino
____ Pacific Islander
____ White/Euro-American

Education
Your highest level of education completed:

____Grade School/Middle School
____Some High School
____High School Diploma/GED
____Some College
____Associate's Degree
____Bachelor's Degree
____Post Graduate Degree

Yearly Gross Income
Check the statement that most nearly reflects your family's annual gross income

____ Less that $4,999
____ 5,000 to 14,999
____ 15,000 to 24,999
____ 25,000 to 34,999
____ 35,000 to 44,999
____ 45,000 to 54,999
____ 55,000 to 64,999
____ 65,000 to 74,999
____ 75,000 or more

CTQ Subscale Survey

Instructions: These questions ask about some of your experiences growing up as a child and a teenager. Although these questions are of a personal nature, please try to answer as honestly as you can.

1 = Never True **3 = Sometimes True** **5 = Very Often True**

2 = Rarely True **4 = Often True**

1. Someone tried to touch me in a sexual way, or tried to make me touch them. If you answered 2 - 5, please specify who (check all that apply):

____ Mother	____ Parent's Boyfriend or Girlfriend	1 2 3 4 5
____ Father	____ Ones Own Relationship Partner	
____ Family member	____ Foster Parent/Someone in the Home	
____ Friend	____ Cousin	
____ Both Parents	____ Sibling(s)	
____ Stepparent	____ Babysitter	
____ School Personnel	____ Stranger	
____ Other: _____		

2. Someone threatened to hurt me or tell lies about me unless I did something sexual with them. If you answered 2 - 5, please specify who (check all that apply):

____ Mother	____ Parent's Boyfriend or Girlfriend	1 2 3 4 5
____ Father	____ Ones Own Relationship Partner	
____ Family member	____ Foster Parent/Someone in the Home	
____ Friend	____ Cousin	
____ Both Parents	____ Sibling(s)	
____ Stepparent	____ Babysitter	
____ School Personnel	____ Stranger	
____ Other: _____		

3. Someone threatened to hurt me or tell lies about me unless I did something sexual with them. If you answered 2 - 5, please specify who (check all that apply):

____ Mother	____ Parent's Boyfriend or Girlfriend	1 2 3 4 5
____ Father	____ Ones Own Relationship Partner	
____ Family member	____ Foster Parent/Someone in the Home	
____ Friend	____ Cousin	
____ Both Parents	____ Sibling(s)	
____ Stepparent	____ Babysitter	
____ School Personnel	____ Stranger	
____ Other: _____		

4. Someone tried to make me do sexual things or watch sexual things. If you answered 2 - 5, please specify who (check all that apply):

____ Mother	____ Parent's Boyfriend or Girlfriend	1 2 3 4 5
____ Father	____ Ones Own Relationship Partner	
____ Family member	____ Foster Parent/Someone in the Home	
____ Friend	____ Cousin	
____ Both Parents	____ Sibling(s)	
____ Stepparent	____ Babysitter	
____ School Personnel	____ Stranger	
____ Other: _____		

5. Someone molested me. If you answered 2 - 5, please specify who (check all that apply):

____ Mother	____ Parent's Boyfriend or Girlfriend	1 2 3 4 5
____ Father	____ Ones Own Relationship Partner	
____ Family member	____ Foster Parent/Someone in the Home	
____ Friend	____ Cousin	
____ Both Parents	____ Sibling(s)	
____ Stepparent	____ Babysitter	
____ School Personnel	____ Stranger	

Other: _____

Penn Inventory Survey

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group that best describes the way you have been feeling during the **PAST WEEK, INCLUDING TODAY**! Circle the number beside the statement you picked. Be sure to read all the statements in each group before making your choice. Please continue on the other side.

1. A. I don't feel much different than other people my age.
   B. I feel somewhat different than most other people my age.
   C. I feel so different than most other people my age that I choose pretty carefully who I'll be with and when.
   D. I feel so totally alien from most other people my age that I stay away from all of them at all costs.

2. A. I care as much about the consequences of what I'm doing as most other people.
   B. I care less about the consequences of what I'm doing that most other people.
   C. I care much less about the consequences of what I'm doing that most other people.
   D. Often I think, "Let the consequences be damned!" because I don't care about them at all.

3. A. When I want to do something for enjoyment I can find someone to join me if I want to.
   B. I am able to do something for enjoyment even when I can't find someone to join me.
   C. I lose interest in doing things for enjoyment when there's no one to join me.
   D. I have no interest in doing anything for enjoyment at all.

4. A. I rarely feel jumpy or uptight.
   B. I sometimes feel jumpy or uptight.
   C. I often feel jumpy or uptight.
   D. I feel jumpy and uptight all of the time.

5. A. I know someone nearby who really understands me.
   B. I'm not concerned whether anyone nearby understands me.
   C. I'm worried because no one nearby really understands me.
   D. I'm very worried because no one nearby really understands me at all.

6. A. I'm not afraid to show my anger because it's not worse or better than anyone else's.
   B. I'm sometimes afraid to show my anger because it goes up quicker than other people's.
   C. I'm often afraid to show my anger because it might turn to violence.
   D. I'm so afraid of turning violent that I never allow myself to show anger at all.

7. A. I don't have any past traumas to feel overly anxious about.
   B. When someone reminds me of my past traumas I feel anxious but I can tolerate it.
   C. When someone reminds me of my past traumas I feel very anxious and must really make an effort to tolerate it.
   D. When someone reminds me of my past traumas I feel so anxious I can hardly stand it and have no way to tolerate it.

8. A. I have not re-experienced a flashback to a trauma event "as if I were there again."
   B. I have re-experienced a flashback to a trauma event "as if I were there again" for a few minutes or less.
   C. My re-experience of a flashback to a trauma event sometimes lasts the better part of an hour.
   D. My re-experience of a flashback to a trauma event often lasts for an hour or more.

9. A. I am less easily distracted than ever.
   B. I am as easily distracted as ever.
   C. I am more easily distracted than ever.
   D. I feel distracted all the time.

10. A. My spiritual life provides more meaning than it used to.
    B. My spiritual life provides about as much meaning as it used to.
    C. My spiritual life provides less meaning than it used to.
    D. I don't care about my spiritual life.

11. A. I can concentrate better than ever.
    B. I can concentrate about as well as ever.
    C. I can't concentrate as well as I used to.
    D. I can't concentrate at all.

12
A. I've told a friend or family member about the important parts of my traumatic experiences.
B. I've had to be careful in choosing the parts of my traumatic experience to tell friends or family members.
C. Some parts of my traumatic experience are so hard to understand that I've said almost nothing about them to anyone.
D. No one could possibly understand the traumatic experiences I've had to live with.

13.
A. I generally don't have nightmares.
B. My nightmares are less troubling than they were.
C. My nightmares are just as troubling as they were.
D. My nightmares are more troubling than they were.

14.
A. I don't feel confused about my life.
B. I feel less confused about my life than I used to.
C. I feel just as confused about my life as I used to.
D. I feel more confused about my life than I used to.

15.
A. I know myself better than I used to.
B. I know myself about as well as I used to.
C. I don't know myself as well as I used to.
D. I don't feel like I know who I am at all.

16.
A. I know more ways to control or reduce my anger than most people.
B. I know about as many ways to control or reduce my anger as most people.
C. I know fewer ways to control or reduce my anger as most people.
D. I know of no ways to control or reduce my anger.

17.
A. I have not experienced a major trauma in my life.
B. I have experienced one or more traumas of limited intensity.
C. I have experienced very intense and upsetting traumas.
D. The traumas I have experienced were so intense that memories of them intrude on my mind without warning.

18.
A. I've been able to shape things toward attaining many of my goals.
B. I've been able to shape things toward attaining some of my goals.
C. My goals aren't clear.
D. I don't know how to shape things toward my goals.

19. A. I am able to focus my mind and concentrate on the task at hand regardless of unwanted thoughts.
B. When unwanted thoughts intrude on my mind I'm able to recognize them briefly and then focus my mind on the task at hand.
C. I'm having a hard time coping with unwanted thoughts and don't know how to refocus my mind on the task at hand.
D. I'll never be able to cope with unwanted thoughts.

20. A. I am achieving most of the things I want.
B. I am achieving many of the things I want.
C. I am achieving some of the things I want.
D. I am achieving few of the things I want.

21. A. I sleep as well as usual.
B. I don't sleep as well as usual.
C. I wake up more frequently or earlier than usual and have difficulty getting back to sleep.
D. I often have nightmares or wake up several hours earlier than usual and cannot get back to sleep.

22. A. I don't have trouble remembering things that I should know.
B. I have less trouble than I used to remembering things I should know.
C. I have about the same trouble as I used to remembering things I should know.
D. I have more trouble than I used to remembering things I should know.

23. A. My goals are clearer than they were.
B. My goals are as clear as they were.
C. My goals are not as clear as they were.
D. I don't know what my goals are.

24. A. I'm usually able to let bad memories fade from my mind.
B. Sometimes a bad memory comes back to me, but I can modify it, replace it, or set it aside.
C. When bad memories intrude on my mind I can't seem to get them out.
D. I'm worried that I'm going crazy because bad memories keep intruding on my mind.

25. A. Usually I feel understood by others.
B. Sometimes I don't feel understood by others.
C. Most of the time I don't feel understood by others.
D. No one understands me at all.

26. A. I have never lost anything or anyone dear to me.
B. I have grieved for those I've lost and can now go on.
C. I haven't finished grieving for those I've lost.
D. The pain of my loss is so great that I can't grieve and don't know how to get started.

SSI Survey

Instructions: The following statements refer to feelings and experiences that may or may not be characteristic of your relationships with family, friends, and your community. Please indicate how much you agree with each of the following statements. Be as honest as possible. Remember that there are no right or wrong answers to the questions. Read each item and decide how you feel about it; then circle the number of the item that best describes that situation. Put down your first impressions. Please answer every item.

1 = Strongly Disagree
2 = Disagree
3 = Neither Agree nor Disagree
4 = Agree
5 = Strongly Agree

1	If I had an emergency, even people I do not know in my community would be willing to help	1	2	3	4	5
2	I feel good about myself when I sacrifice and give time and energy to members of my family	1	2	3	4	5
3	The things I do for members of my family, and they do for me, make me feel part of this important group	1	2	3	4	5
4	People in my community know that they can get help from the community if they are in trouble	1	2	3	4	5
5	I have friends who let me know they value who I am and what I can do	1	2	3	4	5
6	People can depend on each other in my community	1	2	3	4	5
7	Members of my family seldom listen to my problems or concerns	1	2	3	4	5
8	My friends in my community are a part of my everyday activities	1	2	3	4	5
9	There are times when family members do things that make other members unhappy	1	2	3	4	5
10	I need to be very careful how much I do for my friend because they take advantage of me	1	2	3	4	5

11	Living in my community gives me a secure feeling	1	2	3	4	5
12	The members of my family make an effort to show their love and affection for me	1	2	3	4	5
13	There is a feeling in my community that people should not get too friendly with each other	1	2	3	4	5
14	My community is not a very good community to bring children up in	1	2	3	4	5
15	I feel secure that I am as important to my friends as they are to me	1	2	3	4	5
16	I have some very close friends outside the family who I know really care and love me	1	2	3	4	5
17	Members of my family do not seem to understand me	1	2	3	4	5

LOT-R Survey

Instructions: Below are a series of statements that describes attitudes and behaviors. Please indicate how much you agree with each of the following statements in general. Try not to let one answer influence another. Remember that there are no right or wrong answers; just give your own honest opinions. Please answer every item.

0 = Strongly Disagree
1 = Disagree
2 = Neither Agree nor Disagree
3 = Agree
4 = Strongly Agree

1	In uncertain times, I usually expect the best.	0	1	2	3	4
2	It's easy for me to relax.	0	1	2	3	4
3	If something can go wrong for me, it will.	0	1	2	3	4
4	I'm always optimistic about my future.	0	1	2	3	4
5	I enjoy my friends a lot.	0	1	2	3	4
6	Its important for me to keep busy	0	1	2	3	4
7	I hardly ever expect things to go my way	0	1	2	3	4
8	I don't get upset too easily	0	1	2	3	4
9	I rarely count on good things happening to me.	0	1	2	3	4
10	Overall, I expect more good things to happen to me than bad.	0	1	2	3	4

Debriefing Statement

The study you have just completed was designed to investigate the relationship of ethnic identity, stress, social support, self-efficacy and methods of coping in women that have potentially experienced sexual assault in childhood and/or adulthood. Specifically, we are interested in examining the role each factor plays in resiliency and mental health among women. Most research concerning sexual assault has focused on the negative impact of those experienced. The purpose of the present study is to also investigate factors that help women cope with these experiences. It is hoped that this information may be useful in the development of optimal intervention programs form women who have experienced sexual assault.

The anonymity of your identity and data results are guaranteed in accordance with professional and ethical guidelines set by the CSUSB Department of Psychology Institutional Review Board and the American Psychological Association. The focal of this research is at a group level and not on an individual level. If you are interested in the results of this study, please contact Dr. David Chavez at (909)537-5572. Additionally, you are being provided with pamphlets that give you information about services in the area women you know may benefit form.

Please do not reveal details about this study to anyone who may be a potential subject, as we will be collection data over the next few months. Thank you for your participation.

APPENDIX B

TABLES

Table 1

Age Distribution for CSA and Non-CSA groups

Age	Number	Percent
CSA group (n = 162)		
18-25	112	69.1%
26-33	25	15.5%
34-41	13	8.0%
42-47	7	4.3%
48+	5	3.1%
Non-CSA group (n = 265)		
18-25	203	76.6%
26-33	37	14.0%
34-41	13	4.9%
42-47	4	1.5%
48+	8	3.0%

Table 2

Ethnicity Distribution for CSA and Non-CSA Groups

Ethnicity	Number	Percent
CSA group (n = 162)		
White/Euro-American	36	22.2%
Hispanic/Latino	30	18.5%
Black/African American	34	21.0%
Mexican American/Chicano	35	21.6%
Asian American	11	6.7%
Other	16	10.0%
Non-CSA group (n = 265)		
White/Euro-American	79	29.8%
Hispanic/Latino	48	18.1%
Black/African American	39	14.7%
Mexican American/Chicano	57	21.5%
Asian American	20	7.6%
Other	22	8.3%

Table 3

Education Distribution for CSA and Non-CSA Groups

Education	Number	Percent
CSA Group (n = 162)		
High School/GED	10	6.2%
Some College	62	38.3%
Associate's Degree	78	48.1%
Bachelors Degree	11	6.8%
Post Graduate Degree	1	0.6%
Non-CSA Group (n = 265)		
High School/GED	31	11.7%
Some College	106	40.0%
Associate's Degree	114	43.0%
Bachelor's Degree	13	4.9%
Post Graduate Degree	1	0.4%

Table 4

Correlations Between CSA, Optimism, Social Support, and PTSD

	CSA	Optimism	Social Support	PTSD
CSA	1	-.06	-.17*	.10
Optimism	---	1	.38**	-.50**
Social Support	---	---	1	-.48**
PTSD	---	---	---	1

Note. *p < .05, two-tailed. **p < .01, two-tailed.

Table 5

Regression Results For All Study Outcome Variables

PTSD	B	*SE*B	β	R^2	Δ R^2
Step 1					
CSA	.62	.13	.03	.01	--
Step 2					
Worldview	-.86	.17	***-.35***	.24	.23
Step 3					
Social Support	-.40	.08	***-.35***	.34	.10

Note. Betas ($p < .01$) are in bold italics.

$R^2 = .01$ for Step 1; $R^2 = .24$ and Δ $R^2 = .23$ for Step 2; $R^2 = .34$ and Δ $R^2 = .10$ for Step 3.

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