THE RELATIONSHIP AMONG SEXUAL ABUSE, ETHNICITY AND POSTTRAUMATIC STRESS DISORDER IN FEMALE VETERANS

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And Posttraumatic Stress Disorder in Female Veterans

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Abstract

The effects of posttraumatic stress disorder (PTSD) among male veterans has been associated with combat exposure. Most female veterans with PTSD have little or no combat exposure and PTSD has been found to be associated primarily with sexual victimization. Female veterans who have been sexually assaulted and have PTSD often present differently in therapy than male combat veterans. Archival data were analyzed to determine if 270 female veterans with a combined history of childhood sexual assault and adulthood (civilian) sexual assault (CSA/ASA), adult (civilian) sexual assault (ASA), or military sexual assault (MSA) differed on the three symptom clusters of PTSD; hyperarousal, reexperiencing, and avoidance on the Clinician Administered PTSD Scale (CAPS-1). Two-sample t-tests were employed and significant differences were found between women veterans with MSA and those with ASA on symptoms of reexperiencing. Data were analyzed using a MANOVA followed by an ANOVA to determine if African American and Caucasian female veterans

differed on avoidance, somatization, and social interactions as measured by the CAPS-1, CES-D (somatization subscale), QOLI-BV, and the BSI subscales. Significant differences were found between African Americans and Caucasians on somatic symptoms. Results of this study revealed that despite ethnic differences female veterans were more similar on measures of avoidance, quality of life, family, and social interactions. The cumulative effect of trauma was not supported in this study but women veterans with a history of MSA reported more symptoms than women veterans with a history of only ASA. Caucasian women veterans endorsed more somatic symptoms on the CES-D than African American women. These results are contrary to other research findings. It may be that traditional African American female veterans utilize community resources to cope with stressors that do not effect occupational and/or social functioning. As women veterans present for therapy, clinicians are to be advised that women veterans with CSA may possess adequate coping skills that were utilized in order for them to function effectively in the Armed Services and that the most recent trauma is likely causing the most distress. Previous coping strategies should be examined if other sexual assaults are perpetrated on female veterans.

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CHAPTER I

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Introduction

Over the last one hundred years, psychological trauma has been studied under the rubric of hysteria, shell shock, sexual and domestic violence (Davies & Frawley, 1994; Herman, 1997). Jean-Martin Charcot, a French neurologist was the first to study hysteria, a disorder that he called the "Great Neurosis" which was believed to occur only in women. Hysterical symptoms mimicked neurological disorders but were believed to be psychological in nature. Pierre Janet in France and Sigmund Freud in Vienna were physicians who were influenced by Charcot's work. They began to study hysteria independently and found that traumatic events led to altered states of consciousness. Janet called these states dissociation and Freud called them double consciousness (Courtois, 1988; Herman, 1997). Freud later postulated that these altered states of consciousness were attributed to childhood sexual abuse which came to be identified as the Seduction Theory. In the late 1800s, Freud changed his seduction theory to the Oedipus and Electra complexes to account for incestuous feelings in children. In the Oedipus complex, boys become sexually attracted to their mothers and unconsciously want to replace their father.

The conflict is resolved when fear of castration influences the child to repress his sexual feelings, end the rivalry with his father and identify with him. The Electra complex is similar in that girls are sexually attracted to their fathers and unconsciously want to replace their mother. The conflict is resolved when girls repress the desire, end the rivalry, and identify with the mother (Huffman, Vernoy, & Vernoy, 1994). Subsequent to Freud's theoretical shift, reports of childhood sexual abuse were then discounted as fantasy. It was not until the 1970s that there was a resurgence of interest in childhood sexual abuse. Clinicians and researchers began to acknowledge the existence of incest and its sequelae (Briere, 1997; Courtois, 1988; Herman, 1997; Pynoos, Steinberg, & Goenjian, 1996).

Many researchers have continued to study sexual abuse and its effect on the victim and characteristics of the incestuous family in which they belong. Courtois (1988) has spent many years studying childhood sexual abuse and she postulated that childhood sexual abuse follows a predictable course:

> The bulk of child sexual abuse is perpetrated either by a family member or by someone known to the child. Females are more likely to be abused within the family and males outside. The usual pattern of incestuous abuse is of repeated and progressive sexual activity, beginning when the girl is prepubertal, usually between the ages of seven and twelve, but not uncommonly occurring in early childhood. Its average duration is four years.

> In contrast, abuse outside of the family is usually short-term, without the same progression of sexual activity or the same entrapment. Most child sexual abuse does not involve violence; however it does involve some sort of coercion and a misrepresentation of the relationship, that is, by the relationship with the perpetrator's strong desire to keep the activity a secret, which has the purpose of minimizing intervention and allowing repetition (p. 5-6).

However, Herman (1997) did not view childhood sexual abuse as devoid of aggression. She stated that childhood sexual abuse takes place in an environment in which the victim feels an overwhelming sense of fear and helplessness. The perpetrator maintains control through threat of violence, threat of death, secrecy, and isolating the victim from others.

Other research has shown that childhood sexual trauma is associated with negative effects on psychological functioning (Courtois, 1988; Herman, 1997; Roesler & Mc Kenzie, 1994). Sexual abuse that occurs in childhood may interfere with developmental tasks of that period, i.e. affect regulation and self-organization (Courtois, 1988; Pynoos et al., 1996). The sequelae of prior victimization are extensive and may lead to the following: later childhood sexual assault, depression, interpersonal difficulties, suicidality, low self-esteem, substance abuse, contracting sexually transmitted diseases, having multiple sexual partners, revictimization in

adulthood, and post traumatic stress disorder (Boney-McCoy & Finkelhor, 1995; Briere, 1997; Ferguson, Horwood, & Lynskey, 1997; Frayne, Skinner, Sullivan, Tripp, Hankin, Kressin, & Miller, 1999; Freedman, Brandes, Peri, & Shalev, 1998; Garbarino, Kostelny, & Dubrow, 1991; Maker, Kemmelmeier, & Peterson, 2001; Schuck & Widom, 2001).

The adult survivor of childhood sexual abuse often experiences chronic trauma that affects her biological, sociological, cultural, psychological, and physiological functioning, and which frequentaly has come to be associated with posttraumatic stress disorder (PTSD) (Ochberg, 1988; Pynoos et al., 1996; Wilson & Raphael, 1993). PTSD was first described in the literature as shell shock or combat neurosis and was most often associated with combat soldiers. Shell Shock was first studied after World War I and reached a peak after the Viet Nam era (Herman, 1997). In 1980, PTSD was listed in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) (American Psychiatric Association, 1968) as a category of mental disorders (Raphael & Wilson, 1993).

PTSD is currently defined as the development of symptoms that follow exposure to an extreme traumatic event. It may involve serious injury, actual or threatened death; or witnessing or learning about an event that involves serious injury, actual or threatened death (American Psychiatric Association, 2000). There is a substantial body of research that indicates that victims of sexual abuse are likely to

develop PTSD at some time during their lifespan (Herman, 1997; van der Kolk, McFarlane, & Weisaeth, 1996). Repeated victimization and severe trauma has been associated with increased symptoms of hyperarousal and dissociative experiences (Frayne et al, 1999). In adulthood, revictimization compromises the structure of the personality that has already formed (Herman, 1997). Research has shown that approximately 25% of individuals who experience a traumatizing event will develop PTSD (Bromet, Sonnega, & Kessler, 1998).

Studies have shown that PTSD presents differently across cultures. The construct of culture influences how individuals cope with traumatizing events. It may act as a buffer by providing a protective and supportive system that is resilient to the stressors of the environment and that is resistant to change (deVries, 1996). However, results of the research are mixed. For example, Allen (1986) found that Black Viet Nam Veterans suffered from PTSD at higher rates than White Viet Nam veterans. In other studies that compared cultural groups for non-combat related PTSD, African Americans exhibited less symptoms of PTSD than Mexican Americans or Caucasians after a natural disaster (Norris, Perilla, Ibanez, & Murphy, 2001).

PTSD may be underdiagnosed in female veterans and may present differently in persons who have been sexually assaulted (Willer & Grossman, 1995). For example, in a study by Stretch, Knudson, & Durand (1998) and Wolf (1992), female

victims of military sexual trauma (MST) exhibited more severe symptoms of PTSD than females victimized only as children or as adult civilians.

Recovery from PTSD is often a lifelong process which may take years of therapy before there is symptom relief (Kimerling, Clum, & Wolfe, 2000; Ochberg, 1988). Female veterans who were victimized as children and have PTSD, often do not respond to traditional methods of psychotherapy that were designed for male veterans (Zlotnick, Shea, Rosen, Simpson, Mulrenin, Begin, & Pearlstein, 1997). To facilitate treatment of female veterans suffering from PTSD, a holistic approach is more likely to decrease symptoms and increase quality of functioning by offering a comprehensive modality of therapy (Davies & Frawley, 1994). Because treatment of PTSD is a lengthy process, it is likely that the female veteran will have the opportunity to participate in individual, group, and family therapy, receive instruction in the development and maintenance of support systems, learn coping skills, be treated psychopharmacologically, receive treatment for substance abuse and be encouraged to participate in exercise therapy and other non-verbal therapies (Wolfe, Mori, & Krygeris, 1994). Although women veterans from diverse ethnic backgrounds were included in most of the aforementioned studies, there have been no published articles to date that have studied the relationship between ethnicity and trauma symptoms in female veterans. Therefore, this study will examine the relationship

among sexual abuse, ethnicity, and PTSD in female veterans. The next chapter will review the theoretical and empirical literature of the aforementioned.

CHAPTER II

Literature Review

Childhood Sexual Abuse

Prevalence and Epidemiology of Childhood Sexual Abuse

Current research indicates that sexual assault of women continues in staggering proportions. Prevalence is defined as how extensive a disorder is at a given time (Foa & Rothbaum, 1998) and epidemiology refers to the study of the distribution and determinants of disorders in the population (Last, 1983). Researchers agree that childhood sexual abuse (CSA) is under reported (Wyatt, Loeb, Solis, Carmona, & Romero, 1999), boys are less likely to report sexual abuse than are girls (Vogeltanz, Wilsnack, Harris, Wilsnack,Wonderlich, & Kristjanson, 1999), 78% of reported child sexual abuse cases involve females (Wyatt & Powell, 1988), and Caucasian females are more likely to report incidents of sexual victimization to police and social service agencies than African American females (Wyatt, et al., 1999). Overall, only 16% - 25% of rape victims report their assault to law enforcement agencies (Resnick, Holmes, Kilpatrick, 2000). Prevalence rates of CSA are high and vary from study to study. Researchers found prevalence of CSA ranging from 10 - 30% of all girls and from 2 - 16% of all boys (Finkelhor, Hotaling, Lewis, & Smith, 1990; Russell, 1986). In a study by Vogeltang, et al. (1999) prevalence of

CSA of females ranged from 15.4% - 32.1%. Forty percent of the females reported intrafamilial sexual abuse and 11.3% reported both intra- and extrafamilial sexual abuse. Females were more likely to be victimized before age 15.

In the literature, sexual exploitation of children is referred to as sexual abuse, rape, and incest. Wyatt et al. (1999) defined sexual abuse as sexual body contact perpetrated by anyone more than five years older than the victim, with the victim being less than 18 years of age. Bromberg and Johnson (2001) contended that CSA involves an inequality of power between the child and the abuser because of the nature of the emotional relationship, physical size, and age of the individuals. This study found that 40% of all reported CSA is committed by individuals under 20 years of age, with children 6-12 years of age committing 13 - 18% of the substantiated cases.

There is a plethora of literature that has examined intrafamilial victimization or incest. The legal definition of incest is defined as sexual relations between individuals who are closely related by blood, marriage, or adoption. From a clinical perspective, incestuous abuse does not have to include intercourse or bodily contact but may consist of observation of the child, gestures, or comments that are sexual in nature (Courtois, 1988). It is estimated that 20% of all females will be victims of incest before the age of 18. Duration and frequency of incest varies and research indicates that incest can range from a one-time encounter to hundreds of times over

decades. The ages of victimization reported by Wyatt (1992) were as follows: 11% were age five or younger; 19% were 6 -9 years of age, 41% were 10 - 13 years of age, and 29% were 14 - 17 years of age. It has been reported that the majority of perpetrators in incestuous families are male and 68% are 20 years or more older than the victim (Russell, 1986).

Theoretical Overview of Childhood Sexual Abuse

Childhood sexual abuse has a devastating effect on the child and the family, therefore Summit's (1988) theory of CSA based on childhood development and family systems theory is used in the following theoretical overview. Research by Summit (1988) indicated that children victimized by sexual abuse can be described in five specific domains he called the *child sexual abuse accommodation syndrome* consisting of (a) secrecy, (b) helplessness, (c) entrapment and accommodation, (d) delayed, conflicted and unconvincing disclosure, and (e) retraction.

The first category of *secrecy* communicates to the child that it is dangerous to disclose the abuse. The perpetrator often threatens to harm the child or other family members of the child if he/she discloses the abuse. Secrecy is essential for the perpetrator in order for the abuse to continue. The second category of *helplessness* refers to the child's subordinate and dependent position in the family. When incestuous abuse takes place, the child receives contradictory messages about whom to trust and home as a safe place. Repeated abuse reinforces the child's

dependency and powerlessness. The next category is *entrapment and accommodation*. If there is no escape from the abusive environment, then the child will learn to survive and accept the situation. The fourth category is *delayed, conflicted, and unconvincing disclosure*. Adolescence is often a time when victimized individuals disclose abuse either purposefully or accidentally during angry outbursts. This type of disclosure is overshadowed by the anger and usually results in disbelief. Family members may place the burden of proof on the victim not the perpetrator. The fifth category is *retraction*. Once sexual abuse has been disclosed the perpetrator will once again verbalize threats to harm the child or significant others. If the child does not receive support from family or friends she/he feels pressured to recant the story to reduce chaos and bring order back to the family.

Childhood sexual abuse is also researched under the rubric of rape and incest. Rape is defined as an act of power through sexual violation of another person. It is an assault on an individual's body and psyche. It may include fondling or actual penetration (Courtois, 1988). Incest is a form of rape within the family and the term is preferred by many researchers of childhood sexual abuse. However, the use of the word "rape" is said to ignore the different dynamics of what is happening in the family (Finkelhor, 1978; Herman & Hirschman, 1977; Rosenfeld, 1979). According to Courtois (1988) the differences between rape and incest are found in three general areas:

(1) duration and progression of sexual activity over time; (2) coercion; and (3) consent. Most incest involves multiple acts of sexual violation over time ranging from several months to many years. The usual pattern is for this activity to escalate. Most incestuous relationships begin not as the result of physical force and violence but rather under the guise of affection or education or as something fun or special. Very often, the inducement is the chance to be involved in a special relationship with a known and valued adult. Usually the coercion is subtle, especially at the beginning. It may intensify over the course of the relationship when threats or misrepresentations of fact are used to insure secrecy and continuation of the activity. Although violence is not the typical modus operandi, it is used in a substantial minority of cases...like adult victims of rape, children involved sexually with adults may be said to submit rather than to consent to the activity and, furthermore, to be unable to give informed consent due to their immaturity, dependence, and powerlessness (p.15).

Because most victims of CSA are abused by family members or close friends, the child grows up in a pathological environment subjected to repeated victimization (Cole & Putnam, 1992; Cortois, 1998). The perpetrator maintains control through violence, fear, secrecy, isolation, and by establishing rules that are frequently changed to fit the perpetrator's mood. Many children are subjected to other forms of

abuse that are not sexual in nature. For example, victims have been tied up, locked in closets and basements, starved, sleep deprived, or forced to take enemas. The chaotic environment produces an overwhelming sense of helplessness and the child learns to surrender to the environment. Survival entails developing skills that enable one to sense danger. Victimized children become hyper alert and adept at reading nonverbal cues (Herman, 1997).

Incest between an adult and a related minor is the most prevalent form of child sexual abuse, usually occurring between father and daughter (Cole & Putnam, 1992). In most cultures, incest is taboo and when revealed it brings shame to the family and punishment from the legal system. However, history shows that incest has been embedded in most cultures and can be traced back for several thousands of years. Research indicates that incest typically involves more than one perpetrator and victim in the nuclear family. The incestuous pattern can be found across generations and the incestuous family goes to great lengths to keep the abuse hidden from others. Many adolescents, once victims of incest, go on to become perpetrators of incest.

Because of repeated abuse, strong defense systems develop that interfere with psychological functioning and developmental tasks (Courtois, 1988). Family systems theory states that incest is transmitted from one generation to the next and the typical incestuous family is psychologically, socially, and physically isolated from

outsiders. In incestuous families, individuals lack differentiation, maintain poor boundaries, and affection is usually not demonstrated unless it is sexual in nature (Courtois, 1988). Rist (1979) contended that sexual abuse is a destructive form of triangulation. The children are used to bolster's the abusing parent's self-esteem and to compensate for the estrangement in the marital relationship.

In Kempe and Kempe's (1984) research of abusive families, two types of families have been identified, the "normal-appearing" family and the chaotic family. The chaotic family is described as being dysfunctional at all levels: alcohol and drug abuse are present, they have limited education, are low in socioeconomic status, and usually have legal problems. Children in chaotic families are left to raise themselves and without the proper supervision, these children are vulnerable to abuse inside and outside of the family. From the outside the normal-looking family appears stable and well functioning. The parents are usually in a long-term marriage, are socially and financially stable, and are well respected in the community. Emotionally the parents are unable to nurture one another or their children. The parents may lead separate lives and one or both parents may be abusing alcohol. If an incestuous relationship is disclosed, it is met with disbelief by other family members and friends. In many families the offending parent is financially able to hire a legal team and the child's credibility is attacked. The perpetrator's status in the community and role as

provider is emphasized implying that hard-working, upstanding citizens are not capable of abuse.

Clinical Manifestation of Childhood Sexual Abuse

Manifestations of sexual abuse vary according to the developmental age of the child. The behavior exhibited has both affective and cognitive components. Research indicates that children interpret the meaning of their anxiety and pain according to their level of cognitive development (Pynoos et al., 1996). The traumatized child loses the ability to self-correct, anticipate or accommodate. Infants and very young children may display whining and crying, clinging, feeding problems, speech difficulties, failure to thrive, and withdrawal. In early childhood symptoms may include: thumb-sucking, injurious behavior, tics, enuresis, conduct problems, sleep difficulties, and speech problems. Pynoos, Steinberg and Goenjian (1996) report that traumatized children who lack adequate parental nurturing will exhibit extremes of under- and over arousal. This instability of emotion may interfere with the child's ability to logically organize information. Many abused children have been diagnosed with learning disabilities and placed in remedial classes. However, because little or no attention is paid to the traumatic events, abused children in remedial classes often fail to improve academically. Boys are more likely to display a high level of motoric activity. The child may demonstrate knowledge of sexual behavior that is not age appropriate and engage in sex play or become sexually

aggressive with peers. In middle childhood the aforementioned symptoms are displayed along with depressive symptoms, eating disorders, suicidal feelings, poor concentration, nightmare, fears and phobias, borderline, and psychotic states. Adolescents may become promiscuous, abuse alcohol or drugs, demonstrate angry and rebellious behavior, depression, social withdrawal, or become overly compliant (Lewis & Sarrel, 1969).

Physical symptoms may include trauma to the mouth, genitals, and/or urethra. Children may have difficulty walking, sitting, or participating in their usual activities. Other symptoms include nausea, ulcers, gagging, stomach cramps, sleep disturbances, anxiety, depression, fear of being attacked or trapped, nightmares, night terrors, startle responses, STDs, pregnancy, or self-injury (Sgroi, 1978).

Emotional reactions include anxiety, fear, confusion, guilt, anger, depression, along with grief and loss reactions. Anxiety and fear may show up in compulsive or ritualized behavior and phobias. Other problems observed are the inability to trust others, neediness, dependency, signs of withdrawal, poor social skills and difficulty relating to others on a nonsexual basis, concentration problems, and behavior problems (Bromberg & Johnson, 2001).

History and Development of Traumatic Stress

Historical Overview of Post Traumatic Stress Disorder

Clinicians and researchers in the field of psychological trauma have found that exposure to overwhelming and terrifying events can lead to troubling memories, avoidance, and arousal (Briere, 1997; Courtois, 1988; Herman, 1997; van der Kolk, et al., 1996). The profession of psychiatry has waxed and waned in the belief that such events can alter a person's biological and psychological processes (van der Kolk et al., 1996). Charles Myers (1915), a British military psychiatrist was the first to use the term "shell-shock" in the medical literature. Soldiers who had not been exposed to gunfire also developed symptoms and it was suggested that shell-shock was an emotional response rather than a biological or physiological response. Doctors of the time mislabeled traumatic stress as cowardice or a lack of will power of the individual (Raphael & Wilson, 1993). Abram Kardiner (1941), an American psychiatrist, came to prominence during World War I treating traumatized U.S. war veterans. He published his clinical observations in the *Traumatic Neuroses of War*. He noticed that traumatized soldiers exhibited a range of symptoms that included sensitivity to perceived environmental threats, temperature, pain, sudden tactile responses, and extreme physiological arousal. In addition, traumatized soldiers suffered from an altered conception of the self in relation to others, atypical dream

life, chronic irritability, startle reactions, and explosive reactions which he called the "pathological traumatic syndrome" (van der Kolk, Weisaeth, & van der Hart, 1996; Raphael & Wilson, 1993).

The interest in trauma and its sequelae laid dormant until World War II when American psychiatrists were again faced with the dilemma of trying to classify symptoms that soldiers presented as a reaction to combat stress. After the war, the Veterans Administration and the American Armed Forces each developed a new diagnostic classification system to explain the trauma symptoms associated with war and its aftermath (Brett, 1996). The World Health Organization in 1948 decided to include mental disorders in the sixth edition of the *International Statistical Classification of Diseases, Injuries, and Causes of Death* (ICD-6) based on the Armed Forces classification system. At the time, PTSD symptoms were classified as "acute situational maladjustments" occurring in people without a history of prior or concurrent mental disorder.

In the *Diagnostic and Statistical Manual - I* (DSM-I) (American Psychiatric Association, 1952) traumatic stress was described as "transient situational personality disturbance" and in the DSM-II (APA, 1968) it was shortened to "transient situational disturbance" based on the Armed Forces and Veterans Administration definitions. The ICD-6 (WHO, 1948) and DSM-II (APA, 1968) used the same terminology to describe traumatic symptoms. Traumatic stress or transient

situational disturbances were characterized as short-lived responses in normal individuals. These response were acute reactions to overwhelming stress occurring in people without a history of prior or concurrent psychopathology.

The DSM-III (APA, 1980) revised the criteria stating that stress responses were no longer restricted to acute responses in healthy people, it can cause chronic reactions and can occur with prior and concurrent conditions. The new diagnosis of PTSD was taken out of the adjustment and stress category and placed in the anxiety disorders section of the DSM-III (Brett, 1996).

van der Kolk, et al. (1996) contended that in traumatized persons a constellation of biobehavioral changes occur that result in the development of PTSD. He further postulated that most people who have been exposed to extreme stress develop intrusive, avoidance, and hyperarousal symptoms. Dissociation at the time the trauma occurs has been shown to be correlated with the development of PTSD. Over a period of time, individuals with PTSD vacillate between numbed responsiveness and hyperarousal. Chronic hyperarousal and the failure to regulate autonomic reactions to internal or external stimuli affects one's capacity to properly use emotions as signals. According to Foa and Rothbaum (1998) very few victims without numbing symptoms meet the criteria for PTSD. It is their contention that anxiety is a predominant reaction to trauma and many symptoms of PTSD overlap with symptoms of other anxiety disorders i.e. sleep problems, hypervigilance,

irritability, and difficulty concentrating. The diagnostic criteria of PTSD is divided into three symptom clusters: reexperiencing; numbing/avoidance, and arousal.

Diagnostic Criteria for Posttraumatic Stress Disorder

The likelihood of an individual developing PTSD is contingent upon the duration, severity and proximity to the traumatic event. In the DSM-IV-TR (APA, 2000), a diagnosis of PTSD is made if both conditions in criterion A are satisfied. The criteria for the symptom clusters of reexperiencing, numbing/avoidance, and arousal are presented in Criterion B, C, and D respectfully. Criterion E specifies duration and Criterion F describes social and occupational functioning in relation to the stressor.

> Criterion A. 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 of self or others (2) the person's response involved intense fear, helplessness, or horror. In children, this may be expressed instead by disorganized or agitated behavior.
>
> Criterion B. The traumatic event is persistently reexperienced in one (or more) of the following ways: (1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. In young children, repetitive play may occur in which themes or aspects of the trauma are expressed. (2) recurrent distressing dreams of the event. In children, there

may be frightening dreams without recognizable content. (3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episode, including those that occur on awakening or when intoxicated). In young children, trauma-specific reenactment may occur (4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event (5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

Criterion C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following: (1) efforts to avoid thoughts, feeling, or conversations associated with the trauma (2) efforts to avoid activities, places, or people that arouse recollections of the trauma (3) inability to recall an important aspect of the trauma (4) markedly diminished interest or participation in significant activities (5) feeling of detachment or estrangement from others (6) restricted range of affect (e.g., unable to have loving feelings) (7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or normal life span).

Criterion D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following: (1) difficulty falling or staying asleep (2) irritability or outbursts of anger (3) difficulty concentrating (4) hypervigilance (5) exaggerated startle response

Criterion E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

Criterion F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if: Acute - if duration of symptoms is less than three months. Chronic - if duration of symptoms is three months or more. With Delayed Onset - if onset of symptoms is a least six months after the stressor (American Psychiatric Association, 2000)(pp. 467-468).

Civilians and PTSD

Prevalence and Epidemiology of Post Traumatic Stress Disorder in Civilians

Exposure to extreme stress effects emotional, cognitive, behavioral, and characterological functioning (van der Kolk et al., 1996). Across cultures people react in a similar manner after experiencing stressors, which Weisaeth and Eitinger (1993) referred to as stereotyped responses.

This uniformity of responses probably reflects the common basic traumata emanating from these events, of which the most important are: (1) the

> psychological effects of the physical suffering and of the danger trauma, that is overwhelming threat to life; (2) the loss trauma, that is, the death of close ones, often witnessed by the helpless victim; and (3) what we have called the responsibility trauma, that is, the attack on one's psychological self. Stereotyped responses may indicate that it is a basic psychobiologically founded reaction pattern which has psychological adaptation and survival value (pp. 69-70).

It has been reported that 90% of U.S. citizens are exposed to at least one traumatic event during their lives and many individuals experience more than one traumatic event over the course of their lives (Yehuda, 1999). It is estimated that 14% of the individuals exposed to traumatic events will develop PTSD at some point during the lifespan (Boudreaux, Kilpatrick, Resnick, Best, & Saunders, 1998; Yehuda, 1999). In a research study by Resnick, Kilpatrick, Dansky, Saunders, and Best (1993), the base rate of PTSD among civilian women was 12.3%. Gender differences are evident in the development of PTSD, women are more likely to develop PTSD even though men are exposed to more traumatic events (Breslau, Davis, Peterson, & Schultz, 1997; Hidalgo & Davidson, 2000; Resnick et al., 1993; Stein et al., 1997). Research shows that lifetime prevalence of PTSD for females ranges from 1.7% to 18.3% and .09% - 10.8% for males (Breslau et al., 1998; Resnick et al., 1993; Yehuda,1999).

Risk Factors Associated With The Development of Posttraumatic Stress Disorder

Researchers have identified various risk factors that may affect the development of PTSD. Many studies have found that the highest rates of chronic PTSD are related to sexual assault and the lowest rates are associated with natural disasters, terminal or life threatening illnesses, and motor vehicle accidents (Hidalgo & Davidson, 2000; Stein, Walker, Hazen, & Forde, 1997; Yehuda, 1999). Ehlers, Mayou, and Bryant (1998) found that the prevalence of PTSD following motor vehicle accidents (MVA) ranged from 1% - 46%. Although women sustained less injuries than men, they reported more fear during MVA and reported more symptoms of PTSD than males at three and 12 months post-MVA.

In addition, perceived threat was found to be a consistent predictor of PTSD. A relationship between the level of exposure to violence and PTSD symptoms has been substantiated in the empirical literature. Trauma survivors that are nonwhite, from lower socioeconomic backgrounds, have a lower education level, lower I.Q.s, are female, are single, or who have a history of behavioral or psychological problems are at greater risk for developing PTSD (Breslua, Davis, & Andreski, 1995; Breslau et al., 1998; Yehuda, 1999). Astin, Lawrence, and Foy (1993) found 33% of battered women sampled reported symptoms of PTSD and the amount of exposure to violence was positively correlated with reported symptoms of PTSD. An even higher prevalence rate of PTSD (84%) was found for a sample of women residing in shelters

(Kemp, Rawlings, & Green, 1991). Location of housing may also affect symptomatology, as females from urban areas report more witnessing of violence towards others, rape, and physical assaults than suburban females (Breslau et al., 1997). The lifetime prevalence rate of PTSD was 45% for women residing in urban areas compared to 35% for those women living in suburban areas (Breslau et al., 1997).

Certain personality characteristics, affective states, and mental disorders are associated with PTSD (Breslau et al., 1997; Hankin, Skinner, & Sullivan, 1998; Lauterback & Vrana, 2001; Willer & Grossman, 1995; Wyatt, 1992). The empirical literature has shown that individuals with poor impulse control, thrill seeking behavior, anti-social and neurotic traits are more likely to develop PTSD because of increased exposure to traumatic events (Breslau et al., 1997; Hankin, Skinner, Sullivan, Miller, Frayne, & Tripp, 1999; Lauterback & Vrana, 2001; Willer & Grossman, 1995).

Research shows that anger and hostility are common symptoms experienced after a traumatic event (Butterfield et al., 2000). Some research has shown that anger negatively impacts treatment, is higher in traumatized women than in non-traumatized women, and is associated with the development of PTSD (Butterfield, Forneria, Feldman, & Beckham, 2000). The construct of hostility includes cognitive, behavioral, and affective components. The cognitive component holds negative

beliefs about others. The affective component consists of anger, annoyance, resentment, disgust, and contempt. The behavioral component of hostility includes physical or verbal aggression. Hostility has been shown to be associated with increased mortality, hypertension, coronary heart disease, and overall lower quality of life. This study investigated the relationship between hostility and functional health status in women veterans (Butterfield et al., 2000). The results indicated that women veterans with PTSD scored higher on measures of hostility and had poorer health than women veterans without PTSD. Ethnic minority female veterans reported higher hostility scores than non-ethnic female veterans.

Hamilton (1989) held a contrary view and contended that being angry about the trauma is therapeutic to the healing process. Healing takes place when empathic support allows the woman to gradually tolerate previously overwhelming affect and the indignation of being victimized. Anger allows one to remain connected to her feelings as cognitive skills are used to process and contain the affect.

Other studies have found a correlation among anger, dissociation, intrusive memories, and ruminations in the development of PTSD (Ehlers, Mayou, & Bryant, 1998; Feeny, Zoellner, & Foa, 2000; Riggs, Rothbaum, & Foa, 1995). Dissociation is defined as a disengagement and alteration in memory that is not conscious of the trauma (Feeney et al., 2000). In a study by Riggs, Dancu, Gershuny, Greenberg, and Foa (1992), PTSD victims scored higher than victims without PTSD on all scales of

the Anger Expression Scale (Spielberger, 1988) immediately and one month after the assault. Intense anger immediately after the assault, and holding anger in were related to the development and maintenance of PTSD. Feeney et al. (2000) found that high levels of anger at four weeks post assault were correlated with dissociative symptoms and social impairment at three months post assault. The results of the research suggested that anger and dissociation hinder the processing of traumatic events and the natural recovery process. Ehlers et al. (1998) found that dissociation during or immediately after the trauma led to the development of PTSD and that efforts to suppress memories of the traumatic event may have actually increased their frequency. Intrusive memories that were reported at the initial assessment and ruminations about "why me" were predictive of PTSD at one year and at five years after the trauma.

Women that have been sexually assaulted report more severe deficits in functioning and increased symptoms of re-experiencing, avoidance, and numbing (Feeny, Zoellner, Fitzgibbons, & Foa, 2000; Johnson, Pike, & Chard, 2001; McNally, Metger, Lasko, Clancy, & Pittman, 1998). Sexually abused children may learn to survive under adverse conditions by developing an avoidant encoding style or disengagement from the trauma. However, cognitive avoidance may lead to dissociation increasing the risk for PTSD (McNally et al., 1998). Roesler and McKenzie (1994) found that childhood sexual trauma was associated with negative

long-term effects of psychological functioning. Persons in this study reported symptoms approximately 25 years after the abuse. The results indicated that childhood sexual trauma contributes significantly to depression, low self-esteem, PTSD, sexual dysfunction, and dissociation with the most significant results seen for dissociation.

Research conducted by Freedman, Brandes, Peri, and Shalev (1998) showed that depressive symptoms were the most consistent predictors of PTSD symptoms at one year. Symptoms of intrusion and dissociation were better at predicting PTSD at four months, and symptoms of depression, avoidance, and anxiety were predictive of PTSD at one year. Some people with PTSD (Difede & Barocas, 1999; Feeny et al., 2000) alternate between intrusive re-experiencing of the trauma and numbing of emotional responsiveness. Emotional numbing typically includes three symptoms: loss of interest in activities, detachment from others, and restricted range of affect. Feeny et al. (2000) reported that emotional numbing two weeks after an assault was related to depression, dissociation, and PTSD. Results showed that high levels of emotional numbing were predictive of PTSD severity at three months and that numbing and depression were related to chronic PTSD. Johnson et al. (2001) found that subjects who endorsed dissociative symptoms reported more symptom severity of PTSD and depression.

A common response to trauma is difficulty with the regulation of memories surrounding the trauma. Amnesia for all or part of the abuse may be associated with flashbacks of the experience and individuals with PTSD may suffer from memory impairment (Stein, Hanna, Vaerum, & Koverola, 1999). Flashbacks are described as memories that have not been integrated into consciousness and return as intrusive symptoms. Flashbacks occur in a variety of forms and involve all of the senses. Flashbacks occur as a re-enactment of the abuse in a trance-like state or as vivid dreams or nightmares that may persist into wakefulness (Musicar & Josefowitz, 1996). In another study (Sachinvala, von Scotti, McGuire, Fairbanks, Bakst, McGuire, & Brown, 2000), subjects with PTSD showed impairment in three cognitive domains of attention, memory, and functional capacity (i.e. judgement and association) when administered the Cognitive Evaluation Protocol (CEP; McGuire et al., 2000). The subjects also obtained elevated scores on measures of depression but processing speed was in the normal range. This study supports other research that chronic PTSD is associated with deficits in attention, memory, and functional capacity.

Traumatic experiences are common in persons with severe mental illnesses such as bipolar disorder and schizophrenia. Poor outcomes such as substance abuse, homelessness, and symptom severity are associated with these mental disorders (Goodman, Rosenberg, Mueser, & Drake, 1997). Research by Mueser et al. (1998) found that persons with severe mental illness evidence a higher rate of

trauma than those without mental illness. Estimates of lifetime exposure to interpersonal violence for this population varies between 48% - 81%. Patients with a truama history tend to abuse substances and require higher cost services such as hospitalization. In Mueser's sample of patients, PTSD was found to be comorbid with mental illness. It was reported that 72% of inpatients and 77% of outpatients suffered from PTSD along with another mental disorder. A study by Boudreaux, Kilpatrick, Resnick, Best, and Saunders (1998) found that experiencing at least one truamatic event during which the person feared serious injury or death appeared to be associated with a heightened risk of developing several disorders such as depression, agoraphobia, obsessive compulsive disorder, and social phobia. Sixty four per cent of the subjects in this sample that were diagnosed with PTSD were also diagnosed with another Axis I disorder.

Research suggests that some mental disorders may impair a woman's ability to evaluate potential threats (Scott, Lefley, & Hicks, 1993) which could put her at additional risk for re-traumatization. In this study, 27.5% of females had a history of prior rape or incest, 14% had a history of psychiatric hospitalization, and 7% were diagnosed as mentally retarded (Scott et al., 1993). Breslau et al. (1997) concurred that premorbid psychiatric disorders lead to impairment in motivation, cognitive, and emotional functioning. In their study of women exposed to violence in urban and

suburban areas, 73% reported symptoms of depression, anxiety, and substance abuse.

Individuals who have not sufficiently processed previous trauma are prone to more intense reactions to current trauma. The effects of sexual revictimization can be influenced by perceptions of the experience, attribution of blame, and how the victim is judged by those around her (Briere, 1997; Wyatt, 1992). Developing PTSD is a function of the person's internal and external resources, characteristics of the trauma, variables specific to the victim, subjective response to the trauma, and the response of others to the victim (Briere, 1997). Maker, Kemmelmeier, and Peterson (2001) defined revictimization as multiple traumas across the lifespan with at least one incident of sexual abuse in both childhood and adulthood. Research shows that women victimized in childhood are 2.4 times more likely than nonvictims to be assaulted again in adulthood (Wyatt, 1992). A community survey indicated that at least 50% of adult rape victims had a history of CSA (Cloitre, Scarvalone, & Difede (1997). Other clinical and community studies with adult survivors of CSA have shown that development of chronic or delayed PTSD is common after childhood victimization (Widom 1999). Severity of symptoms was related to severity of the sexual act, duration and use of force, and number of perpetrators. Seventy-two per cent of the sample met criteria for current PTSD and 86% met criteria for lifetime PTSD (Rodriguez, Ryan, Rowan, & Foy, 1996).

It is not uncommon for women who were sexually abused as children to blame themselves for the abuse. Self-blame was more evident when the following occurred: failure to seek help regarding the abuse, the inability to avoid or control the abuse, actively participating in sexual behavior, or the inability to protect siblings from the abuse. Self-blame is related to increased symptoms of PTSD, flashbacks, nightmares, and suicidal ideation. Women who were closely related to the abuser or victimized before age 10 are more likely to engage in self-blame (Barker-Collo, 2001).

Trauma has been shown to overwhelm a person's ability to adequately process information (Hamilton, 1989; van der Kolk et al., 1996). Overwhelming experiences can be tolerated gradually when there is a safe environment and empathic support is available (Hamilton, 1989). Pre-trauma coping styles are important for the rate of recovery from sexual assault (Lam & Grossman, 1997). It has been postulated that negative reactions to a life stressor may have detrimental effects on recovery. Mastery of prior life events may enable one to cope effectively with major life stressors (Hartman & Burgess, 1993).

Social support and the quality of that social support are also associated with the rate of recovery (Burgess & Holstrom, 1974). Those who perceive their social network as inadequate or unhelpful may be more vulnerable to stress (Raphael & Wilson, 1993). Negative social reactions are associated with symptom severity of PTSD. Family members are said to influence the rate of recovery and the victim's

response after the trauma by expressions of anxiety, guilt, and avoidance patterns (Burgess & Holstrom, 1978; Ullman & Filipas, 2001). Families can further hinder healthy coping responses by denying the abuse or by changing the meaning of the abuse by labeling it as punishment or deserved behavior. Denying sexual abuse may result in the victim developing chronic mistrust of others, low self-esteem, self-hatred, poor impulse control, an inability to accurately label feelings, and exclusion of the event from conscious awareness. These factors have been associated with the development of PTSD and other mental disorders (Hamilton, 1989) and are applicable to civilian or military women.

Military Sexual Trauma

Prevalence and Epidemiology of PTSD in the Military

A review of the literature on rape trauma indicates that sexual assault for women in the military is significantly higher than for civilian women (Martin, Rosen, Durand, Stretch, & Knudson, 1998). Although women comprise approximately 10% of the active duty military personnel (Wolfe, Mori, & Krygeris, 1994), the lifetime prevalence of PTSD among active duty females is 37.5% across all services due to various traumatic stressors. This is considerably higher than for civilian females with rates ranging from 11.3% to 18% (Resnick et al., 1993; Stretch, et al.; 1998, Yehuda, 1999).

Data from the Veteran's Administration Women's Health Project (Skinner et al., 2000) based on a random national sample revealed that 55% of the respondents reported sexual harassment and 23% reported sexual assault during military duty. When military sexual assault (MSA) was examined by branch in the military, 54.2% of the veterans reporting MSA served in the Army and were on active duty approximately one year longer than women who did not report sexual assault. In a survey of active duty women, Martindale (1988) found that 5% had been victims of attempted or completed rape and 38% reported unwanted touching. In another study (Martin et al., 1998) of active-duty Army personnel, sexual assaults varied by gender, age, ethnicity and rank. Lifetime prevalence of sexual assault was 50.9% for females and 6.7% for males and 22.6% of females and 1.1% of males reported a completed rape. Compared to civilian women, active duty Army women had higher rates of childhood sexual abuse. Caucasian and Asian females experienced sexual assault at an older age than African American or Hispanic females; 35.9% of Caucasian women experienced an attempted rape compared to 17.7% of African American women, and enlisted soldiers were victims of sexual assault more often than officers.

During operation Desert Storm, approximately 40,000 women were stationed in the Persian Gulf Theater and compared to males, females reported higher rates of PTSD (Zatzick et al., 1997). Women were exposed to war stressors similar to men in

the Persian Gulf Theater and the Somalia Peacekeeping Mission which included combat and combat support. However, female soldiers exhibited more severe PTSD symptoms due to sexual harassment and abuse that interacted with combat stressors (Fontana, Litz, & Rosenheck, 2000). Females experienced low level stressors that were gender specific: being female in a male dominant environment, unavailability of feminine hygiene products, and having to disrobe to urinate while on missions (Norwood, Ursano, & Gabbay, 1997). Higher levels of war zone stress exposure have been associated with lifetime readjustment problems of women (Zatzick, et al., 1997). King et al. (1995) contended that repeated less intense events may produce a cumulative effect equal to the impact of a single high intensity traumatic event

Military Sexual Assault (MSA)

The perpetrator-victim relationship has been found to be associated with symptom severity (Bownes, O'Gorman, & Sayers, 1991) and the sexual trauma symptoms of MSA may differ from non military sexual trauma (Norwood, Ursano, & Gabbay, 1997). Women who have been assaulted while in the military may be in close proximity to the perpetrator who may be a coworker, supervisor, or a higher ranking personnel. It is likely that the female veteran will be required to work with or have repeated contact with the perpetrator and will not be afforded time off after the trauma. Unit cohesion and good morale provide a protective barrier among military

troops that may not be felt by a woman who has been sexually assaulted by a fellow soldier (Norwood et al., 1997).

Female veterans who experienced MSA reported more problems compared to women veterans with no MSA: readjusting after discharge, finding employment, abusing substances, and feeling isolated, angry, and depressed (Skinner, et al., 2000). Female veterans with PTSD also reported higher rates of precombat abuse than male veterans (Grossman, et al., 1997; Wolfe, et al., 1999). Women who reported sexual assault were two to three times more likely to meet screening criteria for symptoms of depression or alcohol abuse. However, 60% of the veterans screened were not receiving treatment (Hankin et al., 1999). In another study by Suris, Kashner, Lewis, Zak, Borman, and Petty (2002), a review of chart diagnoses of women veterans with a history of sexual assault indicated that those with assault histories had significantly higher rates of depression, substance use, and PTSD. It has also been suggested that being exposed to traumatic events, i.e. physical or sexual assault is related to poorer health functioning in female veterans (Wagner et al., 2000; Zatzick et al., 1997; Zoellner, Goodwin, & Foa, 2000). Female veterans with MSA report more physical distress than females veterans without MSA, including gastrointestinal problems, chronic fatigue, headaches, back pain, and menstrual problems. Research has shown that PTSD tends to become chronic and less amenable to therapy when symptoms are present for more than three months

(Freedman, et al., 1998). Women veterans who have experienced MSA are nine times more likely to develop PTSD compared to women veterans with no sexual assault histories (Suris, et al., 2002).

The type of homecoming received by veterans is a mediating factor in the development of PTSD. The unavailability of social support reinforces PTSD as a chronic condition. Women who served in the Viet Nam theater were exposed to both war and sexual trauma which appears to have influenced the amount of rejection experienced from society at the time of their homecoming. Many of the veterans were stigmatized and suffered social isolation (Ullman & Filipas, 2001). According to the VA Women's Health Project, a cohort study of women veterans (Cotten, Skinner, & Sullivan, 2000), 50% of Persian Gulf veterans reported having trouble paying bills, and 95% of World War II era women lived alone and reported more loneliness. A majority of WWII veterans were at least 65 years old and loneliness may be reflective of their stage in life. Women with higher levels of education and those of the Post-Viet Nam era reported more social resources. African American women had larger kin networks and Caucasian women reported more social networks.

Ethnicity and Posttraumatic Stress Disorder

Disclosure Patterns

As previously stated sexual assault is the leading contributor to the development of PTSD in females (Bromet, Sonnega, & Kessler, 1998; Engel et al.,

1993; Freedman, Brandes, Peri, & Shalev, 1998; McNew & Abell, 1995). Some studies show that African American females are more frequently victimized than Caucasian females (Wyatt, 1985) and have higher rates of interfamilial abuse (Cecil & Matson, 2001). It has been reported that 25% of African American females and 20% of Caucasian females experience at least one incident of attempted or completed rape by age eighteen.

Although research shows that African American females have higher rates of sexual assault, it is suspected that many cases go unreported due to cultural factors that influence disclosure patterns. For example, the African American community is less likely to perceive that a female's reputation is ruined after a sexual assault, and perpetrators that are family members are less likely to be reported to the police (Wyatt, 1992). Some victims have reported that "real rape" is said to occur when the perpetrator is a stranger and weapons and other types of violence have been used during the assault (Burt & Katz, 1980). Many victims do not view the police as supportive and are more likely to turn to family and friends for support after victimization (Burgess & Holstrom, 1974; Hartman & Burgess, 1993; Kalof, & Wade, 1995; Wyatt, 1992).

Social Support and Coping

Cultural differences exist in the manner in which victims seek support, cope with traumatizing events, and manifest symptoms after victimization. Culture is

defined as a protective and supportive system of morals, knowledge and lifestyle, and it provides group and individual identity to its members (Greene, 1994; Nobles, 1991). Research studies have shown that social support is a mediating factor in the development of posttraumatic stress disorder (Burgess & Holstrom, 1974; Hartman & Burgess, 1993; Kalof, & Wade, 1995; Kemp, Rawlings, & Green, 1991; Wilson, Kohn, Curry-El, & Hinton, 1995; Wyatt, 1992). Other research indicates that an individual's perception of having a reliable and accessible social network is just as effective in reducing stress than whether or not social networks are actually used (Lara, Leader, & Klein, 1997). Social networks in the African American culture include blood relatives, friends, neighbors, and church members (Greene, 1994; Nobles, 1991; Scott & Black, 1994). The extended kinship network is based on the African world view of interdependence, connectiveness to others, and the value of the tribe over the individual (Nobles, 1991).

Coping strategies can also be influenced by culture (Nobles, 1991; Weisaeth & Eitinger, 1993; Wyatt, 1992). Coping is defined as a process by which people attempt to mediate the stress evoked by traumatic events and circumstances. It is postulated that coping styles reflect an individual's perception, response, and adaptation to traumatic stressors (Lazarus & Folkman, 1984; Wilson & Raphael, 1993). The use of rituals within a culture helps to regulate behavior, provide guidance, and create meaning for traumatic events (DeVries, 1996). It is postulated

that during times of stress or emotional upheaval, African Americans turn to spirituality and religious faith as a coping mechanism (Greene,1994). Many studies have shown that compared to Caucasians, African Americans attend church more frequently and rely on prayer to mediate stressful life events (Barbarin, 1983; George & McNamara, 1984; Neff, 1985).

Historically, churches in African American communities are among the most important institutions providing a place of worship, community services, and a springboard for political activism (Williams, Griffith, Young, Collins, & Dodson, 1999). In a study by Hill, Hawkins, Raposo, and Carr (1995) of African American females, two primary coping strategies were identified: religion and prayer and political activism. Females who were college educated, had higher incomes, and lived in neighborhoods that experienced less crime, were more likely to seek change through external measures such as political activism. Women who lived in high crime areas, and had less education were more likely to use social isolation, prayer, and safety measures as coping mechanisms (Wyatt, 1990). One can hypothesize that women in high crime areas are less likely to utilize mental health services and other outside agencies after an assault However, African Americans may exhibit less symptoms of avoidance if the coping strategies of interdependence and reliance on the Black church as a source of support and services are maintained.

Ethnicity and Trauma Symptoms

Research on the epidemiology of mental illnesses has found differences in symptom severity among ethnic minorities and Caucasians (Snowden, 1999). Most of the early studies of ethnic differences in PTSD among military personnel were conducted on male combat soldiers during the Viet Nam era. A review of the research showed mixed results. In some studies, African American and Hispanic males were shown to have higher rates of PTSD than Caucasian males and the researchers concluded that being subjected to racism at home and in the military contributed to the development of PTSD. It was also postulated that African American combat soldiers were more vulnerable to war-zone stress because they identified with the Vietnamese as a non-white population fighting for freedom and were therefore less likely to view them as the enemy (Allen, 1986; Parson, 1990). Wyatt (1990) contended that the stressors experienced by ethnic minorities have a cumulative effect on the development of PTSD.

Penk et al. (1989) found three different results in their study of African American and Caucasian Viet Nam era male veterans who were administered the MMPI. The first result showed that African American, non-combat veterans scored significantly lower on the clinical scales when compared to Caucasian non-combat veterans. The second result indicated that African Americans exposed to mild combat scored higher on scale 9 (mania) and Caucasians exposed to mild combat scored higher on scales 2 (depression), 3 (hysteria), 4 (psychopathic deviate), 7

(psychasthenia), and 0 (social introversion). The third result showed that when Caucasians and African Americans were both exposed to heavy combat, African Americans scored significantly higher on scales F (distress), 1 (hypochondriasis), 3 (hysteria), 6 (paranoia), and 8 (schizophrenia). Although females were not represented in these studies, the results of these studies may reflect common stressors experienced by minority groups in the military that contribute to the development of PTSD.

In a study of urban male and female police officers, results indicated that African American and Caucasian officers obtained similar scores on levels of PTSD, and Hispanics had higher scores than all ethnic groups on levels of PTSD (Pole, et al., 2001). In another non-combat related study, researchers compared culture and gender in the development of PTSD symptomatology using the Revised Civilian Mississippi Scale (RCMS; Norris & Perilla, 1996). After Hurricane Paulina in Acapulco, Mexican women were more distressed than Mexican men on all measures of the RCMS. It was hypothesized that traditional gender-role socialization in Mexican culture was responsible for differences in the development of PTSD. Mexican women are more likely to express symptoms and Mexican men are less likely to disclose symptoms. In comparison, after Hurricane Andrew in Miami, sex differences in severity of PTSD symptoms were higher for Caucasians than for African Americans (Norris, Perilla, Ibanez, & Murphy, 2001). Since African American females

are raised with less restrictive gender roles and are encouraged to be resilient and resourceful (McAdoo, 1988), gender-role socialization may be responsible for the similarities between African American males and females in the expression of PTSD symptoms.

Racial differences were found in the type of sexual assault perpetrated on females and the symptoms of PTSD following the assaults. Ullman and Filipas (2001) studied a diverse sample of sexual assault victims and the relationship between social reactions to the assault and severity of PTSD symptoms. Higher PTSD symptom severity was associated with women who were less educated and perceived their life to be in danger during the assault. Hispanic women and mixed-race women reported experiencing more injury and life-threatening assaults than Caucasian women. In this study, perceived life threat was predictive of more PTSD symptoms for Caucasian females. When disclosure patterns were analyzed, women who were told to get on with their lives and were discouraged from speaking about the assault reported more symptom severity. Ethnic minority women received more negative social reactions after disclosure, and women who received less injuries and were willing to talk to others after the assault received more positive social reactions from others.

Research has shown that ethnic differences exist in the lifetime prevalence of mental disorders. Zhang and Snowden (1999) examined mental disorders among

Caucasians, Asian Americans, Hispanics, and African Americans. Results showed that compared to Caucasians, the rates for Hispanics were significantly lower for panic disorder, drug abuses, schizophrenia, and obsessive-compulsive disorder. Asian Americans were less likely than Caucasians to have manic episodes, bipolar disorder, somatization, schizophreniform, antisocial personality disorder, and alcohol abuse. African Americans were less likely than Whites to have the following mental disorders: major depression, dysthymia, obsessive-compulsive disorder, drug and alcohol abuse or dependence, anti-social personality, and anorexia nervosa. However, African Americans showed higher rates on phobic and somatization symptoms. Compared to all racial groups, African Americans obtained the highest scores on somatic symptoms.

For some ethnic minorities, somatization is an acceptable form of expressing emotional discomfort (Comas-Diaz & Greene, 1994). Snowden (1999) postulated that symptom-based indicators of anxiety, somatization and demoralization-estrangement would be associated with the utilization of mental health services among African Americans. In this study, African Americans were more likely to seek mental health services when somatic complaints and anxiety-related symptoms were expressed. This may be an important issue to consider in the delivery of mental health services to African Americans.

Purpose of the Study

There are few published studies that examine the relationship among ethnicity, sexual assault, and PTSD in female veterans. A substantial body of research has been dedicated to the study of PTSD and its sequelae in male combat veterans. However, treatment programs designed for male combat veterans may not be efficacious for the female veteran suffering from PTSD. Ethnic differences in symptoms and severity emerged in some studies of male combat veterans and treatment providers need to be aware of cultural differences to insure that the veteran's concerns are being addressed in therapy.

The majority of female veterans suffering from PTSD have been victims of sexual assault that may have occurred in childhood, as adult civilians, and/or on active-duty. Women who have been victimized in childhood and adulthood are likely to exhibit more severe symptoms of PTSD than women victimized only in adulthood because of the cumulative affects of trauma over the lifespan. Research has shown that symptoms of reexperiencing, numbing, and hyperarousal interfere with information processing. Consequently, sexual abuse victims are less likely to perceive danger signals or may use immature methods of coping when placed in high risk situations leading to further victimization.

Social support after victimization has been shown to be a mediator in the development of PTSD. The majority of female veterans who were victimized while on

active-duty receive very little social support and are encouraged to keep silent about the assault. Female veterans who are victims of military sexual trauma may be more symptomatic than female veterans of civilian sexual trauma because of continued exposure to the perpetrator(s), lack of social support, and lack of time off duty to process the assault. African American female veterans may be less symptomatic than Caucasian female veterans on measures of avoidance because of an extended support system that can mediate the effect of the trauma symptoms. However, African American female veterans may report more somatic symptoms as psychological pain may be converted into physical pain.

Hypotheses

1. Female veterans who were victims of childhood sexual abuse (CSA), adult sexual abuse (ASA), and/or military sexual abuse (MSA) would exhibit differences in symptoms of PTSD.

    a) Female veterans with a CSA and ASA history would exhibit more symptoms of hyperarousal than female veterans with a history of only ASA.

    b) Female veterans who were victims of MSA would report more reexperiencing symptoms than ASA female veterans.

    c) Female veterans with a history of CSA and ASA would exhibit more symptoms of avoidance than female veterans of only ASA.

2. Differences exist between African American and Caucasian female veterans in the manifestation of symptoms resulting from sexual assault.

a) Caucasian female veterans with a sexual assault history would score higher on measures of avoidance than African American female veterans with a sexual assault history.

b) African American female veterans would have higher scores on measures of quality of life, family, and social interactions than Caucasian female veterans.

c) African American female veterans would have higher somatization scores than Caucasian female veterans.

CHAPTER III

Method

Participants

The current investigation used archival data obtained from an a priori investigation. In the original study, eligible participants were female veterans who were enrolled in a medical and/or mental health clinic within a regional VA medical center in the southwest and were seen for at least one outpatient appointment during the five years prior to contact. Participants were recruited via telephone, flyers, and face-to-face contact between 1997 and 2000. Following a complete description of the study, written informed consent was obtained from all participants.

A total of 385 women veterans were contacted with 77 (20%) declining to participate, 31 (8%) scheduling appointments to participate but not showing, and 7 (2%) canceling appointments and not rescheduling, leaving a final sample of 270.

Procedure

After obtaining informed consent, subjects were administered semi-structured interviews and then asked to fill out self-report questionnaires. Because of the sensitive nature of the study, both recruiters and interviewers were women with master's level or doctoral degrees in clinical/counseling psychology or social work.

The specific instruments selected in the current study were the demographic questionnaire, PTSD scale, a brief symptom inventory, a quality of life scale, and a depression scale. The instruments are described in detail in the following section.

Instruments

Demographic Questionnaire. In the original study, the demographic questionnaire was used to obtain information regarding date of birth, gender, ethnicity, marital status, education, and housing arrangements. In this study female veterans were grouped according to ethnicity to determine if differences existed in the manifestation of symptoms that develop after sexual assault. Participants were categorized into three groups by type of sexual assault: MSA, ASA, or combined history of CSA/ASA.

Clinician Administered PTSD Scale: Current and Lifetime Diagnostic Version (CAPS-1). The CAPS-1 (Blake et al., 1990) is a structured clinical interview that measures the frequency and intensity of DSM-IV's 17 symptoms of PTSD from the three categories of reexperiencing, avoidance, and hyperarousal. Each symptom is assessed using two questions for a total of 34 items; one question measures frequency of the symptoms, and the other question measures intensity of the symptom by distress or functional impairment. Behavior is measured using a five-point rating scale from 0 = never to 4 = daily or almost daily. There are five global

rating questions that assess the effect of these symptoms on occupational and social functioning.

The CAPS-1 contains a validity indicator, a severity score of reported symptoms, and improvement for repeated administration. To obtain validity of question responses, each question is followed by a number of other questions to clarify the intensity and frequency of the symptoms reported. Administration time of the CAPS ranges from 40 to 60 minutes (Foa & Tolin, 2000). The CAPS-1 is scored by adding the frequency to the intensity rating for each symptom. There are several scoring rules which determine what frequency-intensity combination is required to count a symptom as present (Fleming & Difede, 1999). Internal consistency for the 17 symptoms is reported at .94, and test-retest reliability is reported to range from .90 to .98. The total severity score is reported to be highly correlated to other measures of PTSD including the PK scale of the MMPI-2 (.77) and the Mississippi scale (.91) (Blake et al., 1990).

Brief Symptom Inventory (BSI). The BSI (Derogatis & Spencer, 1982) is a 53-item self-report symptom inventory designed to assess the psychological symptom patterns of medical, psychiatric, and community non-patient respondents. A five-point scale of distress is used to rate each item from 0 to 4, ranging from not-at-all to extremely. There are scores in nine primary symptom dimensions: somatization (SOM); obsessive-compulsive (O-C); interpersonal sensitivity (I-S); depression (DEP);

anxiety (ANX); phobic anxiety (PHOB); hostility (HOS); paranoid ideation (PAR), and psychotocism (PSY). Three global indices are available to provide more information about an individual's psychopathological status. The global indices are: global severity index (GSI), Positive Symptom Total (PST), and Positive Symptom Distress Index (PSDI) (Derogatis & Spencer, 1982). The referent time period for the BSI is the past seven days, including today. It is suggested that the most recent seven days of a patient's life gives a more accurate picture of the person's current clinical status (Hamilton, 1970). However, other referent time periods may be used. Administration time of the BSI is estimated to be between 8 - 10 minutes (Derogatis & Spencer, 1982).

The primary symptom dimensions of the BSI were derived through clinical, rational, empirical, and analytical procedures. The somatization (SOM) dimension consist of 7 items that assess perceptions of body dysfunction and are: faintness or dizziness, pains in heart or chest, nausea or upset stomach, trouble getting your breath, hot or cold spells, numbness or tingling in parts of your body, and feeling weak in parts of the body. Items in the O-C dimension includes six items that are identified as unremitting and unwanted by the individual and are: trouble remembering things, feeling blocked in getting things done, having to check and double-check what you do, difficulty making decisions, your mind going blank, and trouble concentrating. The I-S dimension contains four items that focus on feelings

of personal inadequacy and inferiority: your feelings being easily hurt, feeling that people are unfriendly or dislike you, feeling inferior to others, and feeling very self-conscious with others. The depression (DEP) dimension contains six items that are representative of clinical depression: thoughts of ending your life, feeling lonely, feeling blue, feeling no interest in things, feeling hopeless about the future, and feelings of worthlessness. Feelings and cognitive components that are associated with anxiety (ANX) are included in this dimension: nervousness or shakiness inside, suddenly scared for no reason, feeling fearful, feeling tense or keyed up, spells of terror or panic, and feeling so restless you couldn't sit still. The HOS dimension includes five items that are associated with anger: feeling easily annoyed or irritated, temper outbursts that you could not control, having urges to beat, injure, or harm someone, having urges to break or smash things, and getting into frequent arguments. The BSI contains four items that are not part of any of the primary symptom dimensions but contribute to the global scores. The items are included because of their clinical significance and are as follows: poor appetite, trouble falling asleep, thoughts of death or dying, and feelings of guilt (Derogatis & Spencer, 1982).

The nine symptom dimensions are scored by summing the values (0-4) for each symptom dimension. The sum for each symptom dimension is divided by the number of endorsed items in that dimension. To calculate the Global Severity Index (GSI) the sum of all symptom dimensions and the four additional items are added

together and then divided by the total number of responses. The score for the Positive Symptom Total (PST) is derived by counting the number of nonzero responses. The Positive Symptom Distress Index (PSDI) score is derived by dividing the sum of the item values by the PST. Raw scores of the nine dimensions and the three global indices are converted to T scores with a mean of 50 and a standard deviation of 10. Internal consistency for the nine symptom dimensions range from a low of .71 to a high of .85 (Croog, Levine, Testa, Brown, Bulpitt, Jenkins, Klerman, & Williams, 1986; Derogatis & Spencer, 1982). Test-retest reliability coefficients range from .68 to .91.

Center for Epidemiologic Studies Depression Scale (CES-D) Short Form-Iowa Version. This is an 11-item scale derived from the CES-D 20-item self-report index. This instrument was designed for use in large scale surveys to assess current symptoms of depression and it can be administered in approximately five minutes. Subjects are asked to rate 11 behaviors or feelings within the last week. Higher scores indicate that individuals are more depressed. The CES-D is reported to have high levels of reliability and validity to detect both clinical and non-clinical symptoms of depressed mood in a large population. The CES-D Short Form Iowa assesses positive affect, depressed affect, somatic complaints, and interpersonal problems as well as the long form with high reliability (Cronbach's alpha = .76) and validity (Kohout, Berkman, Evans, & Cornoni-Huntley, 1993). Positive affect items are

reverse coded to detect feelings that are reflective of enjoyment of life. Depressed affect items are used to detect feelings of sadness and isolation and contain phrasing that includes: had the blues, felt depressed, felt lonely, and had crying spells. Somatic symptoms factors tap into physical difficulties and are expressed in the following way: poor appetite, felt bothered, everything was an effort, and sleep was restless. The factors for interpersonal distress assess the individual's perception of other people's negative behavior toward the individual (Radloff, 1977). Although the CES-D was normed on a predominantly Caucasian population, Callahan and Wolinsky's (1994) research showed that African American females responded in a similar manner to items on the CES-D as their Caucasian counterparts. However, Asians and Hispanics exhibited more somatic complaints (Ortega & Richey, 1998).

Quality of Life Interview, Brief Version (QOLI-BV). This is a 74-item instrument derived from the Quality of Life Interview, Full Version (Lehman, Postrado, Roth, McNary, & Goldman, 1994) that assesses an individual's perceived quality of life in eight domains, using an interview format as opposed to a written questionnaire. Because some chronic mentally ill patients have difficulty recalling their level of functioning in the past, the interview was designed to access current feelings of satisfaction, functional status, and accessibility to resources. Both objective and subjective quality of life can be assessed in about 16 minutes. Objective items measure what a subject actually experiences and subjective items assess feelings

about the experiences. Patients use the 7-point life satisfaction rating scale (1= terrible through 7=delighted) to answer the questions in each domain. The domains are: daily activities and functioning, living situation, social relations, family relations, finances, work and school, health, and legal and safety issues. Each domain is organized to obtain information in the following order: objective quality of life, level of satisfaction in a particular domain, and subjective quality of life. The QOLI-Brief Version contains a one-item global measure of life satisfaction which is asked at the beginning and at the end of the interview. The objective quality of life indicators are: residential stability, homelessness, daily activities, frequency of family contacts, frequency of social contacts, total monthly spending money, adequacy of financial supports, current employment status, number of arrests during the past year, victim of non-violent crime during the past year, and general health status. The subjective quality of life indicators include satisfaction with living situation, leisure activities, family relations, social relations, finances, work and school, legal and safety, and health. The psychometric properties are comparable to the long version, with internal consistency reliability coefficients ranging from .70 to .87 for global life satisfaction and from .56 to .82 for objective measures of quality of life scales (Lehman, Possidente, & Hawker, 1986; Lehman, Slaughter, & Myers, 1992).

CHAPTER IV

Results

SPSS for Windows was used to conduct t-tests in order to determine whether or not the three levels of the independent variable, combined history of CSA/ASA, history of only MSA, and history of only ASA differed on measures of the dependent variable, the PTSD symptom clusters of reexperiencing, avoidance, and hyperarousal. Separate t-tests were conducted for each of the three levels of the independent variable and no significant differences were found at the alpha level of .01. The data were also analyzed to determine if African American and Caucasian women veterans differed on measures of the dependent variables of avoidance, social and family interactions, and somatic complaints. A MANOVA was conducted followed by an ANOVA. Significant differences were found between groups.

Demographic variables are presented in Table 1 for the 270 female veterans that are included in this study. A majority of the veterans were Caucasian 64.1%, 32.2% were African American, and 3.7% belonged to other ethnic groups. The mean age of the women was 46.69 years with a range of 23 to 79 years of age. Eighty-three percent reported more than a high school education with a mean of 14.5 years. The veterans in this study represented all service branches as follows: Army 46.7%, Air Force 30.4%, Navy 17.4%, Marines 5.2%, and the Coast Guard 0.4%.

Table 1.

Demographic Data

Variable	Frequency	Percent
Ethnicity		
African American	87	32.2
Caucasian	173	64.1
Other Ethnicities	10	3.7
Education		
Post High School Education	224	83.0
High School Diploma or G.E.D.	46	17.0
Armed Services		
Army	126	46.7
Air Force	82	30.4
Navy	47	17.4
Marines	14	5.2
Coast Guard	1	0.4

Examination of Hypotheses

The first hypothesis (1a.) stated that women veterans with a combined history of CSA and ASA would exhibit more symptoms of hyperarousal (Cluster D) than female veterans with a history of only ASA. Seventeen participants with a combined history of CSA/ASA and 39 participants with a history of only ASA endorsed hyperarousal (frequency) symptoms on the CAPS-1. A two-sample t-test ($t(54) = 1.44$, $p = .16$, two-tailed) revealed no significant differences for frequency of symptoms (See Table 2).

The second hypothesis (1b.) stated that female veterans who were victims of MSA would have more reexperiencing symptoms (Cluster B) than female veterans with a history of only ASA. Twenty-seven participants with a history of only MSA and 40 participants with a history of only ASA endorsed symptoms of reexperiencing (frequency) on the CAPS-1. Two-sample t-tests revealed no significant differences for the frequency of symptoms ($t(65) = 2.06$, $p = .04$, two-tailed). Significant differences were found at the alpha level of .05 (See Table 3).

Table 2.

Means, Standard Deviations, and Two-Sample t-test for Frequency of Symptoms of Hyperarousal for Female Veterans With a Combined History of CSA/ASA and Female Veterans with a History of only ASA.

	CSA/ASA			ASA		
	N	M	SD	N	M	SD
Symptoms	17	2.65	2.09	39	1.79	2.01
t=1.44	df=54		p =.16			

Table 3.

Means, Standard Deviations, Two-Sample t-test for Frequency of Symptoms of Reexperiencing for Female Veterans With a History of only MSA and Female Veterans with a History of only ASA.

	MSA			ASA		
	N	M	SD	N	M	SD
Symptoms	27	2.26*	1.89	40	1.32	1.77
t=2.06	df=65	p=.04				

*Significantly different from the ASA group at p <.05.

The third hypothesis (1c.) stated that female veterans with a combined history of CSA and ASA would exhibit more symptoms of avoidance (Cluster C) than female veterans with only an ASA history. There were 17 participants with a combined history of CSA/ASA and 40 participants with a history of only ASA who endorsed symptoms of avoidance on the CAPS-1 (frequency). When the data was analyzed a two-sample t-test ($t(55) = 1.60$, $p = .12$, two-tailed) did not reveal significant differences between groups for frequency of symptoms (See Table 4).

The fourth hypothesis (2a.) stated that Caucasian female veterans with a sexual assault history would score higher on measures of avoidance on the CAPS-1 than African American female veterans with a sexual assault history. Sixty-nine African American female veterans and 142 Caucasian female veterans endorsed avoidant symptoms on the CAPS-1 (frequency). The hypothesis was not supported after a two sample t-test ($t(209) = .75$, $p = .46$, two-tailed) failed to show significant differences between the groups in the frequency of avoidance symptoms reported (See Table 5).

Table 4.

Means, Standard Deviations, and Two-Sample t-test for Frequency of Symptoms of Avoidance for Female Veterans With a Combined History of CSA/ASA and Female Veterans with a History of only ASA.

	CSA/ASA			ASA		
	N	M	SD	N	M	SD
Symptoms	17	3.00	2.50	40	1.90	2.33
t=1.60	df=55		p=.12			

Table 5.

Means, Standard Deviations, Two-Sample t-test for Frequency of Symptoms of Avoidance for African American and Caucasian Female Veterans with a Sexual Assault History.

	Caucasian			African American		
	N	M	SD	N	M	SD
Symptoms	142	2.72	2.63	69	2.43	2.50
t=.75	df=209		p=.46			

The fifth hypothesis (2b.) stated that African American female veterans would have higher scores on measures of quality of life, family, and social interactions than Caucasian female veterans. A MANOVA was conducted ($F=2.53$, $p=.02$) and significant differences were found between groups. An ANOVA was employed on Family Interactions, $F(1,212) = .171$, $p = .68$, Social Interactions, $F(1,212) = .38$, $p = .56$, and Quality of Life Total, $F(1,212) = .28$, $p = .59$ as measured by the QOLI-BV and no significant differences were found between these groups (but in the groups in the sixth hypothesis). This hypothesis was not supported. Means and standard deviations are presented in Table 6 and the univariate ANOVA summary table is presented in Table 7.

The sixth hypothesis (2c.) stated that African American female veterans (N=40) would have higher somatization scores than Caucasian female veterans (N=144). A MANOVA was conducted ($F=2.53$, $p=.02$) followed by an ANOVA on the BSI somatization subscale, $F(1,212) = .00$, $p = .99$ and the CES-D somatization subscale total, $F(1,212) = 9.35$, $p = .00$ and the three items comprising the CES-D subscale, Appetite, $F(1,212) = 3.13$, $p=.08$, Effort, $F(1,212) = 4.90$, $p = .03$, Sleep, $F(1,212)=9.89$, $p = .00$. Significant differences were found between groups. However, the hypothesis was not supported because Caucasian female veterans reported higher somatization scores than African American female veterans (See Tables 6 and 7).

Table 6.

Means and Standard Deviations for the CES-D, BSI, QOLI-BV Subscales by Ethnicity for Female Veterans

		African American			Caucasian	
Variable	N=70	Mean	SD	N=144	Mean	SD
CES-D						
Appetite		1.81	.95		2.07	1.01
Effort		2.16*	1.14		2.51	1.09
Sleep		2.37*	1.09		2.87	1.10
Total		6.34*	2.52		7.48	2.51
BSI-SOM		51.14	10.68		51.15	9.91
QOLI-BV						
Family		4.77	1.54		4.68	1.58
Social		4.66	1.21		4.55	1.25
Total		35.28	7.79		34.69	7.47

*Significantly different from the Caucasian group at $p < .05$.

Table 7.

ANOVA Summary Table for CES-D, BSI, QOLI-BV Subscales by Ethnicity for Female Veterans

Source	SS	df	MS	F	p
CESD-Appetite	3.07	1	3.07	3.13	.08
CESD-Effort	5.99	1	5.99	4.90	.03
CESD-Sleep	11.95	1	11.95	9.89	.00
CESD-Total	58.61	1	58.61	9.35	.00
QOL-Family	.42	1	.42	.17	.68
QOL-Social	.53	1	.53	.35	.56
QOL-Total	.25	1	.25	.28	.59
BSI-Somatization	1.89E-02	1	1.89E-02	.00	.99

CHAPTER V

Discussion

Implications for Theory

This study evaluated the relationship among sexual abuse, ethnicity, and PTSD in female veterans. Many studies have examined the differences between African American and Caucasian male combat veterans with PTSD. There are no published studies to date that have examined the role ethnicity plays in the manifestation of PTSD and somatization symptoms in female veterans.

PTSD in female veterans is highly correlated with sexual abuse that may have occurred in childhood (CSA), as an adult civilian (ASA), or in the military (MSA) (Suris et al, 2002). For this study, the type of sexual abuse perpetrated on women was categorized into three groups CSA/ASA, ASA, and MSA. It was expected that female veterans with a combined history of CSA/ASA would exhibit more hyperarousal and avoidant symptoms. Research has shown that women who have been sexually assaulted in childhood and adulthood are more likely to experience a cumulative effect of trauma (Briere, 1997; Cloitre et al., 1997; Merrill et al., 1999; Wyatt, 1992). Wilson (1999) found that adults sexually abused as children had higher rates of current and lifetime PTSD than subjects without CSA. The results of a study by Rodriguez et al. (1996) indicated that CSA led to long-term psychological difficulties.

Other studies have found that women with CSA report increased symptoms of PTSD, dissociation, depression, sexual dysfunction, substance abuse, and anxiety when compared to women without a history of CSA (Follette et al., 1996; Roesler & McKenzie, 1994). Difede and Barocas (1999) found that avoidant symptoms predicted chronic PTSD following burn injury.

The cumulative effect of trauma was not supported in this research. Women veterans in this sample who reported CSA may have utilized adaptive coping skills to master and overcome childhood trauma. One can also theorize that a substantial amount of time elapsed between the childhood trauma and the adult trauma to counter the additive effects. Therefore, it is likely that only the most recent trauma is the one negatively effecting current functioning which resulted in no significant differences between women veterans with ASA and those with a combined history of CSA/ASA. Post-hoc analysis of symptom severity of avoidance approached significance (p=.06) in women with a combined history of CSA/ASA giving further support of the most recent trauma causing the most distress. Research by Feeny et al. (2000) suggested that the ability to disengage from the trauma may be adaptive in childhood and adulthood. Directed forgetting may actually interfere with the cumulative effect of trauma by allowing women to function adequately in social and occupational settings post-CSA.

It was expected that female veterans who reported MSA would have more reexperiencing symptoms than female veterans with a history of only ASA. Research by Freedman et al. (1998) found that symptoms of intrusion were predictive of PTSD at four months post-trauma. Ehlers' (1998) study found intrusive memories that were reported at the initial assessment were predictive of PTSD at one year and at five years post-trauma. Research by Suris et al. (2002) indicated that women assaulted in the military are nine times more likely to develop PTSD than women without MSA. There were no significant findings at the alpha level of .01 but significance differences were found at the alpha level of .05. These findings support other research that indicates that women veterans with MSA report more psychiatric and physical symptoms than women sexually assaulted as adult civilians or as children (Frayne et al., 1999; Wolfe et al., 1994). Post-hoc analysis of PTSD symptom severity failed to show significance differences between groups reporting CSA/ASA and ASA only. However, significant differences were found between MSA and ASA groups in symptom severity. It can be inferred that MSA has a more detrimental effect on a woman's psychological functioning. Women serving in the military are on the job 24 hours per day, are not given adequate leave time to process the trauma, and often work in close proximity to the perpetrator(s). Compared to civilians, women in the military have little or no choices about housing arrangements, job reassignment, or obtaining adequate social support after sexual

assault. One can hypothesize that the military doctrine of conformity and group loyalty with male personnel after sexual assault negatively affects treatment outcomes. An atmosphere of safety and trust is essential for healing to take place after traumatization (Herman, 1997).

Traditional African American culture values reliance on others and interdependence as the core of the extended family structure (Nobles, 1991). Social support has been shown to be a mediating factor in the development of PTSD. It has been shown that women discouraged from speaking about sexual victimization report an increase in symptom severity (Burgess & Holstrom, 1974; Hartman & Burgess, 1993; Kalof & Wade, 1995; Kemp et al., 1991; Wyatt, 1995).

It was hypothesized that compared to Caucasian female veterans, African American female veterans would report less avoidant characteristics and higher scores on measures of quality of life, family and social interactions, and somatization scores. The data analysis did not reveal significant differences on measures of avoidance, quality of life, family, and social interactions. Female veterans may be more similar than dissimilar despite ethnic differences. Being a member of the Armed Services may attenuate ethnic differences that are seen in studies with civilian populations. The military doctrine of reliance and interdependence is complimentary to the African worldview and female socialization patterns. Caucasian women in the Armed Forces may have learned to rely on others when stationed away

from family and friends. This pattern of interdependence and reliance on others is an effective coping strategy in civilian life.

Other researchers have used the cumulative effect theory to explain differences between African American and Caucasian male combat soldiers with PTSD (Allen, 1986; Parsons, 1990). Ethnic differences that were seen in these studies may be attributed to male socialization patterns of reliance on self and the inability or unwillingness to express emotions. Another consideration is that these results may simply reflect the racial climate of society at the time data were collected. During the Korean and Viet Nam Conflicts racial tension was at its peak in the United States. It is likely that military troops stationed in other countries reflected attitudes and societal norms that were evident in the United States during that era.

Research has shown that during times of stress people of color convert psychological pain into physical symptoms. African Americans tend to be emotionally expressive and less willing to curtail impulses when compared to Caucasians. Emotional expression, either positive or negative, is exhibited through gestures, facial expressions, clothing, hairstyles, walking, stances, and handshakes (Majors, 1991). For some African Americans, somatization is an acceptable form of expressing emotional discomfort (Comas-Diaz & Greene, 1999). Help-seeking African American women reported higher somatic symptoms than other racial groups that presented

for treatment in a mental health clinic as studied by Snowden (1999). In the current study, significant differences were found between African American and Caucasian women veterans on somatization scores but not in the direction expected. Caucasian women reported higher somatization scores which is contrary to most results in the empirical trauma literature. The expression of anger is associated with depression and PTSD. Many studies have shown that males and females experience anger with equal frequency (Hatch & Forgays, 2001; Jack, 2001; Lawton & Nutter, 2002, Lutwak, 2001). However, gender socialization patterns encourage women to suppress anger in order to preserve social harmony (Hatch & Forgays, 2001). Shame-proned individuals may become ashamed of their anger and direct anger inward. Not expressing ones anger may lead to depression, irritable bowel syndrome, or other somatic conditions (Jack, 2001; Lutwak, 2001).

Wyatt (1990) posited that stressors experienced by ethnic minorities may have a cumulative effect which was not supported in this study. One may hypothesize that African American women veterans experience less somatic complaints when there is an increase in other symptoms related to PTSD. Another explanation is that African American women with primarily somatic complaints may not be seeking help through VA Medical Centers. African American women with somatic complaints may be utilizing church or other community resources to cope with stressors. Historically, lower income African American women do not seek

professional services until symptoms disrupt occupational and/or social functioning. Another explanation for the differences in somatic symptoms may be directly related to the willingness of African Americans to express emotions through verbal and nonverbal means. In the current investigation, Caucasian women reported higher scores on the CES-D somatization subscale and on the following two items: "I felt that everything I did was an effort", and "My sleep was restless." Expressing one's self may have a cathartic effect that may lead to more energy and restful sleep. These hypotheses need further investigation.

Sexual assault perpetrated on women in the military has long-term effects on mental and physical health. Women who choose to join the Armed Services may possess more strength and resilience than women who do not enlist. Lam and Grossman (1997) contended that not all abuse children develop psychopathology. Some children escape the long-term effects caused by CSA because of resilient characteristics. Resilience is conceptualized as a process that involves biological, psychological, and social factors that are utilized during adverse situations. In this study, resilient or protective factors were identified as self-efficacy, self-esteem, internal locus of control, developing and maintaining relationships, and good social support. In Lam and Grossman's (1997) study, women with a history of CSA utilized more protective factors than women without a history of CSA. The utilization of protective factors could account for the non-significant findings between female

veterans with a combined history of CSA/ASA and female veterans with a history of only ASA.

Implications for Practice

Caucasian female veterans reported higher somatization scores than African American female veterans. These results are contrary to results in most studies in the trauma literature. It can be inferred that for African Americans female veterans as PTSD symptoms increase somatization symptoms decrease. The MMPI-2 is an instrument that could be used in future research to determine the relationship between these two variables. The BDI-II or another instrument should be used to evaluate depressive symptoms when women veterans present for therapy. Although African American women may not verbalize somatic complaints, depression is likely to manifest after sexual assault. Traditional African American females may be utilizing verbal and nonverbal means to express emotion. This may be an effective coping strategy to reduce somatic symptoms. African American women may be using churches or other community resources to cope with stressors and may only seek help when other symptoms become severe and/or in times of crises.

The current study indicates that female veteran status is associated with resilience in women reporting CSA. Expected differences were not found between groups that were seen in other studies of civilian women with PTSD symptoms after sexual victimization. As women veterans present for therapy, clinicians are to be

advised that women veterans with a sexual assault history feel more symptom distress from the most recent assault. Previous coping strategies should be examined and encouraged if other sexual assaults are perpetrated on female veterans with a history of childhood sexual assault or adult (civilian) sexual assault. Many effective coping strategies have been identified and include: talking about the trauma without stigmatization, social support from family and friends, not internalizing negative characteristics or taking responsibility for the assault, adequate time off from work or school to process the trauma, and no further contact with the perpetrator. Maintaining cultural values and a healthy ethnic identity, gender specific interventions (Belgrave et al., 2000) and religious practices (Astin, Lawrence, & Foy, 1993) have been shown to increase resiliency.

Female veterans with a history of sexual assault may display borderline characteristics. It is important for the therapist to establish good boundaries and a feeling of safety and trust. Therapists need to be compassionate and employ different modes of therapy in order to best serve the veteran. Cognitive-behavioral techniques are effective for thought-stopping and instruction in grounding techniques are essential for women suffering from dissociative episodes. Individual, group, and family therapy are necessary to help women and their families cope with PTSD and other comorbid disorders. Psycho-education is a valuable adjunct to therapy to

increase coping skills, problem solving skills, to establish effective goal-setting, and task-oriented behavior.

Limitations

One of the limitations of this study is the retrospective account of CSA and ASA experienced by some female veterans. Participants were asked about victimization that occurred more than 40 years ago in some instances. It is possible that inaccurate information about feelings and age of victimization were reported due to the vast amount of time that elapsed post-trauma. The sample consisted of older, educated women who were primarily Caucasian. A more diverse sample in age, education, and ethnicity might have yielded more significant results.

Women who are less educated, young, and have ethnic minority status are at a greater risk for developing PTSD. The current study did not examine age or education level of the veteran at the time of sexual victimization nor the age, rank, or ethnicity of the perpetrator. These factors could be instrumental in further research to determine the nature of the perpetrator-victim relationship.

Another limitation of the study was the small sample size of women veterans that reported only MSA, ASA, or a combined history of CSA/ASA. A larger sample may have yielded more power and significant differences may have been found between groups. Further, the lack of significant findings may be due to the insensitivity of the instruments used. The instruments in this study may not be able to detect

differences in female veterans for the hypotheses presented. The archival data base for this study contained no longitudinal data. Examination of women veterans over time may reveal how symptoms and severity of symptoms of PTSD influence long-term functioning and treatment outcomes.

Conclusion

This study was designed to examine the relationship among PTSD, ethnicity, and sexual assault. There are no published studies to date that have examined ethnic differences in female veterans on measures of avoidance, quality of life, family, social interactions, and somatization. Few studies have examined the cumulative effect of trauma in relation to the type of sexual assault (CSA, ASA, or MSA) and the three symptom clusters of PTSD in women veterans. The results of the current investigation revealed that despite ethnic differences female veterans are more similar on measures of avoidance, quality of life, family and social interactions. The cumulative effect of trauma was not evident in this study but women veterans with a history of MSA reported more frequency of symptoms and symptom severity than women veterans with a history of only ASA. This supports other research conducted by Suris et al. (2002). Women veterans with a history of CSA have utilized adequate coping skills to process the trauma in order to function effectively in the Armed Services and prior to enlistment.

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Appendices

Appendix A

Demographic Questionnaire

Demographic Information

1. What is your current address?

   Street _____

   City _____

   State _____

   Zip _____

2. How long have you lived there?

   Months_____ Years _____

3. How far have you gotten in school?

   No school_____ Elementary_____ High School_____

   College_____ Post College_____

4. Did you graduate from High School? Yes_____ No_____

   If no, Did you graduate with a G.E.D.? Yes_____ No_____

5. What is your marital status: Never married_____ Married _____

   Separated _____ Divorced _____ Widowed _____

6. What is your date of birth? (mm/dd/yy) _____

7. Gender: Female _____ Male _____

8. Ethnicity: White _____ African American _____ Asian _____

   American Indian _____ Other _____

Appendix B

Clinician Administered PTSD Scale (CAPS-1)

The Clinician Administered PTSD Scale (CAPS-1) is a copyrighted instrument that can be obtained by contacting Terence M. Keane at the National Center for Posttraumatic Stress Disorder, Behavioral Science Division, Boston Veteran's Affairs Medical Center.

Appenidix C

Brief Symptom Inventory

The Brief Symptom Inventory (BSI) is a copyrighted instrument that can be obtained by calling NCS Assessments at 1-800-627-7271 or by e-mail at *assessment@ncs.com*.

Appendix D

Quality of Life Inventory. Brief Version (QOLI-BV)

The Quality of Life Interview, Brief Version (QOLI-BV) is a copyrighted instrument that can be obtained by calling NCS Assessments at 1-800-627-7271 or by e-mail at *assessment@ncs.com*.

Appendix E

Center for Epidemiologic Studies Depression Scale (CES-D) (Iowa Form)

CES-D (Iowa)

During the past week, how often have you felt this way?

(1) Rarely or none of time (less than 1 day). (2) Some or little of the time (less than 1-2 days). (3) Occassionally or a moderate amount of the time (3-4 days). (4) Most or all of the time (6-7 days).

A. I did not feel like eating; my appetite was poor.	1	2	3	4
B. I felt depressed.	1	2	3	4
C. I felt that everything I did was an effort.	1	2	3	4
D. My sleep was restless.	1	2	3	4
E. I was happy.	1	2	3	4
F. I felt lonely.	1	2	3	4
G. People were unfriendly.	1	2	3	4
H. I enjoyed life.	1	2	3	4
I. I had crying spells.	1	2	3	4
J. I felt sad.	1	2	3	4
K. I felt that people disliked me.	1	2	3	4
L. I could not get going.	1	2	3	4