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A comparative study of the psychological effects of assault and battery by intimate partners on battered and post-battered women

Fisher, Barbara Anne, Ph.D.
The Ohio State University, 1993

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A COMPARATIVE STUDY OF THE PSYCHOLOGICAL EFFECTS
OF ASSAULT AND BATTERY BY INTIMATE PARTNERS
ON BATTERED AND POST-BATTERED WOMEN

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree of Doctor of Philosophy in the Graduate
School of the Ohio State University

By
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1993

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Chapter I

INTRODUCTION

Approximately 50 to 60 percent of all married women have been battered by their husbands at least once during their marriage (Fleming, 1979; Walker, 1984a). Reports generated from the records of a Boston hospital showed that 70 percent of all assault victims treated in its emergency room were women who had been attacked by a husband or lover (Martin, 1983). The following statistics are examples that show the extent of the problem (Martin, 1976):

- In 1974, Boston police responded to 11,081 family disturbance calls, most of which involved physical violence

- In Atlanta, Georgia, 60 percent of all police calls on the night shift are domestic disputes

- Women are the ones who need help most of the time in these disturbances. About 75 to 95 percent of the complaints in domestic disturbances are filed by women

- In order to get a control group for his study The Violent Home, Richard Gelles (1974) interviewed 40 neighbors of known violent families. Of these supposedly "nonviolent" families, 37 percent had experienced at least one incident of violence, and for 12 percent, the violence was a regular occurrence

- About one-third of female murder victims in California in 1971 were killed by their husbands
Furthermore, violence perpetrated by an acquaintance, intimate partner, or friend tends to be underreported (Stanko, 1988). Stanko cites Russell's 1978 survey of 930 women; the incidence of rape was 24 times higher than that of the Uniform Crime reports of the FBI. Women also don't report these crimes because of the lack of response from police; battering has been considered a private dispute. Additionally, women fear reprisal from the assailant if she reports it. Indeed, survey researchers may be questioning the victim in the presence of her assailant (Stanko).

It is a stereotypic belief that wife battering occurs primarily at lower socio-economic levels. Battering of women crosses all economic, racial, ethnic, and educational levels (Pagelow, 1981; Ryback & Bassuk, 1986). Moreover Pizzey (1977) states that money and privilege do not preclude wife beating:

Wife-beating has gone on for hundreds of years.... For ages wife-beating was thought to be a working-class activity, for the middle- and upper-class women never let on. As far as I can see the reason why 'battered wives' are getting a hearing is that for the first time a middle-class woman has said, 'It's happened to me.' That makes it respectable and all the more shocking. (p. 46).

Additional studies found approximately the same level of reported wife-abuse cases in ghetto communities as in upper-class communities (Charboneau, 1986; Fojtik, 1976; Martin, 1983).
Violence against women does not only occur within the marriage contract. There is considerable evidence to suggest that male intimates are physically aggressive toward young women even in dating relationships. A recent study of teen dating violence indicated that over 35 percent of high school female students experienced abuse by male partners in some form (O'Keeffe, Brockopp, & Chew, 1986), and Cate et al. (cited in O'Keeffe et al.) found that one in five women college students had been physically assaulted in a dating relationship. Sugarman and Hotaling (1991) state that the prevalence of dating violence ranges from as low as 9% to as high as 60%, depending on how it is measured.

Background of Wife Abuse

The seeds of wife abuse can be found even in the teachings of major religions. For example, when Moses married a Cushite wife he violated his own laws of YHWH, but it was his wife, Miriam, who was punished. She was punished by God ordering the "father to spit on his daughter's face." This story acknowledges the acceptability of a father doing this to his daughter and implicitly gives him the authority to do so (French, 1985). This patriarchal domination and control of women continues to this day and receives support from the political, social, and religious factors in our society. It is an important dynamic in the extent and apparent acceptability of wife battering.
Patriarchy comprises two important components that are exercised by males: authority and control. As stated earlier, the laws of patriarchy are prevalent in religious texts. In the book of Leviticus, there are admonitions against unclean acts, and the acts that make men unclean are what he eats and with whom he copulates. Therefore, purification rites were established and exercised by priests which intervened in the most ordinary events of life—birth, puberty, marriage, and death (French, 1985).

The hierarchichal family structure prevailed in Rome as early as 1,000 years B.C. The male was the head of the house and enjoyed a higher status than women at home and in society. Husbands had the power to make life and death decisions concerning their wives, their children, and their slaves (Dobash & Dobash, 1979).

Clearly wife-beating has a long history and has been considered a legitimate form of male behavior, and further, is a logical extension of the unequal roles of men and women (Hyde, 1985). For example, in Russia during the reign of Ivan the Terrible, the church supported wife-beating practices by issuing ordinances to husbands that detailed how they could most effectively beat their wives (Mandel, 1975).

It was not until 1974 when Erin Pizzey wrote *Scream Quietly or the Neighbors Will Hear* that wife abuse was exposed and thereafter became a formal topic for research
and investigation. Pizzey was the first person to open a shelter for battered women in England and began the Women's Aid Movement which provided a center where women could meet and discuss their concerns (Feldman, 1983).

There is overwhelming evidence that male violence against females in intimate relationships is widespread. Estimates of its frequency range from 25% (Straus, Gelles, & Steinmetz, 1980) to 50 - 60% (Walker, 1984a). Of all the forms of family violence, wife battering ranks second, following child abuse (Margolin, Sibner, & Gleberman, 1988).

Additionally, the number of battered women shelters in the United States has increased from 2 in 1974 to approximately 780 in 1985 (Bowker & Maurer, 1985). These shelters are necessary to protect women, and very often children, from further battery.

The wounds sustained by battered women range from bruises, concussive head injury, choking, broken bones, and gunshot wounds resulting in permanent, crippling injury or death. It must be noted that those who are battered may at times inflict self injury such as attempted suicide or the abuse of drugs (Stark, Flitcraft, & Frazier, 1983).

It has been difficult for physicians to identify when a woman has been battered because she is often reluctant to admit to medical personnel that she has been battered by an intimate (Stark, et al., 1983):

...
where physicians saw 1 out of 35 of their patients as battered, a more accurate approximation is 1 in 4; where they acknowledge that 1 injury out of 20 resulted from domestic abuse, the actual figure approached 1 in 4. What they described as a rare occurrence was, in reality, an event of epidemic proportions (p. 183).

It is important to note that in the ninth revision of the International Classification of Diseases: Clinical Modification (ICD-9-CM), the syndrome has been given a label. "Battered spouse" and "battered woman" appear under heading 995.81, "Adult maltreatment syndrome." Trauma physicians can begin diagnosing the syndrome which will result in a more accurate documentation of battering incidents in hospital records. Although there is no clear, documented history of the beginnings of wife-beating, Dobash and Dobash (1979) assert that "the seeds of wife beating lie in the subordination of women and their subjection to male authority and control" (p.33-34). Other social factors contributing to differential power relationships were the rise of the state (male) as a dominant institution, the formation of the nuclear family, the increase in isolated forms of labor such as the assembly line activity, and the rise in Protestantism. All of these support the male as the authority over the female (Dobash & Dobash, 1977-78; French, 1985).

**Why Women Stay**

Given the history and preponderance of wife-beating, perhaps the least understood aspect of this phenomenon is
why women stay in these relationships or return time and
time again to the men who batter them. Feldman (1983); Haas
(1981); Walker (1984b, 1989) and other investigators suggest
a number of reasons why women remain. For example, women
stay because they are financially and emotionally dependent,
or they are threatened by the prospect that their leaving or
filing charges against their husbands will result in the
dissolution of the family, which they feel is their
responsibility to hold together. The act of seeking help
may have tragic consequences. Filing charges against the
batterer may escalate and intensify subsequent battering,
and many wives are beaten (sometimes murdered) by their
husbands or intimates after orders of protection have been
issued by the courts (Martin, 1983). Many women stay
because they feel that their children need a father (Dobash
& Dobash, 1979). Additionally, women who experienced
spousal violence in their family of origin were more likely
to stay in abusive relationships (Feldman, 1983;
Gelles, 1976).

Other reasons offered to explain why women remain or
return to these situations are that women: 1) believe that
husbands will change and that they will no longer abuse
them, 2) hold a negative self-image, which weakens their
sense of being capable of handling daily living demands, 3)
lack dependable child care facilities, and 4) feel that
divorce is wrong, and therefore to be avoided at all costs
(Feldman, 1983). Martin (1983) suggests that women remain because they are financially dependent and have nowhere to go. Morgan (1982) states that women remain because the husband controls the family resources. He feels that women are "kept virtual prisoners in their own homes by the lack of money" (p. 14).

Walker and Browne (1985) note that within this culture, girls are raised to please others, to seek approval, and to accommodate to dominant behavior toward them by suppressing angry or aggressive responses in favor of peacekeeping maneuvers or persuasion. These authors indicate that confronting or fighting skills are not only not taught but are actively, sometimes punitively, discouraged in girls. For example, many women who remain in abusive relationships do not consider that they have other options and because of this belief, struggle to preserve the status quo. Goodstein and Page (1981) observed that the victim often feels that she is the cause of his violence against her.

In her study Feldman (1983) found that depression and a woman's belief in her ability to personally control events in her life were major differences between those who stay and those who leave battering situations. Depression was greater and belief in personal control the weakest in those who stayed. An in-depth discussion of depression and trauma is provided in Chapter 2 of this study. An additional important finding in the Feldman study was that women who
held more traditional views about their roles as wives tended to remain in abusive relationships.

Graham and Rawlings (1991) suggest that the Stockholm Syndrome may explain why women remain in abusive relationships. This syndrome states that the victim identifies so completely with the captor that she psychologically assumes his identity and begins to view the world and herself as he does. In the case of prolonged captivity, she is unable to separate her identity from his. This produces self-alienation (dissociation) which renders her incapable of making decisions in her own best interests.

In 1979, Lenore Walker proposed that women who remain in abusive relationships suffer from "learned helplessness," a psychological paralysis, which appears to be the most widely accepted explanation for why women stay.

Learned helplessness was first observed and identified by Seligman (1976) as a response of dogs to inescapable shock, and was later applied to women in abusive relationships by Walker (1977). Closely paralleling learned helplessness is Patterson's (1982) observation that repeated abuse, in many instances, produces a fogging effect that limits the victim's ability to make rational decisions. Women who live in violence are afraid, so afraid they tend to block this fear from consciousness, which appears to minimize (to themselves) the danger of their situations, and a form of dissociation or emotional isolation results. Many
women describe this phenomenon as "numbing out." Although battered women report feeling no anger toward the batterer, they are cognitively preoccupied with violent, sometimes bloody ways to kill their assailants.

More recently, Lenore Walker (1984b) has identified a phenomenon she has labeled the "battered woman's syndrome." Walker states that:

Repeated batterings, like electrical shocks, diminish the woman's motivation to respond. She becomes passive. Secondly, her cognitive ability to perceive success is changed. She does not believe her response will result in a favorable outcome, whether or not it might. Next, having generalized her helplessness, the battered woman does not believe anything she does will alter any outcome, not just the specific situation that has occurred (pp. 49-50).

Stark et al. (1983) describe this same emotional and cognitive profile as "a paralyzing terror and overvaluation of male power" that keep her in the battering situation. Judith Herman (1992) also has observed that the victim of prolonged abuse overvalues the power of the perpetrator.

Battered women have described the force used against them as pushing, slapping, punching, kicking, choking, burning, using a weapon, attempting to drown them, etc. (Okun, 1986). Physical abuse poses a threat to an individual's psychological and physical integrity. The Diagnostic Statistical Manual (DSM-III-R: APA, 1987) criteria for a traumatic event is that it be "outside the range of usual human experience" and be "markedly distressing to almost everyone." In a change from the
earlier edition of the DSM-III (APA, 1980), the most recent edition does not specifically exclude domestic violence as a traumatic event.

Research has shown that many women who are being battered meet Posttraumatic Stress Disorder (PTSD) criteria, which supports the contention that repeated physical abuse exceeds an individual's ability to cope. PTSD was assessed by Kemp, Rawlings, and Green (1991) in a population of battered women in shelters. They found that 84.4% of the women met the diagnostic criteria for PTSD using a self-report instrument. PTSD in battered women was also found by Finkelhor and Yllo (1985). This is consistent with the high incidence of PTSD found in rape victims (physical assault) (Kramer & Green, 1991); 80% of women who had been raped were diagnosed with PTSD six weeks after the assault. The DSM-III-R criteria for PTSD are presented in the next section.

**Posttraumatic Stress Disorder**

The DSM-III-R criteria for Posttraumatic Stress Disorder (PTSD) as follows:

A) The existence of an event that is outside the range of human experience and which would be markedly distressing to almost anybody.

B) Reexperiencing of the trauma as evidenced by at least one of the following:

1. recurrent and intrusive recollections of the event
2. recurrent dreams of the event
3. sudden acting or feeling as if the traumatic event were reoccurring, because of an association with an environmental or ideational stimulus
4. intense psychological distress at exposure to events symbolizing or resembling an aspect of the traumatic event, including anniversaries of the trauma

C) Persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:

1. markedly diminished interest in one or more significant activities
2. feeling of detachment or estrangement from others
3. restricted range of affect
4. efforts to avoid thoughts or feelings associated with the trauma
5. efforts to avoid activities or situations that arouse recollections of the trauma
6. inability to recall an important aspect of the trauma (psychogenic amnesia)
7. sense of foreshortened future

D) Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following:

1. hypervigilance
2. exaggerated startle response
3. difficulty falling or staying asleep
4. difficulty concentrating
5. irritability or outbursts of anger
6. physiological reactivity upon exposure to events that symbolize or resemble an aspect of the traumatic event

Williams (1988) organizes PTSD into three phases: the shock phase, the impact phase, and the recovery phase. The shock phase is characterized by two emotional responses: 1)
immobilization, confusion, and disorganization, and 2) denial. During the impact phase, anxiety and anger followed by self doubt (a form of survivor guilt) and depression emerge. The recovery phase involves working through the traumata to understand it and ultimately put it into perspective.

In Vietnam veterans, it is during the impact phase that depression seems most pronounced in trauma victims. Bessel van der Kolk (1984) observed that the hyperreactive and numbing responses also have a phased pattern or they alternate, which may make appropriate diagnosis difficult. This would make it harder to properly identify the presence of PTSD, especially in populations which have not been studied such as victims of childhood physical, emotional, and sexual abuse, and women who have been consistently battered by an intimate.

PTSD was assessed by Kemp, Rawlings, and Green (1991) in a population of battered women in shelters. They found that 84.4% of the women met the DSM-III-R diagnostic criteria using a self-report instrument; the percentage was higher when the subjects were individually interviewed. PTSD was also found in 80% of rape victims six weeks after the assault (Kramer & Green, 1991).

PTSD symptoms have been identified in battered women. For example, reexperiencing the trauma and nightmares were found by Finkelhor and Yllo (1985), Hilberman and Munson
Flashbacks were noted by Finkelhor and Yllo, and numbing of responsiveness was found by Hilberman (1980) and Mills (1985). Kuhl (1984) observed that women who have been battered distance themselves from others. Withdrawal and avoidance of personal contact was also found by Star, Clark, Goetz, and O'Malia (1979). Increased arousal, hypervigilance, high anxiety, and agitation was found by Hilberman and Munson (1977-78). Elevated levels of anxiety were also found by Jarrar (1985), Star et al. (1979), and Walker (1984b).

As indicated earlier, Feldman (1983) found greater depression in women who stayed than women who left abusive relationships. Although depression is not a criterion for the diagnosis of PTSD, it has been consistently observed in individuals who present with PTSD symptoms (Gayford, 1975; Fairbank, Keane, & Malloy, 1983; Hilberman & Munson, 1977-78; Jarrar, 1985; Kemp, et al., 1991; & Kemp, 1991).

Need for the Study

According to the label and definition of "posttraumatic stress disorder," there is the assumption that the traumatic event is past and individuals struggle then with the psychological consequences of the trauma. However, as stated earlier, this definition may not adequately describe the psychological experience of the large number of individuals living with severe threats to their psychological and physical well-being on an ongoing basis.
For example, children of abusive parents and women who are being battered would fit this category. The diagnosis of PTSD as defined is not sufficiently accurate for those women currently experiencing repeated abuse. For these women, Herman (1992) suggests a new diagnosis: "complex post-traumatic stress disorder" (p. 119). She feels that the behavioral syndrome that develops from prolonged, repeated trauma needs its own definition and label.

Are the psychological responses of those who are currently experiencing trauma different from those who have experienced trauma but are no longer in these situations? For example, an individual who is currently being battered may not reexperience the traumatic event because the traumatic event is battery and it continues. Krystal (1984) states that "when one is facing inescapable, unmodifiable peril" (p. 10), the emotional content changes from an anxiety state (set to act) to a "catatonoid" state reminiscent of learned helplessness. Additionally, this study addresses whether women currently battered women are hypervigilant, and do they experience a greater degree of depression, denial, and psychological avoidance than post-battered women.

In the Kemp et al. (1988) study of women in battering situations (shelter sample), the most frequently reported symptoms were:
1. feeling distant or cut off
2. Being jumpy or easily startled
3. Having trouble sleeping
4. Feeling numb

The least reported items were:
1. Having trouble remembering what happened
2. Staying away from reminders
3. Having dreams or nightmares

These differences may be significant in terms of the trauma responses of currently battered women and the trauma responses of post-battered women.

Kemp (1991) also found PTSD differences between women currently battered and women out of the relationship 1-12 months. Using the PTSD-Self Report instrument, 68.6% of currently battered women were diagnosed with PTSD while 89.4% of women who had left were diagnosed with PTSD. These percentage differences are indications that something different may be going on with those who are being battered and those who were battered. The mean scores on the PTSD-Self Report and Mississippi Civilian PTSD instruments also showed a greater degree of PTSD for women out of the relationship than those who are currently being battered. The mean depression scores on the BDI were higher for currently battered women (22.18) than for women who had left (19.98).
Although traumatic events are described as being outside the range of usual human experience, rape and emotional and physical violence are very much a part of everyday lives of women and could be defined as "ordinary" experience (Herman, 1992). This "ordinary" experience is no less psychologically damaging and overwhelming. It is important that trauma be understood as a response to extraordinary events (Herman).

The human response to danger is a complex, integrated system of reactions (Herman, 1992). The effects of prolonged danger experienced by human beings is not well understood even for combat veterans or concentration camp victims. Bessel van der Kolk (1988) describes three adaptive responses to threat or danger; fight, flight, or freeze. For example, when a turtle retracts its limbs in response to immediate, usually ephemeral danger, it cannot run so freezing is an adaptive response until the danger passes. However, if the danger does not subside, then fleeing would be a more adaptive response to minimize exposure to continued threat.

What may be operating in traumatized women who do not leave abusive situations is a "freezing" response more akin to the catatonoid state described by Krystal (1984) and to learned helplessness. It is important to note that a freezing response by women enduring chronic physical battery is understood by some professionals as a legitimate,
protective response given the lack of appropriate attention and protection by society.

When an individual is exposed to danger and there does not "appear" to be an effort to escape or leave, or if the person leaves and returns time and time again, then it begs the question of why she does not leave and/or why she returns. There is a need for a study that examines the differences in psychological trauma responses between women currently being battered and women who are free of battering, with the expectation that there will be trauma-response differences that help explain why many women find it difficult to leave battering partners.

The freeze response described by van der Kolk (1988) is present in The Battered Women's Syndrome and Learned Helplessness, and will provide the substrate for this study. However, this will be conceptualized as the psychological trauma that results from repeated battering and chronic exposure to danger. Furthermore, although this trauma response is related to posttraumatic stress symptoms, it will be shown that there are psychological differences between the responses of those who perceive that they are in dangerous situations and those who perceive that they are out of danger (post-trauma).

As stated earlier, other researchers have found sociological factors, belief systems, and other psychological predispositions that effect whether a woman
leaves (see Feldman, 1983 for a thorough discussion of these). However, Herman (1992) believes "that ordinary, healthy people may become entrapped in prolonged abusive situations, and that as a consequence, they are no longer ordinary or healthy" (p. 116).

Purpose of the Study

The focus of this study is on those psychological factors, such as a psychological trauma response, that generally operate to keep women in battering relationships. Also, the degree and type of psychological trauma and posttraumatic stress responses in currently battered and post-battered women will be examined. It is expected that there will be a difference between the trauma responses of women currently being battered and those who have been out of a battering situation for six months or longer.

Hypotheses

2. Post-battered women will exhibit a greater degree of PTSD than currently battered women.
3. Currently battered women will manifest greater depression than post-battered women.
4. Battered women will manifest greater psychopathology and higher levels of anxiety than nonbattered women.
5. The extent of battery and the degree of injury will positively correlate with the degree of PTSD and other psychological symptoms in battered women.

6. The frequency of childhood physical punishment, incest, sexual abuse (outside the family), and traumatic events will positively correlate with the degree of PTSD and other psychological symptoms in battered women.

Definition of Terms

The following definitions are consistent with those developed by Pagelow (1981, p.33) to ensure that definitions are consistent across various research on battered women. Other definitions will be specific to the current investigation.

Battered women. The term battered women refers to adult women who have been deliberately physically abused in ways that cause the risk of pain, injury, or death and/or who are forced into involuntary action or restrained by force from voluntary action, by adult men with whom they are intimately involved with or cohabiting. These are heterosexual relationships that usually involve sexual intimacy, regardless of legal marital status. For this investigation currently battered women are those who have been physically abused by a male intimate partner within the last six months. The term battered wives will be used interchangeably with battered women.
**Battering.** This term specifically defines one-way violence, which may or may not be defended against, and which is directed exclusively at wives/intimate female partners. Battering is defined as physical assault ranging from shoving and painful slaps at one end and homicide at the other end of a continuum. The physical abuse includes force into involuntary or from voluntary action, so that being tied down, locked in a room, closet, or house, or being locked out of one's home (in the middle of the night, for example) - which are clearly abusive actions, may be included (Pagelow, 1981).

**Currently Battered Women.** For the purposes of this study, currently battered women are those who have been battered within the last six months. It is expected that the psychological effects of being battered will be present and intense, and for all intents and purposes she will be considered psychologically in the battering relationship. This does not exclude the possibility that she may have left the batterer or sought outside intervention previously. Additionally, women must have experienced at least two acts of battering in a relationship.

**Post-battered women.** The term post-battered women refers to those women who have been free of battery for six months or longer.
Nonbattered women. The control group is defined as those women who have never been battered by an intimate male partner.

Adult. The term adult ranges from age 18 upward. Any female younger than 18 abused by an adult male should be considered the victim of child abuse or incest.
Chapter II

REVIEW OF THE LITERATURE

This review of the literature comprises sociological and psychological theories of human aggression generally, and aggression toward women, specifically. Theories of why women remain in battering situations will be reviewed to present an overview of the literature related to this aspect. This will include a general discussion of psychological trauma as well as a review of posttraumatic stress disorder.

Theoretical Perspectives of Aggression and Violence

Frustration/Aggression Hypothesis

In 1939 Dollard, Doob, Miller, Mowrer, and Sears hypothesized that aggression was a function of frustration. These investigators described frustration as "an interference with the occurrence of an instigated goal-response at its proper time in the behavior sequence" (p.7). Dollard, et al. later modified the hypothesis by stating that frustration does not always lead to aggression but that the frequency and intensity of frustration would determine the frequency and intensity of aggression.

Durbin and Bowlby (1939) believed aggression resulted from 1) disputes over possession of objects, 2) intrusions
by strangers, and 3) frustration. Seward (cited in Berkowitz, 1962) asserted that dominance strivings among animals often led to aggressive actions. Berkowitz (1962) believes that humans are different from other animals in that learning plays a more important role in aggression. Aronson (1972) states that aggressive behavior is a complex interplay between innate tendencies and environmental learning.

If the frustration hypothesis is applied to wife beating, it is possible that if the husband perceives that his wife is creating the frustration he may feel justified in attacking her. Seward's (cited in Berkowitz, 1962) assertion that dominance striving has something to do with producing aggression may also play out in the traditional family where the husband assumes, and is perceived, as the head of the family.

Social Learning Theories

A study of aggressive models was conducted by Bandura, Ross, and Ross (1963). The effects of live, filmed, or cartoon (controls) aggressive models were presented to three groups of children. Those children exposed to the live and filmed models showed equally aggressive imitative behavior, while the controls showed considerably less aggression. Additionally, males and females showed more aggression as a function of exposure to a male versus a female aggressive
Males exposed to female aggressive models demonstrated less aggressive behavior.

In a study of justified aggression conducted by Berkowitz and Rawlings (1963), it was found that individuals manifested more aggression if they felt justified and were insulted. There were two groups. Each group viewed a short film clip showing the protagonist being beaten. One half was told that the beating was deserved and the other half that it was not deserved. Before viewing the film students were given an IQ test. Half of them were insulted or patronized by the experimenter before and after the test and before viewing the film. The condition of being insulted and justified aggression produced more aggression on a post-experimental evaluation by the researchers.

In an experiment conducted by Davitz (1952), it was observed, although not in all cases, that children who were frustrated responded aggressively if they were trained to behave this way. Those who were trained in more constructive methods used these in response to frustration. Clearly, learning plays a key role in developing emotional, behavioral responses to social situations.

**Systems Theory**

Systems theory moves away from linear-causal thinking toward a holistic, interaction model. Additionally, intrapsychic processes are for the most part abandoned in favor of a framework that focuses on individuals.
interrelating within more or less stabilized systems such as families. In systems theory, an act may at once be a response as well as causal (Giles-Sims, 1983). Systems theory comprises concepts such as open and closed systems, positive and negative feedback, hierarchies of feedback and control, and deviance. Additionally, each component (a person) or system (a family) is embedded in and influenced by another, larger system (culture). Those systems that maintain essentially the same boundaries through time are in a state of static equilibrium and are considered closed. For example, the Amish make deliberate attempts to keep outside influences away from their group. They do not have televisions and their children attend only Amish schools (Giles-Sims, 1983). In a relatively closed system, it would be expected that the patterns of behavior would be repetitive and would have a high degree of negative feedback. Negative feedback reinforces status quo behavior while positive feedback reinforces novel behavior. For example, if a battered wife refuses to be battered any longer this would be new behavior and if the batterer agreed to this it would be positive system feedback which leads then to a system redefinition.

Systems are interactions which tend to maintain themselves by regulating the degree of stability and change through positive and negative feedback. In order for systems to remain viable a balance between stability and
adaptive change must be maintained to a degree. It is important to note that the goals and rules contained in the feedback and control in family systems are not always developed through consensus. If one member of the family is more powerful it is his personal goals that prevail. In the context of a wife battering situation, if the batterer's notion of family goals and regulations prevails then this becomes the established pattern of functioning within the system (Broderick & Smith, 1979).

The general systems theory approach suggests that there are new areas to be explored to develop a more complete theory of how wife battering arises and how it becomes stabilized or changes over time. The systems approach is based primarily on theories of process and social change. A general systems theory of wife battering assumes that violence is the outcome of the complex social interaction within the family system which exists as part of a larger social system. Theories that focus on how the system contributes to maladaptive behavior assume that the initial "deviant behavior" results from a combination of learning and response patterns to slightly unusual behavior that may have occurred by random chance (Giles-Sims, 1983). When the family system behaves in a manner that reinforces "deviant" responses then the response becomes part of the system's normal functioning. This approach emphasizes how specific
patterns of behavior become stabilized and how feedback processes affect specific behavioral responses.

The change within systems in response to new input may lead to negative or positive consequences. Change that brings the violence to the attention of others and provides support for the woman may in fact increase the violence at least in the short run. In the long run, however, the social system's response is vital in changing entrenched patterns of behavior between male and female partners (Giles-Sims, 1983).

**Exchange or Resource Theory**

The exchange theory was offered by Goode (1971), a sociologist, to explain spousal violence. Goode was one of the first theorists to state that force or the threat of force is an integral part of the family.

Goode believes that force (threat) is one of four major categories of social resources that individuals and groups use to garner needed products and services. The other three include:

1) Economic resources
2) Prestige/respect
3) Likability/attractiveness/love/friendship

Any of the above resources can be used in exchange for a needed resource by a family member (Goode). However, Goode makes it clear that force should only be used when all other
alternatives have failed. He observes that force is used in all social systems which includes the family.

According to Goode (1971), the social system is set up to enforce maintenance of authority within families, which has been traditionally vested in the adult male in the family. He explains that the use of force is necessary at times to uphold family authority. Although Goode decries excessive force or power, he sees the need for it, bolstered by larger social supports, to maintain the family structure. He further states that "it is easy to see that [without force] a substantial part of the structural strength of the family would be undermined" (p. 627). The following quote further illustrates Goode's (1971) position:

"Thus, force plays a role even when no deviant act is actually committed. The rebellious child or wife knows that the father or husband is stronger, and can call upon outsiders who will support that force with more force (p. 625)."

Goode states further that:

"Women, children, slaves, Colonials, lower castes, and other disadvantaged segments of any society are constrained more than others by force—although all are to some extent—or they are enjoined to refrain from its use, simply because the existing structures would change without these buttresses (p. 635)."

There is an underlying attitude of "if all else fails, it is acceptable to resort to the use of force or violence" to press one's point and to meet one's needs.

This review of aggression and violence against women is not exhaustive but does present an overview of the research
and thinking that has developed surrounding this issue. It is clear, for example, that levels of frustration play an important role in the overt expression of aggression, as does imitation of this type of behavior and learning appropriate responses. Children learn not only the content of what is being taught but the context as well which was demonstrated by the differential imitation behavior elicited from children by male and female models (Bandura, Ross & Ross, 1963).

Theories Related to Why Women Stay

Masochistic Theory

Because it is a popular myth that women remain in abusive relationships because they "want to be beaten," it will be briefly mentioned here. Freud believed that masochism was a manifestation of sadistic injury to the self and that this injury was psychologically satisfying. In Freud's (1924) essay on masochism, women were defined as innately masochistic and anyone who behaved masochistically was female by nature. It was believed that women were limited by their biology (no penis) and therefore attempted to castrate men to compensate for this "limitation." This attitude is so pervasive that it manifests in research. For example, in their research Snell, Rosenwald, & Robey (1964) described husbands and wives achieving a relational balance by alternating passive (husbands) and aggressive (wives) roles. Along with other characterizations, the wives were
described as aggressive, masculine, and masochistic. According to these theorists, the battering relieved the guilt she felt which was caused by her castrating and controlling behavior toward her husband. The underpinnings of these attitudes emerge in the biases expressed by Deutsch (1945). She stated that masochism is biologically natural for women and that castrating behavior, rape, and childbirth define a woman's existence. It is important to note here that Deutsch equated rape with sex. It is clear that society's attitude (until recently) has been guided by this interpretation of women's behavior to the extent that her suffering has been ignored and wife battering, normalized. It further "blames her" for her victimization.

The Stockholm Syndrome

There are several reasons why women remain in abusive relationships quite apart from personality dynamics. Graham and Rawlings (1991) state that "lack of power as a female, gender role expectations, social pressure to be 'coupled' during adolescence, and the need to establish independence from the family of origin" (p. 119) are some of the reasons why women stay. Graham and Rawlings suggest that the psychological dynamics found in the Stockholm Syndrome may keep women in these relationships.

The Stockholm Syndrome is defined as the bonding that often takes place between the captor and victim during captivity. This syndrome was identified after two men
robbed a bank in Sweden and then held three women and two men hostage for six days. During their captivity the hostages developed an allegiance to the captors and came to view them as their protectors (protecting them even from the police). One of the women became engaged to one of the captors after her release (Graham & Rawlings, 1991).

A consistent pattern of abuse by captors has been noted. There is abuse, then the abuser isolates the victim and begins a system of punishment/reward. When the abuser rewards or is kind, then the victim minimizes the abuse and reestablishes positive feelings for the abuser (Graham & Rawlings, 1991). The effect of all of this is that the victim's index of positive and negative life events begins to shift (i.e., events that perhaps would have been felt as negative before the abuse can be felt as positive once the abuse process is established). For example, an individual may not like oysters, but if she is starving, oysters may look very good to her.

Graham and Rawlings (1991) and Herman (1992) state that there are strong similarities between the dynamics of being abused in an intimate relationship and being held hostage. The dynamics are explained as follows: her survival is threatened, she feels terror, but cannot attend to the terror so she denies these feelings. She nonconsciously begins to identify with and become hypersensitive to the captor in an attempt to understand his moods and thinking,
to the extent that she takes on his world view and at the same time alienates her own. She is then able to feel, according to this theory, somewhat in control which may enable her to feel that she can by her actions prevent her demise.

Graham (1987) reviewed the literature on nine different hostage groups and identified similar "Stockholm" responses in all them. The following are the groups and some of the authors she cited who studied each of the groups: 1) concentration camp survivors (Bettelheim, 1943); 2) cult members (Alexander, 1979); 3) prisoners of war (Hunter, 1956); civilians in Chinese Communist prisons (Rickett & Rickett, 1973); procured prostitutes (Barry, 1979), incest survivors (Hill, 1985); physically and/or emotionally abused children (Alexander, 1985); and battered women (Dutton & Painter, 1981; Ehrlish, 1989; McGuire & Norton, 1988).

Learned Helplessness Theory

Learned helplessness is a psychological phenomenon identified by Seligman (1975) in his animal research with the effects of inescapable shock. Learned helplessness is a response to a stressful situation from which there is no perceived escape. When dogs were placed in a Pavlovian harness, which prevented them from escaping painful shocks, and then put in a box where escape was possible, most of the dogs made no attempt to avoid the shocks. They remained stationary and passive. Dogs with no prior experience with
inescapable shock learned quickly to jump the barrier and avoid the shock. The learned-helplessness construct has been replicated with other animals: Seward and Humphrey (1967) with cats; Padilla, Padilla, Ketterer, and Giacalone (1970) with goldfish; and Braud, Wepmann, and Russo (1969) with mice. Learned helplessness in humans has been examined by Flannery (1987); Hiroto (1974); Seligman (1975); Thornton and Jacobs (1971); and Walker (1989).

Uncontrollability of outcome or a belief that outcome is independent of the organism's action is key to understanding the dynamics of learned helplessness. When shock intensity, duration and frequency were varied by researchers, the animals manifested the same effect (failure to escape) if they had first been exposed to the inescapable shock condition (Overmier, 1968). What emerges is that humans as well as animals appear to freeze when confronted with events that are perceived to be out of their control (Abramson, Garber, & Seligman, 1980). The expectation of noncontingency is the crucial determinant of the symptoms of learned helplessness.

Deficits arising from perceived uncontrollability are 1) motivational (failure to escape), 2) cognitive (difficulty learning that responses produce outcomes), and 3) emotional (depressed affect). In a more precise analysis of learned helplessness, Abramson, et al. (1980) invoke three attributional dimensions of learned helplessness:
1) internal-external, 2) stable-unstable, and
3) global-specific. For example, if a person attributes helplessness to internal versus external sources, the individual views herself as personally helpless which predicts the type (universal or personal) of learned helplessness. Universal attributions are characterized by the belief that an outcome is independent of one's actions. A good example is that if parents cannot find a way to cure their child's disease, they may at some point give up trying. Personal attributions are those that the individual believes are directly related to her/his stupidity or genius. Stable factors are considered to be long-lived and recurrent while unstable factors are short-lived and intermittent. When an outcome occurs, an individual may attribute it to 1) an internal-stable factor (ability), 2) an internal-unstable factor (effort), 3) an external-stable factor (task difficulty), or 4) an external-unstable factor (luck) (Abramson, et al. 1980). The purpose of presenting these analyses is to show that learned helplessness is not unidimensional but complex and in need of further research with human subjects.

The learned helplessness model of depression (Garber, Miller, & Seaman, 1979; Seligman, 1974, 1975; Seligman et al., 1976) has emphasized the parallels between the laboratory phenomenon of learned helplessness and clinical depression. Those symptoms that are present with
uncontrollability in the laboratory are typically thought to be precipitants of depression, such as loss of a loved one or a job. Learning that outcomes are uncontrollable produces the motivational, cognitive, and emotional components of depression.

The motivational deficit of retarded initiation of responses in helpless subjects parallels the passivity, psychomotor retardation, and social impairment found in naturally occurring depression. The cognitive deficit of difficulty learning that responses produce outcomes also parallels depressives' "negative cognitive set (Beck, 1967). Depressed affect is a consequence of the belief that outcomes are uncontrollable.

In addition to motivational, cognitive, and emotional deficits of helplessness, there is a fourth deficit of lowered self esteem. This factor is important in a discussion of depression as low self esteem has been identified as a major symptom of depression (Beck, 1967; Bibring, 1953; Freud, 1917), and any model of depression should attempt to account for this symptom. The syndrome of depression is a complex and heterogeneous phenomenon (Abramson, et al. (1980). Klein (1976) found that depressed students attributed failure to internal (negative) factors, while nondepressed students attributed failure to external factors. Garber and Hollon (1980) found that in a skill task, depressed subjects showed small expectancy changes
when they estimated the probability of their own success, but did not show these small expectancy changes when estimating the probability of another subject's success. These results suggest that depressives believe that they lack the ability for the skill task (personal helplessness), and, additionally, that others have the ability for the task; undervaluing self in relation to others.

To summarize the above, all four classes of deficits associated with depression are explained. These deficits are: motivational, cognitive, affective, and self esteem. The valance of the outcome is important in determining whether the highly desirable outcomes or the unavoidability of highly aversive outcomes will produce depressed affect. When individuals expect that no response in their repertoire will change the likelihood of these outcomes then the other deficits of helplessness and depression will result.

The generality of the depressive deficits will depend on the globality of the attribution for helplessness; the chronicity of the depressive deficits will depend on the stability of the attribution for helplessness; whether self-esteem is lowered will depend on the internality of the attribution for helplessness. These attributions will produce the depressive deficits only to the extent that they produce global, stable, and internal expectations of future helplessness. The intensity of the deficit depends on the strength or certainty of the expectation of
uncontrollability, and in the case of the affective and self-esteem deficits, on the importance of the outcome.

In terms of a trauma response PTSD profile, depression is not listed as one of the criteria, however, the symptoms of constricted affect, difficulty sleeping, and diminished interest in everyday activities parallel depression and have been found in battered women diagnosed with PTSD (Feldman, 1983, Hilberman & Munson, 1977-78; Hilberman, 1980; Jarrar, 1985; Kemp, 1991; Rosewater, 1982; Shields & Hanneke, 1983; Walker, 1984b).

The physiological changes associated with depression in those who suffer from trauma are listed in Table 1.

Table 1. PHYSIOLOGICAL CHANGES ASSOCIATED WITH DEPRESSION

| Change of circadian rhythm with early awakening |
| Decreased motor performance                      |
| Coldness                                         |
| Pain                                            |
| Disturbed food intake and body weight regulation |
| Loss of libido; impotence, anorgasmia            |
| Dry mouth                                       |
| Constipation                                    |
| Low blood pressure                              |


Psychomotor and vegetative symptoms of exhaustion frequently occur in chronic depression (Wolfe & Mosnaim, 1990).

The biological substrates of a sustained trauma response are described by van der Kolk (1988). There are
disturbances in the adrenergic hormone system, that prepare the body for stressful situations. Van der Kolk observed chronic noradrenergic hypersensitivity, after prolonged exposure to stress and explained this as a depletion of endorphin and enkephalin opioids. It is believed that the increased levels of endogenous opioids, found in those exposed to inescapable shock, produce an analgesia, which contributes to the psychological paralysis observed in individuals in these circumstances. However, with continued exposure to danger, there is a decrease in these opioids which results in noradrenergic hypersensitivity mentioned by van der Kolk. Chronic low levels of dopamine and serotonin, and high levels of cortisol were found as well (Graham, 1990; van der Kolk, 1984, 1988).

All of these conditions contribute to the decreased capacity of many traumatized individuals to feel in control of their lives and to initiate activity. Moreover, lowered levels of dopamine have been directly linked to the inability to initiate activity which plays an important role in escape and avoidance behavior (Graham, 1990; van der Kolk, 1984, 1988).

There is a tendency for victims of trauma to fall at either extreme of the dependence-independence continuum because the capacity to regulate intimacy is impaired. Therefore, trauma victims are either overly dependent (clinging) or counterdependent (isolated) which is
characterized by a lack of involvement with others. This lack of involvement in relationships reduces the meaning of life and allows the power of the trauma to play out in the victim's everyday life (van der Kolk & Ducey, 1984). Because the internal signals are malfunctioning, those individuals suffering from PTSD seem unable to regulate their role in interpersonal relationships. There is a clear link between learned helplessness (trauma response) and depression.

**Psychological Trauma Response**

**Traumatic Neurosis**

Trauma is a Greek word meaning "wound." Figley (1985) describes psychological trauma as:

> an emotional state of discomfort and stress resulting from memories of an extraordinary, catastrophic experience which shattered the survivor's sense of invulnerability to harm (p. xvii)

In the late 1800s, a physician in the United States studied a group of physically sound yet symptomatic civil war veterans. Their symptoms were heart palpitations and pain, tachycardia, headaches, dimness of vision, giddiness, breathlessness and fatigue. Other physicians found identical symptoms in World War I veterans, but attributed these symptoms to physiological malfunctions (Scrignar, 1988). Nervousness was observed and noted but was not emphasized by these cardiac-oriented physicians. These may have been unrecognized trauma responses.
Van der Kolk (1984) cites Freud as proffering two different theories of trauma. One was described as the "unbearable affect" theory and the other as the "unacceptable impulse" theory. Freud's unacceptable impulse theory is not germane to this discussion. Unbearable affect refers to emotions evoked by a traumatic situation which was responsible for the traumatic effect (i.e., there was a decided threat which overwhelmed the psyche). This manifested in hysteria that resulted from incompletely abreacted psychic traumas, according to Freud.

The concept of "anxiety neurosis" was introduced by Freud in 1895. He culled anxiety from the group of symptoms found in patients suffering from neurasthenia (Scrignar, 1988). The concept of anxiety neurosis gained acceptance and by the 1940s, psychologists and psychiatrists applied this knowledge to World War II veterans who broke down following a battle. Although the soldiers' symptoms were the same, their diagnoses were abandoned by physicians in favor of anxiety and neurosis, which were labeled "traumatic war neurosis" or "combat neurosis" (Kardiner, 1941; Kardiner & Spiegel, 1947).

A traumatic stress reaction is the behavioral and emotional consequences of a trauma during and after an overwhelming, catastrophic event. Figley (1985) describes this as a set of conscious and unconscious behavioral and emotional responses to the event and the period following
the event. A catastrophic event or series of events are described as overwhelming and dangerous to the self or significant others (Figley).

Most recently there has been an increasing scientific interest in the phenomenon of psychological trauma (Flannery & Harvey, 1991; Gelinas, 1983; Herman, 1992; Ochberg, 1988; van der Hart & Horst, 1988; van der Kolk, 1987). Understanding and treating psychological trauma has been approached from several, sometimes divergent, theoretical perspectives. Major theoretic etiologies of traumatic neurosis are functional, organic, and psychogenic.

In the latter part of the 19th century a phenomenon known as "railroad spine" was identified. Individuals who had been injured by various machines manifested symptoms such as hysteria, hypochondria, and melancholia. Organicists at that time reasoned that these symptoms resulted from a disarrangement of the molecules of the spine caused by injury to the body. Other organicists advanced similar causes such as vascular changes or hemorrhages in the spinal cord (Erichsen cited in Figley, 1985).

A functional school emanating from Europe argued that there was no structural damage to the body but that the etiology was primarily functional in nature. The concept of "nervous shock" was introduced and it was felt that the primary cause was fear not minor blows to the body from a lurching train. The functionalists stated that although the
shock is psychological in origin, it had physiological consequences in a central nervous system malfunction (Modlin, 1983).

Charcot considered the traumatic neurosis to be a form of hysteria and the symptoms a consequence of physiologic brain dysfunction caused by terror and the memory of the trauma. Modlin (1983) states that Oppenheim believed that the "strong afferent stimuli impair the functioning of the nervous system" (p. 662).

Freud ushered in the era of psychogenesis. Although at the end of World War I his work was not generally accepted, the concept of "shell shock" was used to describe a psychological syndrome found in returning veterans of this war. Individuals presented with high levels of anxiety, apprehension, and nightmares. In the foreword of the book written by Ferenczi, Abraham, Simmel, and Jones (1921) dealing with this topic, Freud stated that war neurosis or shell shock could also be found in civilian populations after frightful or severe accidents and was to be distinguished from a neurotic syndrome characterized by an ego conflict.

In their discussion of traumatic neurosis, McGee, Browne, Kenny, McGennis, & Pilot (1984), hypothesize that 1) when an overwhelming, threatening event occurs, the individual inhibits the experience as though it has not occurred; and 2) subsequent experiencing and learning is
decreased; there is also constriction, "lack of spontaneity of freedom of response" (p. 7) of the perceptual field which helps maintain the inhibition, and 3) when the inhibition is relinquished, the affect associated with the event can be fully experienced.

McGee, et al. (1984) take an interesting approach in distinguishing repression from traumatic neurosis. Where repression was defined by Freud as the method used by the psyche to keep unacceptable instinctive impulses out of awareness, McGee, et al. conceptualize repression as a suspension of the emotional experiencing of a traumatic event. Suspension then includes any affect and memories associated with the trauma. Closely related to the McGee, et al. notion of suspension of particular psychological phenomena is psychological dissociation identified and developed by Pierre Janet and others (Ludwig, 1989; van der Hart & Horst, 1989).

Dissociative processes are characterized by discontinuities in states of consciousness and psychological subsystems that seem not to relate in any direct way to one another. This phenomenon is found in those individuals suffering from PTSD. Multiple personality disorder is a good example of extreme dissociation especially where one personality does not have awareness of the other personality. Ludwig (1983) defines dissociation as:
a process whereby certain mental functions ordinarily integrated with other functions presumably operate in a more compartmentalized or automatic way usually outside the sphere of conscious awareness or memory recall (p. 93).

Van der Hart and Horst (1989) cite Moreau de Tours' conceptualization of dissociation as akin to disintegration - a splitting off or isolation of ideas. Pierre Janet attempted to understand the wooden, mechanical, physical behavior patterns found in catatonic patients, which he called "psychological automatism." He studied patients who exhibited this phenomenon to an extreme degree such as hysterics. What he discovered was that most of these patients also suffered from unresolved, dissociated traumatic memories. Here we can see the relationship between a traumatic event and its psychological sequela.

To understand further the manifestations of dissociation, Janet talks about the relationship between the conscious and nonconscious functions of the brain. Janet conceptualized consciousness as a multidimensional system that regulates environmental (exteroceptive) stimuli and inner (proprioceptive) stimuli. Although traditional thought to this point characterized consciousness in metaphysical terms, conceptualizing the mind as a separate, unified entity with one identity, Janet believed from his observations that an organism may have two or more systems of consciousness that are not integrated, but in fact may
actually compete or interfere with one another (van der Hart & Horst, 1989).

According to Janet, psychological automatism resides in the nonconscious subsystem of the brain. However, it produces in consciousness "new nuclei" independent of the central personality which is "developed in response to vehement emotional experiences" (van der Hart & Horst, 1989, p. 403). To explain extreme behavioral manifestations of dissociation, Janet postulated that these nuclei expand through association with new ideas. As a result the central personality is weakened and the dissociation then becomes more pronounced, taking on a life of its own (van der Hart & Horst).

**Posttraumatic Stress Disorder (PTSD)**

Kardiner (1941) was the first researcher to conduct a long-term followup of traumatic neurosis. He found several common denominators: 1) fixation on the traumatic event, 2) a vivid dream life related to the trauma, 3) irritability, especially to auditory stimuli, 4) aggression and violence, 5) inhibition, experienced as fatigue, 6) sexual impotence, and 7) reduced social contact. It was Kardiner's notion that these symptoms resulted from a collapsed ego which precluded adaptation and active mastery.

Since World War II there have been only variations on the themes discussed earlier. Traumatic reactions related to large-scale disasters that produced several hundred
victims instantly such as hotel fires, military combat, or floods, etc., and the long-term effects of prolonged exposure to severe stressors such as those experienced in prisoner of war and concentration camps have been reported. Horowitz (1976) was instrumental in influencing the authors of the *Diagnostic and Statistical Manual of Mental Disorders-III* (APA, 1980) to add the category of Post-traumatic Stress Disorder as a clinical syndrome.

Because anxiety is a predominant symptom of PTSD it has been categorized under the anxiety disorders in the DSM-III-R (APA, 1987). The anxiety symptoms found in Category B are intrusive thoughts and memories of the event, distressing dreams, suddenly experiencing the event as recurring, and intense emotional distress when reminders are present. Exaggerated startle response and hypervigilance are other anxiety symptoms found in the PTSD profile. Clearly, extreme anxiety is a major component of PTSD. Because dissociation is usually present in those presenting with PTSD, it has been suggested that dissociation may be a defense against fully experiencing the terror or extreme fear associated with the threat of bodily harm (Davidson & Foa, 1991). If this is true then anxiety symptoms may not be readily detectable.

PTSD symptoms of intrusive thoughts and feelings related to the trauma have been described as having a life of their own. They seem to appear suddenly in the absence
of volitional thought and without identifiable provocation. This is a manifestation of the breakdown of the dissociative function, inherent in the trauma response and part of the profile of PTSD. Davidson & Foa (1991) suggest a reevaluation of PTSD criteria, especially with regard to the stressor, to determine if the classification is a function of etiology (Criterion A) or symptoms (Criteria B, C, & D). They suggest that perhaps a new category be developed for PTSD called "disorders of psychological trauma" (p. 353).

In the past it was believed that those most vulnerable to developing PTSD sequelae were Vietnam veterans, victims of nazi concentration camps, victims of civilian disasters, and those who have been raped, assaulted, or kidnapped (Figley, 1985; van der Kolk, 1984). The symptom profile of PTSD was identified in Vietnam veterans; therefore, this population has been a major target for research. Understanding and treating PTSD in Vietnam veterans has received considerable attention in the past two decades (Fairbank, Langley, Jarvie, & Keane, 1981; Fairbank, Keane, & Malloy, 1983; Horowitz & Solomon, 1975; Silver & Iacono, 1984).

Within the last 10 or 15 years, other populations have been identified and studied. In her examination of the children involved in the Chowchilla schoolbus kidnapping, Terr (1983) found PTSD in 100% of the children. Several theorists and researchers have identified and investigated

The pioneering work of Horowitz (1974, 1986a,b) led to the acceptance of the similarities in the trauma responses to military and civilian catastrophes. The University of Cincinnati Stress Study Center has investigated the effects of civilian disasters for approximately 10 years (Lindy, Grace, and Green, 1984). The effects of two major civilian disasters have been studied by the center; a flood, created by a collapsed dam, which killed 125 people, and a large fire at a supper club in Ohio, which killed 165 people. As a result of these studies and others, models that describe the progression of PTSD and predict the presence of psychopathology were developed (Lindy, Grace, & Green).

In other words, there appears to be a universality in trauma responses to various stressors. For example, the DSM-III-R describes the stressor event as posing "...a serious threat to one's life... one's children, spouse,...relatives and friends...[or] seeing another person...seriously injured or killed as the result of an accident or physical violence" (APA, 1987, pp. 247-248). This description can be easily applied to physically battered women.

For military and other disaster populations, trauma has been studied and defined after the fact (traumatic event). This category, by definition, is post-trauma. However, it
begs the question; what are the symptoms of an individual who is still undergoing the trauma?

This investigation of PTSD, specifically, and the trauma response, generally, focuses on identifying the PTSD profile in battered women. Additionally, differences in trauma responses between those who are no longer exposed to the traumatic event or danger (post-battered) and those who are continuing to be traumatized (currently battered) are examined.
Chapter III
METHODOLOGY

In the following chapter the sample of subjects and procedures for collecting data are described. A complete description of the instruments used for testing the hypotheses is provided, which includes available reliability and validity data for each instrument. Data collection methods and analyses are presented.

Sample

This study used a purposive sample of 102 women. Three groups of subjects were sought: 1) women who were currently being battered by male intimate partners (n = 38); for example, women who present at battered women shelters or who currently live with the batterer comprise this group. Women who have been out of a battering situation for six months or more (n = 35) comprise the post-battered group, and women who have never been battered by an intimate partner (n = 29) will act as controls. Five nonbattered protocols were eliminated from the study because responses indicated that they had been physically abused.

Procedures

Subjects were recruited from battered women's shelters; battered women's groups, which included women who were
currently in abusive relationships and women who had left; a homeless shelter; therapist referrals; students from the Ohio State University; newspaper advertisements; and other referrals.

Data were collected from women's shelters in three large metropolitan cities, several smaller towns, as well as rural areas in Ohio and Illinois. The researcher, or case workers who were instructed on how to administer the questionnaires, obtained consent from each subject and administered packets of instruments (Appendices A-F) according to instructions (Appendix E) in each shelter or group. Newspaper ads (Appendix C) were placed in the "announcements" column of the Other Paper in Columbus, Ohio. Posters (Appendix D) were placed on bulletin boards in several Ohio State University buildings. Respondents were contacted by the investigator and the packets mailed to them for completion.

Each packet contained all of the instruments, demographic questionnaire, instructions, and consent forms. A consent form (Appendix F) was attached to each packet and contained the same code numbers as the packet. A self-addressed, stamped envelope was also included. Upon return to the investigator, the signed consent forms were detached from the data packets immediately to ensure the confidentiality of the responses of each participant. Additionally, instruction forms were used to identify those
subjects eligible for reimbursement. Five dollars was paid
to those who requested payment. Any subject experiencing
stress or discomfort as a consequence of completing the
instruments was referred to an appropriate source for help.
One participant called the researcher and was referred to a
battered women's shelter. A synopsis of the results of the
study was mailed to those professionals and subjects
expressing an interest.

Instruments

PTSD Self Report

The PTSD Self Report instrument was developed by Anita
Kemp (1991) to assess the presence and extent of
posttraumatic stress disorder in the population of battered
women. This self report is a 17-item scale that corresponds
to the DSM-III-R criteria for PTSD and positively correlates
with the Impact of Event Scale (IES) intrusion scale
\( r = .53 \), and with the IES avoidance scale \( r = .36 \).

Civilian-Mississippi Scale

The civilian version of the Mississippi Scale for PTSD
(Keane, Caddell, & Taylor, 1988) will be used as an outcome
measure for determining the presence and extent of PTSD.
The Mississippi scale was originally developed to assess
PTSD in combat veterans. Internal consistency for the
combat-related scale showed an alpha coefficient of .94. A
one-week, test-retest reliability was .97 for Keane,
Caddell, and Taylor (1988), while Gerardi, Keane, and Penk
(1989) found sensitivities of 93-94\%, and specificities of 80-89\% with combat veterans. This instrument is a 39-item self-report measure for determining the presence and extent of PTSD in the civilian sector. In addition to measuring PTSD, this instrument also assesses suicidal tendencies, depression, and substance abuse (for a thorough discussion of the psychometric properties of the combat-related PTSD instrument, see Keane, et al., 1988).

**Beck Depression Inventory**

This inventory was developed from observations of depressed individuals in treatment (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Written permission was obtained from the author, and a copy of the dissertation in which the BDI was used was sent. There are 21 questions that assess attitudes and symptoms related to depression. Each item is ranked from 0 - 3 to reflect the severity of the symptom. Concurrent validity has been established (Beck, 1970; Fitzgibbon, Cella, & Sweeney, 1988). A split-half reliability (n-97) yielded a reliability coefficient of .86; however, if the Spearman-Brown correction is applied, the reliability coefficient is increased to .93 (Beck, et al.).

**The Texas Social Behavior Inventory**

The instrument used in this study is the short form (Helmreich & Stapp, 1974) of the Texas Social Behavior Inventory (TSBI) which measures self esteem (Helmreich, Stapp, & Ervin, 1974). The TSBI is a 16-item, self report
measuring self confidence and social self esteem. Each item is rated on a 5-point scale from not-at-all to very characteristic of me. The original 32-item scale yielded a correlation of .51 with the self-esteem scale of the California Personality Inventory (Kimble & Helmreich, 1972). The short form correlates .97 with the original 32-item TSBI (Helmreich & Stapp, 1974). Internal consistency yielded a Cronbach alpha of .91.

**Conflict Tactics Scale - Form R**

The Conflict Tactics Scale-Form R (CTS) (Straus, 1987) is a 19-item self-report scale containing 3 subscales; 1) reasoning, 2) verbal aggression, and 3) physical aggression. The focus of this study is on physical aggression, but verbal aggression was retained to examine verbal abuse in the total battered and nonbattered subjects (N=102). Frequency of abuse is measured on a 7-point, Likert scale as follows: Never, Once, Twice, 3-5 Times, 6-10 Times, 11-20 Times, More than 20 Times.

Using student reports of parental aggression, concurrent validity with the husband's report of verbal aggression was .51 and physical violence, .64; while wives' reports were .43 for verbal aggression and .33 for physical violence. The average internal consistency reliability was .80 for verbal aggression and .83 for physical aggression according to the wife's report (Straus, 1990). Physical aggression and verbal aggression, as separate factors, were
supported by factor analyses conducted by Barling, O'Leary, Jouriles, Vivian, & MacEwen (1987), and Straus (1990). The first three items of the CTS are the "reasoning subscales." These 3 items are: 1) discussed an issue calmly; 2) got information to back up his side of things; and 3) brought in, or tried to bring in, someone to help settle things (Straus, 1987). All three items were eliminated for this study because attempts to reason through a conflict are not related to psychological trauma (Kemp, et al., 1991; Kemp, 1991). The final scale used for this study contains 15 items, which includes the verbal (6 items) and physical (9 items) abuse subscales.

**Injuries-1 Scale**

The injuries-1 scale is an 8-item, self-report instrument developed by Kemp (1991), but modified for this study from assessing frequency of injury to assessing perceived degree of injury. A 4-point Likert scale was developed that measures the degree of injury. The categories are mild (1), moderate (2), and severe (3). Complications with pregnancy (7) and loss of fetus (8) were eliminated from the Kemp scale, and concussion/skull fracture (5) nerve damage (8) were added. An additional measure was added to determine if the injury was perceived as permanent (P) or temporary (T). A comment section was provided at the bottom of the scale to allow for experiences not covered by the objective sections of the instrument.
The scale was field tested on 17 battered women in three shelters. As a result of the test, the permanent and temporary categories were deleted because individuals either failed to mark them, or only marked permanent or temporary and failed to check degree of injury. Because of the comments provided by subjects, it was determined that the category of nerve damage was inadequate. Many of their comments clearly indicated neurological damage (chronic "jumpy eyes," for example), but the item itself was not endorsed. A more symptom-specific category of paralysis/numbness was substituted for nerve damage on the second edition of the instrument.

**Injuries-2 Scale**

Because subjects appeared to have difficulty responding to the nerve-damage category, it was determined that more descriptive, symptom-oriented items related to neurologic damage was more appropriate. Therefore, an additional injuries instrument was developed that assessed the functioning of the cranial nerves as well as other parts of the nervous system in a cursory fashion (Morton, 1989). Although this is not a neurological study, many of the field-test subjects related chronic injuries to the head and neck, such as choking, in their comments. The assessment specifically examines cranial nerves III, IV, VI, VII, VIII, IX, X, and XII) as well as other neurological functioning (Morton, 1989).
Injuries-2 is an 18-item, self-report with a 4-point, Likert scale that measures the perceived degree of injury and insult to the nervous system based on the responses to the symptoms of each item. The categories are, none (0), mild (1), moderate (2), and severe (3). It must be emphasized that this instrument was designed to do a cursory inventory only of nervous system functioning to compare the total battered with the nonbattered group. For example, the first item, headaches, may be endorsed by many individuals in the general population who have never been battered. The instrument has value only in its total score and in the totals for the categories of mild, moderate, and severe as perceived by the individual.

Neither injuries instrument was intended to be exhaustive in assessing injury as a result of battery but rather representative and informative of the types and degree of injuries sustained by women who have been repeatedly battered.

**Brief Symptom Inventory**

The Brief Symptom Inventory (BSI) is a multidimensional, psychological, self-report symptom scale, developed from a longer original instrument, the SCL-90-R, which was designed as an assessment/outcome measure of psychopathology (Derogatis & Melisaratos, 1983; Derogatis & Spencer, 1983). The BSI has 53-items rated on a 5-point scale of distress (0-4), ranging from **not-at-all** to
extremely. The BSI measures nine primary symptom dimensions and three global indices of distress. The symptom dimensions are: 1) Somatization, 2) Obsessive/compulsive, 3) interpersonal sensitivity, 4) depression, 5) anxiety, 6) hostility, 7) phobic anxiety, 8) paranoid ideation, and 9) psychoticism. The purpose of the global severity index of distress is to provide in a single score the depth of symptomatic distress currently experienced by the subject.

The internal consistency reliability yielded Cronbach alphas for all nine dimensions from a low of 0.71 for psychoticism to a high of 0.85 for depression. Test-retest reliability, measured at a two-week interval, yielded values that ranged from 0.68 for somatization to 0.91 for phobic anxiety. The stability coefficient for the GSI was 0.90 (Derogatis & Melisaratos, 1983). Correlations between like-symptom dimensions of the SCL-90-R and the BSI range from 0.92 on psychoticism to 0.99 on hostility.

Impact of Event Scale

The Impact of Event Scale (IES) was introduced by Horowitz, Wilner, and Alvarez (1979). This is a 15-item self-report instrument measuring the frequency, from not-at-all to often, of two major psychological response sets to stressful life events: intrusion and avoidance. Intrusion refers to intrusively experienced cognitions, images, feelings, and nightmares; and avoidance refers to
consciously recognized avoidance of particular cognitions, feelings, or situations.

The split-half reliability for the IES is .86. Internal consistency of the subscales yielded Cronbach alphas of .78 for intrusion and .82 for avoidance. Test-retest reliability of all 15 items was .87. For the subscales, intrusion is .89 and avoidance, .79.

**Demographic/Information Questionnaire**

This questionnaire comprises 19 items created for this investigation. Along with demographic data, the questionnaire collects information related to trauma in adulthood such as forced sex with the abuser. Additionally, it asks questions about traumas experienced in childhood such as sexual and/or physical abuse, and other types of trauma such as witnessing a murder or being in a fire, etc. It also addresses whether children are (were) present in the home and their ages.

**Variables**

**Independent variables and measures**

The independent variables associated with battery and abuse are physical aggression as measured by the CTS, severity and types of injuries as measured by the Injuries Scales. Forced sex, as measured by item 13 of the demographic instrument, is included because it is considered physically abusive.
The following are the independent variables of prior abuse and traumas as measured by the Demographic instrument. Item 8 is physical punishment, item 9 is incest, item 10 is sexual abuse, and item 12 explore previous childhood abuse and traumas.

The frequency of verbal abuse was measured by summing items 1 through 7 of the CTS (Straus, 1987), except for item 4 (cried), which was eliminated. Kemp, et al. (1991), and Kemp (1991) also omitted this item, as well as the reasoning scales, in their research with battered women. The frequency of physical abuse was measured by summing items 8 through 16. The values of the CTS are as follows: 0 = never, 1 = once, 2 = twice, 3 = 3-5 times, 4 = 6-10 times, 5 = 11-20 times, 6 = more than 20 times.

Item 13 of the Demographic instrument assesses the frequency of forced sexual relations. This variable has the following scores for the response categories: 0 = never, 1 = once, 2 = twice, 3 = 3-5 times, 4 = 6-10 times, and 5 = regularly (more than I can count).

Degree of injury is measured by adding the scores of each of the 8 items of Injuries-1 and the 17 items of the Injuries-2 scales which contain the four categories of: 0 = none, 1 = mild, 2 = moderate, and 3 = severe. An 18th item on the Injuries-2 scale asked about medication, which was not discussed in this study. To explore injury severity further, a ninth item was added to the Injuries-1 scale so
that injuries that were not presented in the 8-item list could be added by subjects. This item was not included in the statistical analysis.

Scores for previous abuse and trauma (incest, sexual abuse by someone outside the family, physical abuse, traumatic events as a child) were summed from the appropriate items on the Demographic Questionnaire using scoring categories of: 0 = never, 1 = once, 2 = twice, 3 = 3-5 times, 4 = 6-10 times, and 5 = regularly (more than I can count).

**Dependent Variables and Measures**

The dependent variables are 1) the presence and symptom profile of PTSD as measured by the PTSD Self-Report instrument (PTSD-SR), 2) the degree of PTSD as measured by the Mississippi Civilian Scale for PTSD (PTSD-M) and PTSD-SR, 3) depression as measured by the Beck Inventory (BDI), 4) self esteem as measured by the TSBI, 5) degree of psychopathology and anxiety as measured by the Brief Symptom Inventory (BSI), and 6) degree of intrusion and avoidance as measured by the Impact of Event Scale (IES).

A diagnosis of PTSD can be made if an individual presents with the following criteria from the DSM-III-R (1987): at least one symptom from category B, which is related to intrusions, and is represented by items 1-4 on the PTSD-SR; three symptoms from category C, which is related more to avoidance and detachment, and is represented
by items 5-11 on the PTSD-SR; and two symptoms from category D, which is related to anxiety responses such as the startle response, and is represented by items 12-17 on the PTSD-SR (see p. 11 for all of the criteria). A diagnosis of PTSD is present if respondents report in the following categories sometimes, frequently, and very frequently. The presence of PTSD was assigned a 1 and the absence a 0.

The degree of PTSD was measured by the PTSD-SR and the PTSD-M. The response categories of the PTSD-SR are: 0 = never, 1 = rarely, 2 = sometimes, 3 = frequently, and 4 = very frequently. The range of scores on this instrument are 0 - 68. For the PTSD-M, all items were summed after the response categories of the following items were reversed: 2, 6, 11, 17, 19, 22, 24, 27, 30, and 34. This maintained consistency on all of the items because a low score represents the absence of PTSD. Response categories for the PTSD-M are: 1 = not at all true, 2 = slightly true, 3 = somewhat true, 4 = very true, and 5 = extremely true; the range is 39 - 195.

Depression was measured by the BDI. Responses to the 21 items were summed. The response categories of each item are: 0, 1, 2, and 3. The cutoff scores used for this study are consistent with the cutoff scores used by Kemp (1991) and Shaw, Vallis, and McCabe (1985). They are 0 - 9 for a normal emotional state; 10-15, mild depression; 16-23, moderate depression, and 24-63, severely depressed. For
less conservative cutoff scores, see Beck, et al. (1961).

Self esteem was measured by the TSBI. Response categories are: not-at-all, not very, slightly, fairly, and very much characteristic of me. The five categories are scored from 0 to 4, with 4 indicating the highest measure of self esteem. The range is 0 - 64.

Psychopathology and anxiety were measured by the 53 items of the BSI. The global severity index is assessed by adding the 53 items and dividing by the total number of items answered. Response categories are: 0 = not at all, 1 = a little bit, 2 = moderately, 3 = quite a bit, and 4 = extremely. Items 1, 12, 19, 38, 45, and 49 of the BSI were used as a measure of degree of anxiety. These items are added and then divided by the number of items in the scale.

The IES measures the degree of stress (intrusion and avoidance responses) which are related but not identical to categories B and C of the DSM-III-R criteria for PTSD. Items 1, 4, 5, 6, 10, 11, and 14 comprise the intrusion score; and items 2, 3, 7, 8, 9, 12, 13, and 15 comprise the avoidance score. The response categories for the IES are: 0 = not at all, 1 = rarely, 2 = sometimes, and 3 = often. The range for intrusion, 0 - 21, and for avoidance, 0 - 24.

Data Analysis

Descriptive data are provided on the percentages of the sample reporting injury (injuries scales), and frequency of
physical abuse (CTS). The percent of those individuals who met the PTSD criteria (PTSD-SR), and the mean and standard deviations for the degree of PTSD (PTSD-M instrument), avoidance and intrusion (IES) as well as other outcome measures: 1) BDI for depression, and 2) the BSI for anxiety and psychopathology are provided. The means and standard deviations of the physical violence (CTS) and degree of injury (Injuries Scales) were determined. The data for each group, battered, post-battered, and control, are presented separately.

Battered women and controls were compared on PTSD, anxiety, depression, and psychopathology. F-tests were conducted as required, depending on the results of the correlational analyses.

The battered, post-battered, and nonbattered groups were compared on PTSD, depression, anxiety, and general psychopathology. Multiple regression analyses were conducted to test the hypotheses.

In order to determine the comparability of the total battered and control groups, and the battered and post-battered groups on all variables, correlations, analysis of variance, and multiple analyses of variance were conducted. To further analyze the variables, multiple regression analyses were run to permit examination of the relationship between the predictor variables and the outcome variables.
CHAPTER IV

RESULTS

This study was conducted to examine the differences in trauma responses between battered and post-battered women. It was expected that the trauma symptoms of PTSD would be different, and the degree of PTSD greater between the currently battered and post-battered groups. Additionally, there would be greater depression and emotional numbing in those who are currently being battered than those who are no longer being battered. Descriptive statistics are presented for demographic characteristics, degree of PTSD, degree of childhood physical and sexual abuse, adult physical abuse, degree of injury, and other psychological measures such as depression and anxiety. The total sample consisted of 102 women, 38 currently battered, 35 post-battered, and 29 nonbattered women or controls. Data are analyzed and presented for the total sample, the total battered group, and the three groups, separately.

Demographic Characteristics

The currently battered group was considerably younger overall than the post- or nonbattered groups. The mean age for the currently battered group was 29.53 (7.60). The
means and standard deviations for the post-battered and nonbattered groups were almost identical, 37.40 (9.80) and 37.69 (9.41), respectively (Table 2). However, the ranges for all groups were similar. For the battered group the range was 19 to 52, for the post-battered group, 22 to 58, and for the nonbattered group 18 to 52.

For the currently battered group, ethnicity was equally distributed; 50% black and 50% white. The distribution for the total sample, however, was 71.3% White, 24.8% Black, and 2% Asian. American Indian and Hispanic were 1% each. The post-battered group was 77.1% white. Of the nonbattered women, 92.9% were white, while only 7.3% were women of color (see Table 2).

The average number of years of education for the total sample was 13.44 (2.45). The mean for the battered group was 12.05 (1.92), with a range of 8 to 17 years; for the post-battered group the mean was 13.09 (2.20), with a range of 9 to 17 years; and for the nonbattered group the mean was 15.75 (1.69), with a range of 12 to 17 years. All of the nonbattered group completed high school, while 10 of the battered group and 7 of the post-battered group completed 11 years or less. Education and income levels by categories are presented in Table 2.

Physical Violence Characteristics

The types and frequencies of physical violence reported by the total battered group within the last twelve months of
Table 2. DEMOGRAPHIC CHARACTERISTICS BY GROUPS (N=102)

<table>
<thead>
<tr>
<th></th>
<th>Battered (n=38)</th>
<th>Post-battered (n=35)</th>
<th>Nonbattered (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 - 29</td>
<td>47.4%</td>
<td>22.9%</td>
<td>17.2%</td>
</tr>
<tr>
<td>30 - 39</td>
<td>44.7%</td>
<td>37.1%</td>
<td>37.9%</td>
</tr>
<tr>
<td>40 - 49</td>
<td>5.3%</td>
<td>28.6%</td>
<td>31.0%</td>
</tr>
<tr>
<td>50 +</td>
<td>2.6%</td>
<td>11.4%</td>
<td>13.8%</td>
</tr>
<tr>
<td><strong>Ethnic Identification</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian</td>
<td>0%</td>
<td>2.9%</td>
<td>0%</td>
</tr>
<tr>
<td>Asian</td>
<td>0%</td>
<td>2.9%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Black</td>
<td>50.0%</td>
<td>14.3%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0%</td>
<td>2.9%</td>
<td>0%</td>
</tr>
<tr>
<td>White</td>
<td>50.0%</td>
<td>77.1%</td>
<td>92.9%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; High school</td>
<td>26.3%</td>
<td>20.0%</td>
<td>0%</td>
</tr>
<tr>
<td>High school graduate</td>
<td>36.8%</td>
<td>28.6%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Some college</td>
<td>34.2%</td>
<td>31.4%</td>
<td>17.9%</td>
</tr>
<tr>
<td>College graduate +</td>
<td>2.6%</td>
<td>20.0%</td>
<td>71.4%</td>
</tr>
<tr>
<td><strong>Income</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $4,999</td>
<td>57.9%</td>
<td>23.5%</td>
<td>3.6%</td>
</tr>
<tr>
<td>$5,000 - 9,999</td>
<td>31.6%</td>
<td>5.9%</td>
<td>10.7%</td>
</tr>
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<td>$10,000 - 14,999</td>
<td>2.6%</td>
<td>14.7%</td>
<td>7.1%</td>
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<td>2.6%</td>
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<td>$25,000 - 34,999</td>
<td>0%</td>
<td>14.7%</td>
<td>10.7%</td>
</tr>
<tr>
<td>$35,000 +</td>
<td>5.3%</td>
<td>23.5%</td>
<td>39.3%</td>
</tr>
</tbody>
</table>

Note: 1 frequency missing for ethnicity and 1 for education
the relationship are presented by rank order (Never column) in Table 3. Types of physical violence range from pushing and shoving to having a knife or gun used against them. Item 9 of the CTS, pushed, shoved, or grabbed (20 or more times), was the most frequently reported (71.2%), while item 16, used a knife or gun (20 or more times), was the least frequently reported (5.5%). Because forced sex from the demographic questionnaire was considered a form of physical violence, it was included in Table 3.

For the 6 items on the verbal abuse section of the Conflict Tactics Scale, the total battered group reporting verbal abuse of 20 times or more was 84.9% on item 1 (insulted me), 68.5% on item 2 (sulked), 65.8% on item 3 (stomped out), 78.1% on item 5 (said something to spite me), 75.0% on item 6 (threatened to hit me), and 68.5% on item 7 (threw or hit something). Item 4 (cried) of the CTS was eliminated. Although the percentage was not as high, the nonbattered group reported considerable verbal abuse. For the same categories, this group reported 20.7% on item 1, 13.8% on item 2, 10.3% on item 3, and 6.9% on item 5. Items 6 and 7 were not endorsed by nonbattered women.

Injuries sustained by the total battered group were recorded on two injuries scales, Injuries-1 and Injuries-2. The Injuries-1 scale specifically relates to injuries sustained as a direct result of being battered. The Injuries-2 scale was presented to assess the degree to which
<table>
<thead>
<tr>
<th>CTS Item</th>
<th>Description</th>
<th>Never</th>
<th>1 - 5</th>
<th>6 +</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2.7%</td>
<td>26.0%</td>
<td>71.2%</td>
</tr>
<tr>
<td>9</td>
<td>Pushed, grabbed, shoved</td>
<td>13.7%</td>
<td>30.1%</td>
<td>56.2%</td>
</tr>
<tr>
<td>11</td>
<td>Kicked, bit, or hit w/fist</td>
<td>15.1%</td>
<td>34.3%</td>
<td>50.7%</td>
</tr>
<tr>
<td>10</td>
<td>Slapped me</td>
<td>17.8%</td>
<td>34.3%</td>
<td>48.0%</td>
</tr>
<tr>
<td>12</td>
<td>Hit or tried to hit w/object</td>
<td>19.2%</td>
<td>30.1%</td>
<td>50.7%</td>
</tr>
<tr>
<td>13</td>
<td>Beat me up</td>
<td>27.0%</td>
<td>32.4%</td>
<td>40.5%</td>
</tr>
<tr>
<td>8</td>
<td>Threw something at me</td>
<td>28.8%</td>
<td>46.6%</td>
<td>24.7%</td>
</tr>
<tr>
<td>14</td>
<td>Choked me</td>
<td>43.8%</td>
<td>42.5%</td>
<td>13.7%</td>
</tr>
<tr>
<td>15</td>
<td>Threatened w/knife or gun</td>
<td>75.3%</td>
<td>19.2%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

From demographics:

| D13. Forced sex | 37.0% | 35.6% | 27.4% |

Note: Items rank ordered under the **Never** column from least to most frequent, excluding forced sex.

**Categories:**

- **Never** = 0 times
- **1 - 5** = 1 - 20 times
- **6 +** = more than 20 times
these symptoms could occur in all three groups of currently battered, post-battered and nonbattered women. Therefore, the control group in this case is the nonbattered group.

The percent of types of injuries reported on the Injuries-1 scale by the total battered group were bruises (97.3%), cuts (74.0%), burns (28.8%), broken bones/teeth (46.6%), concussion/skull fracture (43.8%), knife wounds (21.9%), and gunshot wounds (16.4%). Forty-one percent reported some paralysis/numbness. The degree of injury reported by the battered group is presented in Table 4.

The Injuries-2 scale is a preliminary, cursory approach to assessing neurological functioning (Morton, 1989). As stated earlier, the seventeen items of the Injuries-2 scale were developed to expand question 8 (numbness/paralysis) of the injuries-1 scale. These questions were oriented around specific symptoms related to neurological functioning. The percentages of positive responses in each of the categories of mild, moderate, severe, or none for the total battered and nonbattered groups are presented in Table 5.

The average time that currently battered women lived with the batterer was 43.19 (54.12) months, while the post-battered group reported 113.01 (89.37) months. The mean number of months out of the relationship for the battered group was 2.46 (6.99); median was 10.5 days, and the range was 0 - 5.5 months. The mean for the post-battered group was 63.92 (64.29) with a range of 6 months to 23.3 years.
Table 4. TYPE AND DEGREE OF INJURY OF TOTAL BATTERED GROUP (INJURIES-1 SCALE) (n=73)

<table>
<thead>
<tr>
<th>Type of Injury</th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bruises/swelling</td>
<td>2.7%</td>
<td>8.2%</td>
<td>39.7%</td>
<td>49.3%</td>
</tr>
<tr>
<td>2. Cuts</td>
<td>26.0%</td>
<td>26.0%</td>
<td>34.4%</td>
<td>13.7%</td>
</tr>
<tr>
<td>3. Burns</td>
<td>71.2%</td>
<td>21.9%</td>
<td>4.1%</td>
<td>2.7%</td>
</tr>
<tr>
<td>4. Broken bones/teeth</td>
<td>53.4%</td>
<td>27.4%</td>
<td>9.6%</td>
<td>9.6%</td>
</tr>
<tr>
<td>5. Concussion/skull fracture</td>
<td>56.2%</td>
<td>28.8%</td>
<td>6.9%</td>
<td>8.2%</td>
</tr>
<tr>
<td>6. Knife wound</td>
<td>78.1%</td>
<td>19.2%</td>
<td>2.7%</td>
<td>-</td>
</tr>
<tr>
<td>7. Gunshot wound</td>
<td>83.6%</td>
<td>16.4%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8. Paralysis/numbness</td>
<td>58.9%</td>
<td>16.4%</td>
<td>19.2%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Derived from injuries scale developed by A. Kemp (1991)
Table 5. DEGREE OF INJURY OF TOTAL BATTERED AND NONBATTERED GROUPS (INJURIES-2 SCALE) (N=102)

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Battered Group:</td>
<td>37.0%</td>
<td>25.9%</td>
<td>23.1%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Nonbattered Group: (Control)</td>
<td>78.3%</td>
<td>11.3%</td>
<td>8.9%</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

Note. Items from the Injuries-2 Scale:

1. Headaches
2. Forget things
3. Change in mental alertness
4. Change in ability to concentrate
5. Faint or blackout
6. Can't recall blocks time
7. Change in eyesight
8. Change in hearing
9. Change in smell
10. Difficulty swallowing
11. Difficulty speaking/expressing thoughts
12. Change in muscle strength
13. Change in muscle coordination
14. Muscle spasms of hands, arms, legs
15. Problems w/balance
16. Dizzy spells
17. Change in sense of touch, numbness, or other unusual sensations
The majority of the total battered group had never been in a prior abusive relationship (63.1%), while 32.8% experienced physical abuse in 1 to 3 prior relationships. There were 4.2% reporting physical abuse in 4 or more adult, relationships with an intimate partner.

Childhood Abuse Characteristics

For this study it was important to determine to what extent childhood abuse and trauma contributed to the development of PTSD and other psychological symptoms in adults. Only the "regular" (more than I can count) category of the childhood abuse items was reported here (excluding traumatic events in childhood). The psychological adaptations to repeated physical battery or incest in childhood would more resemble the psychological states found in those who are being battered in adulthood. Although not significant, more regular physical punishment was reported by the nonbattered group (41.4%) than the total battered group (39.5%) (see Table 6). For each of the two groups, 44.7% of the currently battered group and 34.3% of the post-battered were physically punished regularly.

Twenty-two percent of the total battered group and 3.5% of the nonbattered group reported being incested regularly. This type of abuse happened for 16.2% of the currently battered group and 28.6% of the post-battered group. Sexual abuse by someone outside the family occurred more for post-battered women than the other groups (5.7%). There was
Table 6. INCIDENCE OF CHILDHOOD TRAUMA FOR THE TOTAL BATTERED AND NONBATTERED GROUPS (N=102)

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>(n=73) Total Battered</th>
<th>(n=29) Nonbattered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punishment</td>
<td>39.5%</td>
<td>41.4%</td>
</tr>
<tr>
<td>Incest</td>
<td>22.4%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Sex abuse</td>
<td>4.2%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Traumatic event</td>
<td>48.7%</td>
<td>13.8%</td>
</tr>
</tbody>
</table>

Note. Variables from demographics
little difference between the total group and nonbattered group percentages, 4.2% and 3.5%, respectively. The lowest percentage was reported by the currently battered group, 2.6%.

One or more traumatic events (flood, fire, serious accident, assault, mugging, or witnessing a murder) in childhood was reported by 38.6% of the total sample. Forty-nine percent of the total battered group and 13.8% of the nonbattered women experienced one or more traumatic events. More post-battered women (54.3%) responded positively for this item than currently battered women (43.2%).

Posttraumatic Stress Disorder

Based on responses on the PTSD-Self Report only, the diagnosis of PTSD was found in 73.7% of the currently battered group, 82.9% of the post-battered group, and 24.1% of the nonbattered group. That is, more post-battered women were diagnosed with PTSD than currently battered women. This same trend was found by Kemp, et al. (1991) and Kemp (1991) in their research with battered women.

However, the degree of PTSD, as measured by the PTSD-SR, was greater for the currently battered group, which had a mean of 37.11 (12.62) versus 33.29 (13.33) for the post-battered group, and 12.52 (11.19) for the nonbattered group. This finding held for the PTSD-M as well. The mean score on this instrument for the currently battered group was 112.54 (22.23) versus 104.2 (24.37) for the post-battered group,
and 70.48 (15.79) for the nonbattered group (Table 7). It is important to note that the cutoff scores used for diagnosing PTSD on the PTSD-M vary. Watson (1990) used scores between 94-100 as sufficient for the diagnosis of PTSD, while Keane, et al. (1988) used a more conservative number of 107 in their assessments of Vietnam veterans. The Watson cutoff scores were used in this study.

The PTSD-SR was further analyzed using only the categories. Means were calculated for the three categories of (B) reexperiencing, (C) avoidance, and (D) arousal. For the currently battered group, the means were higher in all three categories, (B) 8.08 (3.50), (C) 13.53 (6.14), and (D) 15.50 (4.80) (see Table 8). The means for the post-battered group were (B) 7.29 (3.64), (C) 12.71 (5.87), (D) 13.29 (5.25). The percent of each group responding in each of the categories of B, C, and D on the PTSD-SR are also presented. The currently battered group percentages were higher in two of the categories of reexperience (92.1%) and arousal (97.4), and, additionally, were more divergent than the post-battered group. For the post-battered group, the reexperience and arousal categories were identical (88.6%). The post-battered group responses converge on all three categories (Figure 1).

The degree of psychological response to trauma was measured by the Impact of Event Scale (IES). The means of the subscales of intrusion and avoidance were calculated.
Table 7. DEGREE OF PTSD AND RELATED SYMPTOMS OF TOTAL GROUP (N=102)

<table>
<thead>
<tr>
<th></th>
<th>Battered</th>
<th>Post-battered</th>
<th>Nonbattered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PTSD-SR</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (m)</td>
<td>37.11</td>
<td>33.29</td>
<td>12.52</td>
</tr>
<tr>
<td>Standard Deviation (sd)</td>
<td>12.62</td>
<td>13.33</td>
<td>11.19</td>
</tr>
<tr>
<td><strong>PTSD-M</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (m)</td>
<td>112.54</td>
<td>104.20</td>
<td>70.48</td>
</tr>
<tr>
<td>Standard Deviation (sd)</td>
<td>22.23</td>
<td>24.37</td>
<td>15.79</td>
</tr>
<tr>
<td><strong>IES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrusion Mean (m)</td>
<td>22.18</td>
<td>19.18</td>
<td>7.62</td>
</tr>
<tr>
<td>Intrusion Standard Deviation (sd)</td>
<td>8.41</td>
<td>9.78</td>
<td>8.74</td>
</tr>
<tr>
<td>Avoidance Mean (m)</td>
<td>22.05</td>
<td>17.03</td>
<td>6.93</td>
</tr>
<tr>
<td>Avoidance Standard Deviation (sd)</td>
<td>7.18</td>
<td>10.87</td>
<td>9.37</td>
</tr>
</tbody>
</table>
Table 8. PTSD-SR CATEGORY RESPONSES BY GROUPS (N=102)

<table>
<thead>
<tr>
<th>Category</th>
<th>Battered</th>
<th>Post-battered</th>
<th>Nonbattered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reexperience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>8.08</td>
<td>7.29</td>
<td>2.17</td>
</tr>
<tr>
<td>sd</td>
<td>3.50</td>
<td>3.64</td>
<td>2.85</td>
</tr>
<tr>
<td>Avoidance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>13.53</td>
<td>12.71</td>
<td>4.17</td>
</tr>
<tr>
<td>sd</td>
<td>6.14</td>
<td>5.87</td>
<td>4.84</td>
</tr>
<tr>
<td>Arousal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>15.50</td>
<td>13.29</td>
<td>6.17</td>
</tr>
<tr>
<td>sd</td>
<td>4.80</td>
<td>5.25</td>
<td>4.73</td>
</tr>
</tbody>
</table>
Figure 1. CATEGORY DIFFERENCES BETWEEN BATTERED AND POST-BATTERED GROUPS (PTSD-SR) (n=73)
The mean score of 22.18 (8.41) for the currently battered group was higher on the subscale of intrusion than the post-battered group, 19.18 (9.78); the mean for the nonbattered group was 7.62 (8.74). For the avoidance subscale of the IES, the battered group mean was 22.05 (7.18), the post-battered group mean was 17.03 (10.87), and the nonbattered group mean was 6.93 (9.37) (refer to Table 7).

Depression

Psychological states of depression and self-esteem were measured using the Beck Depression Inventory (BDI) and the Texas Social Behavior Inventory (TSBI). The categories for the BDI are 0-9, not depressed; 10-15, mildly depressed; 16-23, moderately depressed; and 24-63, severely depressed (Shaw, Vallis, & McCabe, 1985). For the total sample (N=102), the mean depression score fell in the moderately depressed range, 18.45 (12.74). The currently battered group mean was 25.63 (11.99), which is in the severely depressed category, and the post-battered group mean was 19.03 (11.65), in the moderately depressed category. The mean of the control group was 8.34 (7.42), which is in the nondepressed range (see Table 9). A high score on the TSBI indicates high self-esteem, which is inversely related to the depression scores on the BDI. Low self esteem has been shown to strongly correlate with depression (Feldman, 1983). The TSBI mean for the total sample was 36.53 (11.83). For currently battered women, the mean was 32.74 (10.46) and for
<table>
<thead>
<tr>
<th></th>
<th>Currently Battered</th>
<th>Post-battered</th>
<th>Nonbattered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beck</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>25.63</td>
<td>19.03</td>
<td>8.34</td>
</tr>
<tr>
<td>sd</td>
<td>11.99</td>
<td>11.65</td>
<td>7.42</td>
</tr>
<tr>
<td>TSBI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>32.74</td>
<td>35.46</td>
<td>42.79</td>
</tr>
<tr>
<td>sd</td>
<td>10.46</td>
<td>11.97</td>
<td>11.19</td>
</tr>
<tr>
<td>GSI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>1.68</td>
<td></td>
<td>.57</td>
</tr>
<tr>
<td>sd</td>
<td>.84</td>
<td></td>
<td>.51</td>
</tr>
<tr>
<td>BSI-Anx</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>2.11</td>
<td></td>
<td>.57</td>
</tr>
<tr>
<td>sd</td>
<td>1.05</td>
<td></td>
<td>.55</td>
</tr>
<tr>
<td>D14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>2.89</td>
<td></td>
<td>.54</td>
</tr>
<tr>
<td>sd</td>
<td>5.75</td>
<td></td>
<td>1.45</td>
</tr>
</tbody>
</table>

Note. D14 = suicidal ideation
post-battered women, 35.46 (11.97). The mean self esteem score was highest for nonbattered women, 42.79 (11.19) and lowest for currently battered women.

Psychopathology and Anxiety

Anxiety and the General Severity Index (GSI) were measured using the Brief Symptom Inventory (BSI). The GSI is a measure of psychopathology. The mean for the total battered sample was 1.68 (0.84). The currently battered and post-battered means were 1.99 (0.81) and 1.35 (0.76), respectively. An inpatient mean of 1.37 (0.86) and an outpatient mean of 1.32 (0.72) were reported by Derogatis and Spencer (1983). The control group mean was 0.57 (0.51). The mean score for the total battered group on anxiety was 2.11 (1.05). The currently battered group mean was 2.47 (1.01), and the post-battered mean was 1.71 (0.95) compared to 0.57 (0.55) for the control group (see Table 9).

The frequency of suicidal ideation (item 14 of the demographic questionnaire) ranges from 0-20. Twenty was chosen as an arbitrary cutoff point for a few subjects who were suicidal regularly. The mean for the total battered group was 2.89 (5.75). The means for the currently battered and post-battered groups were 2.55 (4.98) and 3.26 (6.54), respectively. The nonbattered group mean was 0.54 (1.45).

Group Comparisons for Age, Income, and Education

The total battered group was defined as having been battered at least twice in an intimate, heterosexual
relationship. The currently battered women were defined as having been battered within the last six months prior to data collection, while post-battered women must have been free of battery for six months or longer. Those women who have never been battered in an adult relationship were considered nonbattered.

As stated earlier, the average age for currently battered women tended to be younger with a mean of 29.53 (7.60) versus 37.40 (9.80) for the post-battered women. However, the range for the total sample was similar. The ranges were as follows: currently battered, 19-52, post-battered, 22-58, and nonbattered, 18-52.

Previous surveys on the the socioeconomic status of women indicate a strong correlation between family income and education, which holds for this study as well (Ries & Stone, 1992-93; U.S. Commission on Civil Rights, 1983). The education variable then was selected to analyze group differences. In the nonbattered group, 71.4% were college graduates, while only 20% of the post-battered group and 2.6% of the currently battered group had college degrees.

An analysis of variance was performed with the outcome measures of PTSD-SR, $F(1, 99) = .57, p \leq .45$; PTSD-M, $F(1, 99) = .23, p \leq .63$; BDI, $F(1, 99) = 2.35, p \leq .13$; GSI, $F(1, 99) = 1.74, p \leq .19$; and BSI-anxiety was $F(1, 99) = 1.00, p \leq .32$. No significant differences or interactions were found among the three groups for education.
Correlations and Regression Analyses

The null hypothesis states that there is no relationship among variables, (i.e., \( r = 0 \)). High correlations between independent and dependent variables are indicators of potential predictors of outcomes. However, high intercorrelations among independent variables can create collinearity problems, which could contaminate the results of regression analyses. One method of eliminating collinearity problems is to select only non-collinear independent variables. However, if the study requires determining the effect of all independent variables, then retaining all of them is necessary. Collinearity effects were minimized by running a hierarchical multiple regression analysis, and by appropriately selecting, grouping, and entering the independent variables into regression models.

**Hypothesis 1**

Hypothesis 1 states that currently battered women will manifest posttraumatic stress disorder symptoms differently on a self-report, and other measures of PTSD, than post-battered women. A multivariate analysis of variance (MANOVA) was conducted to determine if differences existed among the three groups on all of the items on the PTSD-SR; Wilk's lambda was \( .409 \) (\( F = 2.74, p \leq .0001 \)). Followup univariate F tests were done to determine which of the items were significantly different for the currently battered and post-battered groups. No significant differences were found
on items 2 through 11, 13, and 17, which span the 3 symptom categories of reexperiencing, avoidance, and arousal on the PTSD-SR. However, significantly more currently battered women reported feeling "watchful/on guard" (arousal item 15) than post-battered women, $F(1, 99) = 5.15, p \leq .03$. Marginal differences, approaching significance, were found on 4 other items. The mean scores for these 4 items were higher for currently battered women than for post-battered women. For item 1 (flashbacks), $F(1, 99) = 2.79, p \leq .10$; item 12 (trouble sleeping), $F(1, 99) = 3.11, p \leq .08$; item 14 (trouble concentrating), $F(1, 99) = 3.04, p \leq .08$; and item 16 (easily startled), $F(1, 99) = 2.80, p \leq .10$. An important finding here is that three of the four items fall in the arousal category and one in the reexperience category.

A MANOVA was done to determine if there were group differences for the three PTSD-SR categories; Wilk's lambda was .564 ($F = 10.72, p \leq .0001$). The univariate $F$ tests showed that significantly more currently battered women experienced arousal symptoms than post-battered women, $F(1, 99) = 3.66, p \leq .05$. No significant differences were found for the two categories of reexperiencing and avoidance on the PTSD-SR. It must be noted that the means for all three of these categories were higher for the currently battered group than the post-battered group.
The categories of reexperiencing on the PTSD-SR and intrusion on the IES are similar, and in some cases identical. For example, item 2 of the PTSD-SR, "Do you have dreams or nightmares about it" (reexperience category) is almost identical to item 6 of the IES, "I have dreams about it," (intrusion category). Because of this similarity, the battered and post-battered groups were compared on the subscales of intrusion and avoidance on the IES to examine group differences.

A MANOVA indicated significant differences among the three groups on some of the IES items with a Wilk's lambda of .428 (F = 2.93, p < .0001). The followup univariate tests yielded significant differences for 3 items on the IES. For item 1 (think about it when I don't mean to), intrusion category, the currently battered women scored significantly higher than the post-battered women F(2, 97) = 10.32, p < .002. The following 3 items fall into the avoidance category. Currently battered women scored significantly higher than post-battered women for the first two items, but only marginally higher on the third item. For item 2 (I avoid letting myself get upset when I think about it), F(1, 97) = 4.95, p < .03. For item 7 (I stay away from reminders of it), F(1, 97) = 6.99, p < .01. For item 12 (have a lot of feelings, but don't deal with them), the results approached significance, F(1, 97) = 2.74, p < .10. According to these results,
battered women appeared to make more deliberate, conscious attempts to avoid thinking about the traumatic experience than post-battered women.

A multivariate analysis of variance was conducted to determine if a difference existed between the two categories of intrusion and avoidance on the IES among the three groups. Wilk's lambda was .613 (F = 13.31, p < .0001). The two subscales of intrusion and avoidance of the IES showed a significant difference between the battered and post-battered groups on avoidance. The currently battered women reported significantly higher avoidance scores than the post-battered women F(1, 97) = 5.31, p < .02. No significant difference between the groups was found for the intrusion category. Hypothesis 1 was supported.

Hypothesis 2

Hypothesis 2 states that post-battered women will exhibit a greater degree of PTSD than currently battered women. The degree of PTSD was examined using the PTSD-SR, and the PTSD-M. As described earlier, because the IES categories are similar to the PTSD-SR categories, it was also included to measure the degree of PTSD. Although the incidence of PTSD was greater for post-battered than currently battered women, the degree of PTSD was greater for the currently battered than the post-battered groups on both measures. The group means for the IES, which contains categories similar to the PTSD-SR, were 44.24 (11.87) for
the currently battered sample and 36.54 (18.34) for the post-battered sample, confirming this trend. Hypothesis 2 was not supported.

**Hypothesis 3**

Hypothesis 3 states that currently battered women will manifest greater depression than post-battered women. It was expected that for women currently being battered, there would be considerably more emotional and cognitive constriction, and that these symptoms would manifest in depression. Additionally, because low self esteem often accompanies depression, it was measured as well. The Beck Depression Inventory and the Texas Social Behavior Inventory for self-esteem were used to examine the differences between currently battered and post-battered subjects. The results of a one-way ANOVA found that currently battered women were significantly more depressed than post-battered women, F(1, 99) = 6.86, p ≤ .01. However, the differences on the TSBI measure of self-esteem were not significant. The means of the two measures showed a weak inverse relationship in the expected direction (i.e., high depression score, low self-esteem score). Hypothesis 3 was supported.

**Hypothesis 4**

Hypothesis 4 states that battered women will manifest greater psychopathology and higher levels of anxiety than nonbattered women. Psychopathology (GSI) and anxiety were measured by the Brief Symptom Inventory. An additional
variable, frequency of suicidal ideation from the demographic questionnaire was also examined. An analysis of variance was done, and for all three measures the total battered group scores were significantly higher than the nonbattered group. For the General Severity Index (GSI) $F(1, 99) = 48.58$, $p \leq .0001$, for anxiety $F(1, 99) = 61.85$, $p \leq .0001$; and for suicidal ideation $F(1, 98) = 4.58$, $p \leq .035$. Additionally, an ANOVA was run to compare currently battered and post-battered women on these dimensions. Currently battered women had significantly higher scores on the GSI, $F(1, 99) = 14.01$, $p \leq .0003$, and on the anxiety measure, $F(1, 99) = 13.35$, $p \leq .0004$ than post-battered women. No significant difference was found between these two groups on suicidal ideation. Hypothesis 4 was supported.

**Hypothesis 5**

The independent variables of extent of battery (CTS) and the degree of injury (Injuries-1 and Injuries-2 scales) will positively correlate with the degree of PTSD, and with other psychological symptoms of anxiety, psychopathology, and suicidal ideation in battered women. Because many subjects failed to mark the degree of threat category on the CTS physical violence scale, it was eliminated in this study. The dependent measures of PTSD-SR, PTSD-M, General Severity Index of the BSI, the BSI anxiety score, and suicidal ideation (D14) from the demographics questionnaire
were used. Because depression was addressed separately in hypothesis 4, it was not included here. The degree of injury was measured using the Injuries-1 and Injuries-2 scales. The total scores were used as well as the scores on each of the categories of mild, moderate, and severe on each of the instruments.

The Spearman intercorrelations for the independent variables of extent of physical abuse and degree of injury are presented in Table 10. As mentioned earlier, strong intercorrelations among independent variables can be problematic due to the potential collinearity of two or more variables (i.e., two variables are so strongly correlated that they create estimation problems and do not provide additional information). Although there was a risk involved, all of the independent variables were retained in the analyses because the hypothesis addresses the extent of physical abuse and degree of injury.

To control for possible collinearity problems, a hierarchical multiple regression analysis was done. Because the total injury scores from the Injuries-1 and Injuries-2 scales, and the degree of injury scores (mild, moderate, and severe) were derived from the same instruments, they were highly correlated, as expected. Therefore, two statistical models were created. One model contained the extent of physical abuse and total injury scores. The other model contained extent of physical abuse and the degree of injury.
Table 10. SPEARMAN INTERCORRELATIONS OF BATTERY AND INJURY VARIABLES OF TOTAL BATTERED GROUP (n=73)

<table>
<thead>
<tr>
<th></th>
<th>PCON</th>
<th>MLD1</th>
<th>MLD2</th>
<th>MOD1</th>
<th>MOD2</th>
<th>SEV1</th>
<th>SEV2</th>
<th>INJ1</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCON</td>
<td></td>
<td>.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLD1</td>
<td></td>
<td></td>
<td>.32</td>
<td>.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLD2</td>
<td></td>
<td></td>
<td></td>
<td>.09</td>
<td>.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOD1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.31</td>
<td>.31</td>
<td>.40</td>
<td></td>
</tr>
<tr>
<td>MOD2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.19</td>
<td>.10</td>
<td>.27</td>
</tr>
<tr>
<td>SEV1</td>
<td></td>
<td>.33</td>
<td></td>
<td>-.07</td>
<td>.09</td>
<td>-.22</td>
<td>-.02</td>
<td></td>
</tr>
<tr>
<td>SEV2</td>
<td></td>
<td>.15</td>
<td>.19</td>
<td>.10</td>
<td>.10</td>
<td>.36</td>
<td>.27</td>
<td></td>
</tr>
<tr>
<td>INJ-1</td>
<td>.62</td>
<td>.48</td>
<td>.43</td>
<td>.45</td>
<td>.45</td>
<td>.55</td>
<td>.40</td>
<td></td>
</tr>
<tr>
<td>INJ-2</td>
<td>.40</td>
<td>.39</td>
<td>.38</td>
<td>.36</td>
<td>.73</td>
<td>.18</td>
<td>.82</td>
<td>.62</td>
</tr>
</tbody>
</table>

Note: PCON = physical conflict  
MLD1, MOD1, SEV1 = categories of Injuries-1 scale  
MLD2, MOD2, SEV2 = categories of Injuries-2 scale  
INJ-1 = Total score of injuries-1 instrument  
INJ-2 = Total score of injuries-2 instrument
for the mild, moderate, and severe categories from both injuries scales. Variables were selected and paired to minimize potential collinearity problems between the various degree of injuries scores and the extent of physical abuse. Further, variables were entered sequentially into the model based on their strength of correlation (i.e., the variable with the strongest correlation was entered first). The correlations for the independent battery variables and dependent measures are presented in Table 11.

The extent of physical abuse or conflict (CTS) was entered into both of the statistical models first because it was independent of the injury scales and would likely not create a collinearity problem. With shared variance, the predictive power of the first variable entered decreases as other variables are added. Because the severe-2 category (Injuries-2 scale) was more highly correlated than other independent variables for most of the outcomes, the categories of severe-1 (Injuries-1 scale) and severe-2 were the second additions to the model. The other independent variables were added in a pairwise fashion in approximate descending order based on their strength of correlation with the outcomes.

The regression models indicated which variables had a significant effect on the outcomes and the degree to which they were affected (i.e., the percent of variance explained by each of the independent variables). The models indicated
Table 11. SPEARMAN CORRELATIONS OF BATTERY VARIABLES AND OUTCOME MEASURES OF TOTAL BATTERED GROUP (n=73)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>PTSD-SR</th>
<th>PTSD-M</th>
<th>GSI</th>
<th>Anxiety</th>
<th>D14</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCON</td>
<td>.33</td>
<td>.07</td>
<td>.20</td>
<td>.19</td>
<td>.05</td>
</tr>
<tr>
<td>MLD1</td>
<td>.13</td>
<td>.10</td>
<td>.22</td>
<td>.21</td>
<td>.06</td>
</tr>
<tr>
<td>MLD2</td>
<td>.14</td>
<td>.08</td>
<td>.15</td>
<td>.17</td>
<td>.03</td>
</tr>
<tr>
<td>MOD1</td>
<td>.13</td>
<td>.08</td>
<td>.20</td>
<td>.19</td>
<td>.14</td>
</tr>
<tr>
<td>MOD2</td>
<td>.25</td>
<td>.25</td>
<td>.34</td>
<td>.23</td>
<td>-.04</td>
</tr>
<tr>
<td>SEV1</td>
<td>.27</td>
<td>.19</td>
<td>.20</td>
<td>.21</td>
<td>.08</td>
</tr>
<tr>
<td>SEV2</td>
<td>.48</td>
<td>.21</td>
<td>.58</td>
<td>.59</td>
<td>.16</td>
</tr>
</tbody>
</table>

Notes. See Table 7 for definitions of independent variables. D14 = Suicidal ideation. INJ-1 and INJ-2 variables not included here due to their collinearity with the above independent variables.
that the independent variables of mild, moderate, and severe of the Injuries-2 scale, and the overall score on the Injuries-2 scale were significant predictors of PTSD and other psychological symptoms (see Table 12).

The r-squared value is the proportion of variance in the dependent variable that is explained by the variance in the independent variable. For example, of the categories, the severe category of the Injuries-2 scale accounted for most of the variance for the extent of PTSD; 14.9% for the PTSD-SR, 28.3% for the GSI, and 30.8% for the BSI-anxiety measures. The total score, which collapses all of the categories, on the Injuries-2 scale was also robust in accounting for variance; 18.2% for the PTSD-SR, 30.2 for the GSI, and 29.7% for BSI-anxiety. The other independent variables, not shown on Table 12, are as follows: 1) the extent of battery as measured by the CTS, 2) mild, moderate, and severe of the Injuries-1 scale, and 3) the total score of the Injuries-1 scale. These variables were not significant predictors for any of the outcome measures. Further, none of the independent variables were significant in predicting suicidal ideation (item 14 from the demographic questionnaire).

An additional regression model was then run with the same dependent variables and with only the significant independent variables described above. There were no
Table 12. HIERARCHICAL REGRESSION RESULTS OF SIGNIFICANCE FOR THE TOTAL BATTERED GROUP (n=73)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>PTSD-SR</th>
<th>PTSD-M</th>
<th>GSI</th>
<th>ANX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r^2$</td>
<td>$r^2$</td>
<td>$r^2$</td>
<td>$r^2$</td>
</tr>
<tr>
<td>T</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEV2</td>
<td>14.9%</td>
<td>9.6%</td>
<td>28.3%</td>
<td>30.8%</td>
</tr>
<tr>
<td></td>
<td>4.01</td>
<td>3.11</td>
<td>6.03</td>
<td>6.39</td>
</tr>
<tr>
<td></td>
<td>0.327</td>
<td>0.272</td>
<td>0.486</td>
<td>0.486</td>
</tr>
<tr>
<td>MOD2</td>
<td>5.2%</td>
<td>5.1%</td>
<td>5.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2.26</td>
<td>2.22</td>
<td>2.21</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>0.192</td>
<td>0.202</td>
<td>0.186</td>
<td>-</td>
</tr>
<tr>
<td>MLD2</td>
<td>-</td>
<td>-</td>
<td>4.6%</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>2.11</td>
<td>2.21</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>0.170</td>
<td>0.169</td>
</tr>
<tr>
<td>INJ-2</td>
<td>18.2%</td>
<td>14.3%</td>
<td>30.2%</td>
<td>29.7%</td>
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<tr>
<td></td>
<td>4.62</td>
<td>3.99</td>
<td>6.45</td>
<td>6.37</td>
</tr>
<tr>
<td></td>
<td>0.441</td>
<td>0.403</td>
<td>0.608</td>
<td>0.578</td>
</tr>
<tr>
<td>Punishment</td>
<td>5.9%</td>
<td>6.8%</td>
<td>7.2%</td>
<td>3.9%</td>
</tr>
<tr>
<td></td>
<td>2.43</td>
<td>2.60</td>
<td>2.70</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td>0.204</td>
<td>0.220</td>
<td>0.249</td>
<td>0.176</td>
</tr>
</tbody>
</table>

Note 1. For the injury models:
- For IVs, $p \leq .003$ for all $T$ values
- Group variance range = 9.1% to 18.4%
- Group $T$ value range = 3.09 to 4.62, $p \leq .003$.
- The $F$ values for the models were 13.10 to 37.98, $p \leq .0001$.

Note 2. For the childhood abuse models:
- For this variable, $p \leq .05$.
- Group variance range = 31.2% to 39.2%
- Group $T$ value range = 6.53 to 7.78, $p \leq .0001$.
- The $F$ values for the models were 10.33 to 16.27, $p \leq .0001$. 
significant interactions. Hypothesis 5 was partially supported.

Hypothesis 6

Hypothesis 6 states that the frequency of childhood physical punishment, incest, sexual abuse (by someone outside the family), and traumatic events will positively correlate with the degree of PTSD and other psychological symptoms in battered women. The dependent measures of PTSD-SR, PTSD-M, General Severity Index of the BSI, the BSI-anxiety score, and suicidal ideation from the demographics questionnaire were used. Because depression was addressed separately in hypothesis 4, it was not included here.

The Spearman correlation coefficients for each of the independent variables of childhood abuse and/or negative experiences are presented in Table 13 for the total battered group. Table 14 shows the correlations of these same variables for the control group. There appeared to be moderate collinearity problems here also. Again all independent variables were retained to preserve the scope of this study to examine the degree of psychological trauma.

A hierarchical regression analysis was conducted to statistically control for collinearity. Variables with the strongest correlations were entered into the regression model first to control for these effects. The correlations for the independent child abuse variables and dependent measures are presented in Table 15 for the total battered
Table 13. SPEARMAN INTERCORRELATIONS OF CHILDHOOD ABUSE VARIABLES FOR TOTAL BATTERED GROUP (n=73)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Punishment</th>
<th>Incest</th>
<th>Sex abuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punishment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incest</td>
<td>.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex abuse</td>
<td>.41</td>
<td>.46</td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td>.35</td>
<td>.22</td>
<td>.30</td>
</tr>
</tbody>
</table>

Note. Above variables from demographics questionnaire
Table 14. SPEARMAN INTERCORRELATIONS OF CHILDHOOD ABUSE VARIABLES FOR NONBATTERED GROUP (n=29)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Punishment</th>
<th>Incest</th>
<th>Sex abuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punishment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incest</td>
<td>.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex abuse</td>
<td>.11</td>
<td>.13</td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td>.37</td>
<td>.34</td>
<td>.20</td>
</tr>
</tbody>
</table>

Note. Above variables from demographics questionnaire
Table 15. SPEARMAN CORRELATIONS OF CHILDHOOD ABUSE INDEPENDENT VARIABLES AND DEPENDENT VARIABLES FOR TOTAL BATTERED GROUP (n=73)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>PTSD-SR</th>
<th>PTSD-M</th>
<th>GSI</th>
<th>Anxiety</th>
<th>D14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punishment</td>
<td>.23</td>
<td>.33</td>
<td>.24</td>
<td>.16</td>
<td>.18</td>
</tr>
<tr>
<td>Incest</td>
<td>.17</td>
<td>.17</td>
<td>.08</td>
<td>.02</td>
<td>.17</td>
</tr>
<tr>
<td>Sex Abuse</td>
<td>.21</td>
<td>.26</td>
<td>.18</td>
<td>.07</td>
<td>.27</td>
</tr>
<tr>
<td>Trauma</td>
<td>-.02</td>
<td>-.01</td>
<td>-.03</td>
<td>-.15</td>
<td>.03</td>
</tr>
</tbody>
</table>

Note. Independent variables from demographics
D14 = Suicidal ideation from demographics
group. The correlations for the nonbattered group are presented in Table 16.

The regression model indicated that for the childhood trauma independent variables, the only one that was statistically significant in predicting degree of PTSD and other psychological symptoms was childhood punishment (see Table 12). Regular childhood punishment accounted for 5.9% of the variance for the extent of PTSD-SR, 6.8% on the PTSD-M, 7.2% on the GSI, but only 3.9% for the BSI-anxiety. Physical punishment was not significant in predicting suicidal ideation.

Incest was the only childhood abuse independent variable that appeared to influence suicidal ideation. The r-squared was 4.2% \((T = 2.09, p \leq .05)\), but there was no significant difference between the total battered and nonbattered groups in this model \((T = 1.17, p \leq .24)\). Therefore, the r-squared value was not significant.

Although significance was not obtained, there is a relationship between incest in childhood and suicidal ideation in adulthood. The mean for suicidal ideation for the total battered group was 2.89 (5.75), while the mean for the nonbattered group was .54 (1.45). These means are in approximately the same proportion as the percent of incest reported (refer to Table 6).

The standardized beta weight of one variable can be compared to that of another variable within the same study.
Table 16. SPEARMAN CORRELATIONS OF CHILDHOOD ABUSE INDEPENDENT VARIABLES AND DEPENDENT VARIABLES OF NON BATTERED GROUP (n=29)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>PTSD-SR</th>
<th>PTSD-M</th>
<th>GSI</th>
<th>Anxiety</th>
<th>D14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punishment</td>
<td>.41</td>
<td>.27</td>
<td>.55</td>
<td>.35</td>
<td>.17</td>
</tr>
<tr>
<td>Incest</td>
<td>.10</td>
<td>.13</td>
<td>.36</td>
<td>.13</td>
<td>.18</td>
</tr>
<tr>
<td>Trauma</td>
<td>-.07</td>
<td>-.10</td>
<td>-.01</td>
<td>-.19</td>
<td>.08</td>
</tr>
</tbody>
</table>

Note. Independent variables from demographics
D14 = Suicidal ideation from demographics
to evaluate their relative importance. As shown on Table 12, the beta values for the Injuries-2 scale, and the severe-2 category variables were considerably larger than the punishment values across all four dependent variables, indicating that the degree of injury from the injuries-2 scale, and the severe category of the same scale were stronger predictors of PTSD than childhood punishment. This shows that the battery characteristics were considerably more robust in terms of their overall strength in predicting PTSD than childhood events. Hypothesis 6 was not supported.

The lack of support for this hypothesis controls for childhood abuse and early trauma as intervening variables and supports the contention that battery itself is a strong predictor for the degree of PTSD and other negative psychological states. This is especially so, as the only childhood abuse factor (physical punishment) that was significant in predicting PTSD, was almost equally reported across all groups (N=102).
Chapter V
DISCUSSION

In this present study, the descriptive results are discussed in terms of group differences and similarities on posttraumatic stress symptoms. Previous research with traumatized populations such as combat veterans and rape survivors will be compared to the findings in this study. The meaning of support or lack of support for the hypothesis will be discussed. PTSD comparisons between the currently battered, post-battered, and nonbattered groups are discussed. Trauma response differences will be discussed in the context of why women remain in abusive relationships. Implications for counseling and assisting battered women are outlined. Finally, the limitations of the study are delineated and suggestions for future research offered.

Demographic Characteristics

Age

The age ranges for all of the groups were quite similar; 18 to 58 for the total sample population. There was a fairly even distribution of ages across the groups with no significant differences among the groups, although the mean of the currently battered group was younger than the post-battered and nonbattered groups.
Ethnicity

The currently battered group had a much larger representation of Black subjects (50%) than the post-battered and nonbattered groups, which were 77% and 93% White, respectively. These differences were due primarily to the large number of subjects in the currently battered group from shelters which were located in Afro-American neighborhoods. An additional factor accounting for the ethnic differences, not necessarily representative of the total population, was that many White women use alternative resources and are, therefore, not found in some shelter populations. Previous research has shown that spousal abuse occurs across all ethnic and socioeconomic strata (Jarrar, 1985).

Education

The total sample population averaged about 1.5 years of college. The currently battered group mean was the lowest, at the high-school graduate level, while the mean for the post-battered group was at least one year of college. Education for the nonbattered group was approximately six years of education beyond high-school level. These findings are contrary to those of Jarrar (1985), which showed that "grade-school women were the least likely to be abused by their partners, while women who have not completed college were the most likely to be physically abused" (p. 142).
Income

In this study, almost 90% of the currently battered group had family incomes below $10,000, and 60% of them were below the $5,000 level. The income levels for the post-battered group were equally distributed across the lowest and highest categories of less than $5,000 and $35,000 or more. Income for the nonbattered group was predominantly $35,000 or more. The currently battered group income statistics are not necessarily representative of currently battered women in the general population, but are skewed because most of the shelters were located in low-income areas, and may, therefore, be more accessible to low-income women. Straus, Gelles, and Steinmetz (1980) found a strong relationship between low family income and physical violence. Jarrar (1985), on the other hand, found that violence was much less likely to occur among poor families and that the most violent group were those families who earned over $15,000.

There does not appear to be agreement across studies on this issue. It is entirely possible that low-income women are overrepresented because they cannot afford the hotel rooms often used as shelters by middle- and upper-income women. Therefore, the low-income group is the one that is consistently studied by researchers. In this study, income and education were highly correlated, with the nonbattered
group having the highest income and the highest education levels. No other effect of income was conclusive.

Physical Violence Characteristics

Group membership was a problem in this study. Many women appeared to have difficulty identifying themselves as battered or nonbattered, even after being informed of the criteria for group membership. For example, there were several self-identified nonbattered women who reported being shoved or pushed by an intimate partner more than two times; these protocols were eliminated from the study.

Severity of abuse has not been uniformly defined so comparisons are difficult across research. Rounsaville and Weissman (1977-78) assessed the severity of battery by observing specific injuries (broken bones, concussions, soft-tissue injuries, etc.) in the emergency rooms of hospitals. Kemp (1991) assessed injuries using an injury scale developed by her, and which became a template for the Injuries-1 scale in this study. This scale addresses the degree of overall injury sustained by victims. As mentioned earlier, a refinement to the first injuries scale was added to assess the degree of neurological insult. Houskamp and Foy (1991) used the Conflict Tactics Scale (Straus, 1987) as a measure of abuse severity. They defined severity as the frequency of exposure to violence. Although the CTS has good reliability and validity, it is limited to assessing the frequency of the violence committed against a victim,
and does not address the injuries resulting from this violence. For one of the most lethal items on the CTS, "threatened with a knife or gun," the frequency for the total battered group was 56.2%, which is very similar to Pagelow's (1981) finding of 57%. Other previous research findings were somewhat lower: Jarrar (1985) found 45% and Kemp (1991) found 32%. A knife or gun was used on 25% of the total battered group; however, 19% reported actual knife and/or gunshot wounds. The disparity in these percentages may be due to the inaccuracies of remembering the frequency of this kind of violence (i.e., that a knife or gun was used) versus the presence of the actual wounds. Regardless, these percentages are alarming. Jarrar and Pagelow found that 23% and 25%, respectively, of their battered samples had been shot or knifed.

The source of the sampling, battered women shelters, could be an explanation for these high percentages in the present research and other studies (Jarrar, 1985; Kemp, 1991). By the time a woman seeks shelter, the abuse may have escalated to more life-threatening activities and the shelter represents a last resort to escape the violence.

Furthermore, shelters generally provide a non-judgmental environment, which allows the victim to tell her story of abuse more openly. Moreover, in this study, the total battered group included post-battered women who are, by at least six months, rather more distant from
imminent danger and may have developed some perspective of their abuse and injury. Based on the results of this research, post-battered women experienced significantly less physiological arousal and less cognitive avoidance. Therefore, it can be concluded that abuse and injury reporting by post-battered women may be more accurate.

Although the activities described above would more likely lead to fatalities, other physical abuse such as choking or beating could lead to permanent soft-tissue injury, including damage to the nervous system, which may go undetected, but could contribute to the psychological paralysis found in victims of repeated abuse (Walker, 1989).

In Unterharnscheidt's (1985) discussion of the effects of boxing, he states that:

One blow to the jaw accelerates the skull, which then rotates ahead of the denser brain, producing shearing forces that result in atrophe or death of cerebral tissue. Additional damage may include tearing of bridging veins causing subdural hemorrhages, and straining and tearing of vessels in cranial nerves. Additional strain to the medulla oblongata also produces vascular tears. Thus, brain injury may be caused by a single blow to the jaw or head (p.462).

Synder and Jackle (1981) also state that the "rapid acceleration/deceleration of the head causes brain tissue damage with resultant cerebral edema," (p. 36). Repeated blows to the head have long been understood to result in Dementia Pugilistica, a condition that usually results from many years of boxing. This condition is characterized by
slight mental confusion, distinct slowing of muscular action, tremors of the hands, and nodding movements. When symptoms are rather more exaggerated, they can resemble Parkinson's disease. Heretofore, these symptoms have not been examined or recognized with respect to battered women, although it is likely that these symptoms exist in many women who have suffered repeated battering.

In the comment portion of the injuries instrument, many battered women stated that the batterer deliberately battered them on parts of their bodies that would not show, such as "he always hit me behind my hairline," or "the injuries were always placed where clothing hid them and were used to torture along with sexual abuse."

As stated earlier, the Injures-2 scale was included in this study to expand question 8 (paralysis/numbness) of the Injures-1 scale. The second injuries scale is a preliminary assessment of overall neurological functioning as a method of determining the effect of battery on the nervous system. This scale was also presented to nonbattered women as a control measure for understanding the degree to which these symptoms could be endorsed by those in this group. There were marked differences between the total battered and nonbattered women, especially in the moderate (3:1), and severe (10:1) categories of symptoms. The reported symptoms ranged from, changes in mental alertness, faint or black out, changes in eyesight, hearing and smell,
to changes in muscle strength and coordination, muscle spasms, etc. This type of neurological injury also may be implicated in impaired decision-making. It is expected that these types of injuries combined with the psychological trauma could greatly reduce adaptive cognitive and emotional functioning.

Some of the items on the Injuries-2 instrument relate to cranial nerve functions. For example, item 7, change in eyesight, may implicate cranial nerves III, IV, and VI. This was a complaint from many battered women. Item 8, hearing problems, involves cranial nerve VIII; change in sense of smell involves cranial nerves VII and IX; and difficulty swallowing involves cranial nerves IX, X, and XII. Cranial nerve VIII is also implicated in problems with balance (item 15) (Morton, 1989). The importance of assessing the cranial nerves is that battered women frequently described wounds to the head (beating) and neck (choking).

The cerebellum, which resides at the base of the brain, also controls coordination; an impaired gait is an indication of cerebellar dysfunction. Aphasia (difficulty speaking or expressing thoughts) may be a result of injury to the cerebral cortex, which could be a result of repeated blows to the head. Battered women may have difficulty understanding language as well.
Verbal Abuse Characteristics

The nonbattered group reported considerable verbal abuse, but in the least abusive categories. There was a strong relationship between verbal and physical abuse for the physically abused women; no difference was found between currently battered and post-battered women. This indicates that verbal abuse is concommitant with physical abuse. In Kemp's (1991) study, the target group were women who were physically abused but her control group were women who were verbally abused. She found that 62.5% of the verbally abused group met the diagnostic criteria of PTSD.

There are major questions that arise from the seven verbal abuse items of the Conflict Tactics Scale (Straus, 1987). Clearly, it is difficult to classify most of these items under verbal abuse. For example, item 2, sulked or refused to talk about an issue, and item 3, stomped out of the room/house/yard, would more appropriately fall into the category of psychological abuse, and only if these were patterns of behavior and used frequently in a relationship. Item 5, did or said something to spite me, asks for an "interpretation" of behavior, and is not necessarily verbally abusive. Item 7, threw or smashed or hit or kicked something, could be threatening. However, this item is ambiguous. If a partner kicked the cupboard because she/he was frustrated with the boss, for instance, the spouse may
be quite understanding and approving of such action rather than feeling verbally abused.

The verbal abuse reported by battered women followed very similar patterns. They were continually criticized by the batterer. Jarrar (1985) reported the following experiences of battered women:

Abused women indicated that they were constantly criticized for not being good mothers, wives, cooks, homemakers, etc. They were repeatedly told that they were stupid, incompetent, and worthless. They were accused of being unfaithful and promiscuous. They were called 'bitches' and 'whores.' They were blamed for provoking the violence and were told that the problems in the relationship were all their fault (p. 171).

The verbal abuse described in the above quote is more appropriate in developing verbal abuse items for an instrument that measures the experience of battered women.

Childhood Abuse Characteristics

The statistical test for hypothesis 6 found that of the childhood abuse items, only regular childhood physical punishment emerged as a predictor of PTSD. However, this variable only had a small effect on the development of PTSD and other negative psychological consequences in adulthood compared to other abuse variables. Furthermore, physical punishment in childhood was reported approximately the same for all groups.

Therefore, childhood abuse and traumatic events (fire, floods, etc.) were constant across all groups and did not seem to account for a greater degree of PTSD and other
psychological symptoms in adult women. For this study, the degree of PTSD was used as the only feasible way to quantify the symptom differences.

Posttraumatic Stress Disorder

PTSD, depression, and general psychopathology was significantly greater for the total battered group than the nonbattered group, as expected. However, the test was primarily conducted to determine if the symptom patterns were different for currently battered than post-battered women. As was noted earlier, the incidence of PTSD was actually greater for post-battered (82.9%) than currently battered women (73.7%).

PTSD rates among other populations such as Vietnam veterans, rape victims, and concentration camp survivors are important comparisons to the incidence observed in battered women. In Terr's (1983) study of the children from Chowchilla who were buried alive in a bus, she found a 100% PTSD rate. In their assessment of 201 Vietnam veterans, Atkinson, Sparr, Sheff, et al. (1984) diagnosed 48% with Posttraumatic Stress Disorder.

There is mounting evidence that being raped or battered causes considerable psychological trauma. Even years after the experience, Kilpatrick, Saunders, Veronen, et al. (1987) found PTSD in 57.1% of rape victims. In a sample of incest survivors, Donaldson and Gardner (1985) found the posttraumatic syndrome in 96% of this group. There is
considerable evidence that Nazi concentration camp survivors suffer from PTSD, but incidence data are not available for this group (Herman, 1992).

It was expected that symptom patterns would be different for those who were no longer being traumatized than those who were, such as currently battered women. Many symptom patterns were not significantly different, but the currently battered group showed a marked significant difference for one of the arousal items (hypervigilance). There were differences that approached significance for several items in the arousal category, and one item in the reexperience category of the PTSD-SR, and in the avoidance category of the IES. No significant difference was found between the groups for the avoidance category of the PTSD-SR, which is patterned directly after the DSM-III-R (APA, 1987).

An analysis of the avoidance category in both instruments revealed that for the PTSD-SR, the avoidance category was primarily noncognitive (feel numb, or feel distant or cutoff), by a ratio of 7:2, while the avoidance category in the IES was primarily cognitive (I stay away from reminders of it, or I try not to talk about it) by a ratio of 8:2. This would account for the lack of significant difference on the Self Report avoidance category, which primarily related to noncognitive avoidance. According to these results, the currently battered group was
significantly more cognitively avoidant than the post-battered group.

An alternative analysis of the avoidance category of the PTSD-SR and the IES suggested that the PTSD-SR avoidance category was more general and included behavioral and cognitive avoidance, in addition to emotional numbing, while the IES avoidance category focused more on traumatic memories (Kemp, 1991). There does not appear to be consistent findings with regard to which symptom category prevails, intrusion or avoidance, and for the different types of avoidance as measured by the PTSD-SR and the IES. Van der Kolk (1988) emphasizes the cyclical nature of intrusion and numbing responses in those who present with posttraumatic stress syndrome. This phasing pattern may confuse the results of research with traumatized populations.

Depression, Anxiety, and Psychopathology

The results of this study confirm the findings of several other studies showing battered women to be at risk of severe depression (Feldman, 1983; Hilberman & Munson, 1977-78; Jarrar, 1985; Kemp, et al., 1991; & Kemp, 1991). What is not available to researchers are pre-battering rates of depression. The nonbattered women then function in this study as well as others to control for the extent of depression in the general population. There were significant differences between the total battered group
(moderately depressed) and the control group (not depressed) in this study (see Table 9). Additionally, the differences between the currently battered (severely depressed) and post-battered (moderately depressed) were significant.

Depression has been described as a mental state that inhibits initiation and motivation, and constricts cognitive and motoric activities. There is a great deal of hopelessness and pessimism expressed by severely depressed individuals. Therefore, depression is a main component in explaining the psychological paralysis found in battered women.

The presence of elevated levels of anxiety in battered women have also been found by other researchers. These anxiety levels manifest in the greater number of items endorsed in the arousal category of the PTSD-SR by currently battered women in this study, and in the high mean scores on the anxiety portion of the BSI. Jarrar (1985) found a substantial elevation in anxiety levels for battered versus nonbattered women. Kemp (1991) also found high levels of anxiety in her sample of battered women (n=179). For women currently in shelters, the mean score for anxiety in her study, as measured by the BSI-anxiety scale, was 2.02 (1.13). The mean score was higher for sheltered women in this study, 2.47 (1.01); keeping in mind that the control group mean was .57 (.55). Earlier studies confirm the
increased anxiety levels in battered women (Hilberman & Munson, 1977-78; Rounsaville & Weissman, 1977-78).

In a seemingly contradictory finding, depression and anxiety appear to coexist in currently battered women. The avoidance category on the IES was significantly higher for currently battered than post-battered women, which may be indicative of psychological depression, even though these individuals consciously suppressed frightening material. At the same time, this same group scored significantly high in the arousal category of the PTSD-SR, indicating high levels of anxiety, as stated earlier.

In an examination of mixed anxiety and depression, Katon and Roy-Byrne (1991) found many individuals who exhibited both anxiety and depression at once, although the symptoms appeared to be at a subclinical level. Finlay-Jones and Brown (1981) found particular circumstances to precipitate more or less anxiety and depression. A finding that supports this study is that for individuals in danger or experiencing threat, anxiety prevailed and for those who were experiencing a loss, depression prevailed. The source of the anxiety is clear in a battering situation. The loss, in the case of battered women, could be understood as the loss of their basic assumptions that they are invulnerable, and the loss in their belief that the world is safe, and that there is justice (Janoff-Bulman, 1985).
Currently battered women were severely depressed, and at the same time, showed symptoms of hyperarousal, suggesting an elevation in anxiety. However, this arousal state, rather than being conducive to producing survival plans and actions, seems instead to set up a "psychological fibrillation," which is rather more reflexive and reactive in response to psychologically overwhelming circumstances.

The General Severity Index of the Brief Symptom Inventory was used to determine the extent of psychopathology and distress in battered women. It is obvious that prebattering data are not available for these women and, again, the nonbattered group acted as controls for this measure. The total battered group mean was 1.68 versus .57 for the control group. The mean for the currently battered women was higher (1.99) than all of the comparison groups, which included inpatients and outpatients studied by Derogatis and Spencer (1983) and the post-battered group in this study (1.35).

The mean GSI scores for the currently battered group in this study were most similar to the Kemp, et al. (1991) finding for sheltered battered women (1.91). Only the mean score of 2.30 for a clinical population of Vietnam veterans exceeded the mean scores reported for battered women (Grace, et al., 1988).

This study found that none of the battery variables were significant in accounting for the prevalence of
suicidal ideation in this sample of women. Incest was the only childhood abuse item that appeared to influence suicidal tendencies. Although, not statistically significant, a relationship was found between incest in childhood and suicidal ideation in adulthood. The means for suicidal ideation for the total battered and nonbattered groups were in approximately the same proportions as the percent of incest reported by these groups.

Summary of Hypotheses

The first hypothesis states that currently battered women will manifest posttraumatic stress disorder symptoms differently on a self report, and other measures of PTSD, than post-battered. One arousal item was endorsed significantly more by currently battered women than post-battered women. Three arousal items and one reexperience item were marginally greater for currently battered than post-battered women. Significant differences were also found on some of the IES items, which covers the two categories of intrusion and avoidance. The currently battered women scored significantly higher than the post-battered on one intrusion item and on two avoidance items; one avoidance item approached significance.

For the three PTSD-SR categories, significantly more currently battered women experienced arousal symptoms than post-battered women as measured on the PTSD-SR. However, for the IES, a significant difference was found for the
avoidance category; more currently battered women were cognitively avoidant than post-battered women. Hypothesis one was supported.

For the second hypothesis, post-battered women will exhibit a greater degree of PTSD than currently battered women, it was found that the incidence of PTSD was greater, but the degree of PTSD was less for post-battered than currently battered women on both the PTSD-SR and PTSD-M. Kemp (1991) found the same greater incidence and greater degree of PTSD in post-battered women. However, battered women in the Kemp study were defined as being in the relationship at the time of data collection; sheltered women were considered out of the relationship. In the current research, sheltered women as well as those in a battering relationship were defined as currently battered. Hypothesis two was not supported.

Hypothesis three stated that currently battered women will manifest greater depression than post-battered women. The results indicated that the currently battered group was significantly more depressed than post-battered women on the Beck Depression Inventory. On the Texas Social Behavior Inventory measure, although not statistically significant, showed the expected inverse relationship (i.e., greater depression, lower self-esteem). Hypothesis three was supported.
The fourth hypothesis states that battered women will manifest greater psychopathology and higher levels of anxiety than nonbattered women. This hypothesis was confirmed. On the selected three scores of the GSI, BSI-anxiety, and suicidal ideation, the total battered group was significantly higher than the controls.

The fifth hypothesis states that the extent of battery and the degree of injury will positively correlate with the degree of PTSD, and other psychological symptoms, in battered women. Both the Injuries-2 scale total score, and the severe category of the Injuries-2 scale accounted for most of the variance for the extent of PTSD (PTSD-SR, PTSD-M), psychopathology (GSI), and anxiety (BSI). The extent of battery (CTS) and the Injuries-1 scale were not significant predictors of the extent of PTSD. And none of the independent variables were significant in predicting suicidal tendencies. Hypothesis 5 was partially supported.

Perhaps the most important finding in this study is that the degree of injury, especially, neurological injury as measured by the Injuries-2 scale showed a moderate association with the degree of PTSD ($r = .48$). Kemp (1991) also found that injuries were significantly related to the extent of PTSD in battered women.

Hypothesis 6; the frequency of childhood physical punishment, incest, sexual abuse (outside the family), and traumatic events will positively correlate with the degree
of PTSD, and other psychological symptoms, in battered women. Only regular childhood punishment accounted for variance in the extent of PTSD, psychopathology, and anxiety, and this effect was small (4% to 7%). Physical punishment was not significant in predicting suicidal ideation. This hypothesis was not supported. Incest was the only childhood abuse variable that predicted suicidal tendencies, and this was not statistically significant.

Implications of Findings

Why Women Remain in Abusive Relationships

In comparing the total battered group with the nonbattered group, the total battered group was significantly different in their symptomatology, incidence, and degree of PTSD. Depression was greater and psychopathology more severe in the total battered group. Childhood abuse and traumatic events were similar across all groups and did not seem to account for a greater degree of PTSD and negative psychological symptoms in this sample of women. The trauma symptom differences in PTSD, and the differences in depression, anxiety, and other psychological sequelae may provide vital information and understanding for why women find it difficult, if not impossible, to leave abusive relationships.

The results of this study indicate that the currently battered group was significantly more cognitively avoidant than the post-battered group. It may be difficult to
cognitively avoid thinking about the battering and at the same time develop strategies to leave. This conscious avoidance interferes with cognitive efforts to evaluate the lethality of the situation.

In the mental state of depression, initiation and motivation are inhibited, and cognitive and motoric activities are slowed. These are accompanied by intense feelings of hopelessness and pessimism. All of these factors in depression could be major components in why women remain in abusive relationships.

Depression and anxiety coexist in currently battered women and this produces a state of hyperarousal that does not appear to lead to initiating defensive action. This hyperarousal is not the same as the physiological arousal necessary to prepare an individual to act. It is instead an impotent, psychological quivering. Krystal (1984) describes a catatanoid state that results when emotional content shifts from an anxiety state to learned helplessness state. What appears to occur for women in battering situations is a behavioral catatanoid state overlain by a disorganized, anxiety state. These are important additional reasons why women remain in these dangerous situations.

The support for hypothesis 5 clearly implicates adult physical abuse or battery as a primary contributor to the development of PTSD and other negative psychological symptoms in women. The most important factor related to the
incidence and degree of PTSD were the Injuries-2 scale and its two moderate and severe categories. One battered woman described her injuries thus: "I have steel rods on both sides of my spine and I suffered bruises, cuts and swelling and pain so horrible no words could explain." Notable also is that the injuries sustained in repeated battering are likely to impair judgment and cognitive functioning, which can preclude battered women from making self-protective decisions; hence they remain.

**Counseling Battered Women**

It is essential, and clear from the description of head injuries mentioned earlier in this paper, that counselors frame a battering situation as an emergency and begin crisis intervention. To respond apathetically here is to respond as society at large has traditionally responded, which has been to normalize an abnormal and illegal action. Many battered women rationalize the danger of their situations. For example, one battered woman wrote, "injuries are abusive, but they always heal...its the emotional abuse that will stay with you forever."

It is recommended that the counselor make it clear to the client that she is imminent danger. It is also important for shelter directors and counselors to understand the degree of trauma suffered by women who seek help from them, and to entertain the idea that because of repeated
battering, they may be suffering from neurological impairment as well.

Some clients may not be able to make self-protective decisions or choices because logical, cognitive functioning may be impaired due to the psychological trauma. For example, during the data collection phase of this study, a shelter director described how it was necessary for her to lead a newly admitted woman into the shower because she was so confused and disoriented that she could not accomplish this mundane task without assistance. It is clear here that this woman was suffering from psychological trauma.

Because of the emotional and cognitive constriction that accompanies the trauma response, it would be well for counselors to help battered women with practical decisions. Important here is that counselors establish a working relationship with a battered women's shelter to facilitate the immediate sheltering of the woman. Important also is to preselect a physician who will be alert to the serious consequences of being battered, and who will communicate that to the woman. (Domestic violence has been often minimized, to the extent that women also minimize the risk involved.) A referral to a sympathetic attorney would also be appropriate if this is a step that she feels she wants to take at this time.

Women in crisis require practical help as well as emotional support, given the results of this study regarding
the trauma responses of being battered. The counselor should take a more directive approach. It is important to help the client make decisions in regard to escaping the battering and entering a shelter, and then to help her make long-range decisions after the shelter experience. Equally important is validating the mayhem committed against her. At the same time, facilitating the client taking control over her life and helping her define her environment and plan her future without battering is also important.

The following suggestions are not directly related to the findings of this study but are important aspects of counseling battered women. In Herman's (1992) discussion of captivity, she states that "As long as the victim maintains any other human connection, the perpetrator's power is limited." Perpetrators often isolate their victims from other sources of information or emotional support. For example, this is achieved through jealous surveillance or stalking. For this reason, women's support groups are helpful in undoing some of the consequences of isolation.

Clinical evidence suggests that battered women's support groups can be enormously effective. Cohesion is established very quickly with this client population. The similarities of the battering situation, feelings, and behaviors shared by these women act as catalysts, and repair and healing begin immediately. It is not unusual to see considerable surprise and relief exhibited as clients
listen to another relate a story so like their own. It is essential, that the facilitator dignify the danger of their situations and encourage the identification and direct expression of the client fears and anger.

The group can also act as a support network, and important referrals and connections can be freely traded. The empathy and understanding expressed in such a group is an inspiration for the counselor as well as clients. The counselor sharing her own story of abuse can also be inspiring and reduce the feelings of isolation.

Based on the relationship found between incest and suicidal ideation in the current research, it would be well for counselors to be alert to this connection. If a battered woman presents with suicidal tendencies as well as PTSD symptomatology, then a thorough exploration of possible childhood incest would be appropriate.

Limitations of the Study

First, the strength of the validity of the results in this study could be greatly enhanced by a larger sample size; although sample sizes for many studies of battered women tend to be small. For example, total samples for the following researchers were Bergman, Larsson, Brismar, and Klang (1987), 98 (in Kemp, 1991); Charboneau (1986), 36; Jarrar (1985), 70.

It was quite difficult accessing the population of currently battered women, especially. Many women were very
reluctant to discuss their situation in many cases. Many women agreed to participate and took the packet of questionnaires, but failed to turn it in to the director. According to shelter directors, this was not an uncommon occurrence. The anxiety engendered by their systematic brutalization keeps them sufficiently isolated from the help they need - much less a researcher asking questions.

Secondly, it is important to keep in mind that the responders in this study were volunteers who may not be representative of those individuals who did not volunteer. Finally, the groups in this study were considered nonequivalent groups. As stated earlier, the groups were different, especially on the demographic variables of income and education; although an analysis of education found no significant differences among the groups. Therefore the results of this research cannot be generalized to battered women in the general population.

Shelter directors were also very protective of shelter residents, as they should be - but more than one director would not allow residents to make their own choices about whether they wished to participate in research. For this reason, many shelters would not permit any research. Therefore, the sample studied here cannot be considered representative of all shelter residents.
Directions for Future Research

Both battered (39.5%) and nonbattered women (41.4%) responded about equally to the physical punishment item on the demographics questionnaire. The finding that regular childhood punishment was a factor in predicting PTSD and other negative psychological states could indicate that physical punishment may put these women at greater risk of developing these deleterious symptoms if they are in a battering situation. It should also be considered that regular physical punishment of boys most likely occurs at the same rate reported by the women in this study, and may be the first step in producing batterers. Thus, this kind of abuse may contribute greatly to producing and exacerbating violence in adult relationships.

More empirical research is needed to distinguish between the trauma responses of those who are currently experiencing repeated, prolonged trauma, for example, a Traumatic Stress Disorder, from those who have suffered prolonged trauma but are free of it (Posttraumatic Stress Disorder) and dealing with its psychological effects. Also, of vital importance is to distinguish the trauma responses of those who have PTSD as a result of one traumatic event and those who have PTSD as a result of prolonged trauma such as incest or battery. Herman (1992) has developed a new concept related to defining the trauma responses of those who have experienced repeated abuse. Because of the
prolonged nature of such overwhelming events, there are personality changes, including "deformations of relatedness and identity" (p. 119).

The effects of trauma could be better understood by defining and studying the consequences of the conscious manipulation of thoughts and feelings found often in currently battered women. This is different from the unconscious avoidance or denial, which also appears to be present in currently battered women and manifests as depression. For example, it would be important to understand how cognitive manipulation interferes with the ability to decide complex issues, and perhaps the extent to which it may play a significant role in developing the dissociative state.

Herman suggests that the PTSD category be revised to included many of the dynamics found in those individuals suffering from prolonged trauma. She proposes a "complex post-traumatic stress disorder," which addresses the personality disorganization that results from prolonged abuse. (For a thorough discussion and related details of this proposed category change, see Trauma and Recovery by Judith Herman, 1992.)

The meaning of the divergent category scores of reexperiencing, avoidance, and arousal in currently battered women versus post-battered women, which converge on all three categories, would be important to investigate
It could be that the cognitive and emotional experiences of those who are currently traumatized may manifest in a more chaotic fashion (more intense or cycling symptomatology) than the trauma responses of those suffering after the traumatic event.

Additionally, identifying the profile and characteristics of children experiencing prolonged trauma would add greatly to the trauma research, including the differences between female and male children. This is especially important so that early detection and intervention can be achieved.

It would be important to study individuals who have suffered prolonged stress in intimate relationships, with particular attention paid to more precisely defining and describing trauma response differences as a function of time (i.e., currently being abused; one week out, two weeks out, one month out, etc). For example, group membership was defined differently in this study than the Kemp (1991) study of PTSD and battered women. The definitions for currently battered women in this study were those in the shelter and less than 6 months out of the relationship, while Kemp defined currently battered women as those actually being battered, and those in shelter were defined as out of the relationship. Determining the course of the changes in trauma responses over time and identifying the profiles are vital so that appropriate intervention can be determined.
An additional area for study with battered women is identifying and assessing the degree of neurological damage resulting from battery. An in-depth, neurological examination of a small sample of battered women may produce results that would explain why they find it difficult to leave abusive relationships. An examination and understanding of the neural substrates of the trauma response and depression, as it relates to dynamic control (balance of neural inhibition and excitation) would be informative.

Given the results found in this study, and in others, it is clear that battery and the resultant injuries related to battery, have serious consequences for individuals. Much of the previous research on battering did not deal with the physical consequences of battery. However, this researcher finds it difficult to separate the physical from the psychological, and feels that they must be studied together to fully understand how physical insult or the threat of physical insult affects the psychology of the individual.

A final word about helping women who are being beaten; it is vital that professionals and individuals get involved at the political level as well as the personal level. Sheltering women and children is an interim solution to providing safety. It is not acceptable to remove, transport, and house the victims of repeated battering;
it is the assailant who should be removed, transported, and incarcerated for committing such crimes against women and children. This includes providing funds to solve the problem of domestic violence.
LIST OF REFERENCES


APPENDIX A

DEMOGRAPHICS QUESTIONNAIRE
DEMOGRAPHIC/INFORMATION QUESTIONNAIRE

INSTRUCTIONS: Please place all of your answers on the questionnaire sheets themselves. To obtain meaningful results, we need to have completed questionnaires. Please check to make sure that you did not miss any of the items. Take your time and do the best you can. There are no right or wrong answers - only your answers are important. Thank you for your kind attention in this research.

(Circle the correct letter when appropriate)

1. Your age ____________

2. Are you currently married to or living as a couple with the man who physically abuses you?
   A. Yes  B. No

3. If you have left the battering situation permanently and are free of physical abuse, how long ago did the relationship end?
   ______day(s) ago  ______year(s) ago
   ______week(s) ago  ______does not apply to me
   ______month(s) ago

4. How long have you been (were you) living with and/or married to the batterer?
   ______days  ______weeks  ______months  ______years
   ______does not apply to me

5. Do (Did) you have any children with the batterer?
   A. Yes  B. No

6. How many children under 18 live with you? ______

7. How many children under 6 live with you? ______
DEMOGRAPHIC/INFORMATION QUESTIONNAIRE

8. Thinking about yourself as a child, about how often would you say your mother/father/guardian used physical punishment such as hitting you?
   A. Never    
   B. Once     
   C. Twice    
   D. 3-5 times  
   E. 6-10 times
   F. Regularly (more than I can count)

9. As a child, did you experience unwanted sexual activity (with or without physical contact) with a family member?
   A. Never    
   B. Once     
   C. Twice    
   D. 3-5 times  
   E. 6-10 times
   F. Regularly (more than I can count)

10. As a child, did you experience unwanted sexual activity (with or without physical contact) with someone who was not a family member?
    A. Never    
    B. Once     
    C. Twice    
    D. 3-5 times  
    E. 6-10 times
    F. Regularly (more than I can count)

11. Have you been in previous marriages or live-in relationships (other than the abusive one) with a physically abusive man?
    A. Yes (if yes, how many?______)
    B. No

12. As a child, did you ever experience a dangerous, frightening, or traumatic situation such as a flood, fire, serious accident, assault, mugging, or witnessing a murder?
    A. Yes (if yes, how many?______)
    B. No

13. During the abusive relationship, does (did) your partner ever attempt or physically force you to have sexual relations by holding you down, or hitting you, or threatening to hit you?
    A. Never    
    B. Once     
    C. Twice    
    D. 3-5 times  
    E. 6-10 times
    F. Regularly (more than I can count)
14. In the past year, have you thought about wanting to die or about taking your own life?
   A. Yes (how many times? _____)
   B. No

15. In the past year, have you actually attempted suicide?
   A. Yes (how many times? _____)
   B. No

16. How many years of school have you completed? (Circle the highest year completed)
   High School
   8 or less
   9
   10
   11
   12
   College
   1
   2
   3
   4
   5 or more

17. Please state your ethnic background?
   A. American Indian
   B. Asian
   C. Black
   D. Hispanic
   E. White
   F. Other

18. Circle your yearly family income last year (before taxes, and include social security, ADC, interest, income from stocks, etc.)
   A. 0 - $4,999
   B. 5,000 - 9,999
   C. 10,000 - 14,999
   D. 15,000 - 24,999
   E. 25,000 - 34,999
   F. 35,000 or more

19. Circle your personal income last year (before taxes, and include social security, ADC, interest, income from stocks, etc.)
   A. 0 - $4,999
   B. 5,000 - 9,999
   C. 10,000 - 14,999
   D. 15,000 - 24,999
   E. 25,000 - 34,999
   F. 35,000 or more
APPENDIX B

LIST OF INSTRUMENTS
CONFLICT TACTICS SCALE - FORM R
INJURIES-1 SCALE
INJURIES-2 SCALE
IMPACT OF EVENT SCALE
PTSD SELF REPORT
PTSD-MISSISSIPPI CIVILIAN
BECK DEPRESSION INVENTORY
TEXAS SOCIAL BEHAVIOR INVENTORY
BRIEF SYMPTOM INVENTORY
APPENDIX C

SAMPLE NEWSPAPER ADVERTISEMENT

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SAMPLE NEWSPAPER ADVERTISEMENT

WOMEN NEEDED!!

for university research

1) WOMEN CURRENTLY BEING BATTERED BY A MALE PARTNER
2) WOMEN WHO WERE BATTERED BUT HAVE BEEN OUT FOR 6 MOS
   OR LONGER
3) WOMEN WHO HAVE NEVER BEEN BATTERED BY A MALE PARTNER

PLEASE HELP

Fill out easy questionnaires
Strictly Confidential
APPENDIX D

SAMPLE POSTER
WOMEN NEEDED

1. WOMEN WHO ARE BEING BATTERED BY MALE INTIMATE PARTNERS

2. WOMEN WHO HAVE BEEN OUT OF A BATTERING SITUATION FOR 6 MONTHS OR LONGER

3. WOMEN WHO HAVE NEVER BEEN BATTERED BY A MALE INTIMATE PARTNER

PARTicipate in a university sponsored research project. Complete easy questionnaires. Takes only 1 hour or so. Strictly confidential.
APPENDIX E

ORAL/WRITTEN INSTRUCTIONS
We are interested in increasing our understanding of the needs and experiences of women who have been battered. We are conducting (currently assisting in) a university research project, designed by Barbara Fisher, that will help us understand what battering does to women. Volunteers are needed to complete a packet of 9 questionnaires that will take about 90 minutes. Barbara will be happy to pay $5.00 to anyone who carefully completes all of the questionnaires. If you have any questions about how to fill out the questionnaires, please feel free to call Barbara at the number shown below.

Be assured that your name will not be connected with any of the information you provide so your confidentiality will be strictly maintained and protected; information sheets will contain only a code number.

If you would like to participate in this important study, please let the case worker or Barbara know and she will make arrangements for you to complete the consent form and receive the questionnaire packet. Please feel free to say no if you do not wish to participate; it is your right not to participate if you choose. If you do participate, you may withdraw from this study at any time without prejudice.

Consent forms must be returned with the questionnaires. For payment and/or study results, those who participate must fill out the appropriate sections below and attach to the consent form.

If, for any reason, you feel upset by any of the questions, please contact the investigator, shelter staff, therapist, or group coordinator. You may also call an appropriate women's help hot-line. Help is also available at your local mental health clinic; telephone numbers can be found in the yellow pages under social service organizations.

Thank you for your attention, and for those who agree to participate, your time and effort are very much appreciated.

Barbara may be reached at

Consider your safety when responding for payment and/or study results.

(circle what you would like sent to you)

Send to: ____________________________

________________________________________________________________________

Person obtaining consent Witness to oral instructions
APPENDIX F

CONSENT FORM
CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in (or my child's participation in) research entitled:

A COMPARATIVE STUDY OF THE PSYCHOLOGICAL EFFECTS OF
ASSAULT AND BATTERY BY INTIMATE PARTNERS ON BATTERED
AND POST-BATTERED WOMEN

Donald J. Tosi or his/her authorized representative has
(Principal Investigator)

explained the purpose of the study, the procedures to be followed, and the
expected duration of my (my child's) participation. Possible benefits of the
study have been described as have alternative procedures, if such procedures are
applicable and available.

I acknowledge that I have had the opportunity to obtain additional information
regarding the study and that any questions I have raised have been answered to
my full satisfaction. Further, I understand that I am (my child is) free to
withdraw consent at any time and to discontinue participation in the study
without prejudice to me (my child).

Finally, I acknowledge that I have read and fully understand the consent form.
I sign it freely and voluntarily. A copy has been given to me.

Date: ___________________ Signed: ___________________

Signed: ___________________ Signed: ___________________

(Principal Investigator or his/her Authorized Representative) (Person Authorized to Consent
for Participant - If required)

Witness: ___________________

HS-027 (Rev. 3/87) -- To be used only in connection with social and behavioral
research.)