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Social support and mental health outcomes in battered women

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SOCIAL SUPPORT AND MENTAL HEALTH OUTCOMES IN BATTERED WOMEN

A Project

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Faculty of

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ABSTRACT

This study utilized a quantitative survey design with a sample of 120 battered women from four domestic violence agencies throughout Riverside and San Bernardino counties. In this study, the relationship between perceived social support and negative mental health outcomes in battered women was examined. Specifically, correlations between perceived social support and depression, anxiety, and posttraumatic stress disorder were analyzed. Perceived social support, particularly from family members, was found to be significantly related to mental health outcomes. Results indicate that agencies that work with battered women should include social support in the assessment and intervention processes.

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CHAPTER ONE

INTRODUCTION

Problem Statement

Domestic violence is a far-reaching, international social problem. Stewart and Robinson (1998) define domestic violence as "any act of force or coercion that gravely jeopardizes the life, body, psychological integrity, or freedom of a person in a family or kinship," (p. 83). Danis (2003) states that domestic violence entails "a pattern of coercive behaviors that involve physical abuse or the threat of physical abuse and may include repeated psychological abuse, sexual assault, progressive social isolation, deprivation, intimidation, or economic coercion" as perpetrated by an intimate partner (p. 180). Studies have confirmed high rates of domestic violence in North America, South America, Europe, Asia, Australia, and Africa (Stewart & Robinson, 1998; Yick, Shibuswa, & Agbayani-Siewart, 2003). In fact, it is estimated that twenty to thirty percent of all women will be physically assaulted by an intimate partner at some point in their lifetime (Danis & Lockhart, 2003; Kaslow et al., 1998; Sato & Heiby, 1992).

In the United States alone, almost one-third of all women report having been physically or sexually abused by an intimate partner at some point in their lives ("Domestic Violence Statistics"). Because domestic violence has been shown to have long-term, negative effects on the physical and mental health of women, this is now considered a major public health issue (Coker, Smith, McKeown, & King, 2000; Coker, Smith, Thompson, et al., 2002).

The mental health effects associated with domestic violence have been well documented in the literature. These effects include depression, anxiety disorders, suicidal ideation, dissociative disorders, somatic disorders, borderline personality disorder, substance abuse, and obsessive compulsie disorder (Astin, Lawrence & Foy, 1993; Campbell & Lewandowski, 1997; Carlson, McNutt, Choi & Rose, 2002; Cascardi, O'Leary, Lawrence, & Schlee, 1995; Coker, Smith, et al., 2002; Fischbach & Herbert, 1997; Gleason, 1993; Kaslow et al., 1998; Leidig, 1992; Levendosky & Graham-Bermann, 2001; Ratner, 1993; Stewart & Robinson, 1998; Thompson et al., 2000). Each of these disorders can cause significant impairment in many areas of a battered woman's life (DSM IV-TR,

2000). It is possible that disorders such as depression, generalized anxiety disorder and PTSD could immobilize a battered woman and, thus, prevent her from effectively breaking free from her abuser.

Policy Context

Currently, the most comprehensive policy affecting battered women in the United States is the Violence Against Women Act. In 1994 Congress signed the Violence Against Women Act (hereafter referred to as VAWA) as part of the Violent Crime and Law Enforcement Act. Under the administration of the Department of Health and Human Services and the Department of Defense, VAWA provided a total of $3.3 billion for services for women, including civil and legal services for battered women and programs to address violence against women on college campuses. VAWA also provided funding for counseling for battered women and research into causes of violence against women. In addition, the VAWA made interstate domestic violence and harassment a federal offense. Under VAWA, the Department of Health and Human Services has undertaken the following actions: funding grants for domestic violence shelters; setting up the National Domestic Violence Hotline; strengthening existing community

violence programs and building new programs aimed at prevention (coordinated by the Center for Disease Control); and developing outreach programs for runaway, homeless youth ("Family Violence").

Practice Context

Social workers in a variety of practice settings are likely to come into contact with clients affected by domestic violence. Social workers in schools, hospitals, mental health settings, child welfare agencies, public welfare agencies, and domestic violence settings will all work with women and children who have been exposed to domestic violence. In fact, Danis (2003) asserts, "social workers are the most frequently contacted by battered women for all problems" (p. 178). As such, social workers in all practice settings must be aware of issues surrounding domestic violence, including the possible effects of domestic violence and potential protective factors against negative outcomes.

Unfortunately, Danis found that 55% of licensed MSW and BSW level social workers surveyed felt they had inadequate academic preparation for working with battered women. Considering how prevalent domestic violence is in our society, a lack of knowledge among social workers is

troublesome. At the macro practice level, policies and programs geared toward women and children need to reflect current research on domestic violence. At the micro practice level, inadequate education and training may translate into social workers being ill-prepared to effectively work with women who have been affected by domestic violence. Social workers in mental health settings may focus solely on the mental health problems of their clients and ignore the impact of domestic violence in the lives of their clients. Similarly, if social workers in other settings, such as child protective services or schools, are not aware of the potential consequences and protective factors surrounding domestic violence they may not address those issues, thus preventing competent practice with their clients.

Purpose of the Study

Though domestic violence affects many aspects of women's lives, for the purpose of this project we are specifically interested in the effects of domestic violence on the mental health of women. Learning more about these effects and factors that may help protect women from them is important because mental health

disorders may impair a battered woman's ability to effectively cope with the changes she must make to break free from the cycle of violence. Therefore, we plan to study three mental health outcomes that the literature indicates are most common in battered women: generalized anxiety disorder, depression, and posttraumatic stress disorder. Specifically, we want to determine whether or not social support is a protective factor against these outcomes. Social support is a key component in systems theory and the person-in-environment theory. It is important to know if increased perceptions of support from one's environment helps shield a woman from some of the negative effects of domestic violence.

Because there has been little research in the area of perceived social support as a protective factor for battered women, the type of research design that would best address this issue is a quantitative, cross-sectional exploratory survey. We will be using a battery of standardized instruments, including those on depression, PTSD, and generalized anxiety disorder, to survey women who have experienced domestic violence in the past year and are seeking services at domestic violence agencies in Riverside and San Bernardino

counties. These standardized instruments will allow us to accurately assess the presence of symptoms of depression, PTSD, and generalized anxiety disorder. Since we want to assess the correlation between perceived social support and mental health outcomes, a valid and reliable measure of perceived social support is also an important component of this study.

Research indicates that the level of abuse experienced influences the perception of social support in battered women (Carlson et al., 2002). Additionally, Carlson et al. (2002) report that in the sample of battered women they studied, those with the highest levels of abuse were less likely to benefit from social support than those who experienced lower levels of abuse. Therefore, we intend to use a shortened version of the Conflict Tactics Scale in order to assess whether or not the degree of violence experienced affects the perception of and impact of perceived social support.

Significance of the Project for Social Work Practice

Any individual, agency or service provider that comes into contact with women who have experienced

domestic violence should be concerned with its effects on mental health and should have knowledge of factors that may protect against those effects. Learning about protective factors will allow practitioners who work with battered women to design more effective interventions. This knowledge may be beneficial in the assessing, planning, and implementing stages of the generalist intervention model. Domestic violence programs and shelters, which work directly with battered women, could be greatly affected by the results of our research. If social support is found to be an important protective factor against debilitating mental health problems then these programs can focus some of their interventions on building social support networks and helping battered women become more aware of the supports that are available to them.

In addition to domestic violence service agencies, mental health agencies could be affected by the results of our research. It may be important for mental health practitioners to routinely screen for domestic violence in their clients and to be aware of the effects that domestic violence can have on mental health. By being fully aware of the mental health consequences, therapists

can seek to build up potential protective factors, such as social support. In addition, knowledge about the benefits of social support may help clinical social workers teach battered women to better recognize and build up social support networks. Without this awareness, practitioners may miss a vital area of intervention.

Agencies that provide services to children, including school social workers, child welfare workers, and child mental health practitioners, should also be concerned with research regarding battered women. Research indicates that there is a significant overlap between child abuse and domestic abuse. Campbell and Lewandowski (1997) assert that as many as forty to seventy percent of children in battered women's shelters are victims of child abuse. Additionally, Campbell and Lewandowski note that children who have witnessed their mothers being abused exhibit various trauma symptoms, including symptoms of PTSD. This can cause a wide variety of problems in school as well as many other problems, such as sleep disturbances, developmental regressions, anxiety, irritability, and intense fear (Campbell & Lewandowski, 1997). In addition,

psychological problems may affect a battered woman's ability to effectively parent her children. It is important for social workers who work with the children of battered women to have knowledge of the potential protective factors. These social workers can play an important role in the systematic attempt to build the social support networks of battered women.

Finally, social work educators and the Council on Social Work Education should be concerned with the results of domestic violence research. According to Danis and Lockhart (2003), a large number of social workers are ill-prepared to address domestic violence issues because of a general lack of knowledge of this area. Danis & Lockhart report that there is an absence of domestic violence literature among social work journals as well as a lack of adequate training in social work programs. Indeed, in our own literature search we have had great difficulty finding this topic among social work journals. In addition, as noted above, Danis (2003) found that the majority of social workers surveyed did not feel that their coursework prepared them to competently work with battered women. The findings of

our research may help social work educators better train future social workers.

Our research question is as follows: Is social support a protective factor against poor mental health outcomes in battered women? The independent variable in our study is social support. The dependent variable is mental health outcomes, specifically posttraumatic stress disorder, depression, and generalized anxiety disorder.

CHAPTER TWO

LITERATURE REVIEW

Introduction

There is an abundance of information in the literature regarding mental health outcomes in battered women and on the role of social support as a protective factor. However, there appears to be few examples in the literature where the interaction between social support and mental health outcomes in battered women was examined. Because of this, we will examine each of these elements separately. First, review the theories guiding our research, including theories on social support as a protective factor and ecosystems theory. Then we will discuss the research on domestic violence and mental health. Finally, we will review the literature that deals specifically with social support as a protective factor against negative mental health outcomes in domestic violence.

Theories Guiding Conceptualization

There are two main theoretical frameworks that are guiding our research. The first is ecosystems theory. The second is the buffering model of social support. Each of these will be examined separately.

Ecosystems Theory

Ecosystems theory states that people are in continuous interaction with various systems in their environment, including family, friends, work, social service systems, and others. According to ecosystems theory, people are constantly being affected by and affecting the various systems in their lives. Individuals are interdependent. They rely on people in each system of their lives and the people in those systems rely on them. A change in one system will affect every other system (Zastrow & Kirst-Ashmen, 2001). According to ecosystems theory, the experience of domestic abuse will affect and change other systems in the battered woman's life. Similarly, changes in other systems (increasing social support, for example) may affect and change the battered woman's relationship with the batterer.

Theories on Social Support

There are two main models of perceived social support discussed in the literature. Before we discuss them, however, it is necessary to define perceived social support. Procidano and Heller (1983) distinguish between perceived social support and tangible social support networks. Social networks can be determined by structural and functional dimensions, such as size, density, and the provision of information, comfort, emotional support, and material aid. Perceived social support, in contrast, refers to the impact that social networks have on an individual. According to Procidano and Heller, "perceived social support (PSS) can be defined as the extent to which an individual believes that his/her needs for support, information, and feedback are fulfilled" (p. 2). Perceived social support is partially dependent on support networks, but the concepts are not identical. Whereas support networks are relatively concrete, perceived social support is dependent, at least in part, on individual factors, such as individual personality traits and temporal changes in attitude or mood (Procidano & Heller, 1983).

The first main model of perceived social support is the buffering model. This model posits that perceived social support buffers against the adverse affects of stressful events on psychological well-being (Wethington & Kessler, 1986; Yap & Devilly, 2004). That is, perceived social support may protect an individual against the negative effects of stressful situations.

According to Wethington and Kessler (1986), the perception of social support affects appraisal of stressful situations. Appraisal of a situation then "mediates the relationship between stressors and health" (p. 84). Thus, the amount of social support a person perceives as being available in a stressful situation affects how a person evaluates the situation and his or her ability to cope with the stressful experience. This appraisal, in turn, affects mental and physical health. According to this model, higher levels of perceived social support may protect an individual from the negative psychological and physical consequences of stressful experiences (Lepore, Evans, & Schneider, 1991).

Lepore, Evans, and Schneider (1991) suggest a slightly different model of social support. In this model perceived social support is viewed as dynamic and

is both affected by and effects stressful situations (Lepore et al., 1991; Yap & Devilly, 2004). While social support may initially play a buffering role, researchers suggest that long-term, chronic stressors may overburden or erode social support networks over time. The erosion of social support networks may, in turn, increase psychological distress (Lepore et al., 1991; Yap & Devilly, 2004). The erosion of social support networks will also affect an individual's perception of social support (Procidano & Heller, 1983). Certainly domestic violence would be considered a long-term, chronic stressor for many women. Thus, under this model, a battered woman's social support network may slowly break down over time due to chronic stress. The resulting decreased perception of available support may increase psychological distress, which may further erode her support system.

Research on Perceived Social Support

Researchers have empirically studied the relationship between perceived social support and psychological health. Bell, LeRoy, and Stephenson (1982) examined the link between perceived social support and depression as part of a larger epidemiological study. A

probability sampling from the southeastern United States yielded a sample of 2029 adults (age sixteen and over). Bell et al. administered several quantitative surveys, including a depressive inventory constructed by the researchers, an inventory of stressful life events, and a measure of perceived social support constructed by the researchers. Extensive information on socioeconomic status was also collected.

Bell et al. (1982) found a direct, negative correlation between social support and symptoms of depression. They concluded that "the relationship between life events and depressive symptoms is mediated by the level of social support and that the relationship of social support and depressive symptoms is, in fact, changed by the differential impact of life events" (p. 333). These results support the social support model proposed by Lepore et al. (1991), as discussed earlier in this section. The main limitation in the study conducted by Bell et al. is that the researchers did not use any standardized measures of depression or social support. It is difficult to ascertain whether or not their self-constructed measures were valid and reliable. Without valid and reliable instruments that have been extensively

tested and shown to accurately measure depression and perceived social support, the results of the study must be interpreted with some caution.

Wethington and Kessler (1986) also examined the effects of perceived social support in a quantitative survey study. Their sample consisted of 1269 married individuals between the ages of 21 and 65. Participants were asked a series of questions on life events, perceived social support availability, received support, and psychological distress. They found that the perception of social support was significant in predicting psychological distress. Based on their results, Wethington and Kessler conclude that perceived social support is more important than actual support transactions. Their results were inconsistent with the claim that received support directly intervenes between perceived social support and distress. They suggest that received support may influence the perception of future support availability. Thus, the results of Wethington and Kessler also support the model proposed by Lepore et al. (1991). As with the study conducted by Bell et al. (1982), the research of Wethington and Kessler is limited

related Social Support and symptoms of depression was not weakened by life stressors. Gencoz and Ozale assert that there is a direct relationship between Appreciation-related Social Support and depressive symptoms. Aid-related social support, on the other hand, was connected to life stressors. According to Genoz and Ozale, higher levels of Aid-related Social Support decreased the levels of life stressors and, thus, decreased depressive symptoms. One major limitation of this study was that the sample was entirely comprised of University students at one university. This greatly limits the generalizability of the results.

Domestic Violence and Mental Health

Research indicates that domestic violence is linked to poor mental health outcomes in women. Researchers have looked at battered women in a variety of settings and have consistently found that domestic abuse is associated with depression, anxiety, and posttraumatic stress disorder (PTSD).

Posttraumatic Stress Disorder

Astin et al. (1993) conducted a quantitative survey research study on a sample of fifty-three women who had

access to domestic violence services, such as shelters and domestic violence counseling centers, in Los Angeles County. They used two measures of posttraumatic stress disorder (the Impact of Event Scale (IES) and the PTSD Symptom Checklist) and stipulated that participants had to meet criteria on both measures to be given a diagnosis of PTSD.

Astin et al. (1993) found that thirty-three percent of the battered women studied met criteria for PTSD. This is a slightly lower rate than other studies on battered women, in which prevalence rates of up to eighty-five percent have been found, but it is still significantly higher than the prevalence rate of eight percent in the general population (DSM IV TR, 2000). It should be noted that the study by Astin et al. is limited by its small sample size and the conservative method by which PTSD was diagnosed. However, the results, which indicate high prevalence rates of PTSD in battered women, are in agreement with other research on domestic violence and mental health.

Saunders (1994) used a combination of quantitative, surveys and diagnostic interviews on a sample of 192 women from a variety of sources. 144 of the women in

Saunders's sample were from eighteen domestic violence shelters located in five states in the United States. Twenty of the women in the shelter were recruited through the victim support program at the local prosecutor's office. Eighteen of the women were recruited through a newspaper advertisement, ten were partners of men in a special treatment program, seven were in group counseling, and two were in individual counseling. Saunders used several different measures of PTSD simultaneously, including the Diagnostic Interview Schedule for PTSD, the Impact of Event Scale, and the Posttraumatic Stress Scale for Family Violence. Saunders found that approximately sixty percent of the women studied met the diagnostic criteria for PTSD, regardless of the setting in which they were being studied. This study had several limitations, however. Saunders relied completely on self-report measures, which tend to underestimate the incidence of PTSD (Astin et al., 1993). Also, the sample was comprised only of women who were seeking help for domestic violence, which may limit the generalizability of the results.

Other researchers have found similar high prevalence rates of PTSD in battered women. Vitanza, Vogel, and

Marshall (1995) conducted an exploratory study on women recruited from the Dallas-Fort Worth area of Texas through newspaper ads, public service announcements, and flyers advertising a study on bad or stressful relationships. The women who responded were assessed for domestic violence using several different measures. They were then placed into one of three groups: the minor violence group, the moderate violence group, and the extreme violence group. PTSD symptoms were assessed using the Impact Events Scale and the Crime-related PTSD subscale of the SCL-90. Those in the extreme violence group had higher rates of PTSD than those in the minor or moderate violence groups. Additionally, the rate for all three groups combined was much higher than that of the general population. Overall, 55.9% of the women met criteria for a diagnosis of PTSD.

The results of Vitanza et al.'s study (1995) are particularly important because they indicate that high PTSD prevalence rates hold true even in battered women who are not seeking help. Important limitations in the study should be noted, however. First, Vitanza et al. do not indicate their sample size. This makes it difficult to gauge the validity of the results. Additionally, the

sample was composed of mostly white, middle class women, thus limiting the generalizability to those with different ethnic and socioeconomic backgrounds. Finally, as with much of the research in this area, Vitanza et al.'s study relied on self-report measures of PTSD.

Depression and Anxiety

Domestic violence has also been associated with depression. Hegarty, Gunn, Chondros, and Small (2004) studied 1257 women in general practice settings in Australia and found similar results. They randomly selected general practitioners from a database of practitioners who had previously volunteered for a women's health education program. They then invited any female patient to participate in the study if they were between the ages of fifteen and fifty and went to the general practitioners' for themselves. Hegarty et al. used a quantitative survey consisting of several standardized instruments, including the composite abuse scale, the Beck Depression Inventory, the Edinberg postnatal depression scale and the SF-36 (to assess physical health). They found that partner abuse was significantly associated with high depressive symptoms in women. While this study is limited by the reliance on

self-report measures, the results are important. The results of this study indicate that higher rates of depression are present even in battered women who are not in domestic violence shelters.

Other researchers have confirmed the correlation between negative mental health outcomes and domestic violence in non-shelter samples. Coker, Davis, et al. (2002) analyzed data from the National Violence Against Women Survey of 6790 women and 7122 men in the general population. This self-report survey used several measures to assess domestic violence, including the Conflict Tactics Scale, the four-item forced sex questions from the National Women's Study, and the Power and Control Scale. Mental health symptoms were assessed by using questions from the SF-36 Health Survey and the short form of the Beck Depression Inventory. Coker, Davis, et al. found that battered women were much more likely to report symptoms of depression than non-battered women. As with other studies, the results are limited by the reliance on self-report questionnaires.

Using samples obtained through random telephone surveys of 562 heterosexual couples in Canada, Grandin, Lupri and Brinkerhoff (1998) looked at the relationship

between couple violence and psychological distress. Both members of each couple were interviewed by trained interviewers and were also given self-report questionnaires. Psychological distress was measured by using the anxiety and depression scales of the Symptoms Check List-90-Rrevised. Physical and psychological abuse was measured with the Conflict Tactics Scale. Interviewers collected background information. The results indicate that psychological distress, in the form of depression and anxiety, is higher in abused women than non-abused women. Again, this study supports the idea that domestic violence is associated with poor mental health outcomes in non-shelter women. Because the sample in this study was large and randomly drawn, the results are more generalizable than those from many studies. However, as with other research in this area, the results are somewhat limited due to the reliance on self-report measures.

Ratner (1993) also used a random telephone survey of 406 women in Canada who married to or living with men or had been within the year prior to the survey. Domestic violence was assessed using the Conflict Tactics Scale. Mental health was assessed using the General Health

Questionnaire (GHQ), which has four subscales: somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. In addition, the CAGE questionnaire was used to screen for alcoholism. In this study, women who reported being physically abused scored significantly higher on each of the GHQ subscales. They reported more somatic complaints, higher anxiety, greater social dysfunction, and more symptoms of major depression. While they are limited by the reliance on self-report questionnaires, the results found by Ratner help confirm the correlation between domestic violence and negative mental health symptoms.

Anxiety, Depression, and Posttraumatic Stress Disorder

Many researchers have examined the relationship between domestic violence, depression, anxiety, and PTSD. Cascardi, O'Leary, Lawrence, and Schlee (1995) compared depressive symptoms in abused women seeking marital counseling (n=49), non-abused women seeking marital counseling (n=23), and maritally satisfied, non-abused women drawn from the community (n=25). To be included in the abused woman category, the women had to have experienced at least two acts of husband-to-wife physical

aggression in the year prior to the initial screening. Cascardi used a combination of clinical interviews and self-report scales. Their measures included the following: the Structured Clinical Interview Diagnostic for PTSD, major depression, generalized anxiety disorder, and panic disorder; the Modified Conflict Tactics Scale; the Locke-Walker Short Marital Adjustment Test; the Psychological Maltreatment of Women Scale; the Spouse Specific Fear Measure; and the Child Abuse Assessment.

Cascardi et al. (1995) found that nearly twice as many of the abused women in their sample met the diagnostic criteria for a major depressive episode. In addition, abused women in their sample were also had rates of PTSD that were significantly higher than the rates in the other, non-abused samples. Interestingly, in this study the abused women sample were less likely to meet criteria for generalized anxiety disorder or panic disorder than were the non-abused women seeking counseling for marital problems.

The results of this study are limited by several factors. First, the entire sample consisted of White females and most of the women in the study had at least some college experience. As noted previously, this may

limit the researchers' ability to generalize the results to those from different ethnic and socioeconomic backgrounds. In addition, the sample consisted of women who were married and seeking counseling to resolve problems in their marriage. As Cascardi et al. note, the dynamics involved differ significantly from women in battered women's shelters or from those seeking services specific to battered women. The results are important in spite of these limitations, however. They indicate that, even in women whose abuse is less severe than that of women in domestic violence shelters, the rates of major depression and PTSD among battered women are high.

Gleason (1993) also studied the relationship between domestic violence, major depression, PTSD, and generalized anxiety disorder. Gleason used a sample of sixty-two women who were receiving services from a bettered women's agency in Florida. This included women who were receiving services in a shelter and those who were receiving services at home. Structured interviews were conducted using the Diagnostic Interview Schedule. Gleason found that symptoms of depression, generalized anxiety disorder, and PTSD were all significantly higher (at the $p < .01$ level) in battered women than in the

comparison group of non-battered women. Though the sample used in the study was small and consisted entirely of women seeking services from a domestic violence agency, the results are still relevant. The use of structured, clinical interviews in this study is important because it eliminates the limitations created by using self-report measures. Additionally, the results obtained by using clinical interviews are very much in line with those obtained using self-report measures.

Cascardi, O'Leary and Schlee (1999) found similar results in their study of 92 married women who had participated in a larger study on effective group psychotherapeutic interventions for abused women. Domestic Abuse was assessed in a telephone screening by using the Conflict Tactics Scale. To be included in the study women had to have experienced at least two incidents of husband-to-wife physical abuse in the year prior to the screening. Clinical interviews were conducted using the Structured Clinical Interview Diagnostic for depression and PTSD. The following self-report measures were also used: the Beck Depression Inventory, the Modified Conflict Tactics Scale, the

Dyadic Adjustment Scale, the Psychological Maltreatment of Women Scale, and the Spouse Specific Fear Measure.

Cascardi et al. (1999) found that women in their sample had high rates of both major depressive disorder and PTSD. 29.8% of the sample met DSM criteria for PTSD. Thirty-two percent of the sample met criteria for major depressive disorder. Cascardi et al. also found that frequency of severe husband-to-wife abuse was a strong predictor of depression in their sample. The results of this study are somewhat limited by the sample used, which was predominantly white and middle class. This may limits the researchers' ability to generalize the results to other populations. However, the results help confirm the correlation between domestic violence and negative mental health outcomes in a variety of populations.

Social Support, Mental Health, and Domestic Violence

Several studies have examined the role of social support as a potential protective factor against negative mental health outcomes in battered women. Coker, Smith, et al. (2002) conducted a cross-sectional study of 1152 women aged 18 - 65 who were seeking general medical care

in two university-associated family practice clinics. Their research design combined quantitative and qualitative data. Several measures were used for the quantitative portion. Physical and sexual abuse was measured using a modified version of the Index of Spouse Abuse - Physical. Psychological abuse was measured using the Women's Experience with Battering Scale. Mental health was examined using the Drug Abuse Screening Test, the Spielberger State-Trait Personality Inventory for anxiety measurement, and the Center for Epidemiologic Studies Depression Scale. Qualitative questions were used to examine current perceptions of mental health. Perceived social support was measured using the Social Support Questionnaire - Short Form. Sources of social support were assessed using a variety of qualitative questions.

Coker, Smith et al. (2002) found that battered women who had higher levels of perceived social support from friends and family were far less likely to report symptoms of anxiety, depression, and PTSD. In particular, the perception of emotional support from family and friends was significantly associated with a reduced risk of negative mental health outcomes. Coker,

Smith et al. conclude that social support reduced the risks of negative mental health outcomes by almost half. Their results are consistent with the buffering model of perceived social support. Though Coker, Smith et al. use a large sample of women, their sample only consisted of African Americans (n=715) and Whites (n=437). This may limit the generalizability to women from other races and ethnicities. In addition, the results are somewhat limited because the sample was drawn from a single setting. In order to make the results more generalizable, researchers would need to study samples from a variety of settings simultaneously.

Carlson, McNutt, Choi and Rose (2002) used a cross-sectional survey design to study 557 women at two primary care centers. These centers served "urban, ethnically diverse populations in the northeastern United States" (p. 724). Physical violence was measured using the Physical Aggression scale of the Conflict Tactics Scale. Sexual abuse and emotional abuse were measured using several questions constructed by the researchers. Mental health symptoms were measured using the patient questionnaire portion of the Primary Care Evaluation of Mental Disorders, which assesses symptoms of anxiety,

depression, somatoform disorder, substance abuse, and eating disorders. Perceived social support was measured using a scale developed by other researchers that measures emotional support, appraisal support, informational support, and instrumental support.

Carlson et al. (2002) found that women with symptoms of depression and anxiety were significantly less likely to report high levels of perceived social support. They also found that higher levels of abuse were associated with lower levels of social support. In addition, higher levels of perceived social support were associated with less depression and anxiety. Surprisingly, women who reported the most severe abuse were less likely to benefit from social support. One limitation of this study is that their measure of social support only captured perceived support from the woman's partner and from the "next closest" person in the woman's life (Carlson et al., 2002). Measuring social support from a wider variety of sources may have yielded different results.

Thompson et al. (2000) conducted quantitative research using surveys and clinical interviews to measure the overall perceptions of social support. Their sample

consisted of 138 African American women who were part of a larger investigation of women in three medical walk-in clinics. Domestic violence was assessed using the Index of Spouse Abuse and social support was assessed using the Perceived Social Support scale. Psychological distress was assessed using the Brief Symptom Inventory and the National Women's Study PTSD Module.

Thompson et al. (2000) found that higher levels of domestic violence were significantly related to lower levels of perceived social support. High levels of perceived social support were significantly related to lower levels of depression, anxiety, PTSD, and other psychological outcomes. Thompson et al. assert that their research results support the buffering model of social support and the idea that social support can be broken down over time due to chronic stressors. Their results are limited by the reliance on a sample composed only of African American women in one setting. This may limit the study's generalizability to other races and ethnicities and women in other settings. However, their results are consistent with other research in this area.

Social support has also been examined as one among many potential protective factors. Astin et al. (1993)

in knowledge. We will build on existing research on domestic violence, social support, and mental health.

Summary

The literature on domestic violence reveals that domestic violence is consistently associated with negative mental health outcomes, including anxiety, depression, and PTSD. Research on perceived social support indicates that the perception of social support may help protect against these negative mental health outcomes. A few studies have examined social support in battered women and have indicated that perceived social support is protective factor. Guided by ecosystems theory and the buffering model of social support, we intend to build upon previous research examining battered women and social support as a protective factor against depression, generalized anxiety disorder, and PTSD.

CHAPTER THREE

METHODS

Introduction

In this section of the paper, an overview of the research methods utilized in the study of the relationship between perceived social support and mental health outcomes in battered women will be presented. Specifically, the following information will be discussed: study design, sampling methods, data collection instruments and procedures, protection of human subjects, and data analysis.

Study Design

The purpose of the current study is to investigate the relationship between perceived social support and mental health outcomes in battered women. Specifically, we explored the correlations between levels of perceived social support and symptoms of depression, PTSD, and generalized anxiety disorder. With this in mind, a cross-sectional, quantitative, exploratory survey design has been utilized. Our survey consisted of a battery of standardized instruments, which helped lend reliability

and validity to this study. In addition to completing several standardized instruments, participants were asked to respond to a few demographics questions. We used a convenience sample of battered women receiving services at a variety of domestic violence service agencies throughout San Bernardino and Riverside counties.

The current study has two main hypotheses. First, it is hypothesized that a negative correlation will exist between high levels of perceived social support and symptoms of depression, PTSD, and generalized anxiety disorder. Second, we expect that higher degrees of abuse will be positively correlated with negative mental health symptoms.

There are several limitations in our research design. One limitation is regarding the type of sample used. Due to the exclusive use of women receiving services at domestic violence agencies, the generalizability of our findings may be limited. While the results of the study will be an important addition to the body of knowledge on battered women, it will remain unknown whether they may be applied to battered women who do not seek services or to those who seek services in different settings. In addition, our study is limited by

the sampling method. It may be that the women who chose to complete the survey are fundamentally different, either in the degree of violence they have been exposed to or in the degree of symptomology, from those who decline to participate. Finally, the relatively small sample size will also limit generalizability of the results.

Sampling

A non-probability, convenience sample of one hundred twenty participants was used in this study. The sample included women who had been the victims of domestic violence, ages eighteen and older, who were currently clients of the Morongo Basin Unity Home (Appendix A), Coalition for Family Preservation (Appendix B), Victor Valley Domestic Violence, Inc. (Appendix C) and Alternatives to Domestic Violence (ADV) (Appendix D). We have defined a battered woman as one who has been physically, sexually, emotionally and/or psychologically abused by a person with whom she is in or has been in an intimate relationship (Walker 1993).

Data Collection and Instruments

Participants were asked to complete quantitative questionnaires, which consisted of six scales and a brief demographics section.

The Index of Spouse Abuse, Partner Abuse Scale: Physical

To measure the degree of physical violence experiences, the Index of Spouse Abuse, Partner Abuse Scale - Physical (ISA-P) was utilized (APPENDIX E). The ISA-P is a fifteen item self-report rating inventory measuring the severity of physical violence a woman has experienced at the hands of her partner. The ISA has been shown to be reliable and valid and has a specificity of 90.7 percent and a sensitivity of 92.2 percent (Ernst et al., 2000). The ISA has a Chronbach coefficient score of .95 (Coker et al., 2000).

The ISA-P asks respondents to rate violent acts experienced on a seven point Likert type scale. Respondent are asked questions such as "My partner pushes and shoves me around violently," "My partner hits, punches, or kicks my face and head," and "My partner has broken 1 or more of my bones" and respond by circling "All the time," "Most of the time," "A good part of the

time, "Some of the time," "A little of the time," "Very rarely," and "None of the time." Higher scores on the ISA-P indicate a higher degree of physical violence experienced.

The Beck Depression Inventory - II

To measure the dependent variable depression, the Beck Depression Inventory II (BDI-II) was utilized (APPENDIX F). The BDI-II is a 21-item self-report rating inventory measuring a range of depressive symptoms, including somatic complaints, guilt, indecisiveness, insomnia, and pessimism. The BDI is a widely used measure with well-established validity and reliability. Cascardi et al. (1995) note that the BDI has a test-retest reliability of .75 and a split-half reliability of .86.

The BDI-II asks participants to rate various symptoms on a scale from zero to four. Each numeric rating is tied to a specific statement. For example, under the question "sadness" respondents are asked to circle zero if they agree with the statement "I do not feel sad," one if they agree with the statement "I feel sad much of the time," two if they agree with the statement "I am sad all the time," or four if they agree

with the statement "I am so sad or unhappy that I can't stand it." Under the heading "agitation" respondents circle zero if they agree with the statement "I am no more restless or wound up than usual," one if they agree with "I feel more restless or wound up than usual," two if they agree with "I am so restless or agitated that it's hard to stay still," or four if they agree with "I am so restless or agitated that I have to keep moving or doing something." The numbers circled for each statement are added up and a higher total indicates higher levels of symptoms of depression.

The Posttraumatic Stress Disorder Check List - Civilian

To measure the dependent variable PTSD, the PTSD Check List - Civilian (PCL-C) was used (APPENDIX G). The PCL-C is a seventeen item self-report inventory of PTSD symptoms. The PCL has been shown to have excellent psychometric properties. Internal consistency in a variety of sample populations ranged from .94 to .97 and test-retest reliability over two to three days was .96. In addition, the PCL has been shown to be significantly correlated with other measures of PTSD (Orsillo, 2001).

The PCL-C asks respondents to rate how often they have been bothered by various symptoms in the past month. The symptom statement corresponds to the DSM criteria for PTSD. The original version of the PCL-C asked questions regarding a general traumatic event. We have modified the scale so that the questions are tied directly to domestic violence. We do not believe that this modification alters the validity or reliability of the instrument in any way. Participants are asked to rate statements such as "repeated, disturbing memories, thoughts or images of the abuse" and "avoiding thinking or talking about the abuses or avoiding having feelings related to it" on a five point Likert-type scale, ranging from zero for "not at all" to five for "extremely."

The Generalized Anxiety Disorder Questionnaire - IV

The Generalized Anxiety Disorder Questionnaire - IV (GADQ-IV) was used to measure the dependent variable generalized anxiety disorder (APPENDIX H). The GADQ-IV is a nine item self-report questionnaire designed to measure the presence, excessiveness, uncontrollability, and duration of worrisome thoughts. The GADQ-IV had demonstrated good internal consistency (.84) and a test-

retest reliability of .81. In addition, the GADQ-IV is strongly correlated with the clinician-administered Anxiety Disorder Interview Schedule (Roemer, 2001).

On the GADQ-IV, respondents are asked to check "yes" or "no" to questions such as "Do you experience excessive worry" and "During the last 6 months, have you been bothered by excessive worries more days than not." They are asked to list six things they worry about most often and to place a check mark next to applicable symptoms of anxiety, such as "irritability" and "muscle tension." Respondents are also asked to rate, on an eight point Likert-type scale, how much they are bothered by symptoms of excessive worry and how much those symptoms have interfered with their lives.

Perceived Social Support - Friends and Family

To measure the independent variable social support the Perceived Social Support Friends scale(PSS-Fr)(Appendix I) and Perceived Social Support Family scale(PSS-Fa)(Appendix J) were used. The PSS-fr and PSS-fa each consist of twenty statements relating to the degree of intimacy and support provided by friends and family. The PSS-Fa and the PSS-Fr have been shown to be reliable and valid measures. The alphas for the PSS-Fa

ranged from .88 to .91 and .84 to .90 for the PSS-Fr (Procidano & Heller, 1983)

Respondents are asked to circle "yes," "no," or "I don't know" for statements such as "My friends enjoy hearing about what I think" and "I rely on my family for emotional support." The PSS-Fa and PSS-Fr each have a range from 0 to 20, with higher scores indicating more perceived support.

Demographics

All participants were asked to complete six demographics questions at the end of the questionnaire (Appendix K). The questions included the participant's age, number of children, race, marital status, education level, and income group.

Procedures

Participants were recruited from four domestic violence agencies between January 2005 and March 2005. Due to agency restrictions and confidentiality rules at these agencies, questionnaires were dropped of at the main administrative offices. Administrators were made aware of the purpose of the study and how to administer the surveys, including how to obtain informed consent.

They were instructed to inform participants about the voluntary nature of the study and the confidentiality of their responses. Administrators then gave any woman who wished to participate in the study a questionnaire to complete. Upon completion of the questionnaire, the administrators gave each woman a $5 gift certificate to Wal-Mart, which was provided by the researchers. Completed questionnaires were picked up by the researchers from the main administrative offices of these agencies bi-weekly through the end of March.

Protection of Human Subjects

Confidentiality of the participants has been protected at all times. Participants were instructed to not put their names on the questionnaires and were identifiable only by subject numbers. In order to further ensure confidentiality, envelopes were provided in which participants placed and sealed their questionnaires. An explanation of confidentiality was included in the informed consent. The informed consent also explained that participation was completely voluntary and participants could refuse to participate or stop participation at any time. Participants were asked

to check a box at the bottom of the informed consent to indicate they understood the nature of the study and agreed to participate. Once picked up, completed packets were kept in a locked file cabinet in a locked house of one of the researchers. Data entered into the computer was identified by participant number only.

There are no foreseeable major immediate risks to participants. There may be some slight psychological risks stemming from asking participants to think about uncomfortable events. A list of resources for counseling was included in the debriefing form. Since all of the women in our sample were already receiving services from domestic violence agencies, participants were also encouraged to discuss any difficulties and symptoms with their current counselor or social worker.

Data Analysis

We have used quantitative data analysis procedures to examine the relationship between perceived social support and mental health outcomes. The total scores on the PSS-fr, PSS-fa, BDI-II, GADQ-IV, and PCL-C were used as interval measurements.

In order to summarize demographic variables, descriptive statistics, such as frequency distribution, measures of central tendency, and dispersion were employed. In order to examine the relationships between the variables, a bivariate statistical analysis was used. A separate Pearson's correlation coefficient was run on each of the dependent variables, as measured by scores on the BDI-II, the GADQ-IV, and the PCL-C, and the independent variable, as measured by the scores on the PSS-fr and PSS-fa. In addition, a correlation analysis was run on the dependent variable scores and the scores on the PSS-fr and PSS-fa separately. This helped us examine whether perceived social support from one source is more beneficial than perceived social support the other source.

Multivariate analysis procedures, including logistic regression, were used to help further examine the relationships between the variables. Finally, the demographic variables were added to the analysis in order to assess whether or not those variables influenced the results.

Summary

In this section of the paper, an overview of the research methods utilized in the study of the relationship between perceived social support and mental health outcomes in battered women was presented. The study design and sampling methods were outlined. Additionally, data collection procedures and instruments were described. The study's plan for the protections of human subjects was also described. Finally, an overview of data analysis procedures was given.

CHAPTER FOUR

RESULTS

Demographic Characteristics

Demographic information for this study is presented in Table 1. Over one third (37.5%) of our sample of battered women was between the ages of 29 and 39 and almost one third (30.0%) was between the ages of forty and forty-nine. Nearly 22% of the sample was between the ages of nineteen and twenty-nine and the remainder of the sample (10.8%) was fifty years old or older. The large majority of the sample (72.5%) had between one and three children. Approximately 9% of the sample had no children, while 18.4% had four or more children. Caucasians made up the majority of the sample at 37.5%. Hispanics/Latinos and African Americans were the next largest groups represented, at 33.3% and 20.8% respectively.

Almost half of the sample (47.5%) reported an income of $10,000 or less per year, while 22.5% reported an income of $15,000 - $20,000 per year. Most of the remaining sample reported income levels between $10,000 and $15,000 or between $20,000 and $40,000 per year.

Only 5% of the sample reported an income of more than $40,000 per year. One third of the sample (33.3%) reported being married. Approximately 43% of the sample reported being separated or divorced and 24.2% of the sample reported that they had never been married. Almost half (46.7%) of the sample reported that they completed some college, but only 5.0% reported having completed a Bachelor's degree or higher. One third of the sample (33.3%) reported high school as their highest level of education and 14.2% reported that they did not complete high school.

Table 1

Demographic Characteristics

Variable	Frequency n	Percentage (%)
Age		
19 - 29	26	21.7%
30 - 39	45	37.5%
40 - 49	36	30.0%

Table 1 (continued)

Demographic Characteristics

Variable	Frequency n	Percentage (%)
Age		
50+	13	10.8%
Number of Children		
0	11	9.2%
1-3	87	72.5%
4-5	17	14.2%
6+	5	4.2%
Race/Ethnicity		
African American	25	21.0%
Hispanic/Latino	40	33.6%
Caucasian	45	37.8%
Native American	1	0.8%
Asian American/ Pacific Islander	2	1.7%
Two or more races	3	2.5%
Other	2	1.7%

Table 1 (continued)

Demographic Characteristics

Variable	Frequency n	Percentage (%)
Race		
Declined to state	1	0.8%
Yearly Income		
$0 - $10,000	57	47.5%
$10,001 - $15,000	7	5.8%
$15,001 - $20,000	27	22.5%
$20,001 - $30,000	10	8.3%
$30,001 - $40,000	13	10.8%
$40,001 +	7	5.0%%
Marital Status		
Never Married	29	24.2%
Married	40	33.3%
Separated	27	22.5%
Divorced	24	20.0%

Table 1 (continued)

Demographic Characteristics

Variable	Frequency n	Percentage (%)
Education Level		
Less than high school	17	14.2%
Completed high school	40	33.3%
Some college	56	46.7%

Levels of Violence

Information obtained from the Index of Spousal Abuse: Partner Abuse Scale, Physical (ISA-P) is shown in Table 2. Frequency distributions were run on the ISA-P, and the results were directionally consistent. In response to questions regarding the most severe forms of physical abuse, such as "My partner beats me so hard I must seek medical help," "My partner beats me in the face so badly I'm ashamed to be seen in public," and "My partner has broken one or more of my bones," almost half

of the sample answered "not at all." A very small percentage of the sample answered "most of the time" or "all of the time" to statements regarding severe physical abuse. For example, in response to the statement "My partner has injured me with a weapon like a knife, gun, or other object" about half of the sample (50.8%) responded "none of the time," while only 1.7% responded "most of the time" and 3.3% responded "all of the time."

Responses to statements regarding less severe forms of physical abuse indicate that these forms of abuse were more common among our sample. For example, approximately one quarter of the sample (24.2%) responded "some of the time" to the statement "My partner pushes and shoves me around violently" and only 16.7% responded "none of the time."

The mean amount of time elapsed since the last domestic violence episode is 29.4 months. Nearly 22% of the sample indicated that the last violent episode experienced was one to two years ago. Approximately 20% of the sample indicated that the last domestic violence experience was between seven months and one year ago and 19.4% indicated that two to four years had passed since the last violence experience. For 11.7% of the sample,

less than one month had elapsed since the last violence experience, and for an additional 11.7% less than six months had passed. Approximately 15% of the sample reported that more than four years had passed since the last domestic violence experience.

Table 2

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner pushes and shoves me around violently.		
Some of the time	29	24.2%
A good part of the time	10	8.3%
Most of the time	9	7.5%
All the time	11	9.2%
None of the time	20	16.7%
Very rarely	22	18.3%
A little of the time	19	15.8%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner hits and punches my arms and body.		
None of the time	21	17.5%
Very rarely	26	21.7%
A little of the time	23	19.2%
Some of the time	21	17.5%
A good part of the time	11	9.2%
Most of the time	11	9.2%
All the time	7	5.8%
My partner threatens me with a weapon like a gun or knife.		
None of the time	52	43.3%
Very rarely	25	20.8%
A little of the time	16	13.3%
Some of the time	13	10.8%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner threatened me with a weapon like a gun or knife.		
A good part of the time	5	4.2%
Most of the time	7	5.8%
All the time	2	1.7%
My partner beats me so hard I must seek medical help.		
None of the time	58	48.3%
Very rarely	24	20.0%
A little of the time	16	13.3%
Some of the time	13	10.8%
A good part of the time	5	4.2%
Most of the time	3	2.5%
All the time	1	0.8%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner hits, punches, or kicks my face and head.		
None of the time	40	33.3%
Very rarely	13	10.8%
A little of the time	17	14.2%
Some of the time	15	12.5%
A good part of the time	16	13.3%
Most of the time	6	5.0%
All the time	13	10.8%
My partner beats me when he drinks.		
None of the time	40	33.3%
Very rarely	13	10.8%
A little of the time	26	21.7%
Some of the time	18	15.0%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner beats me when he drinks.		
A good part of the time	7	5.8%
Most of the time	9	7.5%
All the time	7	5.8%
My partner beats me in the face so badly I'm ashamed to be seen in public.		
None of the time	63	52.2%
Very rarely	19	15.8%
A little of the time	10	8.3%
Some of the time	8	6.7%
A good part of the time	9	7.5%
Most of the time	6	5.0%
All the time	5	4.2%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner tries to choke, strangle, or suffocate me.		
None of the time	34	28.6%
Very rarely	35	29.4%
A little of the time	14	11.8%
Some of the time	18	15.1%
A good part of the time	5	4.2%
Most of the time	7	5.9%
All the time	6	5.0%
My partner knocks me down and then kicks or stomps me.		
None of the time	40	33.9%
Very rarely	25	21.2%
A little of the time	21	17.8%
Some of the time	16	13.6%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner knocks me down and then kicks or stomps me.		
A good part of the time	6	5.1%
Most of the time	6	5.1%
All the time	4	3.4%
My partner throws dangerous objects at me.		
None of the time	45	38.1%
Very rarely	27	22.9%
A little of the time	11	9.3%
Some of the time	11	9.3%
A good part of the time	9	7.6%
Most of the time	11	9.3%
All the time	4	3.4%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner has injured me with a weapon like a knife, gun, or other object.		
None of the time	61	51.3%
Very rarely	17	14.3%
A little of the time	19	16.0%
Some of the time	9	7.6%
A good part of the time	7	5.9%
Most of the time	2	1.7%
All the time	4	3.4%
My partner has broken one or more of my bones.		
None of the time	68	57.6%
Very rarely	16	13.6%
A little of the time	14	11.9%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner has broken one or more of my bones.		
Some of the time	10	8.5%
A good part of the time	5	4.2%
Most of the time	4	3.4%
All the time	1	0.8%
My partner physically forces me to have sex.		
None of the time	41	34.7%
Very rarely	21	17.8%
A little of the time	16	13.6%
Some of the time	17	14.4%
A good part of the time	7	5.9%
Most of the time	5	4.2%
All the time	11	9.3%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner badly hurts me while we are having sex.		
None of the time	50	42.4%
Very rarely	17	14.4%
A little of the time	14	11.9%
Some of the time	17	14.4%
A good part of the time	9	7.6%
Most of the time	6	5.1%
All the time	5	4.2%
My partner injures my breasts or genitals.		
None of the time	57	47.9%
Very rarely	12	10.1%
A little of the time	21	17.6%
Some of the time	14	11.8%

Table 2 (continued)

Index of Spouse Abuse, Partner Abuse Scale: Physical

Variable	Frequency n	Percentage (%)
My partner injures my breasts or genitals.		
A good part of the time	7	5.9%
Most of the time	6	5.0%
All the time	2	1.7%
Time lapsed since last domestic violence incident.		
1 month or less	12	11.7%
2 - 6 months	12	11.7%
7 months - 1 year	21	20.4%
1 - 2 years	22	21.4%
2 - 4 years	20	19.4%
More than 4 years	16	15.5%

Mental Health Symptoms

Depression

Beck, Steer, and Brown (1996), in the Beck Depression Inventory-II manual, recommend the following cut-off scores for use with the BDI-II: 14-19 for mild depression, 20-28 for moderate depression, and 29+ for severe depression (as cited in Sprinkle et al., 2002). Using these cut-off scores, we found that one third of our sample (33.3%) met criteria for severe depression. An additional 27.5% met criteria for moderate depression and 13.3% met criteria for mild depression.

Information obtained from the BDI-II is shown in Table 3. Over two thirds (67.5%) of the sample reported having no suicidal thoughts. Participants tended to score lower on items related to pessimism, feelings of being punished, and worthlessness. Over one third of the sample (37.5%) indicated no discouragement about the future, and 35.5% indicated that they do not feel that they are being punished. Approximately 37% of the sample responded that they do not feel they are worthless. In contrast, participants tended to score higher on items

regarding feeling like a failure, indecisiveness, concentration difficulties, changes in sleeping patterns, and tiredness or fatigue.

Table 3

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Sadness		
I do not feel sad.	26	21.8%
I feel sad much of the time.	67	56.3%
I am sad all the time.	16	13.4%
I am so sad or unhappy that I can't stand it.	10	8.4%
Pessimism		
I am not discouraged about my future.	45	37.8%
I feel more discouraged about my future than I used to.	48	40.3%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Pessisimism		
I do not expect things to work out for me.	18	15.1%
I feel my future is hopeless and will only get worse.	8	6.7%
Past Failure		
I do not feel like a failure.	29	24.4%
I have failed more than I should have.	36	30.3%
As I look back, I see a lot of failures.	47	39.5%
I feel I am a total failure as a person.	7	5.9%
Loss of Pleasure		
I get as much pleasure as I ever did from the things I enjoy.	25	21.0%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Loss of Pleasure		
I don't enjoy things as much as I used to.	58	48.7%
I get very little pleasure from the things I used to enjoy.	21	17.6%
I can't get any pleasure from the things I used to enjoy.	15	12.6%
Guilty Feelings		
I don't feel particularly guilty.	31	26.3%
I feel guilty over many things I have done or should have done.	50	42.4%
I feel guilty most of the time.	24	20.3%
I feel guilty all of the time.	13	11.0%
Punishment Feelings		
I don't feel I am being punished.	42	35.9%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Punishment Feelings		
I feel I may be punished.	40	34.2%
I expect to be punished.	16	13.7%
I feel I am being punished.	19	16.2%
Self-Dislike		
I feel the same about myself as ever.	26	21.8%
I have lost confidence in myself.	37	31.1%
I am disappointed in myself.	43	36.1%
I dislike myself.	13	10.9%
Self-criticalness		
I don't criticize or blame myself more than usual.	24	20.2%
I am more critical of myself than I used to be.	46	38.7%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Self-criticalness		
I criticize myself for all of my faults.	31	26.1%
I blame myself for everything bad that happens.	18	15.1%
Suicidal thoughts or wishes		
I don't have any thoughts of killing myself.	81	68.1%
I have thoughts of killing myself but would not carry them out.	30	25.2%
I would like to kill myself.	4	3.4%
I would kill myself if I had the chance.	4	3.4%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Crying		
Crying		
I don't cry more than I used to.	34	28.8%
I cry more than I used to.	51	43.2%
I cry over every little thing.	10	8.5%
I feel like crying but I can't.	23	19.5%
Agitation		
I am not more restless or wound up than usual.	38	31.9%
I feel more restless or wound up than usual.	51	42.9%
I am so restless or agitated that it's hard to stay still.	19	16.0%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Agitation		
I am so restless or agitated that I have to keep moving or doing something.	11	9.2%
Loss of interest		
I have not lost interest in other people or activities.	35	29.4%
I am less interested in other people or things than before.	54	45.4%
I have lost most of my interest in other people or things.	14	11.8%
It's hard to get interested in anything.	16	13.4%
Indecisiveness		
I make decisions as well as ever.	35	29.4%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Indecisiveness		
I find it more difficult to make decisions than usual.	38	31.9%
I have much greater difficulty in making decisions than I used to.	30	25.2%
I have trouble making any decisions.	16	13.4%
Worthlessness		
I do not feel I am worthless.	45	38.1%%
I don't consider myself as worthwhile and useful as I used to.	36	30.5%
I feel more worthless as compared to other people.	27	22.9%
I feel utterly worthless.	10	8.5%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Loss of energy		
Loss of energy		
I have as much energy as ever.	18	15.1%
I have less energy than I used to have.	61	51.3%
I don't have enough energy to do very much.	29	24.4%
I don't have enough energy to do anything.	11	9.2%
Changes in sleeping patterns		
I have not experiences any changes in my sleeping patterns.	16	13.4%
I sleep somewhat more/less than usual.	60	50.4%
I sleep a lot more/less than usual.	27	22.7%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Changes in sleeping patterns		
I sleep most of the day or I wake up 1 - 2 hours early & can't get back to sleep.	16	13.4%
Irritability		
I am no more irritable than usual.	36	30.3%
I am more irritable than usual.	47	39.5%
I am much more irritable than usual.	25	20.8%
I am irritable all the time.	11	9.2%
Changes in appetite		
I have not experienced any changes in my appetite.	17	14.3%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Changes in appetite		
My appetite is somewhat less/ greater than usual.	61	51.3%
My appetite is much less/ greater than before.	22	18.5%
I have no appetite at all or I crave food all the time.	19	16.0%
Concentration difficulty		
I can concentrate as well as ever.	25	21.0%
I can't concentrate as well as ever.	42	35.3%
It's hard to keep my mind on anything for very long.	40	33.6%
I find I can't concentrate on anything.	12	10.1%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Tiredness or fatigue		
I am no more tired/fatigued than usual.	22	18.5%
I get tired/fatigued more easily than usual.	51	42.9%
I am too tired/fatigued to do a lot of the things I used to.	33	27.7%
I am too tired/fatigued to do most of the things I used to.	13	10.9%
Loss of interest in sex		
I have not noticed any recent changes in my interest in sex.	19	16.0%
I am less interested in sex than I used to be.	44	37.0%
I am much less interested in sex now.	28	23.5%

Table 3 (continued)

Beck Depression Inventory - II

Variable	Frequency n	Percentage (%)
Loss of interest in sex		
I have lost interest in sex completely.	28	23.5%

Posttraumatic Stress Disorder

Information obtained on symptoms of posttraumatic stress disorder is shown in Table 4. Almost two thirds of our sample (60.8%) scored above the cut-off score of 44 for PTSD outlined by Orsillo (2001). Participants scored the highest in response to the statement "being 'superalert' or watchful or on guard," with 45.8% answering "quite a bit" or "extremely." Over one third (40.0%) of participants indicated that they felt "quite a bit" or "extremely" cut off from other people. Over one third of participants also answered "quite a bit" or

"extremely" to statements regarding feeling very upset when reminded of the abuse, avoiding thinking/talking/having feelings about the abuse, loss of interest in activities, trouble falling/staying asleep, concentration difficulties, and feeling jump or easily startled.

In contrast, the majority of participants responded "a little bit" or "not at all" to statements about acting or feeling as if the abuse were happening again. The majority of participants also indicated "a little bit" or "not at all" to statements regarding avoiding certain activities or people that remind them of the abuse and to statements regarding having trouble remembering parts of the abuse.

Table 4

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Repeated, disturbing memories, thoughts, or images of the abuse.		
Not at all	8	6.7%
A little bit	24	20.2%
Moderately	55	46.2%
Quite a bit	26	21.8%
Extremely	6	5.0%
Repeated, disturbing dreams of the abuse.		
Not at all	26	21.8%
A little bit	22	18.5%
Moderately	45	37.8%
Quite a bit	19	16.0%

Table 4 (continued)

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Repeated, disturbing dreams of the abuse.		
Extremely	7	5.9%
Suddenly acting or feeling as if the abuse were happening again (as if you were reliving it).		
Not at all	32	27.1%
A little bit	22	18.6%
Moderately	33	28.0%
Quite a bit	25	21.2%
Extremely	6	5.1%
Feeling very upset when something reminded you of the abuse.		
Not at all	4	3.4%
A little bit	33	27.7%
Moderately	35	29.4%
Quite a bit	36	30.3%

Table 4 (continued)

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Feeling very upset when something reminded you of the abuse.		
Extremely	11	9.2%
Having physical reactions (heart pounding, trouble breathing, sweating) when something reminded you of the abuse.		
Not at all	17	14.3%
A little bit	33	27.7%
Moderately	41	34.5%
Quite a bit	22	18.5%
Extremely	6	5.0%
Avoiding thinking or talking about the abuse or avoiding having feelings related to it.		
Not at all	22	18.5%
A little bit	21	17.6%

Table 4 (continued)

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Avoiding thinking or talking about the abuse or avoiding having feelings related to it.		
Moderately	36	30.3%
Quite a bit	34	28.6%
Extremely	6	5.0%
Avoiding situations or activities because they reminded you of the abuse.		
Not at all	18	15.1%
A little bit	26	21.8%
Moderately	29	28.6%
Quite a bit	14	29.4%
Extremely	9	5.0%

Table 4 (continued)

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Trouble remembering important parts of the abuse.		
Not at all	39	33.3%
A little bit	26	22.2%
Moderately	29	24.8%
Quite a bit	14	12.0%
Extremely	9	7.7%
Loss of interest in activities you used to enjoy.		
Not at all	15	12.8%
A little bit	28	23.9%
Moderately	28	23.9%
Quite a bit	27	23.1%
Extremely	19	16.2%
Feeling distant or cut off from other people.		
Not at all	18	15.1%

Table 4 (continued)

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Feeling distant or cut off from other people.		
A little bit	22	18.5%
Moderately	31	26.1%
Quite a bit	25	21.0%
Extremely	23	19.3%
Feeling emotionally numb or being unable to have loving feelings for those close to you.		
Not at all	37	31.4%
A little bit	25	21.2%
Moderately	25	21.2%
Quite a bit	19	16.1%
Extremely	12	10.2%

Table 4 (continued)

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Feeling as if your future will somehow be cut short.		
Not at all	34	29.1%
A little bit	19	16.2%
Moderately	28	23.9%
Quite a bit	24	20.5%
Extremely	12	10.3%
Trouble falling or staying asleep.		
Not at all	18	15.3%
A little bit	30	25.4%
Moderately	25	21.2%
Quite a bit	27	22.9%
Extremely	18	15.3%
Feeling irritable or having angry outbursts.		
Not at all	16	13.7%

Table 4 (continued)

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Feeling irritable or having angry outbursts.		
A little bit	31	26.5%
Moderately	35	29.9%
Quite a bit	24	20.5%
Extremely	11	9.4%
Having difficulty concentrating.		
Not at all	19	16.0%
A little bit	28	23.5%
Moderately	32	26.9%
Quite a bit	28	23.5%
Extremely	12	10.1%
Being "superalert" or watchful or on guard.		
Not at all	8	6.7%
A little bit	26	21.8%
Moderately	30	25.2%

Table 4 (continued)

Posttraumatic Stress Disorder Check List - Civilian

Variable	Frequency n	Percentage (%)
Being "superalert" or watchful or on guard.		
Quite a bit	34	28.6%
Extremely	21	17.6%
Feeling jumpy or easily startled.		
Not at all	16	13.4%
A little bit	27	22.7%
Moderately	34	28.6%
Quite a bit	30	25.2%
Extremely	12	10.1%

Anxiety

Results from the GADQ-IV could not be used due to measurement error. After inconsistent results were noticed on the GADQ-IV, a Chronbach's alpha reliability analysis was run on the measure. According to this

reliability analysis, the GADQ-IV has poor internal consistency (Chronbach's alpha= .555). As a result, generalized anxiety disorder was thrown out as a variable in this study.

Social Support

Data obtained on perceived social support is shown in Table 5 and Table 6. Higher scores on the PSS-fr and PSS-fa indicate higher levels of perceived social support from friends (fr) and family (fa). Almost one half (41.9%) of the sample scored between zero and five on the PSS-fa. Approximately one quarter of the sample (25.6%) scored between sixteen and twenty on the PSS-fa, while 18.8% scored between eleven and fifteen and 13.7% scored between six and ten. In contrast, the scores on the PSS-fr were much more spread out, with each category containing between twenty and thirty percent of the total sample.

Table 5

Perceived Social Support - Friends Scale

Variable	Frequency n	Percentage (%)
My friends give me the moral support I need.		
Yes	71	60.2%
No	35	29.7%
Don't Know	12	10.2%
Most other people are closer to their friends than I am.		
Yes	39	33.3%
No	50	42.7%
Don't Know	28	23.9%
My friends enjoy hearing what I think.		
Yes	46	39.0%
No	34	28.8%
Don't Know	38	32.2%

Table 5 (continued)

Perceived Social Support - Friends Scale

Variable	Frequency n	Percentage (%)
I rely on my friends for emotional support.		
Yes	63	53.0%
No	47	40.2%
Don't Know	7	6.0%
If I felt that one or more of my friends were upset with me, I'd just keep it to myself.		
Yes	30	25.6%
No	65	55.6%
Don't Know	22	18.8%
I feel that I am on the fringe in my circle of friends.		
Yes	36	31.0%
No	53	45.7%
Don't Know	27	23.3%

Table 5 (continued)

Perceived Social Support - Friends Scale

Variable	Frequency n	Percentage (%)
There is a friend I could go to if I were feeling down, without feeling funny about it later.		
Yes	77	65.3%
No	53	28.0%
Don't Know	8	6.8%
My friends and I are very open about what we think about things.		
Yes	66	56.4%
No	39	33.3%
Don't Know	12	10.3%
My friends are sensitive to my personal needs.		
Yes	68	57.6%
No	37	31.4%

Table 5 (continued)

Perceived Social Support - Friends Scale

Variable	Frequency n	Percentage (%)
My friends are sensitive to my personal needs.		
Don't Know	13	11.0
My friends come to me for emotional support.		
Yes	76	64.4%
No	37	31.4%
Don't Know	5	4.2%
My friends are good at helping me solve problems.		
Yes	67	56.8%
No	38	32.2%
Don't Know	13	11.0%
I have a deep caring relationship with a number of of my friends.		
Yes	56	47.9%

Table 5 (continued)

Perceived Social Support - Friends Scale

Variable	Frequency n	Percentage (%)
I have a deep caring relationship with a number of my friends.		
No	54	46.2%
Don't Know	7	6.0%
My friends get good ideas about how to do things or make things from me.		
Yes	61	51.7%
No	38	32.2%
Don't Know	19	16.1%
When I confide in friends, it makes me uncomfortable.		
Yes	33	28.0%
No	76	64.4%
Don't Know	9	7.6%

Table 5 (continued)

Perceived Social Support - Friends Scale

Variable	Frequency n	Percentage (%)
My friends seek me out for companionship.		
Yes	60	51.3%
No	43	36.8%
Don't Know	14	12.0%
I think that my friends feel that I'm good at helping them solve problems.		
Yes	62	53.0%
No	30	25.6%
Don't Know	25	21.4%
I don't have a relationship with a friend that is as intimate as other people's relationships with friends.		
Yes	32	27.6%
No	55	47.4%

Table 5 (continued)

Perceived Social Support - Friends Scale

Variable	Frequency n	Percentage (%)
I don't have a relationship with a friend that is as intimate as other people's relationships with friends.		
Don't Know	29	25.0%
I've recently gotten a good idea about how to do something from a friend.		
Yes	62	52.5%
No	47	39.8%
Don't Know	9	7.6%
I wish my friends were much different.		
Yes	26	22.0%
No	80	67.8%
Don't Know	12	10.2%

Table 5 (continued)

Perceived Social Support - Friends Scale

Variable	Frequency n	Percentage (%)
Total PSS-fr score		
0-5	27	23.9%
6-10	23	20.4%
11-15	33	29.2%
16-20	30	6.5%

Table 6

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
My family gives me the moral support I need.		
Yes	60	51.3%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
My family gives me the moral support I need.		
No	51	43.6%
Don't Know	6	5.1%
I get good ideas about how to do things from my family.		
Yes	53	45.3%
No	59	50.4%
Don't Know	5	4.3%
Most other people are closer to their family than I am.		
Yes	55	47.0%
No	48	41.0%
Don't Know	14	12.0%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
When I confide in the members of my family who are closest to me, I get the feeling it makes them uncomfortable.		
Yes	49	41.9%
No	51	43.6%
Don't Know	17	14.5%
My family enjoys hearing about what I think.		
Yes	52	44.4%
No	50	42.7%
Don't Know	15	12.8%
Members of my family share many of my interests.		
Yes	49	41.9%
No	57	48.7%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
Members of my family share many of my interests.		
Don't Know	11	9.4%
Certain members of my family come to me when they have problems or need advice.		
Yes	59	50.3%
No	53	45.3%
Don't Know	5	4.3%
I rely on my family for emotional support		
Yes	55	47.0%
No	59	50.4%
Don't Know	3	2.6%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
There is a member of my family I could go to if I were just feeling down, without feeling funny about it later.		
Yes	55	47.0%
No	55	47.0%
Don't Know	7	6.0%
My family and I are very open about what we think about.		
Yes	55	47.0%
No	56	47.9%
Don't Know	6	5.1%
My family is sensitive to my personal needs.		
Yes	51	43.6%
No	55	47.0%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
My family is sensitive to my personal needs.		
Don't Know	11	9.4%
Members of my family come to me for emotional support.		
Yes	53	45.3%
No	59	50.4%
Don't Know	5	4.3%
Members of my family are good at helping me solve problems.		
Yes	56	47.9%
No.	53	45.3%
Don't Know	8	6.8%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
I have a deep caring relationship with a number of members of my family.		
Yes	52	44.4%
No	54	46.2%
Don't Know	11	9.4%
Members of my family get good ideas about how to do things or make things from me.		
Yes	52	44.4%
No	53	45.3%
Don't Know	12	10.3%
When I confide in members of my family, it makes me uncomfortable.		
Yes	54	46.2%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
When I confide in members of my family, it makes me uncomfortable.		
No	58	49.6%
Don't Know	5	4.3%
Members of my family seek me out for companionship.		
Yes	52	44.4%
No	59	50.4%
Don't Know	6	5.1%
I think that my family feels that I'm good at helping them solve problems.		
Yes	51	43.6%
No	49	41.9%
Don't Know	17	15.9%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
I don't have a relationship with a member of my family that is as close as other people's relationships with family members.		
Yes	33	28.2%
No	60	51.3%
Don't Know	24	20.5%
I wish my family were much different.		
Yes	49	41.9%
No	54	46.2%
Don't Know	14	12.0%

Table 6 (continued)

Perceived Social Support - Family Scale

Variable	Frequency n	Percentage (%)
Total PSS-fa score		
0-5	49	41.9%
6-10	16	13.7%
11-15	22	18.8%
16-20	30	25.6%

Relationships Between the Variables

Levels of Violence

A Pearson's Correlation coefficient was run to test the relationship between the independent variable level of violence, as indicated by the total score on the ISA-P, and the dependent variable posttraumatic stress disorder, as indicated by the total score on the BDI-II. A strong, positive correlation, significant at the .01 level, was found between the total score on the ISA-P and

the total score on the BDI-II (r= .421, p= .004). Results indicate that, in our sample, higher levels of physical violence are strongly related to higher levels of depression.

A Pearson's Correlation coefficient was also run to test the relationship between the total score on the ISA-P and posttraumatic stress disorder, as indicated by the total score on the PCL-C. A statistically significant, at the .001 level, positive relationship was found between the total ISA score and the total PCL-C score (r= .373, p= .000). In our sample, higher levels of physical violence are related to higher levels of PTSD symptomology.

A Pearson's Correlation coefficient was run to test the relationship between the number of months since the last domestic violence episode and the total BDI-II score. No statistically significant correlation was found. A Pearson's Correlation coefficient was run to test the relationship between the number of months since the last domestic violence episode and the total PCL-C score. A statistically significant, at the .05 level, negative correlation was found (r= -.231, p= .022). It was found that, in our sample of battered women, the more

time that had elapsed since the last domestic violence episode the fewer symptoms of PTSD were present.

Social Support

To test the relationship between perceived social support from friends and depression levels, a Pearson's Correlation coefficient was run on the PSS-fr total score and the BDI-II total score. No statistically significant relationship was found. A Pearson's Correlation coefficient was also run to test the relationship between perceived social support from family, as indicated by the PSS-fa total score, and levels of depression. A statistically significant, at the .01 level, negative correlation was found ($r = -.246$, $p = .009$). In our sample, higher levels of perceived social support from family members were related to lower levels of depression symptomology.

A Pearson's Correlation coefficient was also run to test the relationship between perceived social support from friends and PTSD symptoms, as indicated by the total score on the PCL-C. A statistically significant, at the .001 level, strong inverse relationship was found ($r = -.321$, $p = .001$). In our sample, higher levels of perceived social support from friends were negatively

correlated with PTSD symptomology. A Pearson's Correlation coefficient was also run to test the relationship between perceived social support from family and PTSD symptomology. A statistically significant, at the .05 level, inverse relationship was found (r= -.249, p= .017). Higher levels of perceived social support from family members were related to lower levels of PTSD symptomology.

To test the relationship between the levels of physical violence experienced and perceived social support from friends, a Pearson's Correlation coefficient was run on the total scores from the ISA-P and the PSS-fr. No statistically significant relationship was found. A Pearson's Correlation coefficient was also run to test the relationship between the level of violence experienced and perceived social support from family. A statistically significant, at the .01 level, inverse relationship was found (r= -.249, p= .008). In our sample, higher levels of physical violence experienced were related to lower levels of perceived social support from family members.

Multivariate Analysis

A multiple regression analysis was conducted to examine which factors related most to depression. The independent variables included total PSS-fa score, yearly income, highest level of education, number of months since last domestic violence episode, number of children and age. The variables that significantly predicted levels of depression were income and perceived social support from family ($R = .44$, $R^2 = .197$, $p = .002$). A summary of the regression coefficients is presented in Table 7. Participants with higher income levels and higher levels of perceived social support from family were likely to have lower levels of depression.

Table 7

Results of Multiple Regression Analysis of Depression with Seven Independent Variables

Independent Variable	*B*	β	*p*	Bivariate *r*	Partial *r*	Part *r*
Age	.00	.00	.99	-.02	.00	.00
# of children	-1.03	-.12	.23	-.12	-.13	-.11
Yearly income	2.07	.29	.006	.23	.28	.26
Highest level of education	-.65	-.08	.39	.10	-.09	-.08
# of months since last domestic violence episode	-.06	-.18	.07	-.16	-.19	-.17
Total PSS-fa score	.49	.29	.004	.28	.30	.28

A multiple regression analysis was also conducted to examine what factors related most to PTSD. The independent variables included total PSS-fa score, yearly income, highest level of education, number of months

since last domestic violence episode, number of children and age. The variables that significantly predicted PTSD symptomology were perceived social support from family and the number of months since the last domestic violence episode ($R= .408$, $R^2= .116$, $p= .01$). A summary of the regression coefficient analysis are presented in Table 8. As with depression, individuals with higher levels of social support from family were likely to have lower levels of PTSD symptomology. In addition, individuals for whom more time had elapsed since the last domestic violence were less likely to have high PTSD symptomology.

Table 8

Results of Multiple Regression Analysis of Posttraumatic Stress Disorder with Seven Independent Variables

Independent Variable	*B*	β	*p*	Bivariate *r*	Partial *r*	Part *r*
Age	.11	.08	.43	.03	.08	.08
# of children	-.26	-.03	.77	-.05	-.03	-.03
Yearly income	1.06	.15	.16	.12	.15	.14

Table 8 (continued)

Results of Multiple Regression Analysis of Posttraumatic Stress Disorder with Seven Independent Variables

Independent Variable	*B*	β	*p*	Bivariate *r*	Partial *r*	Part *r*
Highest level of education	-.99	-.13	.19	-.14	-.14	-.13
# of months since last domestic violence episode	-.09	-.24	.02	-.16	-.19	-.17
Total PSS-fa score	.47	.28	.005	.26	.29	.27

CHAPTER FIVE

DISCUSSION

The current study sought to test the relationships between several variables in a sample of battered women. First, the relationship between physical abuse and mental health outcomes was examined. Second, the relationship between perceived social support and mental health outcomes was examined. Third, the relationship between degree of violence experienced and perceived social support was examined. Significant correlations were found in all three areas. Finally, multiple regression analyses were conducted to see how several independent variables predicted mental health outcomes. Our findings, which are consistent with the findings of previous studies, indicate that social support, particularly from family members, plays an important role in the mental health of battered women. Agencies that work with battered women should take note of this and include social support in both the assessment and intervention processes.

Findings

Sample Characteristics

Our sample of 120 women came from five domestic violence agencies located throughout Riverside and San Bernardino counties. Due to time constraints and other limitations, we used a convenience sample and, therefore, our sample can not be considered representative of the general population of battered women. This sampling method, and the resulting non-representative sample, limits the generalizability of our findings.

The average age of the women in our sample was thirty-seven, with over one third of the participants falling between the ages of thirty and thirty-nine. Other age groups were fairly adequately represented in our sample. Over twenty percent of the sample was between the ages of nineteen and twenty-nine and almost one third was between the ages of forty and forty-nine. Women over fifty were not well represented, however, making up only slightly over ten percent of the sample.

The ethnic makeup of our sample is relatively diverse. Caucasians accounted for one third of the sample, Hispanics for an additional one third, and African Americans for slightly over twenty percent.

Native Americans and Asian American/Pacific Islanders, however, were not well represented, making up less than three percent of the sample. The income levels of our sample also varied from that of the general population. Almost half of our sample was below the poverty line, claiming an income of less than $10,000 per year. Over three quarters of our sample claimed an income of less than $20,000 per year. This is considerably lower than the median income levels in both Riverside and San Bernardino counties, which are over $40,000 per year (U.S. Census Bureau, 2005).

Our sample was fairly evenly divided among the marital status groups, with almost twenty-five percent stating that they were never married, one third stating they were married, over twenty-two percent stating they were currently separated, and twenty percent stating that they were divorced. The education levels of our participants differed from those of the general population. Less than half of our sample completed high school or less and almost one half stated that they had completed some college. Very few of our participants were college graduates.

Key Findings

Both of our main hypotheses were at least partially supported by our research. Consistent with our first hypothesis, we found that women in our study who had experienced higher levels of physical abuse were significantly more likely to show greater symptoms of both depression and posttraumatic stress disorder. This finding is consistent with previous research that links higher levels of violence to higher levels of PTSD (Vitanza, Vogel, & Marshall, 1995). In addition, the amount of time that had passed since the last domestic violence episode was significantly related to the levels of PTSD symptomology. Women for whom a greater period of time had elapsed since the last domestic violence episode exhibited significantly fewer symptoms of posttraumatic stress disorder. We were unable to locate similar findings or research on this relationship in the literature.

Our second hypothesis, that levels of perceived social support would be inversely related to negative mental health outcomes, was also supported by our research. Interestingly, we found that perceived social support from friends did not make a significant

difference in depression scores. Perceived social support from family, on the other hand, was strongly inversely related to depression scores. Both perceived social support from friends and perceived social support from family members were inversely related to depression and PTSD scores.

Multivariate regression analyses indicated that perceived social support from family was consistently significant in relation to both depression and posttraumatic stress disorder. Perceived social support from family was a more significant predictor of depression than age, number of children, education level, and the number of months since the last domestic violence episode. Income level was also found to be a significant predictor of depression in this sample. Perceived social support from family and the number of months since the last domestic violence episode were found to be the greatest predictors of posttraumatic stress disorder in our sample.

It is unclear why the levels of social support from family members had an impact on depression levels while perceived social support from friends did not. It could be that relationships with family members are deeper and

more intertwined than relationships with friends. We may expect deeper support and assistance from family members in times of need than we do from friends, and a lack of that support might be felt more significantly when we experience a negative stressful event such as domestic violence. Likewise, an abundance of support from family may make more of a difference because the type of support we get from family members is deeper and more substantial than the support we get from friends.

Women who reported having experienced higher levels of physical violence were far more likely to report lower levels of perceived social support from family members. As with depression levels, no such relationship was found between levels of violence and social support from friends.

Consistent with the suggestions of Lepore, Evans, and Schneider (1991), perceived social support from family members may both affect and be affected by domestic violence. Women who do not have close relationships with family members may be more susceptible to getting involved in violent relationships. This may be particularly true if the woman is estranged from family members due to a family history of abuse and

dysfunction. In addition, women who are involved in chronically abusive relationships may slowly burn out their familial social support networks. This burn-out could be a result of an ongoing strain on the support network. Additionally, the familial support network may get frustrated by repeated failed attempts to help a woman who stays in an abusive relationship. Finally, the forced isolation that is common in abusive relationships may help break down familial social support networks.

Our findings are consistent with previous literature on social support and mental health outcomes. Researchers have consistently found a link between perceived social support and mental health outcomes in the general population (Bell, LeRoy, & Stephenson, 1982; Gencoz & Ozale, 2004; Wethington & Kessler, 1986). As found in our research, higher levels of perceived social support have repeatedly been linked to lower levels of PTSD and depression. Fewer studies have been conducted on social support and battered women. However, the studies that have been done support our results (Astin et al., 1993; Carlson, McNutt, Choi, & Rose, 2002; Coker, Smith, et al., 2002; Kemp, Green, Hovanitz, & Rawlings, 1995; Levendosky & Graham-Bermann, 2001). Interestingly,

in contrast to our findings, none of the literature we reviewed reported a difference in the impact of perceived social support from friends versus perceived social support from family.

Previous research also supports our results regarding the relationship between the level of violence experienced and perceived social support. Carlson, McNutt, Choi, and Rose (2002) found that higher levels of abuse were associated with lower levels of perceived social support. Thompson et al. (2000) also found that higher levels of abuse were significantly related to lower levels of perceived social support.

Limitations of the Study

While the current findings are significant and are supported by previous research, this study contains several key limitations. The main limitation has to do with sampling. The convenience sample came from a limited number of domestic violence agencies in two counties. Any woman who wished to participate was able to do so, and there may be fundamental differences between women who chose to participate and those who did not. Likewise, the entire sample was receiving domestic

violence services and women who seek out such services may be different from those who do not. Due to these factors combined with a relatively small sample size, the sample can not be said to be representative of the general population of battered women, which limits the generalizability of the study.

Another limitation of the study has to do with data collection. Due to agency regulations and concerns over anonymity, the researchers did not have adequate control over data collection. Once the surveys were dropped off at the administrative offices of the domestic violence agencies, it was up to agency administrators to facilitate the proper administration of the surveys. Though steps were taken to minimize this problem, the integrity of the data might be compromised.

A final limitation of the study has to do with measurement error. Though the standardized instruments were carefully selected for validity and reliability, once all of the data was collected it was found that one instrument could not be used. The GADQ-IV had to be thrown out due to poor internal consistency. Unlike with the rest of the instruments used, the GADQ-IV required the participants to fill in answers (ex: regarding the

topics they worry about). A review of the data revealed that many participants did not fill in these questions and only answered the questions that required circling or checking an answer. The GADQ-IV uses the fill-in answers to determine the total score. Thus, even if a woman scored high on the rest of the scale, if she did not fill in the blanks her total score was low. Due to this lack of internal consistency, results from the GADQ-IV could not be used and anxiety had to be removed as a variable.

Recommendations for Social Work

Policy and Practice

If, as is suggested by the results of the current study, social support is an important factor in the mental health of battered women then it is important for agencies that work with battered women to assess for social support. Determining a battered woman's perception of her social support, particularly from family members, should be a key part of the assessment process and should be included as part of the policies and procedures.

Interventions should also include social support. Such interventions may include building social support networks through support groups, family therapy, etc. This work may also focus on improving relationships with family members and others. Strengthening social support networks may raise the perception of social support, which may help lessen symptoms of depression and PTSD. Interventions could also focus on individual work with a battered woman to help clarify her perception in relation to social support. It may be that the woman has access to support networks but, due to depression or other cognitive distortions, is unable to perceive this available support. If social workers address the problems of battered women from many different angles, by addressing mental health issues as well as actual and perceived support, they are more likely to effectively help these women.

Since depression and posttraumatic stress disorder have been so closely linked to domestic violence, it is also important for non domestic violence specific agencies, such as mental health clinics, to effectively screen for domestic violence. Assessment of perceived social support should also be part of the intake process.

Once a woman is identified as a battered woman, services and treatment options can focus more clearly on her needs.

Future Research

Future research should focus on eliminating the limitations contained within this study and previous studies. This includes obtaining larger samples of battered women for a wider range of agencies and geographical areas. In addition, comparing groups of battered women to groups of non-battered women would help make the results more meaningful. Researchers should also focus on reducing the issues of measurement error seen in this study so that other disorders, such as anxiety disorders, can be examined. If possible, researchers should ensure better control over the data collection, thus improving the integrity of the data.

Conclusion

In the current study the relationships between several variables were tested in a sample of battered women. First, the relationship between physical abuse and mental health outcomes was examined. Second, the relationship between perceived social support and mental

health outcomes was examined. Third, the relationship between degree of violence experienced and perceived social support was examined. Significant correlations were found in all three areas. Finally, multiple regression analyses were conducted to see how several independent variables predicted mental health outcomes. Our findings, which are consistent with the findings of previous studies, indicate that social support, particularly from family members, plays an important role in the mental health of battered women. Agencies that work with battered women should take note of this and include social support in both the assessment and intervention processes.

APPENDIX A

APPROVAL LETTER: MORONGO BASIN UNITY HOME

Date _____

Re: Letter of Approval for Research Study

This letter is to verify that Morongo Basin Unity Home has given Kelley Ferris and Alicia Hunter approval to conduct a study on perceived social support as a protective factor in the mental health outcomes of battered women. Clients will be given a questionnaire with a multitude of questions regarding the client's present emotional, social, and mental status. We understand that subjects have the voluntary right to accept or reject involvement in the study and that all subjects will be provided informed consent and debriefing statements.

Thank you,

APPENDIX B

APPROVAL LETTER: COALITION FOR FAMILY PRESERVATION

Date _____

Re: Letter of Approval for Research Study

This letter is to verify that Coalition for Family Preservation has given Kelley Ferris and Alicia Hunter approval to conduct a study on perceived social support as a protective factor in the mental health outcomes of battered women. Clients will be given a questionnaire with a multitude of questions regarding the client's present emotional, social, and mental status. We understand that subjects have the voluntary right to accept or reject involvement in the study and that all subjects will be provided informed consent and debriefing statements.

Thank you,

APPENDIX C

APPROVAL LETTER: VICTOR VALLEY DOMESTIC VIOLENCE, INC.

Date _____

Re: Letter of Approval for Research Study

This letter is to verify that Victor Valley Domestic Violence, Inc. has given Kelley Ferris and Alicia Hunter approval to conduct a study on perceived social support as a protective factor in the mental health outcomes of battered women. Clients will be given a questionnaire with a multitude of questions regarding the client's present emotional, social, and mental status. We understand that subjects have the voluntary right to accept or reject involvement in the study and that all subjects will be provided informed consent and debriefing statements.

Thank you,

APPENDIX D

APPROVAL LETTER: ALTERNATIVES TO DOMESTIC VIOLENCE

Date _____

Re: Letter of Approval for Research Study

This letter is to verify that Alternatives to Domestic Violence has given Kelley Ferris and Alicia Hunter approval to conduct a study on perceived social support as a protective factor in the mental health outcomes of battered women. Clients will be given a questionnaire with a multitude of questions regarding the client's present emotional, social, and mental status. We understand that subjects have the voluntary right to accept or reject involvement in the study and that all subjects will be provided informed consent and debriefing statements.

Thank you,

APPENDIX E

INDEX OF SPOUSE ABUSE, PARTNER ABUSE

SCALE - PHYSICAL

ISA-P

Now we would like to ask you some questions about the most recent abusive relationship you have been in. **Please circle the answer that fits best for each question.**

Question	All the Time	Most of the Time	A Good Part of the Time	Some of the Time	A Little of the Time	Very Rarely	None of the Time
1. My partner pushes and shoves me around violently.	7	6	5	4	3	2	1
2. My partner hits and punches my arms and body.	7	6	5	4	3	2	1
3. My partner threatens me with a weapon like a gun or knife.	7	6	5	4	3	2	1
4. My partner beats me so hard I must seek medical help.	7	6	5	4	3	2	1
5. My partner beats me when he drinks.	7	6	5	4	3	2	1
6. My partner hits, punches, or kicks my face and head.	7	6	5	4	3	2	1
7. My partner beats me in the face so badly I'm ashamed to be seen in public.	7	6	5	4	3	2	1
8. My partner tries to choke, strangle, or suffocate me.	7	6	5	4	3	2	1
9. My partner knocks me down and then kicks or stomps me.	7	6	5	4	3	2	1
10. My partner throws dangerous objects at me.	7	6	5	4	3	2	1
11. My partner has injured me with a weapon like a gun, knife, or other object.	7	6	5	4	3	2	1
12. My partner has broken 1 or more of my bones.	7	6	5	4	3	2	1
13. My partner physically forces me to have sex.	7	6	5	4	3	2	1
14. My partner badly hurts me while we are having sex.	7	6	5	4	3	2	1
15. My partner injures my breasts or genitals.	7	6	5	4	3	2	1

When was the last time you experienced any of the events mentioned above? Please indicate month and year. _____

APPENDIX F

BECK DEPRESSION INVENTORY - II

BDI-II - Now we would like to ask you a few questions about your moods.

Instructions: Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today. Circle the number beside the statement you have picked.** If several statements in the group seem to apply equally well, circle the highest number for that group. **Be sure that you do not choose more than one statement for any group.**

1. Sadness
0 I do not feel sad.
1 I feel sad much of the time.
2 I am sad all the time.
3 I am so sad or unhappy that I can't stand it.

2. Pessimism
0 I am not discouraged about my future.
1 I feel more discouraged about my future
2 I do not expect things to work out.
3 I feel my future is hopeless and will get worse.

3. Past Failure
0 I do not feel like a failure.
1 I have failed more than I should have.
2 As I look back, I see a lot of failures.
3 I feel I am a total failure as a person.

4. Loss of Pleasure
0 I get as much pleasure as I ever did from the things I enjoy.
1 I don't enjoy things as much as I used to.
2 I get very little pleasure from the things I used to enjoy.
3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings
0 I don't feel particularly guilty
1 I feel guilty over many things I have done or should have done.
2 I feel guilty most of the time.
3 I feel guilty all of the time.

6. Punishment Feelings
0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished

7. Self-Dislike
0 I feel the same about myself as ever.
1 I have lost confidence in myself.
2 I am disappointed in myself.
3 I dislike myself.

8. Self-Criticalness
0 I don't criticize or blame myself more
1 I am more critical of myself than I
2 I criticize myself for all my f
3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes
0 I don't have any thoughts of kill
1 I have thoughts of killing myself but would not carry it out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10. Crying
0 I don't cry more than I used to.
1 I cry more than I used to.
2 I cry over every little thing.
3 I feel like crying but can't.

11. Agitation
0 I am not more restless than usual
1 I feel more restless than usual.
2 I am so restless or agitated
3 I am so restless o agitated I have to mo move or do something.

12. Loss of Interest
0 I have not lost interest in activities.
1 I am less interested in other things now
2 I have lost more of my interest.
3 It's hard to get interested in anything.

13. Indecisiveness
0 I make decisions about as well as ever.
1 I find it more difficult to make decisions than usual.
2 I have much greater difficulty in making decisions than I used to.
3 I have trouble making any decisions.

14. Worthlessness
0 I do not feel I am worthless.
1 I don't consider myself as worthwhile.
2 I feel more worthless as compared to others
3 I feel utterly worthless.

15. Loss of Energy
0 I have as much energy as ever.
1 I have less energy than I used to.
2 I don't have enough energy to do very much.
3 I don't have enough energy to do anything.

16. Changes in sleeping patterns
I have not experienced any changes in my sleeping patterns.
1a. I sleep somewhat more than usual.
1b. I sleep somewhat less than usual.
2a. I sleep a lot more than usual.
2b. I sleep a lot less than usual.
3a. I sleep most of the day.
3b. I wake up 1 – 2 hours early and can't get back to sleep.

17. Irritability
0 I am no more irritable than usual.
1 I am more irritable than usual.
2 I am much more irritable than usual.
3 I am irritable all the time.

18. Changes in appetite
I have not experienced any changed in my appetite.
1a. My appetite is somewhat less than usual.
1b. My appetite is somewhat greater than usual.
2a. My appetite is much less than before.
2b. My appetite is much greater than before.
3a. I have no appetite at all.
3b. I crave food all the time.

19. Concentration Difficulty
0 I can concentrate as well as ever.
1 I can't concentrate as well as ever.
2 It's hard to keep my mind on anything for very long.
3 I find I can't concentrate on anything.

20. Tiredness or Fatigue
0 I am no more tired or fatigued.
1 I get more tired or fatigued more easily
2 I am too tired or fatigued to do a lot
3 I am too tired or fatigued to do most things I used to.

21. Loss of Interest in Sex
0 I have not noticed any recent changes my interest in sex.
1 I am less interested in sex than I used
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

APPENDIX G

POSTTRAUMATIC STRESS DISORDER CHECK LIST - CIVILIAN

Instructions: Below is a list of problems and complaints that people sometimes have in response to domestic violence. Please read each one carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing memories, thoughts, or images of the abuse.	**0**	**1**	**2**	**3**	**4**
2. Repeated, disturbing dreams of the abuse.	**0**	**1**	**2**	**3**	**4**
3. Suddenly acting or feeling as if the abuse were happening again (as if you were reliving it).	**0**	**1**	**2**	**3**	**4**
4. Feeling very upset when something reminded you of the abuse.	**0**	**1**	**2**	**3**	**4**
5. Having physical reactions (heart pounding, trouble breathing, sweating) when something reminded you of the abuse.	**0**	**1**	**2**	**3**	**4**
6. Avoiding thinking or talking about the abuse or avoiding having feelings related to it.	**0**	**1**	**2**	**3**	**4**
7. Avoiding activities or situations because they remind you of the abuse.	**0**	**1**	**2**	**3**	**4**
8. Trouble remembering important parts of the abuse.	**0**	**1**	**2**	**3**	**4**
9. Loss of interest in activities you used to enjoy.	**0**	**1**	**2**	**3**	**4**
10. Feeling distant or cut off from other people.	**0**	**1**	**2**	**3**	**4**
11. Feeling emotionally numb or being unable to have loving feelings for those close to you.	**0**	**1**	**2**	**3**	**4**
12. Feeling as if your future somehow will be cut short.	**0**	**1**	**2**	**3**	**4**
13. Trouble falling or staying asleep.	**0**	**1**	**2**	**3**	**4**
14. Feeling irritable or having angry outbursts.	**0**	**1**	**2**	**3**	**4**
15. Having difficulty concentrating.	**0**	**1**	**2**	**3**	**4**
16. Being "superalert" or watchful or on guard.	**0**	**1**	**2**	**3**	**4**
17. Feeling jumpy or easily startled.	**0**	**1**	**2**	**3**	**4**

APPENDIX H

GENERALIZED ANXIETY DISORDER QUESTIONNAIRE - IV

Now we would like to ask you a few questions about worrying.

1. Do you experience excessive worry? Yes_____ No_____
2. Is your worry excessive in intensity, frequency, or amount of distress it causes? Yes_____ No_____
3. Do you find it difficult to control your worry (or stop worrying) once it starts? Yes_____ No_____
4. Do you worry excessively or uncontrollably about minor things such as being late for an appointment, minor repairs, homework, etc.? Yes_____ No_____
5. Please list the most frequent topics about which you worry excessively or uncontrollably:

a._____ d._____

b._____ e._____

c._____ f._____

6. During the last 6 months, have you been bothered by excessive worries more days than not? Yes_____ No_____
7. During the past 6 months, have you often been bothered by any of the following symptoms? Please place a check next to each symptom that you have had more days than not:

_____ restlessness or feeling keyed up or on edge

_____ irritability

_____ difficulty falling/staying asleep or restless/ unsatisfying sleep

_____ being easily fatigued

_____ difficulty concentrating or mind going blank

_____ muscle tension

8. How much do worry and physical symptoms interfere with your life, work, social activities, family, etc? Please circle **one** number:

0 1 2 3 4 5 6 7 8

none mild moderate severe very severe

9. How much are you bothered by worry and physical symptoms (how much distress does it cause you)? Please circle **one** number:

0 1 2 3 4 5 6 7 8

none mild moderate severe very severe

APPENDIX I

PERCEIVED SOCIAL SUPPORT - FRIENDS

Now we would like to ask you some questions about your friends.
The statements that follow refer to feelings and experiences that occur to most people at one time or another in their relationships with *friends*.
For each statement there are three possible answers: Yes, No, Don't know. Please circle the answer you choose for each item.

Yes	No	Don't know	1. My friends give me the moral support I need.
Yes	No	Don't know	2. Most other people are closer to their friends than I am.
Yes	No	Don't know	3. My friends enjoy hearing about what I think
Yes	No	Don't know	4. I rely on my friends for emotional support.
Yes	No	Don't know	5. If I felt that one or more of my friends were upset with me, I'd just keep it to myself.
Yes	No	Don't know	6. I feel that I am on the fringe in my circle of friends.
Yes	No	Don't know	7. There is a friend I could go to if I were just feeling down, without feeling funny about it later.
Yes	No	Don't know	8. My friends and I are very open about what we think about.
Yes	No	Don't know	9. My friends are sensitive to my personal needs.
Yes	No	Don't know	10. My friends come to me for emotional support.
Yes	No	Don't know	11. My friends get good ideas about how to do things from me.
Yes	No	Don't know	12. My friends get good ideas about how to do things or make things from me.
Yes	No	Don't know	13. I have a deep sharing relationship with a number of my friends
Yes	No	Don't know	14. When I confide in friends, it makes me feel uncomfortable.
Yes	No	Don't know	15. My friends seek me out for companionship.
Yes	No	Don't know	16. I think that my friends feel that I'm good at helping them solve problems.
Yes	No	Don't know	17. I don't have a relationship with a friend that is as intimate as other people's relationships with friends.
Yes	No	Don't know	18. I've recently gotten a good idea about how to do something from a friend.
Yes	No	Don't know	19. When I confide in friends who are closest to me I get the idea that it makes them feel uncomfortable.
Yes	No	Don't know	20. I wish my friends were much different.

APPENDIX J

PERCEIVED SOCIAL SUPPORT - FAMILY

In this section we will be asking you some questions about your family.
The statements that follow refer to feelings and experiences that occur to most people at one time or another in their relationships with *family.*

For each statement there are three possible answers: Yes, No, Don't know. Please circle the answer you choose for each item.

Yes	No	Don't know	1. My family gives me the moral support I need.
Yes	No	Don't know	2. I get good ideas about how to do things from my family.
Yes	No	Don't know	3. Most other people are closer to their family than I am.
Yes	No	Don't know	4. When I confide in the members of my family who are closest to me, I get the idea that it makes them uncomfortable.
Yes	No	Don't know	5. My family enjoys hearing about what I think.
Yes	No	Don't know	6. Members of my family share many of my interests.
Yes	No	Don't know	7. Certain members of my family come to me when they have problems or need advice.
Yes	No	Don't know	8. I rely on family for emotional support.
Yes	No	Don't know	9. There is a member of my family I could go to if I were just feeling down, without feeling funny about it later.
Yes	No	Don't know	10. My family and I are very open about what we think about.
Yes	No	Don't know	11. My family is sensitive to my personal needs.
Yes	No	Don't know	12. Members of my family come to me for emotional support.
Yes	No	Don't know	13. Members of my family are good at helping me solve problems.
Yes	No	Don't know	14. I have a deep sharing relationship with a number of members of my family.
Yes	No	Don't know	15. Members of my family get good ideas about how to do things or make things from me.
Yes	No	Don't know	16. When I confide in members of my family, it makes me uncomfortable.
Yes	No	Don't know	17. Members of my family seek me out for companionship.
Yes	No	Don't know	18. I think that my family feels that I'm good at helping them solve problems.
Yes	No	Don't know	19. I don't have a relationship with a member of my family that is as close as other people's relationships with family members.
Yes	No	Don't know	20. I wish my family were much different.

APPENDIX K

DEMOGRAPHICS

Finally, for statistical purposes, we would like to ask you a few questions. Please fill in or circle the appropriate answer:

1. Your age (in years) _____
2. How many children do you have? _____
3. What is your race/ethnicity?
   a. African American b. Hispanic/Latino
   c. White d. Native American
   d. Asian American/Pacific Islander
   e. Two or more different races/ethnicities
   f. Other (please specify: _____)
   g. Decline to state

4. What is your yearly income?
   a. $0 - 10,000 b.$10,001 - $15,000
   c. $15,001 - $20,000 d.$20,001 - $30,000
   e. $30,001 - $40,000 f.$40,001 - $50,000
   g. $50,000 - $60,000 h.$60,000 - $70,000
   i. $70,001 - $100,000 j.Over $100,000

5. What is your marital status?
   a. Never married
   b. Married
   c. Separated
   d. Divorced
   e. Widowed

6. What is the highest level of education you have completed?
   f. did not complete high school
   g. high school diploma
   h. some college
   i. AA/AS degree
   j. BA/BS degree
   k. Graduate degree

APPENDIX L

INFORMED CONSENT

Informed Consent

The study in which you are being asked to participate in is designed to investigate the relationship between social support and emotional well-being in women who have experienced domestic violence. Alicia Hunter and Kelley Ferris are conducting this study under the supervision of Dr. Janet Chang, Assistant Professor of Social Work and California State University, San Bernardino. The Social Work subcommittee of the Institutional Review Board at California State University, San Bernardino has approved this study.

In this study you will be asked to respond to questions regarding the domestic violence you experienced, how supported you feel by your friends and family, and your feelings and emotions. **The questionnaire should take about 30 to 45 minutes to complete**. All of your responses will be held in the strictest of confidence by the researchers. Your name will not be reported with your responses. **Please do not put your name anywhere on the questionnaire**. All data will be reported in-group form only. You may receive the group results of this study upon completion in July 2005 at the following location: the Pfau Library at California State University, San Bernardino.

Your participation in this study is completely voluntary. You are free to not answer any questions and withdraw at any time during this study without penalty. When you have completed the questionnaire you will receive a debriefing statement describing the study in more detail and, to thank you for your participation, you will receive a $5 gift certificate for Wal-Mart. In order to ensure to validity of the study, we ask that you not discuss this study with other participants.

If you have any questions or concerns about this study, please feel free to contact me, Janet Chang, at (909) 880-5184.

By placing a check mark in the box below, I acknowledge that I have been informed of, and that I understand, the nature and purpose of this study, and I freely consent to participate. I also acknowledge that I am at least 18 years of age.

Place a check mark here ☐ **Today's date:** _____

APPENDIX M

DEBRIEFING STATEMENT

Debriefing Statement.

This study you have just completed was designed to investigate the role of social support in women who have experienced domestic violence. In this study several we looked at several things: levels of perceived social support; symptoms of depression, posttraumatic stress disorder (PTSD), and generalized anxiety disorder; and the degree of violence experienced. We are particularly interested in the relationship between social support and symptoms of depression, PTSD, and generalized anxiety disorder.

Some people may become upset upon being reminded of difficult experiences. Please be assured that this is a normal reaction. We urge you to discuss any reactions to the questionnaire with your current counselor or social worker. The following resources are also available: Laurel Counseling in Ontario, (909) 983-7120; High Desert Domestic Violence Program, Inc. in Victorville, (760) 244-0094; Family Service Agency in San Bernardino, (909) 886-6737; Riverside County Department of Mental Health, Desert Region in Indio, (760) 863-8455; Crisis Outpatient Services in Riverside, (909) 358-4705; Riverside County Department of Mental Health in Temecula, (909) 600-6355.

Thank you for your participation and for not discussing the contents of the questionnaire with other potential participants. If you have any questions about the study, please feel free to contact Alicia Hunter, Kelley Ferris, or Dr. Chang at (909) 880-5184. If you would like to obtain a copy of the group results of this study, please contact Assistant Professor Janet Chang at (909) 880-5184 after July of 2005.

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ASSIGNED RESPONSIBILITIES PAGE

This was a two-person project where authors collaborated throughout. However, for each phase of the project, certain authors took primary responsibility. These responsibilities were assigned in the manner listed below.

1. Data Collection:

   Assigned Leader: Kelley Ferris

   Assisted By: Alicia Vallellanes

2. Data Entry

   Assigned Leader: Kelley Ferris

   Assisted By: Alicia Vallellanes

3. Data Analysis:

   Team Effort: Kelley Ferris and Alicia Vallellanes

4. Writing Report and Presentation of Findings:

   Assigned Leader: Alicia Vallellanes

   Assisted By: Kelley Ferris