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SOCIAL SUPPORT AND PSYCHOLOGICAL WELL-BEING AMONG WOMEN WITH ABUSIVE PARTNERS: A LONGITUDINAL CAUSAL MODEL

By

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ABSTRACT

SOCIAL SUPPORT AND PSYCHOLOGICAL WELL-BEING AMONG WOMEN WITH ABUSIVE PARTNERS: A LONGITUDINAL CAUSAL MODEL

By

Cheribeth Tan

The present study investigated the social support of women who had been residents of a domestic violence shelter. It is part of a larger project that examines the effects of an advocacy intervention on women's psychological well-being and ability to remain free of abuse over a two-year period. The relationships among abuse, social support, and psychological well-being were examined using data collected from 129 women at three time periods: immediately upon exiting the shelter (Time 1), at the end of the 10-week intervention period (Time 2), and six months later (Time 3).

Hierarchical regression analyses were conducted using Time 3 psychological well-being as the criterion, and four sets of predictor variables: (1) Time 2 abuse and Time 2 social support as the first set of predictors with Time 2 psychological well-being and experimental condition included as control variables, (2) Time 3 abuse and Time 3 social support as the second set of predictors, (3) Time 2 social support X Time 3 abuse interaction terms as the third set of predictors, and (4) Time 3 social support X Time 3 abuse interaction terms as the final set of predictors. Results showed strong direct effects of concurrent abuse and satisfaction with social support on psychological well-being, but no statistically significant interaction effects. Women who experienced further physical and psychological abuse, and expressed less satisfaction with their social support, also reported higher levels

of depressive symptoms and greater dissatisfaction with their quality of life. The buffering hypothesis of social support, however, was not supported. Satisfaction with social support also appeared to be independent of the size of one's network. Implications of the findings as well as the limitations of the study and directions for future research are discussed.

To my parents, Elizabeth and Chiao Kiat Tan

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Domestic violence has existed throughout recorded history and across cultures. It has only been in the last two decades, however, that social scientists have examined woman battering in depth. A growing literature has begun to accumulate on the prevalence, severity, causes, impacts, and intervention and policy dimensions of intimate male violence against women. Policy and legislation at the state and national levels have also begun to address this problem (Biden, 1993; Browne, 1993; Goodman, Koss, Fitzgerald, Russo, & Keita, 1993).

Prevalence of Domestic Violence

Several studies have attempted to document the prevalence of domestic violence. Estimates based on a nationally representative total sample of 6,002 households in a national family violence survey suggest that from 2 to 3 million women are beaten by their male partners each year in the U.S.; more than three out of every 100 - or 1.8 million - women are also severely assaulted (i.e., kicked, punched, bitten, choked) by their partners (Straus & Gelles, 1988). The survey further revealed that about one in every eight male partners had carried out one or more acts of assault within one year (Straus & Gelles, 1988). Other surveys reported around 21% of women having been abused by their male partners at least once (Gentemann, 1984; Schulman, 1979). Based on the epidemiological studies of violence against women reviewed by Browne (1993) and Stark and Flitcraft (1988), between 20 to 25% - or between 12 to 15 million - of adult women in the United States are estimated to

have been physically abused at least once by a male intimate. Furthermore, Straus and Gelles (1988) noted that various statistics on the prevalence of domestic violence are most likely to be marked underestimates of the problem given the likely occurrence of massive underreporting of acts of violence, and the possible exclusion from such surveys of some subgroups of people such as the very poor, the homeless, the institutionalized, and people lacking English fluency.

A review of empirical works on the relative incidence of battered wives and battered husbands showed that over 90% of the victims of partner abuse are women (Okun, 1986). Women assaulted by their male partners are also more likely to be repeatedly attacked and injured, to be repeatedly raped, or even killed than are women victimized by other types of abusers (Browne, 1993; Browne & Williams, 1989, 1993; Okun, 1986).

An additional alarming aspect of domestic violence is the substantial percentage of battered women remaining in violent relationships for years or returning to their abusive partners after seeking outside help. After reviewing several studies on the decision of battered women to leave abusive relationships, Strube (1988) suggested that about half of all women who go to a shelter or seek help from some other agencies for domestic assault can be expected to return to their assailants. Women who return to their abusive partners are considered to be at higher risk for further violence than women who do not return. Violence, however, does not necessarily end when women leave abusive relationships. Data from the annual National Crime Survey taken by the U.S. Department of Justice, for example, indicate that separated and divorced women may be more vulnerable to domestic assaults

than married women; 55% of assaults among separated women as compared to 16% of all assaults among married women are by their male intimates (Stark & Flitcraft, 1988).

Physical Consequences of Abuse

Violent acts by male partners have ranged from slapping, punching, choking, pushing, kicking, hitting with objects, throwing against walls, to stabbing and shooting women (Binney, Harkell, & Nixon, 1981; Bowker, 1983; Browne, 1987; Dobash & Dobash, 1979, 1984; Gelles, 1987; Hilberman & Munson, 1977-78; Walker, 1979, 1984). Typical injuries resulting from such physical assaults include bruises, cuts, swollen eyes, torn hair, concussions, broken bones and teeth, fractures, torn ligaments, internal injuries, miscarriages, scars, abrasions, burns, knife wounds, hearing or vision impairments, or even death (Browne, 1987, 1993; Dobash & Dobash, 1979, 1984; Walker, 1979, 1984).

Domestic violence may be the leading cause of serious injuries among women (Stark & Flitcraft, 1988). From a review of the medical records of 3,676 women randomly selected from among female patients with injuries at a major metropolitan emergency room during a one-year period, 40% of the injury episodes were estimated to have resulted from physical assaults by the women's male partners; 19% of the female trauma patients were physically abused. In contrast, only 11% of the injuries resulted from auto accidents (Stark & Flitcraft, 1988). Within a 15-year study period, Bergman and Brismar (1991) found that battered women sought hospital care significantly more often than the average women of the same ages for traumatic injuries, gynecological disorders, medical and other unspecified disorders, and suicide attempts. Other studies found as high as 25% of emergency-room visits by women to be due to

battering, yet only 8% or less were correctly classified as battering (Pagelow, 1992). Battered women are also 13 times more likely than nonbattered women to suffer injuries to the breast, chest, and abdomen, and three times as likely to sustain injuries while pregnant (Stark & Flitcraft, 1988). In addition, domestic violence has been associated with increased risk of alcohol and drug abuse among women (Bergman & Brismar, 1991; Hilberman, 1980; Stark & Flitcraft, 1988). Physical symptoms such as persistent headaches, back and limb problems, stomach problems, fainting and dizziness, gynecological problems, chest pains, circulatory and respiratory problems abound as well (Follingstad, Brennan, Hause, Polek, & Rutledge, 1991; Hilberman & Munson, 1977-78; Hoffman, 1984).

Homicide figures further show the severity of the problem of domestic violence in the U.S. During a 10-year period from 1976 to 1985, Mercy and Saltzman (1989) identified 16,595 spouse homicides which accounted for 9% of all homicides reported to the Federal Bureau of Investigation's Supplemental Homicide Reports (FBI-SHR). Among these homicides, 57% were women killed by their husbands, while 43% of the victims were the husbands. Browne and Williams (1993), also using data from the FBI-SHR, investigated the patterns of homicide between couples in marital as well as in nonmarital relationships from 1976 to 1987. They found that approximately 38,648 individuals were killed by their partners - 61% by male partners and 39% by female partners. Furthermore, 52% of all women murdered during the first half of the 1980s were killed by their male partners (Browne & Williams, 1993). Browne (1993) concluded that women are more likely to be killed by their partners than by all other categories of persons combined. As for women

who killed their male partners, they did so often after a history of having been physically abused by the men (Browne, 1987, 1988).

Psychological Consequences of Abuse

The literature on domestic violence is replete with reports on the deleterious psychological outcomes of physical abuse. Damaging effects, both physically and psychologically, have also been reported by women experiencing psychological abuse (Follingstad et al., 1991; Hoffman, 1984) or sexual assaults in intimate relationships (Campbell, 1989; Frieze, 1983; Shields & Hanneke, 1983) even without physical assaults. In many relationships with physical violence, however, verbal abuse, sexual assaults, threats of violence, emotional and psychological abuse exist as well (Binney et al., 1981; Bowker, 1983; Browne, 1987; Campbell, 1989; Dobash & Dobash, 1979; Finkelhor & Yllo, 1983; Frieze, 1983; Hilberman & Munson, 1977-78; Hofeller, 1982; Hoff, 1990; Okun, 1986; Pagelow, 1981, 1984; Shields & Hanneke, 1983; Walker, 1979, 1984).

Several descriptive studies and clinical accounts of domestic abuse consistently report a high incidence of psychological symptoms (particularly depression and anxiety) among women battered by their partners; other psychological symptoms reported among the women include memory loss, cognitive dissociations, sleep and appetite disturbances, chronic fatigue and tension, listlessness, somatic problems, reexperiencing of the traumatic event when exposed to associated stimuli, thoughts of suicide, and suicide attempts (Browne, 1987; Dutton, 1992; Hilberman, 1980; Hilberman & Munson, 1977-78; Hofeller, 1982; Hoff, 1990; Jaffe, Wolfe, Wilson, & Zak, 1986; Stark & Flitcraft, 1988; Walker, 1979, 1984). Results have been consistent across studies, although most of the studies have been criticized for methodological

shortcomings -- particularly their small sample sizes and the limitation of most samples to women who sought help or shelter.

Gelles and Harrop (1989) conducted a larger study in an attempt to address the above-mentioned methodological flaws of prior studies. They examined the effects of violence using data from the Second National Family Violence Survey of 6,002 households to come up with a randomly drawn, nationally representative sample of both battered and nonbattered women. Their analysis of information from 3,002 female respondents showed that women who reported having been physically abused also reported higher levels of moderate and severe psychological distress. Multivariate analyses of their data indicated that violence experienced by women made an independent and nonspurious contribution to their psychological distress (Gelles & Harrop, 1989). Other investigators (Cascardi & O'Leary, 1992; Follingstad et al., 1991; Mitchell & Hodson, 1983) similarly found that frequency and severity of abuse were strongly related to the number and severity of stress-related physical and psychological symptoms, although even one assault experience can certainly have permanent negative effects.

More recent publications have continued to document the deleterious effects of violence on the psychological well-being of women. Koss (1990), after reviewing several random sample community surveys, found women victimized by their partners to show identifiable degrees of mental health difficulties when compared with nonbattered women on standard psychological tests and diagnostic interviews, even when evaluated many years after the abuse. That is, battered women were more likely to be diagnosed for depression, alcohol and/or drug abuse/dependence, generalized anxiety, obsessive-compulsive disorder,

eating disorders, and other psychological problems. Gleason (1993) found a much higher prevalence of psychosexual dysfunction, major depression, posttraumatic stress disorder, generalized anxiety disorder, and obsessive compulsive disorder among 62 women receiving assistance from a domestic violence agency than in a comparison group of 10,953 women randomly sampled in a national epidemiological study of mental disorders in the U.S. Sato and Heiby (1992), and Cascardi and O'Leary (1992) found that about half of their samples of women in shelters reported clinically significant levels of depressive symptoms. Thus, Sato and Heiby (1992) concluded that women who have experienced severe battering may be at particular risk for depression and other forms of psychological distress.

Posttraumatic stress disorder (PTSD) has recently been suggested to systematize and understand the range of psychological symptoms among women in response to battering (Browne, 1993; Kemp, Rawlings, & Green, 1991; Koss, 1990; Walker, 1984). Reactions to the constant threat of physical violence and injury such as fear and anxiety, agitation, memory loss, hypervigilance, intrusive memories and flashbacks, periods of denial and avoidance, and nightmares and other sleep disturbances (Browne, 1987; Dutton, 1992; Hilberman, 1980; Hilberman & Munson, 1977-78; Hoff, 1990) can be understood within the PTSD diagnosis (Browne, 1993). Some recent studies have focused and reported on the prevalence of PTSD among women with abusive partners: 33% of the sample in Astin, Lawrence, and Foy's (1993) study using more conservative measures of PTSD, 45% in Houskamp and Foy's (1991) study, and a high of 84% of the sample in the study by Kemp, Rawlings, and Green (1991). In these studies, the level of PTSD symptomatology significantly correlated with

the extent and severity of exposure to violence.

Some researchers, however, such as Sato and Heiby (1992) have cautioned that it still remains unclear whether depressive and other psychological symptoms found among women battered by their partners are merely signs of their "general unhappiness" or are symptomatic of clinical syndromes such as major depression or posttraumatic stress disorder.

The Stress-Distress Association

The prevalence of psychological symptoms among battered women is not surprising given the severity of the stressors with which they have to cope. The stress literature has generally established the relationship of stress to physical and psychological well-being of individuals.

The study of stress has had a longer history than studies on the battering of women. The development of the stress concept in psychology has generally been credited to the seminal work of Cannon (1929) and Selye (1956) (Dohrenwend & Dohrenwend, 1974a; Hobfoll, 1988). Stress was then viewed in a more limited physiological context, mainly as a response of organisms to an overtaxing of physiological systems. Selye (1956) introduced the concept of the general adaptation syndrome to characterize what he believed to be a complex but nonspecific bodily reaction to stress; that is, organisms react to outside stressors, first with an alarming response, then a resistance response, and finally with an exhaustion response when the physiological system is overtaxed. The work of several researchers in the 1960's such as Caplan (1964) and Lazarus (1966) expanded the concept of stress to the psychological arena (Hobfoll, 1988), and to the notion that psychopathology could result

among ordinary individuals in response to extreme stressors.

Lazarus, in particular, developed a model of stress that emphasized the role of appraisal and coping in the stress process. His work popularized the terms stress and coping. Psychological stress was defined as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus & Folkman, 1984, p. 19). Stressors are events in the environment or in the body that make an emotional or task demand on the individual. They are considered a ubiquitous part of the human experience. Lazarus and Folkman (1984) further pointed out that the stress process is mediated by cognitive appraisal and by coping. Coping is defined as the process of "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 141). Coping is determined by cognitive appraisal or the evaluative process of assessing the stressfulness of a particular event. Coping can involve attempts to modify or eliminate the sources of stress (problem-focused coping), perceptually control the meaning of the problem, and regulate the emotional response to the problem (emotion-focused coping) (Lazarus & Folkman, 1984; Pearlin & Schooler, 1978).

Several stress researchers have utilized the life-event approach, which focuses on major life changes as stressors (see Thoits, 1983). The field of stressful life event research flourished with the publication of the Social Readjustment Rating Scale by Holmes and Rahe (1967). Stressfulness was defined in terms of the need for readjustment by the person undergoing the event regardless of its perceived

desirability. Other forms of stressors and their relationship with well-being have also been assessed, such as persistent life strains (Pearlin & Schooler, 1978), or daily hassles and other difficulties not marked by discrete life change (Kanner, Coyne, Schaefer, & Lazarus, 1981). A consistent finding among the various studies on stressors is the association of stress with psychological distress and increased risk of disability and illness (Cohen & Hoberman, 1983; Dohrenwend & Dohrenwend, 1974b; Felner, Farber, & Primavera, 1983; Thoits, 1983).

Since there is strong empirical evidence that traumatic experiences increase the probability of stress-related symptoms developing in ordinary individuals, women who are repeatedly abused by their partners (and thus experiencing chronic stress and tension), would be likely to develop physical and psychological symptoms over time.

The stress literature, however, has acknowledged the complexity of the relationship between stress and psychological disorder. That is, given the same stressor, different individuals appraise the event differently, experience varying levels of stress, and evidence different types and levels of psychological symptoms, if any. Although the literature has often found physical illnesses or psychological disorders to be preceded by stress, Bloom (1992) pointed out that not enough is known to help predict accurately which specific individuals are particularly at high risk. While all women with abusive partners undergo the stressful experience of physical assaults, not all develop depression, heightened anxiety, and other psychological symptoms.

In the general stress literature, statistically significant correlations have often been found between various levels of stress measures and levels of psychological distress. The magnitude of such

correlations, however, has generally been modest, typically below .30, accounting only for a relatively small proportion of the total variance (Cohen & Hoberman, 1983; Dohrenwend, 1979; Felner et al., 1983; Thoits, 1982a; Wilcox, 1981a, 1981b). Some researchers have pointed out that the low level of correlations may be partly due to moderating factors in the individual and in the environment (Cohen & Hoberman, 1983; Wilcox, 1981a, 1981b). Thus, many of the models on the stress-distress relationship also include psychological and situational factors that mediate and/or moderate the effects of stress on psychological and physical well-being (Albee, 1982; Allen & Britt, 1983; Dohrenwend, 1978). Dohrenwend (1978), for example, wrote about situational and psychological mediators that define the context in which reactions to stress occur. Situational mediators are factors in the environment that are external to but act upon the individual, such as financial support, family, and overall social support and resources, while psychological or internal mediators are characteristics of the individual including values, coping abilities, expectations, and feelings (Dohrenwend, 1978). Many of the stress-distress models posit that psychological distress is reduced by resources that counter the adverse effects of stressors (Allen & Britt, 1983; Cohen & Wills, 1985), resources that an individual draws on in order to cope with the stressors (Lazarus & Folkman, 1984). Similar to Dohrenwend's model, Lazarus and Folkman (1984) identified and classified coping resources as either primarily properties of the person -- such as health and energy, positive beliefs, and problem-solving and social skills; or environmental, including social and material resources. The bulk of the literature on mediators and moderators of the stress-distress relationship, however, has focused on social support

as an especially important factor.

Social Support, Stress, and Psychological Well-being

Of all the possible factors moderating one's reactions to stress, the role of social support has received the most research attention. Social support basically refers to the resources provided by an individual's interpersonal ties. Since the work of Caplan (1974), Cassel (1976), and Cobb (1976), social support research has proliferated, particularly with regards to its relationship to physical and psychological well-being. Several reviews of this vast array of studies have already been conducted, such as those by Barrera (1986), Cohen and Wills (1985), House and Kahn (1985), House, Umberson, and Landis (1988), Kessler and McLeod (1985), and Mitchell and Trickett (1980).

Social support researchers have generally concluded that the level of social support available to people experiencing change or other stress may impact their subsequent adaptation. That is, the presence of a strong social support system has been linked with psychological well-being, as well as reduced stress (Aneshensel & Frerichs, 1982; Bell, LeRoy, & Stephenson, 1982; Billings & Moos, 1981; Bloom, 1992; Cohen & Hoberman, 1983; Cohen & Wills, 1985; Gottlieb, 1981; House & Kahn, 1985; Kessler & McLeod, 1985; Mitchell & Hodson, 1983; Turner, 1983; Wilcox, 1981b; Williams, Ware, & Donald, 1981). Cobb (1976) has suggested that the protective effects of social support operate by helping the individual cope with the stressful situation. Conflicting results, however, have been reported on whether the effects of social support on physical and psychological adjustment under stressful conditions are additive or interactive.

Main effects model vs. buffering model. Two models of the process by which social support is associated with well-being have been proposed and tested in various studies (see Cohen & Wills, 1985; Kessler & McLeod, 1985). The main- or direct-effect model proposes that there is an overall positive effect of support regardless of the level of stress experienced. That is, the higher the social support, the less psychological distress experienced, regardless of the level of stress. The buffering model suggests that for individuals confronted with high levels of stress, high levels of social support protects such individuals from stress-induced physical and psychological pathology; however, for those experiencing low levels of stress, the level of social support is relatively inconsequential (Cassel, 1974, 1976; Cohen & Hoberman, 1983; Cohen & Syme, 1985; Cohen & Wills, 1985; Menaghan, 1990; Wilcox, 1981b). Some studies have reported finding the interactive effects predicted by the buffering model (e.g. Cohen & Hoberman, 1983; Wilcox, 1981b), but other studies reported finding primarily main effects and no such interactive effect (e.g. Aneshensel & Frerichs, 1982; Bell et al., 1982; Thoits, 1982b; Williams et al., 1981). After reviewing several studies to test for the two models, Cohen and Wills (1985), and Kessler and McLeod (1985) concluded that there is enough evidence supporting each model. The direct and buffering models, however, may be linked to different conceptions and operationalization of social support (Cohen & Syme, 1985; Cohen & Wills, 1985; Wills, 1985).

Social support concepts and measures. Although social support research has proliferated, the concept itself has been operationally defined and thus measured in a variety of ways (Barrera, 1986; House &

Kahn, 1985; Thoits, 1982a; Wortman & Dunkel-Schetter, 1987). Many researchers have proposed that social support is a multidimensional concept (Barrera, 1986; Fiore, Coppel, Becker, & Cox, 1986; Thoits, 1982a; Turner, 1983). Barrera (1986) attempted to organize the various social support concepts and their operationalizations into three broad categories: social embeddedness, perceived social support, and enacted support. Other investigators classified them into either structural or functional components of social support (Cohen & Syme, 1985; Cohen & Wills, 1985; Fiore et al., 1986; House & Kahn, 1985; Thoits, 1982a; Wortman & Dunkel-Schetter, 1987).

Social embeddedness refers to an individual's connectedness to other individuals (Barrera, 1986). Measures of social embeddedness are generally considered structural measures which basically describe the existence of relationships and focus on the objective or quantitative dimensions of social support. Measures of social embeddedness include the use of indicators of social ties (e.g. marital status, contacts with friends, number of supporters, etc.), or the use of social network analysis. Many of the early studies of the social support-psychological well-being relationship measured the level of social support through the use of social network indices, which generally describe a person's social relationships with individuals (family, friends, relatives) and community organizations (service organizations, clubs, voluntary associations, church membership, cultural groups) on parameters such as size, frequency, density, homogeneity, and reciprocity (Hall & Wellman, 1985; Mitchell & Trickett, 1980). Structural network studies, however, report mixed findings with regard to the buffering hypothesis, although studies using multiple-item structural support indexes do provide

evidence of beneficial main effects of support on well-being (Cohen & Wills, 1985).

Perceived social support is the "cognitive appraisal of being reliably connected to others" (Barrera, 1986, p. 416). Measures of this concept generally include assessing the perceived availability and adequacy of interpersonal relationships and/or of specific supportive functions, or on satisfaction with support. These measures and other more subjective and qualitative measures are categorized by many investigators as the functional measures of social support. Studies using functional measures of social support generally showed negative relationships of social support to distress, and reported findings consistent with the buffering model (Barrera, 1986; Cohen & Hoberman, 1983; Cohen & Wills, 1985; Wilcox, 1981b).

Enacted support refers to the behavioral descriptions of support, or supportive actions performed by others for an individual (Barrera, 1986). Measures of enacted social support assess what individuals actually do when they render support. Many such measures could be classified under the functional component of support.

Measures of the three social support concepts have been found to be often only mildly related to each other (Barrera, 1986). Numerous other researchers have also reported low correlations between structural and functional measures of social support (Cohen & Wills, 1985; Fiore et al., 1986; Heller & Swindle, 1983; Wilcox, 1981b; Wills, 1987). Heller and Swindle (1983), noted, for example, that factor analysis results showed measures of perceived social support and social network measures to be independent of each other. Many investigators have also found that the quality of one's supportive network appeared to be a more

important factor than the quantitative or structural aspects of social support in buffering individuals from stress (Fiore et al., 1986; Wilcox, 1981b). There is empirical evidence, then, to draw clear distinctions between different social support concepts. Furthermore, Thoits (1982a) has underscored the need for social support researchers to attend not only to the amount of support, but also to other important dimensions such as the types and sources of support people receive.

Sources of support. Findings of several studies reviewed by Wills (1987) indicated that most individuals seek help or use some type of support primarily from informal social networks including spouses, friends, and family for coping with major life events, rather than from strangers or professionals. Having a high level of support from informal sources appears to reduce the need to seek help from professional agencies (Cohen & Wills, 1985). Wills (1987) further pointed out that the majority of functional support may come from only one or a few sources, but he acknowledged that there is not enough evidence and knowledge on the relative contribution of support functions from different sources.

Functions of social support. Several stress-moderating functions provided by social support systems have been identified by several investigators (Caplan, 1974; Cobb, 1976; Gottlieb, 1981). They include: helping individuals organize their skills and resources for dealing with the stressors; helping them bear the burden of the stress; and providing emotional support, material goods and other tangible resources, and information and guidance. As Wilcox (1981b) explained, the provision of emotional support helps individuals mobilize their own psychological resources to cope with the emotional dimensions of the stressful

situation, while the provision of tangible aid and information helps individuals cope directly with the stressors.

Wills (1987) categorized the supportive functions of social support into four types: esteem support, informational support, motivational support, and instrumental support. Esteem support (which is also termed emotional or confidant support by other investigators) involves letting individuals know they are accepted and valued for their own worth as persons. Such support may be demonstrated through listening sympathetically to one's concerns or problems, understanding the situation, sharing personal experiences, and communicating acceptance. Informational support includes providing help with problem definition and clarification, information and advice about possible alternatives, decisions and courses of action. Motivational support includes providing encouragement, reinforcement of positive expectations, and reassurance that things will improve. Instrumental support is helping with material aids or assistance with instrumental tasks such as child care, housekeeping, or transportation. A fifth function pointed out by other authors (e.g. Cohen and Wills, 1985) is social companionship, which is spending leisure time and recreational activities with others.

It has been suggested that a person's interpersonal relationships may only function as stress buffers when the type of support resources or functions are relevant to the coping demands brought by the stressor (Cohen & Wills, 1985; Wills, 1987). Mitchell and Hodson (1983) pointed out that adjustment was more strongly related to measures of support closely related to the stress rather than to global measures of support or social activity. Many investigators have emphasized the need for

specificity in studies on the stress-social support-psychological well-being relationship (Barrera, 1986; Fiore et al., 1986; Heller & Swindle, 1983; Mitchell & Hodson, 1983).

Effects of stressors and psychological distress on support. Another issue that has been raised in the social support literature is the possible existence of multidirectional causal relationships among stress, social support, and psychological well-being. Social support may worsen in response to stress, which in turn affects psychological well-being. Barrera (1986) has suggested and found some support for a model that depicts a reciprocal relationship between stress and perceived social support. That is, the nature of the stressor may lead to a decrease in the support system. Similarly, it has been noted that supportive relationships may be affected by the person's level of distress (Menaghan, 1990). That is, there could be detrimental effects of prior psychological distress on social support. Mitchell and Hodson (1983) postulated that severity of depression may influence support, just as support impacts on depression. Individuals who are depressed may be more likely to either underestimate the support they receive or may alienate potential supportive individuals.

Other social support issues. Several other issues with regard to social support have added to its complexity, both conceptually and methodologically. The existence of social support systems does not necessarily mean they are drawn upon to help cope with stressors. House, Umberson, and Landis (1988) pointed out that social networks can themselves be sources of stress, such as causing relational conflicts instead of or in addition to providing support. Individuals who may need social support may themselves have a negative orientation toward

social support. That is, they may not draw upon their social networks for several reasons, such as embarrassment at admitting problems, or the belief that members of the network may not be able or willing to help. Finally, one's social supports and social networks do not remain stable over time, but rather may be constantly changing.

Social Support Among Women with Abusive Partners

Among women with abusive partners, social support plays an important role in their ability to stop the violence in their lives and to recover from the abuse they have suffered. Mitchell and Hodson (1983), for example, found that increased supportive responses from informal sources of support were related to the psychological adjustment of the women. Available social support were also negatively correlated with PTSD intensity levels (Astin et al., 1993).

Social isolation and impediments to help-seeking. Several investigators have reported that battered women are relatively socially isolated, and/or are hesitant to seek help for the abuse (Dobash & Dobash, 1979; Gelles, 1976; Mitchell & Hodson, 1983; Walker, 1979, 1984). Mitchell and Hodson (1983), for example, reported that more than half of their sample reported at most only one or no social contact at all with friends or family unaccompanied by their assailants within one month. Among the women in Schulman's (1979) study who were ever the victims of spousal violence, 43% reported turning to no one for assistance. In Finn's (1985) study, the shelter sample was less likely than the general female population to enlist informal social support or acquire support from relatives, friends, neighbors, and extended family as a coping strategy to deal with stress, although they did not differ from the female norm in obtaining professional help in the community

when needed. Sato and Heiby (1992), however, reported that their sample of 136 battered women, on the average, perceived themselves as having adequate social support from family and friends.

Abusive men have generally been reported to attempt to hinder their partners from making contacts with other people, including family members and friends, and from opportunities to meet new people and make new friends (Browne, 1987; Dobash, Dobash, & Cavanagh, 1985; Hilberman & Munson, 1977-78; Homer, Leonard, & Taylor, 1985; Walker, 1984). Mitchell and Hodson (1983) further noted that increasing levels of violence were associated with greater social isolation of the women, resulting in decreased social support. Battered women may then be at a greater risk of developing psychological symptoms from having less social support at a time they may need the support most (Mitchell & Hodson, 1983).

Women with abusive partners may also feel hesitant to seek help for the abuse for several other reasons, such as the feeling of failure, the shame and guilt associated with the violence, the belief that the abuse is a private matter, a sense of loyalty to the assailant, feelings of duty and responsibility, perceived ineffectiveness of response from others, or inability of others to help (Dobash & Dobash, 1979; Dobash et al., 1985; Homer et al., 1985). Furthermore, Straus (1977) pointed out that modern American society, with its characteristic high value placed on privacy, encouragement of geographic mobility, and reduction of close ties to neighbors and extended family, has generally added to the social isolation of women and the lack of accepted outsiders who can serve as agents of social control to discourage the men's use of physical force. Thus, not only do abusive relationships increase the stress experienced

by women, they may also simultaneously decrease their social resources that may potentially help them deal with current or future abuse.

Battered women living in poverty may also have their social support system undermined by the general stresses brought by the lack of economic resources. Poverty itself is a major stressor, bringing with it persistent undesirable chronic conditions such as inadequate housing, dangerous neighborhoods, poor medical care, and financial uncertainties. Relatives and friends of poor women are themselves likely to have economic problems (Belle, 1990), to be under stress, and thus to be less able to provide specific supportive functions such as material aid. Mitchell and Hodson (1983) found that battered women with greater education, income, and job skills reported having more contact with and received more supportive responses from friends. They suggested that such women had easier access to roles outside their relationships that provide opportunities for them to develop social ties other than within the relationship context, and to be in touch with more diverse sources of information.

Sources and types of support. In spite of the various obstacles faced by battered women seeking help, many women eventually ask for help and support from their friends, family, relatives, and community sources (Binney et al., 1981; Dobash et al., 1985; Flynn, 1977). They have been reported to rely more on informal support networks (family, relatives and friends) for obtaining sympathy or assistance than on formal sources such as the police, lawyers, social service agencies, and religious institutions (Binney et al., 1981; Hoff, 1990; Homer et al., 1985; Schulman, 1979). Dobash, Dobash, and Cavanagh (1985) found that while informal sources were the main sources to be contacted after the initial

assaults, formal sources were also likely to be eventually contacted after later assaults. Their data indicated that most women who seek help from social and medical agencies would most likely have sought help from informal sources for some time prior to approaching professional help.

The help-seeking behavior of women with abusive partners has also been observed to change over time depending upon the response they receive, the level and frequency of violence experienced, and the perceived effect of an outside contact upon the violence (Bowker, 1983, 1984; Dobash & Dobash, 1984; Dobash et al., 1985; Gelles, 1976; Walker, 1984). Dobash, Dobash, and Cavanagh (1985), for example, reported that 51% of their sample made at least one contact either with informal or formal sources of support after the first assault, which increased to 88% after the worst assault. Bowker (1983; 1984) found that among a sample of 146 women who had been free of violence for at least a year, 19% approached family members and 16% approached friends for assistance in the first battering incidents, increasing steadily to 43% seeking assistance from family members and 52% from friends after the final battering incidents. In Gelles' (1976) study, the data indicated that the more severe the violence, the more likely the woman would seek outside assistance. As the frequency and severity of violence increase, women are then more likely to make contacts and seek assistance from other individuals and agencies. The types of assistance requested and received by battered women were generally material aid or direct service such as for accommodation, help in stopping specific assaults, and sympathy and moral support (Bowker, 1983, 1984; Dobash & Dobash, 1979; Dobash et al., 1985; Hoff, 1990).

Effectiveness of help received. In a study of women who had successfully escaped abusive men, women who received help from members of their informal social networks and even from formal agencies considered such help as generally successful in helping them end the violence in their lives (Bowker, 1983, 1984; Donato & Bowker, 1984). In Strube and Barbour's (1984) study, however, the presence of social support did not necessarily discriminate women who left from women who remained with abusive partners, but then the social support measure used in this study was limited to merely listing sources of support, indicating presence of support. Similarly, Follingstad and her colleagues (1991) did not find any of their social support variables significant in a multiple regression analysis to predict number of physical and psychological symptoms. What these social support variables were and how they were measured, however, were unclear.

Although battered women may actively seek help, the support they receive, particularly from the traditional health and social service system has been reported to be inadequate much of the time (Binney et al., 1981; Bowker, 1983; Dobash & Dobash, 1979; Dobash et al., 1985; Gelles, 1976; Gondolf, 1988; Hofeller, 1982; Hoff, 1990). Medical practitioners, for example, failed to identify battering cases most of the time, or if they did, often failed to comprehend the plight of the women and chose to remain uninvolved, or worse, to engage in considerable victim-blaming attitudes and behaviors (Dobash & Dobash, 1979; Dobash et al., 1985; Kurz & Stark, 1988; Pagelow, 1992). Social workers have been reported to have an almost exclusive preoccupation with the welfare of the children. They have also been reported to display a priority for the maintenance of family unity and privacy over

the violence directed at the women (Binney et al., 1981; Dobash et al., 1985; Maynard, 1985). The police may be the agency most frequently contacted by battered women but have been reported to be often ineffective and failing to provide the assistance desired (Binney et al., 1981; Bowker, 1983; Dobash & Dobash, 1979). On the other hand, Donato and Bowker (1984) reported that help received from traditional social service agencies and women's groups was rated by the women as being at least fairly successful in helping end the violence most of the time. Their results further suggested that women's groups may be more helpful than traditional social service agencies to the battered women. However, their sample of 146 battered women were recruited as volunteers and were predominantly white and middle-class, while the agencies contacted by the women were largely private agencies offering family, alcohol and/or drug counseling. To what extent this biased the results is unknown.

Mitchell and Hodson (1983) found that women receiving less help from institutional sources showed greater depression. In addition, they reported that differential responses from informal sources of support were related to adjustment. For example, avoidance responses from friends were associated with greater depression. In some cases, members of battered women's social networks made the women's situation worse by their refusal to help, their inaction or indifference, and/or blaming the women for the violence (Bowker, 1984). Thus, the outcomes of the contacts made by women with others play a crucial role in either helping decrease further violence or contributing instead to the continuation of violence.

Rationale for Present Study

Although numerous studies have been conducted on various aspects of domestic violence, empirical evidence is still inadequate, and wide gaps in our existing knowledge remain on the effects of violence on women, on the factors influencing women's ability to stop the violence in their lives, and on factors influencing the outcomes of the violence.

Russo (1990) has pointed out the pressing and immediate need for more research on how to mitigate the effects of intimate male violence against women. Research literature on stress and on battered women, in particular, has shown that three kinds of outcomes may result from the complex interaction of stressors, and situational and psychological factors: the person may (a) display adaptive change and substantial growth after having overcome the stressful experience, (b) essentially return to some state normal for that person without any discernible emotional change or change in physical functioning, or (c) develop various types and levels of psychological symptoms and psychopathology (Dohrenwend, 1978). Thus, while some women remain in abusive relationships, continue to suffer abuse, and/or develop depressive symptoms and/or PTSD, other women are able to break free of the relationships and/or display no damaging psychological effects of the abusive experience. An important research question then would be to discern the factors that influence the differential outcomes of violence. Such findings could have implications for possible intervention strategies. While several studies have looked at the psychological effects of abuse (see Table 1), very few empirical studies (e.g. Follingstad et al., 1991; Mitchell & Hodson, 1983) have attempted to relate the differential effects of abuse to moderating variables,

particularly situational variables such as perceived availability of support for various supportive functions, and the extent of one's social support network. Table 1 summarizes the various studies that have examined the psychological well-being and/or social support of women with abusive partners.

Table 1

Table 1

Studies on the Psychological Well-being and Social Support of Women with Abusive Partners

Investigator(s)	Sample	Sample Size	Sampling Design	Time frame	Data Collection Technique(s)
Astin, Lawrence, & Foy, 1993	women in shelters & counseling center	53	convenient sample	cross-sectional	paper & pencil measures, and clinical interviews
Bergman & Brismar, 1991	women in emergency room with injuries from battering	117	convenient sample	longitudinal	analysis of data from county and medical records
Binney, Harkell, & Nixon, 1981	1) women in shelters 2) subsample at 18-mo. follow-up	636 84	convenient sample	cross-sectional with one follow-up	survey & structured interviews
Bowker, 1983 Bowker, 1984 Donato & Bowker, 1984	volunteers in response to ads	146	convenient sample	cross-sectional	in-depth interviews

Table 1 (cont'd).

Investigator(s)	Sample	Sample Size	Sampling Design	Time frame	Data Collection Technique(s)
Browne, 1987 Browne, 1988	1) women charged w/ death or serious injury of their mates	42	convenient sample	cross-sectional	in-depth interviews
	2) nonhomicide battered women	205			
Cascardi & O'Leary, 1992	women seeking help from an agency	33	convenient sample	cross-sectional	structured interviews
Dobash & Dobash, 1979 Dobash & Dobash, 1984 Dobash, Dobash, & Cavanagh, 1985	women in shelters/ recently left shelters	109	convenient sample	cross-sectional	in-depth interviews
Finn, 1985	women seeking help from a shelter/ program	56	convenient sample	cross-sectional	paper & pencil measures (part of intake procedure)

Table 1 (cont'd).

Investigator(s)	Sample	Sample Size	Sampling Design	Time frame	Data Collection Technique(s)
Flynn, 1977	1) women referred by agency workers 2) cases described by agency workers (secondary sources)	14 19	convenient sample	cross-sectional	interviews
Follingstad, Brennan, Hause, Polek, & Rutledge, 1991	women recruited from a shelter and other sources	234	convenient sample	cross-sectional	phone survey
Gelles, 1976	1) couples identified through a social service agency & police records 2) neighborhood matched couples	40 40	convenient sample	cross-sectional	in-depth interviews
Gelles & Harrop, 1989	currently/previously coupled women	3,002	random sampling	cross-sectional	national survey

Table 1 (cont'd).

Investigator(s)	Sample	Sample Size	Sampling Design	Time frame	Data Collection Technique(s)
Gleason, 1993	1) shelter sample 2) women receiving asst. from shelter but living at home	30 32	convenient sample	cross-sectional	structured (clinical) interviews
Gondolf, 1988	women in shelters	6,612	convenient sample	cross-sectional	data from shelter intake and exit interviews
Hilberman & Munson, 1977-78 Hilberman, 1980	rural women referred for psychiatric evaluation	60	convenient sample	cross-sectional	data collected during counseling
Hofeller, 1982	1) volunteers in response to ads, referred by others 2) nonbattered women recruited through referrals, from orgns	50 50	convenient sample	cross-sectional	interviews & written questionnaires

Table 1 (cont'd).

Investigator(s)	Sample	Sample Size	Sampling Design	Time frame	Data Collection Technique(s)
Hoff, 1990	women in shelter	9	convenient sample	longitudinal	in-depth interviews, participant observation, archival data
Hoffman, 1984	women responding to advertisement	25	convenient sample	cross-sectional	in-depth interviews
Homer, Leonard, & Taylor, 1985	women in shelter	80	convenient sample	cross-sectional	in-depth interviews
Houskamp & Foy, 1991	women who sought help from shelters	26	convenient sample	cross-sectional	paper & pencil measures, & clinical interviews
Jaffe, Wolfe, Wilson, & Zak, 1986	1) women in shelters 2) nonbattered women responding to advertisement	56 89	convenient sample	cross-sectional	paper & pencil measures, & structured interviews

Table 1 (cont'd).

Investigator(s)	Sample	Sample Size	Sampling Design	Time frame	Data Collection Technique(s)
Kemp, Rawlings, & Green, 1991	women in shelters	77	convenient sample	cross-sectional	paper & pencil measures, & clinical interviews
Maynard, 1985	social work case files in one town	103 files	random selection	---	analysis of social work case files
Mitchell & Hodson, 1983 Mitchell & Hodson, 1986	women who sought assistance at a shelter	60	convenient sample	cross-sectional	paper & pencil questionnaires
Pagelow, 1981	91% from various shelters; 9% non-shelter volunteers	350	convenient sample	cross-sectional	surveys & in-depth interviews
Sato & Heiby, 1992	women in shelters or battered women's programs	136	convenient sample	cross-sectional	paper & pencil measures

Table 1 (cont'd).

Investigator(s)	Sample	Sample Size	Sampling Design	Time frame	Data Collection Technique(s)
Schulman, 1979	women in Kentucky	1,793	random sampling	cross-sectional	survey
Strube & Barbour, 1984	women who contacted the counseling unit of a county attorney's office	251	convenient sample	cross-sectional with a follow-up contact	data from intake interviews
Walker, 1979	women referred by others; volunteers responding to media sources	over 400	convenient sample	cross-sectional	in-depth interviews
Walker, 1984	volunteers recruited through referral and direct advertising	403	convenient sample	cross-sectional	interviews

Table 1 (cont'd).

Investigator(s)	Type of Analysis	Measure(s) of Abuse	Measure(s) of Psychological Well-being	Measure(s) of Social Support
Astin, Lawrence, & Foy, 1993	correlations & multiple regression	Conflict Tactics Scale	1) Impact of Event Scale 2) PTSD Symptom Checklist	6-item instrument measuring perceived available social support, & social support satisfaction
Bergman & Brismar, 1991	descriptive, chi-square and ttests	injuries from battering	use of psychiatric clinic and recorded diagnosis	---
Binney, Harkell, & Nixon, 1981	descriptive	accounts of violence	---	accounts of help-seeking acts,
Bowker, 1983 Bowker, 1984 Donato & Bowker, 1984	descriptive, correlations & multiple regression	accounts of violence	---	accounts of help-seeking acts, contacts with others, effectiveness of help received
Browne, 1987 Browne, 1988	descriptive	accounts of violence	accounts of reactions to abuse	---

Table 1 (cont'd).

Investigator(s)	Type of Analysis	Measure(s) of Abuse	Measure(s) of Psychological Well-being	Measure(s) of Social Support
Cascardi & O'Leary, 1992	descriptive, bivariate and multivariate statistics	1. Modified Conflict Tactics Scale 2. Injury Index	Beck Depression Inventory	---
Dobash & Dobash, 1979 Dobash & Dobash, 1984 Dobash, Dobash, & Cavanagh, 1985	descriptive	accounts of violence	---	accounts of help-seeking acts
Finn, 1985	descriptive, correlations, bivariate statistics	(defined by self/others - referrals to the shelter)	---	Acquiring social support subscale of the F-Copes scale measuring coping strategies
Flynn, 1977	descriptive	accounts of violence	---	accounts of help-seeking acts
Follingstad, Brennan, Hause, Polek, & Rutledge, 1991	descriptive, bivariate and multivariate statistics	frequency & types of physical abuse; specific injuries; frequencies & types of emotional abuse	existence of psychological symptoms (anxiety, depression, alcohol & drug abuse)	no clear description

Table 1 (cont'd).

Investigator(s)	Type of Analysis	Measure(s) of Abuse	Measure(s) of Psychological Well-being	Measure(s) of Social Support
Gelles, 1976	descriptive, multiple regressions	accounts of violence	---	accounts of help-seeking from police, social service agencies
Gelles & Harrop, 1989	correlations & regression analyses	Conflict Tactics Scales	10 items from the Psychiatric Evaluation Research Interview & the Perceived Stress Scale	---
Gleason, 1993	bi-variate statistics (ttests & chi-square)	determined by shelter	Diagnostic Interview Schedule	---
Gondolf, 1988	univariate & multivariate analyses (structural equation modelling, discriminant function analysis)	checklist of violent acts, verbal abuse, & injuries; frequency of abuse	---	checklist of helpseeking acts

Table 1 (cont'd).

Investigator(s)	Type of Analysis	Measure(s) of Abuse	Measure(s) of Psychological Well-being	Measure(s) of Social Support
Hilberman & Munson, 1977-78 Hilberman, 1980	descriptive	accounts of violence	accounts of physical & psychological symptoms, past psychiatric histories	—
Hofeller, 1982	descriptive	accounts of violence	accounts of reactions to abuse	acounts of relationships with others and contacts with agencies
Hoff, 1990	descriptive	accounts of violence	accounts of impacts of violence on women	1) accounts of and satisfaction with various relationships 2) social network questionnaire (for network analysis) 3) participant observation data
Hoffman, 1984	descriptive	accounts of psychological abuse	accounts of reactions to abuse, physical and psychological effects	—

Table 1 (cont'd).

Investigator(s)	Type of Analysis	Measure(s) of Abuse	Measure(s) of Psychological Well-being	Measure(s) of Social Support
Homer, Leonard, & Taylor, 1985	descriptive	accounts of violence	—	acounts of social life, contacts and relationships with others
Houskamp & Foy, 1991	descriptive and bivariate statistics	Conflict Tactics Scales-Revised	1) Structured Clinical Interview for DSM-III-R 2) PTSD Symptom Checklist 3) Impact of Event Scale	—
Jaffe, Wolfe, Wilson, & Zak, 1986	descriptive, ttests, multiple regressions	Conflict Tactics Scales-	1) General Health Questionnaire (GHQ-18)	—
Kemp, Rawlings, & Green, 1991	descriptive, and correlations	range & frequency of violent events	1) Impact of Event Scale 2) Symptom Checklist 90-R (SCL-90-R) 3) Interview Schedule for PTSD	—
Maynard, 1985	content analysis	batterings/beatings recorded by social worker, if any	psychological symptoms/ descriptions recorded on files	—

Table 1 (cont'd).

Investigator(s)	Type of Analysis	Measure(s) of Abuse	Measure(s) of Psychological Well-being	Measure(s) of Social Support
Mitchell & Hodson, 1983 Mitchell & Hodson, 1986	descriptive, correlations, regression analyses	Conflict Tactics Scale	1) depression scale of the Brief Symptom Inventory 2) Pearlin & Schooler mastery scale 3) Rosenberg Self-Esteem Scale	1) number of contacts with relatives & friends, unaccompanied & accompanied by partner 2) number of supporters, 3) friends' empathic responses, 4) friends' avoidance responses 5) helpfulness of institutional responses
Pagelow, 1981	descriptive, correlations, regression analyses	accounts of violence and injuries sustained	Items on suicide thoughts & attempts, reactions to violence	1) contacts with & helpfulness of institutional responses 2) items on informal sources of support approached for assistance
Sato & Heiby, 1992	descriptive, correlations, regression analyses	Conflict Tactics Scale	Zung's Self-Rating Depression Scale	Provisions of Social Relations Scale

Table 1 (cont'd).

Investigator(s)	Type of Analysis	Measure(s) of Abuse	Measure(s) of Psychological Well-being	Measure(s) of Social Support
Schulman, 1979	descriptive	Conflict Tactics Scale	—	Items on who the women talked to about the assault(s)
Strube & Barbour, 1984	descriptive, bivariate statistics, regression analyses	(defined by self/others - referrals to the counseling unit)	—	listing of sources of social support
Walker, 1979	content analysis of cases, descriptive	accounts of physical and psychological abuse	accounts of psychological effects	—
Walker, 1984	descriptive, path analyses	accounts of physical and psychological abuse	CES-D	Items on who the women talked to about violence; items on abusers' attempts at isolating the women

As shown in Table 1, the studies employed a variety of research techniques. Methodological weaknesses, however, are evident, which limit causal inferences and definitive conclusions that can be made. First, almost all the studies relied on the self-report of the women. Second, the existing research is predominantly descriptive in nature. Responses are often limited to being tabulated and reported. Third, almost all the studies used a convenient sample, mainly women who sought assistance at a shelter or other agency. These women then represent only a subgroup of women battered by their male partners who tried and were able to seek intervention of some sort, and are not likely to be representative of the battered women population. As has been found in various studies (e.g. Gelles, 1976), help seeking by victimized women appeared to be related to factors such as the greater frequency or severity of violence experienced. Thus, the studies may be skewed towards women experiencing more severe violence. Fourth, almost all the studies were limited to a single time period. The few studies with follow-up designs focused on the housing situation of the women after leaving shelters (e.g. Binney et al., 1981), on their relationship status with the original abusers (e.g. Strube & Barbour, 1984), or on their use of hospital and/or psychiatric care (e.g. Bergman & Brismar, 1991). Furthermore, most of the studies, particularly the ones concerned with women's psychological adjustment, were conducted while the women were still in the shelter or immediately after leaving the shelter. Most likely, the women were then in a crisis situation, having just experienced recent abuse. In this state, it would not be surprising that many of them reported some forms of psychological distress. The stability of the relationship between abuse and

psychological distress, or on whether depressive and other psychological symptoms persist over time, remain unclear. Because of the cross-sectional design, one also cannot determine whether the reported psychological distress of battered women preceded their experiences with abuse or was a consequence of their victimization. Neither can we conclude that increased social support leads to improved psychological adjustment. There is a need, then, for empirical studies that utilize a longitudinal design.

Measurement problems abound as well. Conflicting findings among the studies that looked at the social support of battered women (e.g. Bowker, 1983, 1984; Dobash et al., 1985; Donato & Bowker, 1984; Follingstad et al., 1991; Mitchell & Hodson, 1983, Sato & Heiby, 1992; Strube & Barbour, 1984), for example, could largely be traced to differences in conceptualization and measurement of social support variables, as has been observed with the broader social support research literature. As shown in Table 1, the measurement of social support ranged from simply identifying sources of support or contacts made, descriptive accounts of help-seeking acts, to scale scores of perceived support. Very few studies (e.g. Mitchell & Hodson, 1983) conceptualized social support as a multi-dimensional construct, and related the different social support dimensions to the women's adjustment. Thus, there is a need, first of all, for more empirical studies on the social support of battered women; and second, for studies that explore the various social support concepts and their differential relationships to abuse and psychological well-being. As pointed out by House and Kahn (1985), it is desirable on both substantive and methodological grounds that structural and functional components of social support be

incorporated in a single study. Only then can the relationships among social support concepts, and between them and psychological well-being, be better understood.

Although it is unlikely that any one model can provide a complete account of the psychological effects of violence, conceptualizing and testing a longitudinal model which explores the interaction of stressor (abuse), social support concepts, and the subsequent psychological adjustment has great potential to contribute to the growing body of empirical research in this area. The longitudinal approach would enable us to determine the (in)stability of psychological symptoms and establish causality with greater certainty.

The Present Study

The present study is part of the Community Advocacy Project, a federally-funded project utilizing a longitudinal, experimental design to examine over a two-year period the effects of an advocacy intervention on battered women's overall psychological well-being and ability to remain free from abuse. Women randomly assigned to the experimental group had advocates assisting them to access needed resources after leaving a domestic violence shelter. The advocates also provided considerable social support to their clients. Data for the present study came from interviews conducted at three time periods: (1) upon exiting the shelter, (2) upon the conclusion of the 10-week intervention, and (3) at the six-month followup.

Research Objectives and Hypotheses

The major objective of the study was to examine the relationships of abuse, social support, and the psychological well-being of women battered by their male partners and ex-partners. It explored how social

support moderates the relationship of abuse to psychological well-being. Given the debate in the literature on the process by which social support mitigates the effects of stress, both the direct-effects model and the buffering model were tested. Figure 1 presents a diagram that outlines the hypothesized relationships between abuse, social support, and psychological well-being at two time periods. Two social support variables, social embeddedness and perceived support, were modeled as potential moderators of the psychological impacts of violence on the women. The provision of advocates was also included in the model to control for the possible influences of the advocates on the social support variables.

As the initial interviews were conducted immediately upon exiting the shelter, all the women in the sample had just experienced abuse. They would still have been under relatively high stress, and/or feeling the immediate effects of the abuse. The data showed lack of variability in the level of abuse at this stage. Variability is, however, necessary to be able to find significant relations between variables if such exist. Thus, interviews conducted after the 10-week intervention period (Time 2) and at the six-month followup (Time 3) were the two time periods used to test the model. By then, the crisis situation would have, at least for some women, abated. Data on their psychological condition at these later time periods would provide a more reliable and accurate portrayal of their mental health rather than data collected during a crisis situation.

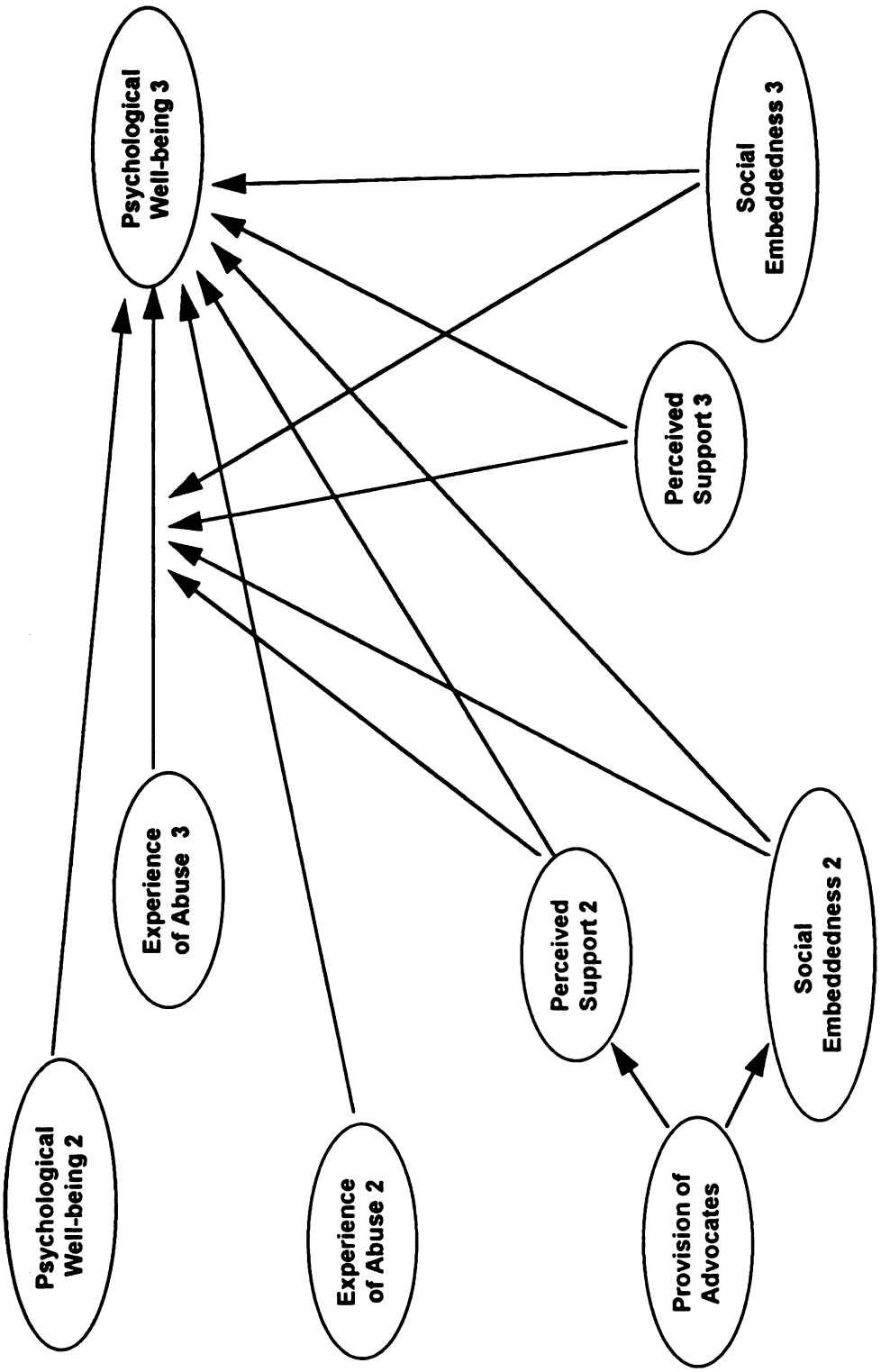

Figure 1. A longitudinal causal model of abuse , social support , and psychological well-being at two time periods: Time 2 = Post-intervention interview, Time 3 = Six-month followup

The specific hypotheses of the study as shown in the model were as follows:

1. Abuse from intimate male partners is a major stressor affecting women's psychological health. That is, the experience of abuse has a direct negative effect on the psychological well-being of the women. The more severe the abuse, the greater the psychological distress displayed.
2. Both social embeddedness and perceived support have direct effects on the psychological well-being of the women. That is, there is a significant positive main effect of the level of each social support dimension on the level of psychological well-being.
3. Both social embeddedness and perceived support have moderating effects on the relationship between abuse and well-being. That is, there is a significant interaction effect of each social support dimension with the level of abuse on psychological well-being. At high levels of abuse, social support is positively related to psychological well-being; at low levels of abuse, the relationship between social support and psychological well-being is not significant.
4. Perceived social support has stronger direct and moderating effects on psychological well-being than social embeddedness.

A secondary objective of the present study was to provide a descriptive account of the abuse, social support, and psychological well-being over time of women who sought assistance at a shelter, given the dearth of empirical studies on the various dimensions of the social support, and on the changes over time or stability of the level of abuse, social support, and psychological well-being of women after

exiting a domestic violence shelter. The descriptions would provide the context, and increase our understanding of the model as it applies to this specific sample of individuals. Specifically, descriptive information would be provided on the sources of various types of support to the women, and on the particular role of the abusers in relation to the women's social support. As the model is predicated on changes in the variables of interest occurring over time and on individual differences existing in such variables, information on the level of physical and psychological abuse experienced, on both perceived social support and social embeddedness, and psychological well-being at each time period are also presented. The descriptive information and additional bivariate analyses of the relationships among the variables provide the contextual background against which the results of the empirical test of the model will be interpreted.

CHAPTER II

METHOD

Research Participants

Research participants were recruited for 13 months from the Council Against Domestic Assault, a battered women's shelter located in Lansing, Michigan. Women who stayed at the shelter at least for a night and who remained within the Greater Lansing Area were considered eligible for the project, irrespective of their relationship status with their assailants after leaving the shelter. Potential participants were informed that participation in the project involved being interviewed six times after their shelter exit--immediately upon exit, ten weeks thereafter (post-intervention), and at 6, 12, 18 and 24 months post-intervention. They were also informed that they would be paid for their interviews, starting at $10 for the first interview, and increasing to $40, $60, $80, $90, and $100 for the subsequent interviews. The dollar increments were increased per interview to encourage continued participation. Potential participants were further informed that half of the women would be randomly chosen to receive the free services of a trained advocate after they left the shelter for four to six hours per week for ten weeks.

Only 7% of the eligible shelter residents declined to participate in the project. One hundred forty-six women completed initial interviews. However, in order to be considered project participants, women had to be involved in the project for at least three weeks (to give women with advocates adequate time to get acquainted and begin

working). Of the 146 initial study participants, four women voluntarily ended their participation within the first two weeks, and one woman was murdered. Thus, the sample size for Time 1 (shelter exit interviews) is 141 women. By the post-intervention interviews conducted 10 weeks after their shelter exit interviews, three women ended their participation, two were suspected to have been murdered, and three could not be located, despite intensive tracking efforts, leaving a total sample of 133 interviewed at post-intervention. By the six-month interviews, two more women could not be located (N = 131 at Time 3). Of the ten participants who were not interviewed at six months, their demographic information was comparable to the rest of the sample. Data from two women who exhibited signs of psychological dysfunction which could have invalidated their answers to many of the questions were further excluded as initial data screening analysis revealed them to be extreme outliers in many of the variables. The final sample size used in the analyses and reported in this study is 129.

Demographic information

Forty-seven percent of the participants were White, 43% were African American, 7% were Latina, and the remainder were Asian American, Native American, Arab American, or of mixed heritage. Their ages ranged from 17 to 61 years, with a mean of 28 years. Seventy-nine percent had at least one dependent child living with them.

Within the last six months prior to entering the shelter, 41% had some form of employment; only 17%, however, were employed after their shelter exit. Most of the women (60%) lived below the federal poverty line with an annual income averaging $11,372. The majority (81%) received government assistance. Eight to nine months later, while

slightly more women were employed (32%), the percentage living below the poverty line increased to 76%. The average income dropped to $9,035.70. Three-fourths of the women continued to receive some form of government assistance.

Sixty-four percent had completed high school or had obtained a graduate equivalency degree (GED); 34% had at least some college experience. About a fifth (22%) were continuing their education.

For 43% of the sample, this was the first time they had gone to a shelter. The women stayed, on average, 17 days at the shelter (range = 1 to 45, *s.d.* = 12.4). Prior to going to the shelter, 33% were married and living with their assailants; 47% lived with their assailants but were not married. Five percent were romantically involved with their assailants but were not living together, and 15% were no longer involved with their partners at the time of the last assault (either separated, divorced, or no longer dating).

The participants were demographically similar to the samples of other studies (e.g. Astin et al., 1993; Finn, 1985; Gondolf, 1988; Kemp et al., 1991; Mitchell & Hodson, 1983; Okun, 1986; Pagelow, 1981; Sato & Heiby, 1992). Thus, they are generally representative of women who utilize domestic violence shelters.

Interviewer Training and Procedure

Most of the interviews were conducted by undergraduates under the supervision of the interviewer coordinators. The interviewers underwent one term of rigorous training in woman abuse and in interviewing before being sent out to the community to interview women. Written materials, films, class discussions, role-plays, and other exercises were utilized in the training. After training, students continued to meet with the

interviewer coordinators once a week to discuss and evaluate the previous week's interviews, answer questions, and resolve other issues with regard to the interviews themselves or to the coding of the responses. The interviewers earned college credits for their involvement in the project.

Interviews were generally conducted in person in the community, most often in women's homes, and lasted for approximately one and a half hours. By the six-month interviews, 13 women (9.9%) had moved out of the area and were thus interviewed over the telephone. Most interviews were recorded and reviewed by the interviewer coordinators. Interrater agreement was consistently above 97%.

Advocate Training

Advocates were female undergraduates who earned college credits for their participation in the project. They attended a 10-week training prior to their assignment to the women. The training focused on woman battering and on the difficulties women face after leaving a shelter, on advocacy, and on generating and mobilizing community resources. The advocates also received two hours of weekly supervision from the project directors during the intervention period. A total of 69 advocates participated in this project.

Experimental Intervention - the Provision of Advocates

Half of the women were randomly assigned to the experimental condition. These women worked with their advocates for ten weeks after leaving the shelter. Women assigned to the control condition were not contacted again until their subsequent interviews ten weeks later. Bivariate statistics performed on demographic variables showed no statistically dependable differences between the experimental and

control groups.

While each intervention was based on the needs and circumstances of the women, all advocates were instructed to help assess the women's unmet needs, and tailor their interventions to help women access community resources that would fulfill those needs (e.g. housing, employment, legal assistance, childcare, healthcare, etc.). Advocates spent an average of 6.9 hours in person and an additional 2.5 hours on the phone per week with or on behalf of the women. Not only did they provide social support to the women, they also helped increase and expand the women's social network if the women so desired.

As stated earlier, it was hypothesized that the provision of advocates would increase both social embeddedness and perceived support of the women in the experimental group as compared to the control group.

Measures

Several existing measures were utilized for this project.

Social Support

A social support instrument developed by Bogat, Chin, Sabbath, & Schwartz (1983) was used to measure the two social support variables, social embeddedness and perceived support. Perceived support was measured by a 9-item scale (1 = extremely pleased, 7 = terrible) which assessed women's satisfaction with their perceived quantity and quality of (1) companionship, (2) advice and information, (3) practical assistance, and (4) emotional support, as well as with their overall social support. Scale scores were reverse-coded so that higher scores reflected greater satisfaction with their perceived support.

As part of this instrument, women were also asked to list as many people they could immediately think of who they: (1) usually spent time

with; (2) enjoyed talking with; (3) counted on for advice or information on personal matters; (4) counted on for advice or information about resources; (5) depended on when they needed help; (6) counted on for favors; (7) counted on to listen to them; and (8) felt really cared about them. From their responses to this section, social support network size and the number of generalists, two variables assessing social embeddedness, were constructed. The social support network size indicated the total number of individuals mentioned across various areas of functional support. The number of generalists represented the number of individuals that women mentioned four or more times across the eight areas of support. Advocates, if mentioned, were excluded from the two variables. Last, women were also asked to give an estimate of the number of close friends they had, a third measure of social embeddedness. At each time period, 4 or 5 women provided responses of having more than 10 close friends which resulted in a highly skewed distribution of responses. These numbers were truncated to 10. Thus, the scores on this variable ranged from 0 to 10.

Experience of Abuse

Four measures of abuse were used. The first measure was a modified version of Straus' (1979) Conflict-Tactics Scale Violence subscale (CTS) measuring frequency and severity of violence experienced in the preceding six months. Two items were dropped from this scale ("burned" and "drove recklessly so that you felt endangered") due to lack of variance. The final scale (coefficient alpha = .90) consisted of 14 items describing various types of physical violence that women may have experienced from their partners, reported on a 6-point scale where 1 = never, 2 = once a month or less, 3 = 2 or 3 times a month, 4 = once

or twice a week, 5 = 3 or 4 times a week, and 6 = more than 4 times a week.

The second measure was the Index of Psychological Abuse (IPA) (Sullivan, Parisian, & Davidson, 1991) specifically developed for the project and consisting of 33 items measuring ridicule, harassment, and criticism experienced in the preceding six months (on a scale where 1 = never, to 4 = often). Internal consistency of this scale was .97, with item-total correlations ranging from .51 to .90.

The third measure was the extent of injuries score derived from a checklist of injuries sustained by the women from the physical abuse in the preceding six months. The scores could range from 0 for no injuries to as high as 10 types of injuries sustained. The fourth measure was the frequency of threats received by the women from their assailants in the preceding six months on a 6-point scale where 1 = never, to 6 = more than four times a week.

At the post-intervention interview conducted 10 weeks after the first interview, the time reference used for all four abuse variables was within the last ten weeks. For the initial interview and the Time 3 (six-month followup) interview, the time reference was within the previous six months. For both Time 2 and Time 3 interviews, women involved in new relationships were also asked to complete the CTS scale, the extent of injuries scale, and the frequency of threats received with regard to the new relationships. In these cases, the women had two scores on each of these three variables -- one measuring the abuse perpetuated by the original assailants and the second score measuring the abuse, if any, from the new relationships. For the present study's purposes, a third set of scores were created based on the worse of the

two scores to indicate the level of intimate male violence against the women regardless of the source.

Psychological Well-being

There were two measures of psychological well-being. The first was a modification of Andrews & Withey's (1976) Quality of Life (QL) measure. Twenty-five items measuring feelings about respondents' interpersonal relationships, self, neighborhood, and overall well-being were selected to predict overall quality of life (coefficient alpha = .90, item-total correlations ranging from .30 to .65). Response categories ranged from 1 = extremely pleased, to 7 = terrible. Scores were reverse-coded so that high scores reflected greater satisfaction with one's quality of life. The second measure was the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977), a self-report checklist designed to measure depressive symptomatology in the general population. It consisted of 20 items assessing the frequency of symptoms experienced in the preceding week on a 4-point scale where 0 = rarely or none of the time, to 3 = most or all of the time (coefficient alpha = .88).

Other Variables and Their Measurement

Several other variables were used in the study mainly for descriptive purposes. They included selected items from the Index of Psychological Abuse, which assess the extent to which an abuser controls the woman's activities and social contacts, and demographic variables.

Resolving Measurement Issues for the Multivariate Analyses

Prior to running the multivariate analyses, decisions had to be made to choose the best and most parsimonious indicators of the underlying psychological well-being, abuse, and social support

constructs. An issue to consider was the possible existence of multicollinearity among the independent variables. Tables 2 and 3 show the correlations of psychological well-being and abuse variables with the demographic, social support, and other variables. (All of the variables in the matrices were part of the larger project. Many of these variables were included in this study only for the purpose of resolving measurement issues and were not of particular concern to the study's main objectives). The matrices were used to help discern the convergent and discriminant validity of the measures, to evaluate the variables for multicollinearity, and eventually to arrive at the most appropriate measures of the constructs of interest for the multivariate analyses.

As can be seen from the correlation matrix in Table 2, the two psychological well-being indicators were indeed highly correlated with each other (corrected *r*'s from -.62 to -.71). However, they showed some differences in the strength of their relationships with other variables, such as satisfaction with social support, efficacy, external locus of control, and effectiveness. Rather than choosing one indicator for psychological well-being, a more conservative procedure was followed instead by testing two models of the abuse-social support-psychological well-being relationship, one with psychological distress as measured by the CES-D as the dependent variable, and the other with positive affect as measured by the Quality of Life scale as the dependent variable. Negative affect (depression) may be different from positive affect (satisfaction with one's quality of life).

Table 2

Correlations of Psychological Well-being Variables with Social Support, Abuse, Demographic, and Other Scale Scores at Three Time Periods (Corrected for Attenuation)

Variable	QL1	CES-D1	QL2	CES-D2	QL3	CES-D3
Psychological well-being variables						
Quality of Life (QL)1	–					
Depression (CES-D)1	-0.62	–				
Quality of Life2	0.82	-0.47	–			
Depression2	-0.48	0.53	-0.71	–		
Quality of Life3	0.67	-0.40	0.78	-0.41	–	
Depression3	-0.50	0.51	-0.60	0.57	-0.69	–
Social support variables						
Number of close friends1	0.12	-0.06	0.05	-0.07	0.06	-0.11
Number of generalists1	0.05	-0.03	0.07	-0.21	0.02	-0.06
Network size1	0.19	-0.19	0.14	-0.28	0.08	-0.08
Social support satisfaction1	0.67	-0.38	0.51	-0.45	0.40	-0.32
Number of close friends2	0.12	0.02	0.22	-0.18	0.07	-0.05
Number of generalists2	0.09	-0.10	0.14	-0.22	-0.01	-0.11
Network size2	0.22	-0.08	0.20	-0.18	0.03	-0.08
Social support satisfaction2	0.42	-0.26	0.68	-0.50	0.48	-0.40
Number of close friends3	0.10	-0.04	0.11	-0.04	0.19	-0.08
Number of generalists3	0.18	0.02	0.11	0.05	0.17	0.00
Network size3	0.20	-0.03	0.12	-0.18	0.05	-0.02
Social support satisfaction3	0.44	-0.23	0.53	-0.34	0.70	-0.47
Abuse variables						
Physical abuse1	0.04	0.18	0.01	0.21	-0.00	0.18
Psychological abuse1	-0.18	0.35	-0.13	0.23	-0.02	0.17
Extent of injuries1	-0.12	0.14	-0.10	0.18	-0.13	0.03
Threatened1	-0.04	0.21	-0.04	0.19	0.02	0.13
Physical abuse2	-0.23	0.20	-0.31	0.35	-0.21	0.35
Psychological abuse2	-0.24	0.02	-0.31	0.15	-0.17	0.14
Extent of injuries2	-0.34	0.14	-0.44	0.38	-0.24	0.40
Threatened2	-0.28	0.27	-0.35	0.41	-0.20	0.23

Table 2 (cont'd).

Variable	QL1	CES-D1	QL2	CES-D2	QL3	CES-D3
Physical abuse3	-0.29	0.09	-0.24	0.16	-0.29	0.35
Psychological abuse3	-0.31	0.21	-0.31	0.18	-0.33	0.31
Extent of injuries3	-0.45	0.14	-0.39	0.25	-0.43	0.45
Threatened3	-0.22	0.18	-0.24	0.08	-0.28	0.39
Demographic variables						
Age	-0.22	0.19	-0.24	0.13	-0.27	0.15
Caucasian	-0.14	0.08	-0.14	-0.07	-0.05	-0.09
Married	0.08	-0.11	0.09	-0.15	0.04	-0.04
High school graduate	0.07	-0.20	0.06	-0.13	0.06	-0.17
Student	-0.10	0.11	-0.08	0.10	-0.02	0.18
Employed	0.07	-0.14	0.04	-0.05	-0.02	-0.08
Income	-0.17	0.08	-0.18	0.06	-0.11	0.08
Received govt. aid	-0.17	0.12	-0.13	0.01	-0.17	0.11
Have dependent children	0.08	-0.04	0.08	-0.07	0.08	-0.08
Other variables						
External locus of control1	-0.32	0.50	-0.19	0.41	-0.15	0.40
Efficacy1	0.29	-0.15	0.22	-0.13	0.18	-0.15
Attachment to assailant1	0.17	-0.16	0.04	-0.12	0.14	-0.20
Fear & anxiety1	-0.33	0.53	-0.30	0.40	-0.22	0.39
External locus of control2	-0.31	0.38	-0.27	0.48	-0.22	0.43
Efficacy2	0.28	-0.01	0.25	-0.14	0.14	-0.06
Attachment to assailant2	0.09	-0.05	0.01	-0.12	0.06	-0.09
Fear & anxiety2	-0.20	0.29	-0.31	0.49	-0.18	0.21
Effectiveness2	0.31	-0.20	0.56	-0.38	0.46	-0.29
External locus of control3	-0.35	0.35	-0.25	0.36	-0.29	0.50
Efficacy3	0.29	-0.10	0.29	-0.01	0.28	-0.21
Attachment to assailant3	0.26	-0.23	0.14	-0.19	0.12	-0.15
Fear & anxiety3	-0.33	0.44	-0.34	0.48	-0.32	0.49

Note: 1 = Time 1, initial interviews; 2 = Time 2, post-intervention interviews;
3 = Time 3, six-month followup interviews

Table 3

Correlations of Abuse Variables with Social Support, Psychological well-being, Demographic, and and other Scale Scores (Corrected for Attenuation)

Variable	CTS1	IPA1	Inj.1	Threat1	CTS2	IPA2	Inj.2	Threat2
Abuse variables								
Physical abuse (CTS)1	–							
Psycho. abuse (IPA)1	0.65	–						
Extent of injuries1	0.73	0.55	–					
Threatened1	0.62	0.64	0.48	–				
Physical abuse2	0.30	0.10	0.17	0.17	–			
Psychological abuse2	-0.11	-0.05	-0.03	-0.14	0.35	–		
Extent of injuries2	0.08	0.07	0.13	0.06	0.95	0.55	–	
Threatened2	0.09	0.11	-0.03	0.19	0.62	0.30	0.53	–
Physical abuse3	-0.05	-0.07	0.02	0.01	0.28	0.41	0.44	0.26
Psychological abuse3	-0.11	0.10	-0.08	0.04	0.22	0.34	0.14	0.28
Extent of injuries3	-0.18	-0.13	0.07	-0.11	0.22	0.52	0.44	0.23
Threatened3	-0.04	-0.03	-0.12	0.02	0.23	0.31	0.26	0.32
Social support variables								
Number of close friends1	-0.01	-0.05	-0.06	-0.09	-0.08	0.09	0.01	-0.12
Number of generalists1	0.05	0.03	-0.03	0.05	-0.02	-0.02	0.01	-0.07
Network size1	-0.12	-0.11	-0.08	-0.04	0.12	0.11	0.22	0.05
Soc.support satisfaction1	-0.08	-0.23	-0.27	-0.11	-0.13	-0.16	-0.29	-0.21
Number of close friends2	0.16	0.16	-0.02	0.13	0.01	-0.09	-0.03	-0.01
Number of generalists2	-0.06	0.03	-0.05	-0.01	-0.15	-0.03	-0.15	-0.11
Network size2	-0.01	-0.01	-0.09	0.08	0.08	-0.03	-0.02	-0.01
Soc.support satisfaction2	0.01	-0.04	-0.15	-0.09	-0.25	-0.21	-0.38	-0.26
Number of close friends3	-0.05	0.03	-0.12	0.02	-0.28	-0.12	-0.20	-0.08
Number of generalists3	-0.00	0.09	-0.09	-0.01	-0.02	0.02	0.03	-0.06
Network size3	-0.17	-0.16	-0.22	-0.04	-0.00	0.01	-0.06	0.01
Soc.support satisfaction3	-0.18	-0.10	-0.25	-0.17	-0.26	-0.09	-0.30	-0.26
Psychological well-being variables								
Quality of life1	0.04	-0.18	-0.12	-0.04	-0.23	-0.24	-0.34	-0.28
Depression1	0.18	0.35	0.14	0.21	0.20	0.02	0.14	0.27

Table 3 (cont'd).

Variable	CTS1	IPA1	Inj.1	Threat1	CTS2	IPA2	Inj.2	Threat2
Quality of life2	0.01	-0.13	-0.10	-0.04	-0.31	-0.31	-0.44	-0.35
Depression2	0.21	0.23	0.18	0.19	0.35	0.15	0.38	0.41
Quality of life3	-0.00	-0.02	-0.13	0.02	-0.21	-0.17	-0.24	-0.20
Depression3	0.18	0.17	0.03	0.13	0.35	0.14	0.40	0.23
Demographic variables								
Age	-0.19	0.03	0.02	0.02	0.00	0.15	0.17	0.11
Caucasian	-0.24	-0.04	-0.19	-0.16	-0.15	0.09	-0.05	-0.12
Married	-0.19	-0.05	-0.16	-0.17	0.02	0.43	-0.00	-0.04
High school graduate	-0.20	-0.03	-0.10	0.01	-0.11	0.10	0.00	-0.03
Student	0.12	0.08	0.08	0.15	0.10	-0.07	0.11	0.01
Employed	-0.11	-0.05	0.02	0.01	0.05	0.06	0.13	-0.07
Income	-0.20	-0.04	-0.17	-0.08	-0.05	0.29	0.04	0.18
Received govt. aid	0.01	0.01	0.00	0.02	0.09	0.35	0.04	0.12
Have dependent children	0.03	0.06	-0.21	0.06	0.03	0.12	-0.08	0.09
Other variables								
Fear & anxiety1	0.22	0.26	0.05	0.22	0.09	-0.04	0.07	0.20
External locus of control1	0.27	0.23	0.19	0.21	0.25	-0.06	0.15	0.21
Efficacy1	0.01	0.04	-0.02	0.03	-0.04	-0.01	-0.11	-0.12
Attachment to assailant1	0.12	0.32	0.07	0.19	-0.22	-0.24	-0.30	0.02
Fear & anxiety2	0.15	0.19	0.05	0.30	0.04	-0.02	-0.08	0.28
External locus of control2	0.31	0.22	0.15	0.20	0.18	-0.10	0.09	0.07
Efficacy2	0.01	0.06	0.12	0.06	0.08	-0.07	-0.09	0.02
Attachment to assailant2	0.13	0.25	0.16	0.19	-0.07	-0.31	-0.11	0.00
Effectiveness2	0.11	0.08	0.02	0.10	-0.02	-0.18	-0.11	-0.19
Fear & anxiety3	0.21	0.15	0.03	0.21	0.17	0.07	0.11	0.35
External locus of control3	0.21	0.15	0.13	0.08	0.35	0.01	0.25	0.19
Efficacy3	-0.07	0.08	0.08	0.09	-0.09	-0.12	-0.08	-0.17
Attachment to assailant3	0.13	0.08	0.00	0.08	-0.16	-0.30	-0.12	-0.21

Table 3 (cont'd).

Variable	CTS3	IPA3	Injuries3	Threat3
Abuse variable				
Physical abuse1	-0.05	-0.11	-0.18	-0.04
Psychological abuse1	-0.07	0.10	-0.13	-0.03
Extent of injuries1	0.02	-0.08	0.07	-0.12
Threatened1	0.01	0.04	-0.11	0.02
Physical abuse2	0.28	0.22	0.22	0.23
Psychological abuse2	0.41	0.34	0.52	0.31
Extent of injuries2	0.44	0.14	0.44	0.26
Threatened2	0.26	0.28	0.23	0.32
Physical abuse3	1.00	0.47	1.05	0.73
Psychological abuse3	0.47	1.00	0.52	0.49
Extent of injuries3	1.05	0.52	1.00	0.74
Threatened3	0.73	0.49	0.74	1.00
Social support variable				
Number of close friends1	-0.12	-0.04	-0.15	-0.11
Number of generalists1	-0.12	0.03	-0.06	-0.02
Network size1	0.12	0.06	0.00	0.15
Social support satisfaction1	-0.22	-0.15	-0.35	-0.08
Number of close friends2	-0.09	-0.05	-0.14	0.02
Number of generalists2	-0.03	-0.01	-0.02	0.04
Network size2	0.03	0.08	-0.07	0.04
Social support satisfaction2	-0.13	-0.20	-0.23	-0.15
Number of close friends3	-0.02	0.03	0.04	-0.02
Number of generalists3	-0.06	-0.05	-0.07	-0.02
Network size3	0.00	0.05	-0.08	-0.00
Social support satisfaction3	-0.15	-0.17	-0.19	-0.12
Psychological well-being variables				
Quality of life1	-0.29	-0.31	-0.45	-0.22
Depression1	0.09	0.21	0.14	0.18
Quality of life2	-0.24	-0.31	-0.39	-0.24
Depression2	0.16	0.18	0.25	0.08
Quality of life3	-0.29	-0.33	-0.43	-0.28
Depression3	0.35	0.31	0.45	0.39

Table 3 (cont'd).

Variable	CTS3	IPA3	Injuries3	Threat3
Demographic variables				
Age	0.08	0.14	0.17	0.10
Caucasian	-0.11	0.11	-0.01	-0.03
Married	0.15	0.18	0.18	0.09
High school graduate	-0.11	0.09	-0.11	-0.13
Student	-0.07	-0.13	-0.09	-0.01
Employed	-0.04	0.05	-0.10	-0.12
Income	0.04	0.28	0.11	0.12
Received govt. aid	0.11	0.33	0.13	0.07
Have dependent children	0.11	0.16	-0.03	0.10
Other variables				
Fear & anxiety1	0.15	0.10	0.16	0.07
External locus of control1	0.17	0.06	0.11	0.17
Efficacy1	-0.08	0.03	-0.24	-0.05
Attachment to assailant1	-0.30	-0.23	-0.32	-0.18
Fear & anxiety2	-0.02	0.07	0.00	-0.06
External locus of control2	0.07	0.11	0.04	0.01
Efficacy2	-0.06	0.10	-0.16	-0.02
Attachment to assailant2	-0.18	-0.12	-0.31	-0.10
Effectiveness2	-0.02	-0.20	-0.09	-0.02
Fear & anxiety3	0.28	0.17	0.29	0.14
External locus of control3	0.16	0.11	0.15	0.19
Efficacy3	-0.08	0.01	-0.19	-0.21
Attachment to assailant3	-0.20	-0.26	-0.26	-0.12

Note: 1 = Time 1, initial interviews; 2= Time 2, post-intervention interviews
3 = Time 3, six-month followup interviews

Correlations among the abuse variables (see Table 3) ranged from as low as .30 to as high as 1.0 (with the correlations corrected for attenuation). The pattern of correlations with other variables were generally similar, although psychological abuse tended to have a slightly different pattern of relationship with the other variables. It was decided to utilize one abuse indicator incorporating the four abuse variables (physical abuse, psychological abuse, extent of injuries, and threats received) in statistically testing the conceptual model. The four variables were transformed to z-scores, and subsequently added to form the abuse score.

Among the social support variables, the women's satisfaction with their perceived social support was consistently significantly correlated with the number of generalists in their social network and the number of close friends that the women estimated they had (corrected *r*'s from .27 to .42). The number of generalists and the number of close friends were also significantly correlated, although the strength of the relationship varied from .34 at Time 1, to .50 at Time 2, and .21 at Time 3. Network size, however, was not consistently correlated with any of the other social support variables. The amount of shared variance, from 0 to 25%, among these social support measures indicate that they tap different but overlapping aspects of the social support construct. Table 4 presents the intercorrelations among these variables at three time periods.

Table 4

Intercorrelations Among the Social Support Variables at Three Time Periods (Corrected for Attenuation)

I. Initial interviews (*N*=129)

	Network size	No. of generalists	No. of c. friends
Network size	--		
Number of generalists	.28*	--	
Number of close friends	.27*	.34*	--
Social support satisfaction	.21*	.40*	.27*

II. Post-intervention interviews (*N*=129)

	Network size	No. of generalists	No. of c. friends
Network size	--		
Number of generalists	.25*	--	
Number of close friends	.29*	.50*	--
Social support satisfaction	.13*	.40*	.32*

III. Six-month followup (*N*=129)

	Network size	No. of generalists	No. of c. friends
Network size	--		
Number of generalists	.10	--	
Number of close friends	.11	.21*	--
Social support satisfaction	.09	.42*	.31*

* $p < .05$

Among the various demographic variables correlated with each social support measure at all three time periods, only one relationship was consistently significant -- that of age with social support satisfaction (*r*'s from -.25 to -.30). That is, younger women tended to have higher social support satisfaction scores, but not necessarily greater number of supporters, close friends, or generalists in their network. All the other demographic variables, including being a student or being employed, failed to relate significantly with any of the social support variables.

Based on the significant intercorrelations among the social support variables, and the similar patterns of relationship of each social embeddedness indicator with psychological well-being and abuse variables (see Tables 2 and 3), it was decided to maintain the four social support variables only for descriptive purposes but to use just one indicator of social embeddedness for the multivariate analyses. Network size was chosen as the indicator of social embeddedness as it shared the least amount of variance with social support satisfaction, and thus allowed for the testing of two distinct social support dimensions.

CHAPTER 3

RESULTS

The main research question in this study was how abuse and social support relate to the psychological well-being of women with abusive partners. Descriptive information on the social support, level of abuse, and psychological well-being of the women over time are presented first. Then, zero-order correlations and hierarchical regression analyses which examine the direct effects of abuse, and both direct and moderating effects of social support on psychological well-being are presented next.

Descriptive Information on Women's Social Support

Descriptive analyses were conducted to provide information on the sources of various types of support for the women, the degree of their social embeddedness, and satisfaction with their perceived social support. As having abusive partners was a dominant feature of the sample, analyses were also conducted to determine the role of the abusers in the women's support system.

Sources and types of support. At all three time periods (upon shelter exit, post-intervention, and 6-month followup), the most common source of social support mentioned by all the women were their relatives and friends. A majority of the women also mentioned staff of formal organizations and their children as other sources of support. About a third of the women mentioned their assailants and/or the staff of the local shelter. There were no differences between the experimental and control groups. Table 5 shows the sources of support for the women at

all three time periods while Table 6 shows the sources for the various types of support also at the three time periods.

Relatives and friends were the most common sources of companionship and instrumental support to the women. That is, they were often cited as people the women spent time with and enjoyed talking with. Relatives and friends were also most often the sources women could depend on for assistance to get things done, to do favors for them, and for information and advice on personal matters. When it came to information and advice on community resources, however, such as on finding jobs, housing, getting material goods, and so on, staff of formal organizations (e.g. shelter, social services agencies, church-based organizations, etc.) were the most common sources for this type of support. Relatives and friends were the most common sources of emotional support. Friends were about equally cited as relatives as the people the women could rely on to listen to them. The women's relatives and children were, however, the people that most women felt really cared about them.

Table 5

Percentage of Women Citing Various Sources of Social Support Over Time

Source of Social Support	% of women (*N*=129)		
	Pre-intervention	10 weeks later	6-month Followup
Relatives	79.8	83.7	82.2
Friends	73.6	79.8	76.7
Organizations	65.9	49.6	51.2
Children	65.1	64.3	75.2
CADA staff	38.0	27.1	17.8
Advocate[a]	Not applicable	69.7	19.7
Assailant	33.3	35.7	27.9
New relationship	Not applicable	19.4	24.8
Relatives of assailant	7.8	9.3	10.1
Relatives of new relationship	Not applicable	1.6	3.9
Others	9.3	10.9	9.3

[a]Row percentages refer only to women working with advocates.

Table 6

Percentage of Women Citing Sources for Various Types of Support Over Time

Type of Support	Source of support (*N*=129)						
	Relatives	Frds.	Orgns.	Children	Abuser	New Rel.	Advocate[a]
I. Initial interview							
Spent time with	37	43	5	45	23	-	-
Enjoyed talking with	41	52	9	24	12	-	-
Counted on for advice & information on personal matters	49	33	31	2	1	-	-
Counted on for advice & information on resources	16	14	54	0	0	-	-
Counted on to help get things done	51	25	13	1	6	-	-
Counted on to do a favor	52	42	6	2	9	-	-
Counted on to listen to them	42	49	22	5	7	-	-
Cared about them	72	31	6	50	19	-	-
II. Post-intervention interviews							
Spent time with	39	43	0	50	26	19	12
Enjoyed talking with	44	63	6	23	16	16	26
Counted on for advice & information on personal matters	50	41	18	2	5	3	17
Counted on for advice & information on resources	13	17	43	0	1	2	58

Table 6 (cont'd).

Type of Support	Source of support (*N*=129)						
	Rela-tives	Frds.	Orgns.	Child-ren	Abuser	New Rel.	Advo-cate[a]
II. Post-intervention interviews							
Counted on to help get things done	52	31	10	1	17	6	36
Counted on to do a favor	49	45	4	3	13	9	23
Counted on to listen to them	46	49	16	5	11	7	21
Cared about them	68	25	4	47	28	15	9
III. Six-month follow-up							
Spent time with	38	41	2	56	19	22	0
Enjoyed talking with	48	57	9	31	12	16	3
Counted on for advice & information on personal matters	59	47	21	2	5	9	3
Counted on for advice & information on resources	21	28	37	0	2	0	18
Counted on to help get things done	59	42	10	4	16	12	6
Counted on to do a favor	56	47	4	2	11	10	3
Counted on to listen to them	51	48	17	4	8	13	6
Cared about them	74	38	9	60	21	20	8

[a]Percentages in this column refer to women with advocates.

Social embeddedness and satisfaction with perceived support. Across the three time periods, the women mentioned a total of seven to eight supportive individuals on average. The women also mentioned, on average, between one to two generalists as providing various kinds of support to them. They estimated having an average of two to three close friends.

The women had mixed feelings about the quality and quantity of social support they received. At the initial interview, the mean social support satisfaction scale score was 4.70 (1 = terrible, to 7 = extremely pleased). The mean satisfaction scale score significantly increased to 5.08 by the post-intervention period, and to 5.12 at the six-month followup (repeated measures $F_{(2,127)}$=12.95, p<.05).

Analyses of the social support variables between the experimental and control group showed a significant intervention effect on the satisfaction with social support score. That is, there were significant group X time interaction effects on social support satisfaction scores from Time 1 to Time 2 to Time 3 ($F_{(2,126)}$=7.78, p<.05). Prior to the intervention, there were no significant group differences on social support satisfaction. After the 10-week intervention period, the experimental group expressed significantly greater satisfaction with their perceived social support, while the satisfaction scores of the control group remained relatively the same. Six months later, the satisfaction scores of the experimental group went down slightly while the scores of the control group went up slightly. This finding showed the need to control for the effect of the intervention on the social support variables in the multivariate analysis. Table 7 summarizes the scores on the social support variables over time.

Table 7

Descriptive Information on Social Support Over Time

Variable	Means (*N*=129)			Repeated Measures F
	Pre-Intervention	10 Weeks Later	6-month Followup	
Total number of supportive individuals mentioned	7.39 (3.28)	7.37 (3.29)	7.82 (3.34)	1.44
Number of generalists	1.39 (1.23)	1.45 (1.19)	1.84 (1.32)	6.50*
Number of close friends	2.37 (2.31)	2.74 (2.19)	3.03 (2.11)	4.82*
Satisfaction with social support	4.70 (1.00)	5.08 (1.08)	5.12 (0.93)	12.95*

Note. Numbers in parentheses are the standard deviations.
* $p < .05$.

Abusers as sources and obstacles of support. Prior to their shelter stay, 85% of the women were involved with their assailants. Upon shelter exit, only 36% indicated they were continuing the relationships. Ten weeks after their shelter exit, 41% continued to be involved with their assailants; six months later, only 33% were still involved.

Women still involved with their assailants were more likely to mention the abusers as sources of support ($X^2_{(1, N=129)}$=59.25 at Time 1; $X^2_{(1, N=129)}$=71.30 at Time 2; $X^2_{(1, N=129)}$=61.88 at Time 3, $p<.05$). At all the time periods, about 3/4 of the women who were involved with their assailants mentioned their assailants as sources of support (e.g. people

they spent time with and/or who cared for them). Among those who have ended their relationships, less than 10% mentioned their assailants as sources of support. Regardless of whether they were continuing or ending their relationships, the women's assailants were also most often mentioned when asked who made their lives difficult (78% at Time 1; 58% at Time 2; 54% at Time 3).

While the abusers were a source of support for many of the participants, they also attempted to control the women's social lives. At the initial interview, most of the women reported that their assailants had forbidden them to go out on their own (85%), and/or discouraged them from contacting their families and friends (85%). Furthermore, their assailants were also reported to have harassed (60%) and even threatened to hurt the women's families or friends (49%). Among the women who were still involved with their assailants at the post-intervention and six-month follow-up interviews, 46-50% reported their assailants still forbidding them to go anywhere by themselves, and 56-60% reported being discouraged to have contact with their families or friends. Some of the abusers continued to harass the women's family members or friends (37-38%) and/or threatened to hurt them (17-19%).

In spite of the abusers' attempts to socially isolate the women, the women were generally able to seek the support they needed. That is, women with abusers who attempted to control their social behavior did not differ from the rest of the sample in the size of their social network, in the number of close friends or generalists they had, nor in their satisfaction with their social support.

Experience of Abuse and Psychological Well-being over Time

Descriptive analyses were further conducted on the women's experience of abuse as well as their level of depression and satisfaction with their quality of life over time. Whether the severity of abuse and level of psychological well-being changed, and at what time point such changes took place, were also examined.

At the initial interview, the women reported considerably high levels of violence experienced within the prior six months, ranging from being grabbed, pushed or shoved (94%) to being shot or stabbed (13%). They reported, on average, being physically and psychologically abused at least once a month, while being threatened with violence almost on a weekly basis. They also suffered on average two or three types of injuries, from cuts and bruises (87%), to broken bones (21%), internal injuries (13%), and knife/gunshot wounds (4%).

The degree of both physical and psychological abuse reported by the women in the later interviews significantly decreased compared to the frequency and severity of violence they reported experiencing within the six months prior to entering the shelter. Such information is not surprising given the fact that the initial interviews took place immediately upon the women's exit from the shelter. Experience of recent abuse precisely defined the shelter population, and hence the sample for this study. Thus, the drop in the abuse level from the first to the second interviews is more an artifact of the project's design. Table 8 presents the mean scores on the abuse variables at the three time periods.

Table 8

Descriptive Information on the Experience of Abuse Over Time

Variable	Means (*N*=129)			Repeated Measures F
	Pre-Intervention	10 Weeks Later	6-month Followup	
Physical abuse[a]				
1. CTS score	2.14 (0.80)	1.24 (0.46)	1.25 (0.42)	79.72*
2. Frequency of any type of violence[b]	3.87 (1.33)	1.83 (1.14)	1.83 (1.20)	
Psychological abuse[c]	2.76 (0.57)	1.41 (0.63)	1.44 (0.65)	196.41*
Injuries sustained[d]	2.87 (1.57)	0.60 (1.13)	0.71 (1.17)	102.91*
Threats[a]	3.78 (1.35)	1.98 (1.26)	1.98 (1.27)	83.18*

Note. Numbers in parentheses are the standard deviations.
[a]On a 6-point scale where 1 = never, to 6 = more than 4 times a week.
[b]Refers to any item or type of violence in the CTS scale experienced most frequently by the respondent.
[c]On a 4-point scale where 1 = never, to 4 = often.
[d]Possible range is from 0 = no injuries, to 10 types of injuries.
* $p < .05$.

Upon shelter exit, the sample displayed a high rate of depression. That is, about 80% of the women were at least mildly depressed, scoring higher than the high-risk cut off score of 16 on the CES-D (Radloff, 1977). On the average, they had mixed feelings (equally satisfied and dissatisfied) with their quality of life. Over time, however, the women's psychological well-being generally improved, although the mean CES-D scores at the latter time periods still reflected some level of depression. Table 9 shows the mean scores on the CES-D and quality of life at three time periods.

Table 9

Descriptive Information on the Women's Psychological Well-being Over Time

Variable	Means (*N*=129)			Repeated Measures F
	Pre-Intervention	10 Weeks Later	6-month Followup	
Quality of Life[a]	4.24 (0.91)	4.55 (0.91)	4.64 (0.88)	19.57*
Depression (CES-D)[b]	26.44 (12.11)	19.34 (11.22)	19.47 (10.38)	27.54*

Note. Numbers in parentheses are the standard deviations.
[a]Scale range: 1 = terrible to 7 = extremely pleased.
[b]Scale scores can range from 0 to 60.
* $p < .05$

The decrease in violence and the increase in psychological well-being occurred from the initial interviews to the post-intervention interviews. The scores basically stabilized from the post-intervention

interviews to the six-month followup interviews.

Although there was a general decrease in the severity and frequency of violence overall, many women still continued to experience abuse. At the post-intervention interview conducted ten weeks after women had left the shelter, 50% of the women reported having experienced further psychological abuse, and 47% reported experiencing further physical abuse. Within the next six months, 55% continued to experience psychological abuse while 46% still suffered physical abuse. Women who continued to be involved with their assailants were more likely to continue experiencing physical abuse ($X^2_{(1,\ N=129)}$=20.78 at Time 2, and $X^2_{(1,\ N=129)}$=25.30 at Time 3, $p<.05$) and psychological abuse ($X^2_{(1,\ N=129)}$=59.89 at Time 2, and $X^2_{(1,\ N=129)}$=38.30 at Time 3, $p<.05$). Among women who were involved with their assailants, 70% were physically harmed and 92% psychologically abused within the first 10 weeks post-shelter; 76% experienced physical violence and 95% psychological abuse within the next six months. Among those who ended their relationships, 28% still continued to be assaulted by their original assailants during the intervention period, and six months later.

Most of the women who experienced further violence over the first ten weeks post-shelter (77%) and over the next six months (71%) did tell other people about the violence. They told either their friends (52% at Time 2 & 45% at Time 3), relatives (27% & 32%), staff at the battered women's shelter (21% & 32%), police (32% & 45%), and/or medical staff (11% & 21%). Fifty-four percent of the women who worked with advocates told their advocates about the violence they had experienced within the first 10 weeks post-shelter.

In summary, at their initial interviews (while generally still in

a crisis situation), the women reported high levels of violence and some degree of psychological distress. The level of abuse dropped and psychological well-being improved by their second interviews, and generally stabilized by the six-month followup interviews, although half of the sample still reported experiencing some form of abuse.

Effects of Abuse and Social Support on Psychological Well-being

As stated earlier, the main purpose of this study was to explore the relationship of abuse and social support to psychological well-being of the women. The intercorrelations among these variables were examined first to assess the relative strength of the relationships of the independent variables (abuse and social support variables) to the dependent variables (psychological well-being variables), and to evaluate the independent variables for multicollinearity. Results of the hierarchical regression analyses used to test the conceptual model are then presented.

Intercorrelations among abuse, social support, and psychological well-being variables. Among the social support variables, only satisfaction with social support was consistently significantly related to quality of life or to depression. The corrected concurrent and across time correlations of social support satisfaction ranged from 0.42 to 0.70 with quality of life, and from -0.23 to -0.50 with depression. That is, women reporting greater satisfaction with their social support also reported greater satisfaction with their quality of life and less depression.

Abuse variables showed significant concurrent correlations with quality of life (corrected *r*'s from -0.28 to -0.44) and with depression (corrected *r*'s from 0.31 to 0.45) at Time 2 and Time 3. Only

psychological abuse at Time 2 did not correlate significantly with depression at Time 2. Furthermore, three abuse variables at Time 2 (physical abuse, extent of injuries and being threatened) also showed significant relationships with quality of life (*r*'s from -0.20 to -0.24) and with depression (corrected *r*'s from 0.23 to 0.40) at Time 3. Greater abuse was associated with greater depression and less satisfaction with one's quality of life.

The experience of further violence appeared to be related to satisfaction with one's social support, at least at the post-intervention interviews (corrected *r*'s from -0.21 to -0.38). Women who experienced further physical abuse were more likely to be dissatisfied with their social support. The concurrent correlations, however, were not significant by the six-month followup interviews.

Test of the hypothesized relationships in the model. To test for the hypothesized relationships of abuse and social support to psychological well-being as summarized in the conceptual model, several hierarchical regression analyses were conducted. The outcome variables were depression and quality of life assessed at the six-month followup after the intervention period. To establish order, abuse and social support variables at an earlier time period (post-intervention interviews) were entered first (step 1). Condition assignment, whether to an experimental or control group, was also entered with this set of variables to control for the effects of the intervention (see Sullivan, Tan, Basta, Rumptz, & Davidson, 1992). Abuse and social support variables at the six-month followup were entered next (step 2). Both steps 1 and 2 would test for the existence of significant main effects of abuse and social support. In addition, following the procedures

suggested by Cohen and Cohen (1983) in testing the existence of interaction effects, two more sets of variables consisting of interaction terms or the products of the moderator and the independent variable were also entered. Thus in step 3, the interaction terms of social support variables at post-intervention X abuse at six-month followup were entered, while finally in step 4, the interaction terms of social support variables at six-month followup X abuse also at six-month followup were then entered. The "buffering" or moderating effect of social support would be supported if the interaction terms were significant. That is, the interaction terms should be able to account for a significant proportion of the variance of the outcome variables over and above that contributed independently by the abuse and support variables. The model used to evaluate the main effects and two-way interactions is summarized as follows:

$$Y_{t3} = a + b_1X_{t2} + b_2Z_{1t2} + b_3Z_{2t2} + b_4X_{t3} + b_5Z_{1t3} + b_6Z_{2t3} + b_7X_{t3}Z_{1t2} + b_8X_{t3}Z_{2t2} + b_9X_{t3}Z_{1t3} + b_{10}X_{t3}Z_{2t3} + e$$

where Y_{t3} is the psychological well-being at the six-month followup time period, X_{t2} is the level of abuse experienced at the post-intervention time period, Z_{1t2} is the satisfaction with perceived support at the post-intervention time period, Z_{2t2} is social embeddedness at the post-intervention time period, X_{t3} is the level of abuse experienced at the six-month followup time period, Z_{1t3} is the perceived support at the six-month followup time period, Z_{2t3} is social embeddedness at the six-month followup time period, and $X_{t3}Z_{1t2}$ and $X_{t3}Z_{2t2}$ are the interactions of abuse at six-month followup with the social support variables at post-intervention time period, and $X_{t3}Z_{1t3}$ and $X_{t3}Z_{2t3}$ are the interactions of abuse at six-month followup with the social support

variables also at six-month followup time period, and finally *e* is the error term reflecting the component of Y_{t3} not explained by the systematic part of the model.

To explore further the relationships between abuse, social support, and psychological well-being, regression analyses were also run while controlling for previous levels of psychological well-being as shown in the second model:

$$Y_{t3} = a + b_1X_{t2} + b_2Z_{1t2} + b_3Z_{2t2} + b_4Y_{t2} + b_5X_{t3} + b_6Z_{1t3} + b_7Z_{2t3} + b_8X_{t3}Z_{1t2} + b_9X_{t3}Z_{2t2} + b_{10}X_{t3}Z_{1t3} + b_{11}X_{t3}Z_{2t3} + e$$

where the additional term, Y_{t2}, is the psychological well-being at the post-intervention time period.

Table 10 presents the zero-order correlations of the variables included in the hierarchical regression analysis.

Table 10

Zero-Order Correlations of Variables in the Regression Analyses at Time 2 (Post-intervention) and Time 3 (Six-month Followup)

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Extent of abuse2	1.00													
2.	Soc. support sat.2	-0.32 *	1.00												
3.	Network size2	0.00	0.12	1.00											
4.	Quality of life2	-0.40 *	0.63 *	0.18	1.00										
5.	Depression2	0.36 *	-0.45 *	-0.17	-0.64 *	1.00									
6.	Extent of abuse3	0.41 *	-0.19	0.03	-0.32 *	0.18	1.00								
7.	Soc.support sat.3	-0.26 *	0.53 *	0.11	0.48 *	-0.31 *	-0.17	1.00							
8.	Network size3	-0.02	0.06	0.51 *	0.11	-0.17	-0.00	0.09	1.00						
9.	Abuse3 X Ss sat.2	0.37 *	-0.16	-0.01	-0.30 *	0.16	0.98 *	-0.15	-0.00	1.00					
10.	Abuse3 X N.size2	0.35 *	-0.23 *	0.03	-0.31 *	0.21 *	0.91 *	-0.18	0.02	0.88 *	1.00				
11.	Abuse3 X Ss.sat.3	0.39 *	-0.18	0.01	-0.30 *	0.17	0.99 *	-0.16	0.00	0.99 *	0.89 *	1.00			
12.	Abuse3 X N.size3	0.41 *	-0.18	0.04	-0.30 *	0.20	0.93 *	-0.15	-0.05	0.91 *	0.94 *	0.93 *	1.00		
13.	Quality of life3	-0.24 *	0.44 *	0.02	0.72 *	-0.37 *	-0.36 *	0.64 *	0.05	-0.34 *	-0.35 *	-0.36 *	-0.33 *	1.00	
14.	Depression3	0.31 *	-0.35 *	-0.07	-0.54 *	0.50 *	0.40 *	-0.42 *	-0.01	0.38 *	0.34 *	0.39 *	0.35 *	-0.62 *	1.00
15.	Expt.grp. member	0.12	-0.38 *	-0.05	-0.15	0.07	-0.02	-0.11	-0.12	-0.03	0.00	-0.03	0.02	-0.14	0.01

*$p < .05$; $N = 129$

Quality of life as the dependent variable. Results of the regression analyses using quality of life as the criterion variable are shown in Tables 11 and 12. The tables display the standardized regression coefficients (the Beta weights), the R^2 change and the F change for every step, and the final adjusted R^2 and F for every analysis. The first column shows the results of step 1, that is, the regression coefficients of abuse and the social support variables at Time 2 on quality of life at Time 3 without considering the role of these variables at Time 3 nor any of the interaction terms. The next column shows the regression results after step 2, and so on.

The hypothesis that social support has a direct effect on quality of life was partly supported. In Table 11, only the standardized regression coefficient for satisfaction with social support was significant, whereas the regression coefficient for the other social support variable, network size, was not. The hypothesis that social support moderates the relationship between abuse and quality of life was not supported. The addition of interaction terms at step 3 and at step 4 did not contribute any further to the variance in the criterion variable. Although the regression coefficients for some interaction terms may appear large enough to be significant (e.g. -.42 in Table 11), the significance tests are sensitive only to the unique variance that independent variables add to the R^2. The interaction terms, which are partly determined by the extent of abuse, shared a large amount of variance with several independent variables entered in earlier steps into the equation (e.g. extent of abuse at Time 2 and at Time 3; see correlations in Table 10); thus their subsequent nonsignificance. The independent effects of abuse and social support at Time 2 and Time 3

together accounted for about 46% of the variance in the quality of life scores at Time 3. That is, women experiencing less abuse and expressing greater satisfaction with their perceived social support were more likely to also have greater satisfaction with their quality of life.

In the second regression analysis, which controlled for the effect of quality of life at Time 2, only the regression coefficient for the previous level of quality of life was significant among the Time 2 variables at the end of step 1. With the addition of Time 3 level of abuse and social support, there was a significant increase in R^2, thus both variables still contributed to the variance in quality of life at Time 3 beyond that of the previous level of quality of life (see Table 12). As in the first analysis, the addition of the interaction terms did not reliably improve R^2. At the end of step 4, five regression coefficients were significantly different from zero. Three of these variables, however, -- extent of abuse, social support satisfaction, and network size all at Time 2 -- showed patterns that suggest the existence of a suppressor variable. The beta weights for extent of abuse 2 and social support satisfaction 2 were in the opposite directions of their simple correlations with the dependent variable (beta weights of 0.15 and -0.22 vs. simple r's of -0.24 and 0.44 respectively). The beta weight of -0.13 for network size 2 is larger than its simple correlation of 0.02 with the dependent variable. These three Time 2 variables correlated to some degree with quality of life at Time 2. Quality of life at Time 2 could have enhanced the importance of the other Time 2 variables by suppressing the variance in these variables that are irrelevant to the prediction of the dependent variable.

In sum, about 67% of the variance in the criterion variable can be largely explained by the unique variance contributed by the quality of life at Time 2, by the level of abuse, and social support satisfaction. That is, women expressing greater satisfaction with their quality of life at Time 3 were more likely to have had a similar level of satisfaction six months earlier, had experienced less abuse, and expressed greater satisfaction with their perceived social support.

Depression as the dependent variable. The results of the hierarchical regression analyses with CES-D scores as the criterion variable, presented in Tables 13 and 14, reveal essentially the same pattern of relationships. At the end of step 2, the standardized regression coefficients for the level of abuse and satisfaction with social support at Time 3 differed significantly from zero. Both variables contributed significantly to the variance in depression at Time 3 beyond that of the previous level of depression. Neither of the interaction terms, however, significantly contributed to the variance in level of depression at Time 3. About 27% of the variance in depression at Time 3 can be explained by the main effects of abuse and social support variables (see Table 13), increasing to 38% when the level of depression at Time 2 was included in the equation (see Table 14). That is, women with more depressive symptoms at Time 3 were more likely to have had a similar level of depression six months earlier, had experienced more abuse and expressed less satisfaction with their perceived social support.

In summary, the model is able to explain from 44 to 67% of the variance in the quality of life scores at the six-month followup, and to a lesser degree, 26 to 37%, of the variance in the depression scores at

the six-month followup. The variance in these dependent variables, however, can be explained only by the main effects of abuse and social support. The interactions of social support variables (satisfaction with social support and network size) and level of abuse did not contribute significantly to the prediction of psychological well-being (quality of life and depression). Thus, the buffering hypothesis was not supported.

The results provide only limited support for the causal relationship between social support and psychological well-being. Zero-order correlations between Time 2 social support and Time 3 psychological well-being may confirm the causal relationship, but not when prior level of psychological well-being are partialled out from the relationship. For quality of life as the criterion variable, the regression coefficients for previous levels of social support may have been significant, but the significance could be due to the enhancement of these variables by a suppressor variable as discussed earlier. The interpretation of the regression coefficients is not straight-forward but rather is complicated by the existence of significant intercorrelations among the independent variables. A safe conclusion, however, can be made that concurrent satisfaction with perceived social support does contribute to the variance in the criterion variable (either with the quality of life or depression) over and above that contributed by the previous levels of the dependent variable (see Tables 12 and 14). That is, positive psychological well-being is associated with greater satisfaction with one's perceived support.

The results supported the following hypotheses: (1) abuse affects the women's psychological health negatively; (2) perceived support has a

significant direct effect on the women's psychological well-being; and (3) perceived support has a stronger direct effect on psychological well-being than does social embeddedness. The following hypotheses, however, were not supported by the data: (1) social embeddedness has a significant direct effect on the women's psychological well-being; (2) perceived support has a moderating effect on the relationship between abuse and well-being; (3) social embeddedness has a moderating effect on the relationship between abuse and well-being; and (4) perceived support has stronger moderating effects than social embeddedness.

Table 11

Summary of the Hierarchical Regression Analyses with Quality of Life at Time 3 (Six-month Follow-up) as the Dependent Variable

Predictors	Standardized Regression Coefficients (*N*=129)			
	Step 1	Step 2	Step 3	Step 4
Time 2 IV's:				
Extent of abuse2	-.11	.05	.05	.05
Soc. support satisfaction2	.42*	.10	.10	.10
Network size2	-.02	-.05	-.06	-.06
Experimental grp. member	.03	-.06	-.06	-.06
Time 3 IV's:				
Extent of abuse3		-.27*	-.16	.05
Soc. support satisfaction3		.55*	.55*	.55*
Network size3		.01	.01	.02
Interaction with Time 2 IV's:				
Abuse3 X SS. Satisfaction2			-.10	.10
Abuse3 x Network size2			-.01	-.02
Interaction with Time 3 IV's:				
Abuse3 X SS. Satisfaction3				-.42
Abuse3 x Network size3				.02
R^2 change	.21	.28	.00	.00
F change	8.01*	21.81*	.05	.33
R^2 (adjusted)	.18	.46	.45	.44
F	8.01*	16.25*	12.45*	10.13*

* $p < .05$

Table 12

Summary of the Hierarchical Regression Analyses with Quality of Life at Time 3 (Six-month Followup) as the Dependent Variable while Controlling for Prior Level of Quality of Life

Predictors	Standardized Regression Coefficients (*N*=129)			
	Step 1	Step 2	Step 3	Step 4
Time 2 IV's:				
Extent of abuse2	.07	.16*	.16*	.15*
Soc. support satisfaction2	-.03	-.21*	-.21*	-.22*
Network size2	-.12	-.12*	-.13*	-.13*
Quality of life2	.78*	.64*	.64*	.65*
Experimental grp. member	-.05	-.11	-.11	-.11
Time 3 IV's:				
Extent of abuse3		-.18*	-.08	.24
Soc. support satisfaction3		.45*	.45*	.45*
Network size3		.00	.00	.01
Interaction with Time 2 IV's:				
Abuse3 X SS. Satisfaction2			-.09	.23
Abuse3 x Network size2			-.02	-.05
Interaction with Time 3 IV's:				
Abuse3 X SS. Satisfaction3				-.68
Abuse3 x Network size3				.07

Table 12 (cont'd).

Predictors	Standardized Regression Coefficients (*N*=129)			
	Step 1	Step 2	Step 3	Step 4
R^2 change	.53	.16	.00	.01
F change	27.54*	21.42*	.06	1.44
R^2 (adjusted)	.51	.67	.67	.67
F	27.54*	33.89*	26.70*	22.66*

* $p < .05$

Table 13

Summary of the Hierarchical Regression Analyses with CES-D (Depression) at Time 3 (Six-month Follow-up) as the Dependent Variable

Predictors	Standardized Regression Coefficients (*N*=129)			
	Step 1	Step 2	Step 3	Step 4
Time 2 IV's:				
Extent of abuse2	.22*	.08	.07	.07
Soc. support satisfaction2	-.33*	-15	-.17	-.16
Network size2	-.04	-.06	-.06	-.06
Experimental grp. member	-.15	-.08	-.08	-.08
Time 3 IV's:				
Extent of abuse3		.29*	.57	.31
Soc. support satisfaction3		-.28*	-.28*	-.28*
Network size3		.05	.05	.05
Interaction with Time 2 IV's:				
Abuse3 X SS. Satisfaction2			-.10	-.35
Abuse3 x Network size2			-.20	-.22
Interaction with Time 3 IV's:				
Abuse3 X SS. Satisfaction3				.50
Abuse3 x Network size3				.03
R^2 change	.19	.12	.01	.00
F change	7.21*	7.19*	.61	.39
R^2 (adjusted)	.16	.27	.27	.26
F	7.21*	7.82*	6.18*	5.08*

* $p < .05$

Table 14

Summary of the Hierarchical Regression Analyses with CES-D (Depression) at Time 3 (Six-month Followup) as the Dependent Variable while Controlling for Prior Level of CES-D

Predictors	Standardized Regression Coefficients (*N*=129)			
	Step 1	Step 2	Step 3	Step 4
Time 2 IV's:				
Extent of abuse2	.13	-.01	-.03	-.03
Soc. support satisfaction2	-.18	-.01	-.02	-.02
Network size2	.01	-.03	-.03	-.03
Depression2	.38*	.38*	.40*	.40*
Experimental grp. member	-.10	-.03	-.03	-.03
Time 3 IV's:				
Extent of abuse3		.29*	.64	.46
Soc. support satisfaction3		-.26*	-.26*	-.26*
Network size3		.09	.10	.09
Interaction with Time 2 IV's:				
Abuse3 X SS. Satisfaction2			-.09	-.27
Abuse3 x Network size2			-.29	-.27
Interaction with Time 3 IV's:				
Abuse3 X SS. Satisfaction3				.37
Abuse3 x Network size3				-.03

Table 14 (cont'd).

Predictors	Standardized Regression Coefficients (*N*=129)			
	Step 1	Step 2	Step 3	Step 4
R^2 change	.30	.12	.01	.00
F change	10.24*	8.31*	1.42	.23
R^2 (adjusted)	.27	.38	.38	.37
F	10.24*	10.66*	8.87*	7.34*

* $p < .05$

CHAPTER 4

DISCUSSION

Major Findings

The primary purpose of this study was to examine the relationships of abuse, social support, and psychological well-being among women battered by their male partners over time. A model was conceptualized using the stress-social support-adjustment paradigm, and subsequently tested.

Changes in Well-being over Time

Consistent with other research findings (e.g. Astin et al., 1993; Cascardi & O'Leary, 1992; Follingstad et al., 1991; Gelles & Harrop, 1989; Houskamp & Foy, 1991; Kemp et al., 1991; Mitchell & Hodson, 1983; Sato & Heiby, 1992), there were significant relationships between the level of abuse experienced and the women's psychological health. Women who were continually abused physically and emotionally by their partners were more likely to be depressed and unhappy with their lives. The women in the sample, however, generally reported a significant decrease in the level of physical and psychological abuse over time. There was also subsequent improvement in their overall well-being. Satisfaction with their quality of life significantly increased while depressive symptomatology decreased from the first interview to the third interview, 8 to 9 months later. While the literature on women victimized by their partners has shown a rather bleak picture of their mental health, it should be noted that most of the studies were conducted while the women had just sought assistance either from a

shelter or a social service agency, and were thus likely to be in a crisis situation. The cross-sectional nature of the data in these studies (see Table 1) provided very limited information on the effects of violence on women's well-being. The information particularly on their mental health can be misleading. The present study documented a drop in depression levels even after only 10 weeks after the crisis situation, indicating the resiliency of the women.

Social support also fluctuated over time. While there was a significant increase in the women's satisfaction with their social support immediately after the intervention period, the mean satisfaction score decreased by the six-month follow-up. The large increase in social support satisfaction at Time 2 was mainly expressed by the experimental group, and was most likely influenced by the support provided to them by their advocates.

Effects of Social Support

The results of the study substantiated the relationship between social support and psychological well-being of battered women. Women who were more satisfied with their social support were also more likely to be satisfied with their quality of life and to be less depressed.

The results provided strong evidence for the existence of main effects of social support, but not for buffering effects. This stands in contrast to many other studies which found a strong moderating effect of social support (e.g. Cohen & Hoberman, 1983; Wilcox, 1981b). The failure to find significant interaction effects in this study may be due to several factors. First, Cohen and Wills (1985) pointed out that the buffering effect would most likely be observed only when a functional measure of social support is used which is well-matched to the stressful

events under study. The use of structural measures of social support and global functional measures tapping general availability of resources (such as the network size and social support satisfaction variables used in the regression analyses) would result in finding only main effects but not interaction effects (Cohen & Wills, 1985).

A second possible explanation is the lack of variability in the stress construct in this study. In most of the studies on the main and buffering effects of social support, stress was operationalized in terms of the occurrence of stressful events using some versions of Holmes and Rahe (1967) life events checklist, or the existence of chronic strains such as poverty and chronic illness (see Cohen and Wills, 1985). Stress in this study was measured in terms of the existence of abuse. Low stress simply meant the absence of abuse. At the two time periods used in the regression analyses, about half of the sample reported experiencing no further abuse. Thus the stress measure might have indicated low stress, but in reality, the participants in the study had to face several other chronic difficulties. A high 76% of the sample, for example, were living below the poverty level. Many of the women may be grappling with other social and economic problems with possible effects on their social supports and psychological well-being in addition to dealing with the abuse in their lives. As Belle (1990) pointed out, ongoing strains would be more prevalent in the lives of the poor, the uneducated, and the members of minority groups as they have to deal with inadequate housing, poor medical care, dangerous neighborhoods, financial uncertainties, childcare responsibilities and other difficulties. Many of the women also had to confront additional stressors associated with the abuse such as dealing with police and

legal issues, safety and security needs, and even the stress of losing someone (e.g. the abusers). All these stressors were not controlled for in the analyses.

Another alternative explanation is the degree of change in the level of social support and psychological well-being. Although the data indicated changes in the level of abuse, social support, and psychological well-being over time, the significant changes occurred between Time 1 (shelter exit interview) and Time 2 (post-intervention interview). There was a relatively high degree of stability in both social support and psychological well-being measures between Time 2 and Time 3 (six-month followup), the time periods used in the multivariate analyses. For an interaction effect to be evident, changes in the variables of interests are necessary. The observed changes from Time 2 to Time 3 in social support and psychological well-being were so small and nonsignificant, that even with a very large sample size and adequate statistical power, there would still be no significant interaction effect.

On the other hand, there might not be a buffering effect of social support for women confronting the specific stress of violence and emotional abuse from intimate partners. This lack of buffering effect should not come as a surprise. As Thoits (1982a) has pointed out, the proposition in the buffering hypothesis that social support is unrelated to well-being in the absence of stress may in fact be the problematic notion. Social support may be an important causal variable in its own right. That is, psychological adjustment may be directly dependent on the individual's level of social support. Having relationships in which people feel an important part are by themselves supportive of mental

health and well-being regardless of the level of stress they have to confront (Pearlin, 1985).

Possible causal inferences. To establish causality, Cohen and Wills (1985) have suggested the use of a longitudinal design study and a prospective analysis, where symptomatology at Time 2 was predicted from stress and/or social support at Time 1, with control for Time 1 symptomatology. The results of the prospective analyses in this study showed no strong causal conclusions of the effects of abuse and social support on psychological well-being that can be made. At the end of step 1 in the regression analysis (with Time 2 abuse and social support variables predicting Time 3 psychological well-being while controlling for Time 2 psychological well-being), the regression coefficients for abuse and social support at Time 2 were not significant, although zero-order correlations did show significant relationships between these variables at Time 2 and psychological well-being at Time 3. There were concurrent main effects, however, of both abuse and social support satisfaction on psychological well-being, as discussed above.

Such finding may not be surprising given the lag of six months between Time 2 and Time 3 interviews. The time lag might be too long for causal mechanisms to be evident. Depressive symptomatology might be influenced by more immediate causal processes including the level of stress and the quality of social support.

Structural vs. functional perspectives. The correlations between social support variables ranged from 0.27 to 0.42. They are not high enough if such variables were tapping the same construct. Thus, while the variables were clearly overlapping in content, they were not identical. In particular, satisfaction with social support appeared to

be independent of the size of one's network. Satisfaction with social support, was, however, significantly correlated with the number of close friends and number of generalists in one's network. It seems then that the women were more satisfied with their social support when they had close relationships even with only a few individuals on whom they could rely for various types of support, from tangible aid to emotional support, rather than having a wide circle of acquaintances, friends and relatives. Thus, satisfactory support can apparently be derived from even just one very good relationship. Furthermore, such support may not be available to women with more superficial relationships, no matter how many these relationships are.

The functional measure of satisfaction with one's perceived support is an assessment of the quality of one's supportive network. It considers the meaning of the support perceived to be available to the women when needed, and is a judgment on the relative match or discrepancy between one's expectations/wishes of support and the perceived reality (Fiore et al., 1986). The social support satisfaction score reflects either how helpful one's social interactions generally are, and/or how upsetting they can be when needed support is lacking or fails to meet one's expectations and wishes. Direct benefits of social support could occur as a result of the perception that others are willing and will provide help when needed. Structural measures such as the size of one's network might not be able to provide an adequate index of the availability and/or effectiveness of supportive functions received. Studies have established that the presence of potentially supportive individuals in one's network does not necessarily ensure that support will be provided (Menaghan, 1990). Thus, the functional

dimension of social support may be the more important factor in terms of assessing the effect of social support on psychological well-being. This was supported by the present study.

Satisfaction with social support relates to psychological well-being among the women (*r*'s generally in the 0.4 to 0.6 range) far stronger than the relationships of other support measures with psychological well-being (*r*'s generally 0.2 or less). The regression analyses also showed the existence of main effects for the functional measure (social support satisfaction) but not necessarily for the structural measure of network size. This is consistent with Cohen and Will's (1985) conclusion that functional measures generally show significant effects of social support; structural measures which provide a quantitative count of social connections typically do not show significant main effects.

Mechanisms by which social support affects psychological well-being. Several investigators have conceptualized the processes by which social support influences the effects of stress and subsequent psychological functioning. Lieberman (1982), for example, has described the variety of ways by which social resources can influence both the occurrence and effects of stress. Five of these mechanisms will be discussed below.

First, social resources can decrease the occurrence of stressful events. That is, feedback and direction from others may help individuals avoid having to confront certain life stressors. Analysis of the results suggested a possible reciprocal relationship between concurrent social support and level of abuse at least at Time 2. However, a causal relationship cannot be concluded. The relationships

of previous levels of social support and abuse at a latter time period were not significant.

Second, given the stressful situation, interaction with significant others can help modify the individual's perception of the stressful event and mitigate the stress potential. Third, social resources can also influence how one copes with the stress and thus modify the linkage between the stress and its effect. Many victims, including women battered by their partners, for example, have been found to blame themselves and further attribute their victimization to characterological factors within themselves, which can lead to feelings of helplessness and perceived lack of options (Frieze, 1983; Frieze, Hymer, & Greenberg, 1987; Hilberman & Munson, 1977-78; Janoff-Bulman & Frieze, 1983; Walker, 1979). Or the women may rationalize the violence, deny the responsibility of the abusers for the violence and attribute it instead to some external force such as work pressures, alcoholism, and drug addiction (Ferraro & Johnson, 1983). Positive interactions with others can alter the perception of self-blame and feelings of hopelessness. Supportive individuals can also provide external definitions of the situation, validation of the women's experiences, condemnation of the violence, and attribution of the responsibility to the abusers - contributing to a cognitive redefinition of the abuse, rejection of the previous rationalizations for the violence, and to seeking other alternatives to the abusive relationships.

While information and instrumental support may directly decrease the level of stress, the perception that resources will be available and readily provided by other people when needed may help redefine and reduce the potential for harm posed by stressful situations and/or

bolster one's perceived ability to cope with the increasing demands, and hence prevent a stressful situation from being appraised as highly stressful (Cohen & Syme, 1985). For women abused by their partners, positive interactions with others, for example, can increase the women's options for action (from staying with the abusers, leaving the situation temporarily, to undertaking legal actions and ending the relationships), enhance their sense of control over the situation, and thus potentially decrease the level of stress.

Fourth, social support can also modify erosion in self-esteem and feelings of mastery brought by the stressful events. The experience of feeling accepted and valued by another person, even though one is having difficulties in other life areas, can enhance a person's own self-evaluation and self-esteem (Wills, 1985). Esteem support is highly relevant for stressors such as physical and psychological abuse where constant criticisms and devaluation by the abusers can threaten the women's ego and lead to feelings of failure and sense of incompetence. Emotional and esteem support from supportive members of one's network can provide a source of self-enhancement and alternative, accepting relationships to counter the ego-threats from the abusers.

Fifth, social resources can directly influence the adaptation level itself. Elevation in self-esteem, ability to cope with stress, increase in motivation -- all of these could directly influence one's emotional and cognitive states positively. The perception that one is being cared for can in itself foster psychological well-being, whether or not this perception is accurate.

Specialization of Support

Support may be drawn from different sources for different needs. Pearlin (1985) has suggested that each problem may mobilize a distinct source to provide a specific type of support. Furthermore, the same problem may evoke different support as it moves through various stages. That is, the nature of a problem can change over time, with a corresponding shift in the type of support needed and utilized. As shown in the data, relatives and friends might be the source most commonly mobilized to provide companionship, emotional, motivational, and instrumental support. However, for informational support, formal organizations would be the source most likely to be utilized by the women. In most cases, long-term support is necessary for women with abusive partners. Family members and relatives are most likely able to provide support over prolonged periods. There is not enough evidence, however, to argue which is the most important source of support. An important task is to see how the various sources are utilized as women attempt to grapple with the stresses and problems in their lives.

For about a third of the sample, the relationships between their social support and stress are further complicated by the fact that a major source of support is the individual also mainly responsible for the stress in their lives. Empirical research as pointed out by House, Umberson, and Landis (1988) has increasingly reported on both the positive and negative content that can be inherent in social relationships. The negative content, however, may be more consequential for the well-being of the individual. Thus, depending on the level of support a woman gets from her abuser vis-a-vis the stress he evokes, the abuser's presence in her life may either have deleterious effects, no

effects, or even possibly some beneficial effects on her psychological well-being.

Methodological Issues

Sample

As pointed out earlier in a critique of the literature on domestic violence, conducting a study on a sample of women who sought the assistance of a shelter limits the generalizations that can be made. The self-selected nature of the sample means that it only represents a subgroup of women abused by their partners who were able to leave their abusive partners, at least temporarily, and seek shelter. The sample might be biased towards women who have experienced more severe violence, women who might have experienced negative responses from other sources to their requests for help, those less able to mobilize informal sources of support, and/or women who share certain demographic characteristics (e.g. poverty, urban-based, etc.). Generalizations of the findings of this study are limited to women who have resided at shelters.

Statistical and related conceptual issues

The failure to find a significant interaction term, as stated earlier, could have been due to a lack of variability in the variables. The probability of finding significant relations between variables increases as variability in stress, social support, and symptomatology increases. Such requirement is, however, violated in our sample where almost all the subjects might have been under relatively high stress. In addition, Baron and Kenny (1986) have pointed out that to have a clearly interpretable interaction term, it would be desirable to have a moderator variable that is uncorrelated with both the predictor and the criterion. In the present study, the three sets of variables --abuse,

social support, and psychological well-being -- are significantly correlated to each other, decreasing the chance of finding significant interpretable interaction terms.

The correlational nature of the evidence, in spite of using a longitudinal, multivariate design, still leaves the results open to validity threats from competing hypotheses. There is still the possibility that the social support variables could actually be representing some other causal variable(s) with which support is highly correlated. Cohen and Syme (1985) raised the issue that personality factors may be primarily responsible for the relationships between social support and well-being, such as those associated with sociability and other factors that might affect one's ability to develop supportive networks and maintain social relationships. Other stable individual differences in personality could also well explain the data. The role of stable individual differences across situations needs to be recognized.

Another issue is the existence of potentially bidirectional relationships. Psychological functioning might be the causal variable that determines social support. The data did indeed show significant correlations of previous levels of psychological well-being on later social support. Women who are depressed and/or dissatisfied with their lives may also be more likely to underestimate the degree of support available to them, or to alienate sources of support. Thus, one issue that needs to be considered is the possible impact of psychological functioning on one's perceptions of support, although empirical evidence suggests that perceived social support and the measures of psychological well-being are distinct dimensions with different determinants (Barrera,

1986; Turner, 1983). More likely, as pointed out by Kessler and McLeod (1985), psychological functioning and social support are connected in a complex mesh of mutual influence.

Data for this study are based on self-reports. Thus, response bias and other sources of shared method variance may have contributed to the correlations or lack of relationships among the variables. It could have increased multicollinearity among the variables, affecting the results of the regression analyses.

Implications and Directions for Future Research

An apparent person-centered bias exists in the present study. This bias as well as in the general stress-social-support-adjustment literature might promote individual level intervention strategies to the exclusion of system-level solutions to system-based problems (Caplan & Nelson, 1973). A more ecological perspective is necessary to understand how women, their relatives and friends, and the larger society operate interdependently to create particular social patterns. There is a need then for more studies on the social context of support -- for example, what factors influence the availability of certain support, or the responses of organizations and individuals to requests for support, specifically for women battered by their partners? As stated earlier in the review of literature, institutional responses have not been particularly helpful to women. Mitchell and Hodson (1986) pointed out that we need to link individual level processes to the broader societal and cultural context, such as the traditional views on sex roles, on marriage, and on the privacy of domestic matters including violence. There is also a general tendency for people to see victims as responsible for their own fate (Ryan, 1976). Further research is needed

to understand under what conditions social network members would provide unconditional support to women victimized by their partners, and under what conditions the women would be blamed. We also need to be able to learn how to examine and intervene in apparently individual level psychological processes without contributing to a process of "blaming the victim" (Ryan, 1976).

Another issue in studying the effects of social support is addressing the existence of interrelated problems and stresses confronting individuals, as pointed out earlier in the discussion on the various stressors faced by the women in the sample. There is also a bias in the literature toward social support as influencing psychological adjustment. Support and psychological well-being, however, are far more complex constructs and relate to each other in complex ways. We need to attend more to this complexity, particularly on the potential bidirectional relationship of the two concepts.

The study's finding on the role of the abusers as the sources of both support and stress points out the need to attend to other functional content of social relationships, particularly on relational demands and social conflicts. The bias in social support research toward the positive aspects of social relationship should not preclude us from also recognizing and addressing the negative effects of social relationships. Empirical research has documented that support and negativity both occur in most relationships, and that negative interactions may, in fact, be more important than supportive interactions in predicting emotional functioning (Schuster, Kessler, & Aseltine, 1990). The lack of assistance or even negative responses from network members to the violence and requests for help by the women, for

example, are likely to add stress and further increase the women's distress.

Further research should also be undertaken that employs more "objective" measures of social support and psychological functioning other than self-reports. In addition, there is a need to have more specific measures of support toward particular stressful situations rather than more global measures.

Questions such as what types and sources of support are most effective in dealing with particular types of stressful events or situations, from whom is the support provided, when and for how long is support provided, what are the costs of giving and receiving support, how do members of the social system respond to specific requests, what effects do certain responses have -- are just some questions central to understanding the role of support for various forms of stress, from one-time stressful events to chronic strains. The interactional and reciprocal aspects of support, in particular, have been largely overlooked.

Another issue that needs to be addressed is the question on how long does adaptation to a crisis take place, and thus, what is an adequate time interval in longitudinal research for causal effects to be evident. There is a need to determine the effects and implications of various time lags used in documenting causal effects of social support and stress on psychological well-being.

Finally, more studies need to be conducted that go beyond the shelter population and examine the issues of violence against women by their male partners in the general population. In particular, greater efforts must be exerted toward holding abusers accountable for their

violent behaviors. Greater research attention must be given toward the factors that contribute to male violence against their partners. Further research is also needed in increasing our understanding of the factors that contribute to helping women break free of abusive relationships, and subsequently improve their overall well-being. This study is intended to be one step in this direction.

APPENDICES

Appendix A

SOCIAL SUPPORT INSTRUMENT

"Now I'm going to ask you some questions about people who are part of your life who provide you with help or support. As I ask each question, I want you to name only those people who come to mind quickly. I'm just going to write down their first names and their last initials and their relationship to you so that I can keep it straight for myself."

TO INTERVIEWER: DO NOT LIST MORE THAN 10 NAMES PER QUESTION UNLESS HER ADVOCATE WAS MENTIONED (IF APPLICABLE). IN THIS CASE 11 NAMES CAN BE CODED. BE SURE TO RECORD THE FIRST INITIAL OF THE PERSON'S LAST NAME, EVEN IF THAT PERSON'S NAME COMES UP MORE THAN ONCE! IF RESPONDENT INDICATES "NOBODY," BE SURE TO INDICATE THAT ON LINE "A." IF RESPONDENT DOES NOT KNOW PERSON'S LAST NAME, INDICATE THAT NEXT TO THE NAME AND ARBITRARILY ASSIGN A LAST INITIAL TO THAT PERSON.

ASK <u>RELATIONSHIP</u> OF PERSON TO RESPONDENT, AND WRITE THAT NEXT TO THE NAME (I.E. FRIEND, NEIGHBOR, THERAPIST, MINISTER, SISTER). IT IS IMPORTANT TO DISTINGUISH BETWEEN ORIGINAL ASSAILANT AND NEW BOYFRIEND. IF WOMAN SAYS "IN-LAW", CLARIFY IF PERSON IS RELATED TO ASSAILANT, AND INDICATE.

IF RESPONDENT PROVIDES A NAME OF AN <u>ORGANIZATION</u>, SEE IF THERE IS A KEY PERSON WITHIN THAT ORGANIZATION. IF NOT, RECORD THE NAME OF THE ORGANIZATION AND WRITE "NO ONE SPECIFIC" NEXT TO IT.

BOOKS AND NEWSPAPERS DO NOT COUNT AS SOCIAL SUPPORT.

1. The first couple of questions have to do with companionship.

   Who do you usually spend time with?
   (If participant needs a reference period, say "recently" OR "the way things are going now)."

   a)_____ f)_____

   b)_____ g)_____

   c)_____ h)_____

   d)_____ i)_____

   e)_____ j)_____

2. In an average week, who do you enjoy talking with?

   a)_____ f)_____

   b)_____ g)_____

   c)_____ h)_____

   d)_____ i)_____

   e)_____ j)_____

(Hand participant GREEN card #1)

3. In general, how do you feel about the amount of companionship that you have; do you feel:

   1 - EXTREMELY PLEASED
   2 - PLEASED
   3 - MOSTLY SATISFIED
   4 - MIXED (EQUALLY SATISFIED AND DISSATISFIED)
   5 - MOSTLY DISSATISFIED
   6 - UNHAPPY
   7 - TERRIBLE

4. In general, how do you feel about the quality of companionship that you have; do you feel:

   1 - EXTREMELY PLEASED
   2 - PLEASED
   3 - MOSTLY SATISFIED
   4 - MIXED (EQUALLY SATISFIED AND DISSATISFIED)
   5 - MOSTLY DISSATISFIED
   6 - UNHAPPY
   7 - TERRIBLE

5. Now I'm going to ask you about a different kind of help that you may receive from others called "advice and information." Who can you count on for advice or information about personal matters (for example, problems with your children, friends, or spouse; dealing with a personal situation, things like that?)

a)_____ f)_____

b)_____ g)_____

c)_____ h)_____

d)_____ i)_____

e)_____ j)_____

6. Who can you rely on for advice or information you need about resources. For example, about finding a job or a place to stay, about where to find furniture or other material goods, things like that?

a)_____ f)_____

b)_____ g)_____

c)_____ h)_____

d)_____ i)_____

e)_____ j)_____

7. In general, how do you feel about the amount of advice and information that you receive; do you feel:

1 - EXTREMELY PLEASED
2 - PLEASED
3 - MOSTLY SATISFIED
4 - MIXED (EQUALLY SATISFIED AND DISSATISFIED)
5 - MOSTLY DISSATISFIED
6 - UNHAPPY
7 - TERRIBLE

8. In general, how do you feel about the quality of advice and information that you receive; do you feel:

1 - EXTREMELY PLEASED
2 - PLEASED
3 - MOSTLY SATISFIED
4 - MIXED (EQUALLY SATISFIED AND DISSATISFIED)
5 - MOSTLY DISSATISFIED
6 - UNHAPPY
7 - TERRIBLE

9. The next couple of questions have to do with another type of support called "practical assistance," for example, people you can count on to help you get things or do things.

   Who do you count on to be dependable when you need help?

   a)_____ f)_____

   b)_____ g)_____

   c)_____ h)_____

   d)_____ i)_____

   e)_____ j)_____

10. Who do you count on to do a favor for you (for example, take you someplace you need to go, watch your kids, loan or give you money or something you need, etc.?)

    a)_____ f)_____

    b)_____ g)_____

    c)_____ h)_____

    d)_____ i)_____

    e)_____ j)_____

11. In general, how do you feel about the amount of practical assistance that you receive; do you feel:

    1 - EXTREMELY PLEASED
    2 - PLEASED
    3 - MOSTLY SATISFIED
    4 - MIXED (EQUALLY SATISFIED AND DISSATISFIED)
    5 - MOSTLY DISSATISFIED
    6 - UNHAPPY
    7 - TERRIBLE

12. In general, how do you feel about the quality of practical assistance you receive; do you feel:

    1 - EXTREMELY PLEASED
    2 - PLEASED
    3 - MOSTLY SATISFIED
    4 - MIXED (EQUALLY SATISFIED AND DISSATISFIED)
    5 - MOSTLY DISSATISFIED
    6 - UNHAPPY
    7 - TERRIBLE

13. Now I'm going to ask you a couple of questions about "emotional support."

    Who can you count on to listen to you when you want to talk about something personal?

    a)_____ f)_____

    b)_____ g)_____

    c)_____ h)_____

    d)_____ i)_____

    e)_____ j)_____

14. Who in your life do you feel really cares about you?

    a)_____ f)_____

    b)_____ g)_____

    c)_____ h)_____

    d)_____ i)_____

    e)_____ j)_____

15. In general, how do you feel about the amount of emotional support that you receive; do you feel:

    1 = EXTREMELY PLEASED
    2 = PLEASED
    3 = MOSTLY SATISFIED
    4 = MIXED (EQUALLY SATISFIED AND DISSATISFIED)
    5 = MOSTLY DISSATISFIED
    6 = UNHAPPY
    7 = TERRIBLE

16. In general, how do you feel about the quality of emotional support that you receive; do you feel:

    1 = EXTREMELY PLEASED
    2 = PLEASED
    3 = MOSTLY SATISFIED
    4 = MIXED (EQUALLY SATISFIED AND DISSATISFIED)
    5 = MOSTLY DISSATISFIED
    6 = UNHAPPY
    7 = TERRIBLE

17. Okay, now this question is a little different. Who makes your life difficult; such as someone who expects too much from you or makes too many demands on you, someone you wish would leave you alone or someone you would like to avoid?

a)_____ f)_____

b)_____ g)_____

c)_____ h)_____

d)_____ i)_____

e)_____ j)_____

18. In all, about how many close friends would you say you have?

(People you feel at ease with and can talk to about what is on your mind)

_____close friends (WRITE EXACT NUMBER)

19. Now, for the last question about social support, how do you feel overall about the amount and quality of the social support you receive?

1 = EXTREMELY PLEASED
2 = PLEASED
3 = MOSTLY SATISFIED
4 = MIXED (EQUALLY SATISFIED AND DISSATISFIED)
5 = MOSTLY DISSATISFIED
6 = UNHAPPY
7 = TERRIBLE

Appendix B

ABUSE MEASURES

1. Now I'd like to go back to talking about the last 6 months, or since about _____. How many times in the last 6 months has _____ threatened you in any way? (SHOW PINK CARD #3)

NEVER.....1
ONCE A MONTH OR LESS.....2
2 OR 3 TIMES A MONTH.....3
ONCE OR TWICE A WEEK.....4
THREE OR FOUR TIMES A WEEK.....5
MORE THAN FOUR TIMES A WEEK.....6
(NOT APPLICABLE).....8
(REFUSED TO ANSWER).....9

2. (IF SHE HAS SEEN HIM IN THE LAST 6 MONTHS, ASK:)
Now I have a list of different types of violence that women have experienced from their partners and ex-partners. I wonder if you could tell me how many times in the last 6 months _____ has done any of the following things to you: (USE PINK CARD #3)

1 = NEVER
2 = ONCE A MONTH OR LESS
3 = 2 OR 3 TIMES A MONTH
4 = ONCE OR TWICE A WEEK
5 = 3 OR 4 TIMES A WEEK
6 = MORE THAN 4 TIMES A WEEK
8 = (NOT APPLICABLE)
9 = (refused to answer)

How often did he break your glasses or tear your clothing .... _____

He pushed or shoved you ..... _____

He grabbed you ..... _____

He slapped you with an open hand ..... _____

He hit you with a fist ..... _____

He kicked you ..... _____

He threw something at you ..... _____

Aside from throwing, how often did he hit you with an object.. _____

He tried to hit you with an object ..... _____

He drove recklessly, so that you felt endangered ..... _____

He choked you ..... _____

He burned you ..... _____

He tied you up or physically restrained you in some way ..... _____

He forced sexual activity ..... _____

He threatened you with a gun or knife ..... _____

He used a gun or knife against you ..... _____

3. (IF SHE HAS BEEN HARMED AT ALL) Now I am going to go through a list of injuries and ask you yes or no if you sustained these injuries in the last six months:

	YES	NO	N/A
Cuts/scrapes/bruises	1	2	8
Soreness w/out bruises	1	2	8
Burns (including rug burns)	1	2	8
Loose or broken teeth	1	2	8
Broken bones/fractures	1	2	8
Internal injuries	1	2	8
Strains/sprains	1	2	8
Dislocated joints	1	2	8
Pregnancy complications/miscarriage	1	2	8
Knife/gunshot wound	1	2	8

(ASK THESE QUESTIONS ONLY OF WOMEN WHO ARE CURRENTLY IN A RELATIONSHIP--WITH ASSAILANT OR WITH SOMEONE ELSE)

3. Now I have a list of some things some men do to annoy or hurt their partners. Using this card (SHOW YELLOW CARD #2) could you tell me, to the best of your recollection, how many times in the last 6 months the person you're involved with now has done any of these things to annoy or hurt you?

1 = NEVER
2 = RARELY
3 = SOMETIMES
4 = OFTEN
8 = not applicable (i.e. no children, no pets)
9 = (refused to answer)

How often has he refused to talk to you ..... _____

Accused you of having or wanting other sexual relationship(s). _____

Told you about other sexual relationships he wanted or was having in order to hurt you ..... _____

Refused to do things with you that you wanted to do ..... _____

Forbid you to go out without him ..... _____

Tried to control your money ..... _____

Tried to control your activities ..... _____

Withheld approval, appreciation or affection as punishment ... _____

Lied to you or deliberately misled you ..... _____

Made contradictory demands or requests of you ..... _____

Called you names ..... _____

Tried to humiliate you ..... _____

Ignored or made light of your anger ..... _____

Ignored or made light of your other feelings ..... _____

Ridiculed or criticized you in public ..... _____

Ridiculed or insulted your most valued beliefs ..... _____

Ridiculed or insulted your religion, race, heritage, or class. _____

Ridiculed or insulted women as a group ..... _____

Criticized your strengths, or those parts of yourself which you are or once were proud of ..... _____

Criticized your intelligence ..... _____

Criticized your physical appearance and/or sexual attractiveness ..... _____

Criticized your family or friends to you ..... _____

Harassed your family or friends in some way ..... _____

Discouraged your contact with family or friends ..... _____

Threatened to hurt your family or friends ..... _____

Broke or destroyed something important to you ..... _____

Abused or threatened to abuse pets to hurt you ..... _____

Punished or deprived the children when he was angry at you ... _____

Threatened to take the children if you left him ..... _____

Left you somewhere with no way to get home ..... _____

Threatened to end the relationship if you didn't do what he wanted ..... _____

Tried to force you to leave your home ..... _____

Threatened to commit suicide when he was angry at you ..... _____

Appendix C

PSYCHOLOGICAL WELL-BEING MEASURES

I. Quality of Life Questionnaire

In this section of the interview, I want to find out how you feel about various parts of your life. Please tell me the feelings you have now--taking into account what has happened in the last 6 months, and what you expect in the near future.

(Hand participant GREEN card #1)

On this card are the answers that I'd like you to give me. I'll be asking you about a list of things. After I ask you each question, please tell me what phrase on this card gives the best summary of how you feel; either "EXTREMELY PLEASED," "PLEASED," "MOSTLY SATISFIED," "EQUALLY DISSATISFIED AND SATISFIED," "MOSTLY DISSATISFIED," "UNHAPPY," or "TERRIBLE," depending on how you feel about that part of your life.

If you feel that a question doesn't apply to you, just tell me.

1 = EXTREMELY PLEASED
2 = PLEASED
3 = MOSTLY SATISFIED
4 = MIXED (EQUALLY SATISFIED AND DISSATISFIED)
5 = MOSTLY DISSATISFIED
6 = UNHAPPY
7 = TERRIBLE
8 = (NOT APPLICABLE)
9 = No answer (explain why!)

1. First, a very general question. How do you feel about your life overall? ..... _____

2. How do you feel about where you are living now? ..... _____

3. In general, how do you feel about yourself? ..... _____

4. How do you feel about your employment situation? ..... _____

5. How do you feel about your health and physical condition? .... _____

6. How do you feel about how secure you are financially? ..... _____

7. How do you feel about the amount of privacy you have -- that is, being alone when you want to? ..... _____

8. How do you feel about how secure you are from people who might steal or destroy your property? ..... _____

9. How do you feel about your personal safety? ..... _____

10. How do you feel about the amount of fun and enjoyment you have? ..... _____

11. How do you feel about your chance of getting a good job if you went looking for one? ..... _____

12. How do you feel about the responsibilities you have for members of your family? ..... _____

    (Coding: 8 = n/a no family)

13. How do you feel about what you are accomplishing in your life? _____

14. How do you feel about the income you have (the amount of money you make or get)? (answer even if has no income!) ..... _____

15. How do you feel about the things you do and the times you have with friends? ..... _____

16. How do you feel about your independence or freedom--that is, how free you feel to live the kind of life you want? ..... _____

17. How do you feel about your standard of living--that is, the things you have like housing, furniture, recreation, and the like? ..... _____

18. How do you feel about your close adult relatives--that is people like your parents, in-laws, brothers and sisters, grandparents? ..... _____

    (Coding: 8 = n/a no family)

19. How do you feel about your emotional and psychological well-being? ..... _____

20. How do you feel about the way you handle problems that come up for you? ..... _____

21. How do you feel about the dealings you have with social service agencies, for example in order to get food stamps or public assistance, or to get other kinds of help? ..... _____

    (Coding: 8 = n/a no contact)

22. How do you feel about your family life -- that is, the time you spend and the things you do with members of your family? ..... _____

    (Coding: 8 = n/a no family)

23. How do you feel about how much you are accepted and included by others? ..... _____

24. How do you feel about the way you spend your spare time? ..... _____

25. How do you feel about your life as a whole? ..... _____

II. CES-D

Below is a list of the ways you might have felt or behaved in the last week. We would like to know how often you have felt any of these ways in the past week. Please circle the number that best describes how often you felt this way.

1 = RARELY OR NEVER (LESS THAN ONE DAY)
2 = SOME OR A LITTLE (1-2 DAYS)
3 = OCCASIONALLY (3-4 DAYS)
4 = MOST OR ALL THE TIME (5-7 DAYS)

During the past week:

1. I was bothered by things that usually don't bother me .1...2...3...4
2. I did not feel like eating; my appetite was poor .....1...2...3...4
3. I felt that I could not shake off the blues even with help from my family or friends .....1...2...3...4
4. I felt that I was just as good as other people .....1...2...3...4
5. I had trouble keeping my mind on what I was doing .....1...2...3...4
6. I felt depressed .....1...2...3...4
7. I felt that everything I did was an effort .....1...2...3...4
8. I felt hopeful about the future .....1...2...3...4
9. I thought my life had been a failure .....1...2...3...4
10. I felt fearful .....1...2...3...4
11. My sleep was restless .....1...2...3...4
12. I was happy .....1...2...3...4
13. I talked less than usual .....1...2...3...4
14. I felt lonely .....1...2...3...4

15. People were unfriendly .....1...2...3...4

16. I enjoyed life .....1...2...3...4

17. I had crying spells .....1...2...3...4

18. I felt sad .....1...2...3...4

19. I felt that people dislike me .....1...2...3...4

20. I could not "get going" .....1...2...3...4

LIST OF REFERENCES

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Albee, G. W. (1982). Preventing psychopathology and promoting human potential. American Psychologist, 37, 1043-1050.

Allen, L., & Britt, D. W. (1983). Social class, mental health, and mental illness: The impact of resources and feedback. In R. D. Felner, L. A. Jason, J. N. Moritsuga, & S. S. Farber (Eds.), Preventive psychology: Theory, research and practice (pp. 149-161). New York: Pergamon Press.

Andrews, F. M., & Withey, S. B. (1976). Social indicators of well-being Americans' perceptions of life quality. New York: Plenum Press.

Aneshensel, C. S., & Frerichs, R. R. (1982). Stress, support, and depression: A longitudinal causal model. Journal of Community Psychology, 10, 363-376.

Astin, M. C., Lawrence, K. J., & Foy, D. W. (1993). Posttraumatic Stress Disorder among battered women: Risk and resiliency factors. Violence and Victims, 8, 17-28.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173-1182.

Barrera, M. (1986). Distinctions between social support concepts, measures, and models. American Journal of Community Psychoogy, 14, 413-445.

Belle, D. (1990). Poverty and women's mental health. American Psychologist, 45, 385-389.

Bell, R. A., Leroy, J. B., & Stephenson, J. J. (1982). Evaluating the mediating effects of social support upon life events and depressive symptoms. Journal of Community Psychology, 10, 325-339.

Bergman, B., & Brismar, B. (1991). A 5-year follow-up study of 117 battered women. American Journal of Public Health, 81, 1486-1489.

Biden, J. R. (1993). Violence against women: The congressional response. American Psychologist, 48, 1059-1061.

Billings, A. G., & Moos, R. H. (1981). The role of coping responses and social resources in attenuating the stress of life events. Journal of Behavioral Medicine, 4, 139-157.

Binney, V., Harkell, G., & Nixon, J., (1981). Leaving violent men: A study of refuges and housing for battered women. Leeds, Yorkshire: Women's Aid Federation.

Bloom, B. L. (1992). Stressful life event theory and the prevention of psychopathology. In M. Kessler, S. E. Goldston, & J. M. Joffe (Eds.), The Present and future of prevention (pp. 115-124). Newbury Park, Ca: Sage Publications.

Bogat, G. A., Chin, R., Sabbath, W., & Schwartz, C. (1983). The adult's social support questionnaire (Technical report 2). East Lansing: Michigan State University.

Bowker, L. H. (1983). Beating wife-beating. Lexington, MA: Lexington Books.

Bowker, L. H. (1984). Coping with wife abuse: Personal and social networks. In A. R. Roberts (Ed.), Battered women and their families: Intervention strategies and treatment programs (pp. 168-191). New York: Springer Publishing Co.

Browne, A. (1987). When battered women kill. New York: Macmillan/The Free Press.

Browne, A. (1988). Family homicide: When victimized women kill. In V. B. Van Hasselt, R. L. Morrison, A. S. Bellack, & M. Hersen (Eds.), Handbook of family violence (pp. 271-289). New York: Plenum Press.

Browne, A. (1993). Violence against women by male partners: Prevalence, outcomes, and policy implications. American Psychologist, 48, 1077-1087.

Browne, A., & Williams, K. R. (1989). Exploring the effect of resource availability and the likelihood of female-perpetrated homicides. Law and Society Review, 23(1), 75-94.

Browne, A., & Williams, K. R. (1993). Gender, intimacy, and lethal violence: Trends from 1976 through 1987. Gender & Society, 7, 78-98.

Campbell, J. C. (1989). Women's responses to sexual abuse in intimate relationships. Health Care for Women International, 10, 335-346.

Cannon, W. B. (1929). Bodily changes in pain, hunger, fear and rage. New York: D. Appleton and Company.

Caplan, G. (1964). Principles of preventive psychiatry. New York: Basic Books.

Caplan, G. (1974). Support systems and community mental health. New York: Behavioral Publications.

Caplan, W., & Nelson, S. S. (1973). On being useful: The nature and consequences of psychological research on social problems. American Psychologist, 28, 199-211.

Cascardi, M., & O'Leary, K. D. (1992). Depressive symptomatology, self-esteem, and self-blame in battered women. Journal of Family Violence, 7, 249-259.

Cassel, J. (1974). Psychosocial processes and "stress": Theoretical formulation. International Journal of Health Services, 4, 471-482.

Cassel, J. (1976). The contribution of the social environment to host resistance. American Journal of Epidemiology, 104, 107-123.

Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.

Cohen, J., & Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress. Journal of Applied Social Psychology, 13, 99-125.

Cohen, S., & Syme, S. L. (1985). Issues in the study and application of social support. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 3-22). Orlando, FL: Academic Press.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98, 310-357.

Dobash, R. E., & Dobash, R. (1979). Violence against wives: A case against the patriarchy. New York: The Free Press.

Dobash, R. E., & Dobash, R. P. (1984). The nature and antecedents of violent events. British Journal of Criminology, 24, 269-288.

Dobash, R. E., Dobash, R. P., & Cavanagh, K. (1985). The contact between battered women and social and medical agencies. In J. Pahl (Ed.), Private violence and public policy: The needs of battered women and the response of the public services (pp. 142-165). London: Routledge & Kegan Paul.

Dohrenwend, B. P. (1979). Stressful life events and psychopathology: Some issues of theory and method. In J. E. Barrett (Ed.), Stress and mental disorder. New York: Raven Press.

Dohrenwend, B. S. (1978). Social stress and community psychology. American Journal of Community Psychology, 6, 1-14.

Dohrenwend, B. S., & Dohrenwend, B. P. (1974a). A brief historical introduction to research on stressful life events. In B. S. Dohrenwend & B. P. Dohrenwend (Eds.), Stressful life events: Their nature and effects (pp. 1-5). New York: John Wiley & Sons.

Dohrenwend, B. S., & Dohrenwend, B. P. (1974b). Overview and prospects for research on stressful life events. In B. S. Dohrenwend & B. P. Dohrenwend (Eds.), Stressful life events: Their nature and effects (pp. 313-331). New York: John Wiley & Sons.

Donato, K. M., & Bowker, L. H. (1984). Understanding the helpseeking behavior of battered women: A comparison of traditional service agencies and women's groups. International Journal of Women's Studies, 7(2), 99-109.

Dutton, M. A. (1992). Empowering and healing the battered woman: A model for assessment and intervention. New York: Springer Publishing Co.

Felner, R. D., Farber, S. S., & Primavera, J. (1983). Transitions and stressful life events: A model for primary prevention. In R. D. Felner, L. A. Jason, J. N. Moritsuga, & S. S. Farber (Eds.), Preventive psychology: Theory, research and practice (pp. 199-215). New York: Pergamon Press.

Ferraro, K. J., & Johnson, J. M. (1983). How women experience battering: The process of victimization. Social Problems, 30, 325-339.

Finkelhor, D., & Yllo, K. (1983). Rape in marriage: A sociological view. In D. Finkelhor, R. J. Gelles, G. T. Hotaling, & M. A. Straus (Eds.), The dark side of families (pp. 119-130). Beverly Hills: Sage Publications.

Finn, J. (1985). The stresses and coping behavior of battered women. Social Casework: The Journal of Contemporary Social Work, 66, 341-349.

Fiore, J., Coppel, D. B., Becker, J., & Cox, G. B. (1986). Social support as a multifaceted concept: Examination of important dimensions for adjustment. American Journal of Community Psychology, 14, 93-111.

Flynn, J. P. (1977). Recent findings related to wife abuse. Social Casework, 58, 13-20.

Follingstad, D. R., Brennan, A. F., Hause, E. S., Polek, D. S., & Rutledge, L. L. (1991). Factors moderating physical and psychological symptoms of battered women. Journal of Family Violence, 6, 81-95.

Frieze, I. H. (1983). Investigating the causes and consequences of marital rape. Signs: Journal of Women in Culture and Society, 8, 532-553.

Frieze, I. H., Hymer, S., & Greenberg, M. S. (1987). Describing the crime victim: Psychological reactions to victimization. Professional Psychology: Research and Practice, 18, 299-315.

Gelles, R. J. (1976). Abused wives: Why do they stay? Journal of Marriage and the Family, 38, 659-668.

Gelles, R. J. (1987). The violent home. Newbury Park, CA: Sage Publications.

Gelles, R. J., & Harrop, J. W. (1989). Violence, battering, and psychological distress among women. Journal of Interpersonal Violence, 4, 400-420.

Gentemann, K. M. (1984). Wife beating: Attitudes of a non-clinical population. Victimology: An International Journal, 9, 109-119.

Gleason, W. J. (1993). Mental disorders in battered women: An empirical study. Violence and Victims, 8, 53-68.

Gondolf, E. W. (1988). Battered women as survivors: An alternative to treating learned helplessness. Lexington, MA: Lexington Books.

Goodman, L. A., Koss, M. P., Fitzgerald, L. F., Russo, N. F., & Keita, G. P. (1993). Male violence against women: Current research and future directions. American Psychologist, 48, 1054-1058.

Gottlieb, B. H. (1981). Social networks and social support in community mental health. In B. H. Gottlieb (Ed.), Social networks and social support (pp. 11-42). Beverly Hills, CA: Sage Publications.

Hall, A. & Wellman, B. (1985). Social networks and social support. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 23-41). Orlando, FL: Academic Press.

Heller, K., & Swindle, R. W. (1983). Social networks, perceived social support, and coping with stress. In R. D. Felner, L. A. Jason, J. N. Moritsuga, & S. S. Farber (Eds.), Preventive psychology: Theory, research and practice (pp.87-103). New York: Pergamon Press.

Hilberman, E. (1980). Overview: The "wife-beater's wife" reconsidered. American Journal of Psychiatry, 137, 1336-1347.

Hilberman, E., & Munson, K. (1977-78). Sixty battered women. Victimology: An International Journal, 2, 460-470.

Hobfoll, S. E. (1988). The ecology of stress. New York: Hemisphere Publishing Corporation.

Hofeller, K. H. (1982). Social, psychological, and situational factors in wife abuse. Palo Alto, CA: R & E Research Associates.

Hoff, L. A. (1990). Battered women as survivors. London: Routledge.

Hoffman, P. (1984). Psychological abuse of women by spouses and live-in lovers. Women and Therapy, 3(1), 37-47.

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.

Homer, M., Leonard, A., & Taylor, P. (1985). Personal relationships: Help and hindrance. In N. Johnson (Ed.), Marital violence (pp. 93-108). London: Routledge & Kegan Paul.

House, J. S., & Kahn, R. L. (1985). Measures and concepts of social support. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 83-108). Orlando, FL: Academic Press.

House, J. S., Umberson, D., & Landis, K. R. (1988). Structures and processes of social support. Annual Review of Sociology, 14, 293-318.

Houskamp, B. M., & Foy, D. W. (1991). The assessment of posttraumatic stress disorder in battered women. Journal of Interpersonal Violence, 6, 367-375.

Jaffe, P., Wolfe, D. A., Wilson, S., & Zak, L. (1986). Emotional and physical health problems of battered women. Canadian Journal of Psychiatry, 31, 625-629.

Janoff-Bulman, R., & Frieze, I. H. (1983). A theoretical perspective for understanding reactions to victimization. Journal of Social Issues, 39, 1-17.

Jones, A., & Schechter, S. (1992). When love goes wrong: What to do when you can't do anything right. New York: Harper Collins.

Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. Journal of Behavioral Medicine, 4, 1-39.

Kemp, A., Rawlings, E. I., & Green, B. L. (1991). Post-traumatic stress disorder (PTSD) in battered women: A shelter sample. Journal of Traumatic Stress, 4(1), 137-148.

Kessler, R. C., & McLeod, J. D. (1985). Social support and mental health in community samples. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 219-240). Orlando, FL: Academic Press.

Koss, M. P. (1990). The women's mental health research agenda: Violence against women. American Psychologist, 45, 374-380.

Kurz, D., & Stark, E. (1988). Not-so-benign neglect: The medical response to battering. In K. Yllo & M. Bograd (Eds.), Feminist perspectives on wife abuse (pp. 249-266). Newbury Park, CA: Sage Publications.

Lazarus, R. S. (1966). Psychological stress and the coping process. New York: McGraw-Hill Book Company.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer Publishing Company.

Lieberman, M. A. (1982). The effects of social supports on responses to stress. In L. Goldberger & S. Breznitz (Eds.), Handbook of stress: Theoretical and clinical aspects (pp. 764-783). New York: The Free Press/MacMillan Publishing.

Maynard, M. (1985). The response of social workers to domestic violence. In J. Pahl (Ed.), Private violence and public policy: The needs of battered women and the response of the public services (pp. 125-141). London: Routledge & Kegan Paul.

Menaghan, E. G. (1990). Social stress and individual distress. In J. R. Greenley (Ed.), Research in community and mental Health (pp. 107-141). Greenwich, CT: JAI Press.

Mercy, J. A., & Saltzman, L. E. (1989). Fatal violence among spouses in the United States, 1976-85. American Journal of Public Health, 79(5), 595-599.

Mitchell, R. E., & Hodson, C. A. (1983). Coping with domestic violence: Social support and psychological health among battered women. American Journal of Community Psychology, 11, 629-654.

Mitchell, R. E., & Hodson, C. A. (1986). Coping and social support among battered women: An ecological perspective. In S. E. Hobfoll (Ed.), Stress, social support and women (pp. 153-169). Washington: Hemisphere Publishing.

Mitchell, R. E., & Trickett, E. J. (1980). Social networks as mediators of social support: An analysis of the effects and determinants of social networks. Community Mental Health Journal, 16, 27-44.

Okun, L. (1986). Woman abuse: Facts replacing myths. Albany, NY: State University of New York Press Albany.

Pagelow, M. D. (1981). Woman-battering: Victims and their experiences. Beverly Hills: Sage Publications.

Pagelow, M. D. (1984). Family violence. New York: Praeger Publishers.

Pagelow, M. D. (1992). Adult victims of domestic violence: Battered women. Journal of International Violence, 7, 87-120.

Pearlin, L. I. (1985). Social structure and processes of social support. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 43-60). Orlando, FL: Academic Press.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. Journal of Health and Social Behavior, 19, 2-21.

Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 1, 385-401.

Russo, N. F. (1990). Overview: Forging research priorities for women's mental health. American Psychologist, 45, 368-373.

Ryan, W. (1976). Blaming the victim. New York: Vintage Books.

Sato, R. A., & Heiby, E. M. (1992). Correlates of depressive symptoms among battered women. Journal of Family Violence, 7, 229-245.

Schulman, M. A. (1979). A survey of spousal violence against women in Kentucky. Lexington, KY: Kentucky Commission on Women.

Schuster, T. L., Kessler, R. C., & Aseltine, R. H. (1990). Supportive interactions, negative interactions, and depressed mood. American Journal of Community Psychology, 18, 423-438.

Selye, H. (1956). The stress of life. New York: McGraw-Hill Book Co.

Shields, N. M., & Hanneke, C. R. (1983). Battered wives' reactions to marital rape. In D. Finkelhor, R. J. Gelles, G. T. Hotaling, & M. A. Straus (Eds.), The dark side of families (pp. 131-148). Beverly Hills: Sage Publications.

Stark, E., & Flitcraft, A. (1988). Violence among intimates: An epidemiological review. In V. B. Van Hasselt, R. L. Morrison, A. S. Bellack, & M. Hersen (Eds.), Handbook of family violence (pp. 293-317). New York: Plenum Press.

Straus, M. A. (1977). A sociological perspective on the prevention and treatment of wifebeating. In M. Roy (Ed.), Battered women: A psychosociological study of domestic violence (pp. 194-239). New York: Van Nostrand Reinhold.

Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scales. Journal of Marriage and the Family, 41, 75-88.

Straus, M. A., & Gelles, R. J. (1988). How violent are American families? Estimates from the National Family Violence Resurvey and other studies. In G. T. Hotaling, D. Finkelhor, J. T. Kirkpatrick, & M. A. Straus (Eds.), Family abuse and its consequences: New directions in research (pp. 14-36). Newbury Park, CA: Sage Publications.

Strube, M. J. (1988). The decision to leave an abusive relationship: Empirical evidence and theoretical issues. Psychological Bulletin, 104, 236-250.

Strube, M. J., & Barbour, L. S. (1984). Factors related to the decision to leave an abusive relationship. Journal of Marriage and the Family, 46, 837-844.

Sullivan, C. M., Parisian, J. A., & Davidson, W. S. (1991, August). Index of Psychological Abuse: Development of a measure. Poster presented at the American Psychological Association Conference. San Francisco, CA.

Sullivan, C. M., Tan, C., Basta, J., Rumptz, M., & Davidson, W. S. (1992). An advocacy intervention program for women with abusive partners: Initial evaluation. American Journal of Community Psychology, 20, 309-332.

Thoits, P. A. (1982a). Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. Journal of Health and Social Behavior, 23, 145-159.

Thoits, P. A. (1982b). Life stress, social support, and psychological vulnerability: Epidemiological considerations. Journal of Community Psychology, 10, 341-362.

Thoits, P. A. (1983). Dimensions of life events that influence psychological distress: An evaluation and synthesis of the literature. In H. B. Kaplan (Ed.), Psychosocial stress: Trends in theory and research (pp. 33-103). New York: Academic Press.

Turner, R. J. (1983). Direct, indirect, and moderating effects of social support on psychological distress and associated conditions. In H. B. Kaplan (Ed.), Psychosocial stress: Trends in theory and research (pp. 105-155). New York: Academic Press.

Walker, L. E. (1979). The Battered Woman. New York: Harper & Row.

Walker, L. E. (1984). The battered woman syndrome. New York: Springer Publishing Co., Inc.

Wilcox, B. L. (1981a). Social support in adjusting to marital disruption: A network analysis. In B. H. Gottlieb (Ed.), Social networks and social support (pp. 97-115). Beverly Hills, CA: Sage Publications.

Wilcox, B. L. (1981b). Social support, life stress, and psychological adjustment: A test of the buffering hypothesis. American Journal of Community Psychology, 9, 371-386.

Williams, A. W., Ware, J. E., & Donald, C. A. (1981). A model of mental health, life events, and social supports applicable to general populations. Journal of Health and Social Behavior, 22, 324-336.

Wills, T. A. (1985). Supportive functions of interpersonal relationships. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 61-82). Orlando, FL: Academic Press.

Wills, T. A. (1987). Help-seeking as a coping mechanism. In C. R. Snyder & C. E. Ford (Eds), Coping with negative life events: Clinical and social psychological perspectives (pp. 19-50). New York: Plenum.

Wortman, C. B., & Dunkel-Schetter, C. (1987). Conceptual and methodological issues in the study of social support. In A. Baum & J. E. Singer (Eds.), Handbook of psychology and health, Volume 5: Stress (pp. 63-108). Hillsdale, NJ: Lawrence Erlbaum Associates.