SOCIAL SUPPORT SYSTEMS OF BATTERED WOMEN:
INFLUENCE ON PSYCHOLOGICAL ADAPTATION

by

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B.S., Syracuse University, 1970

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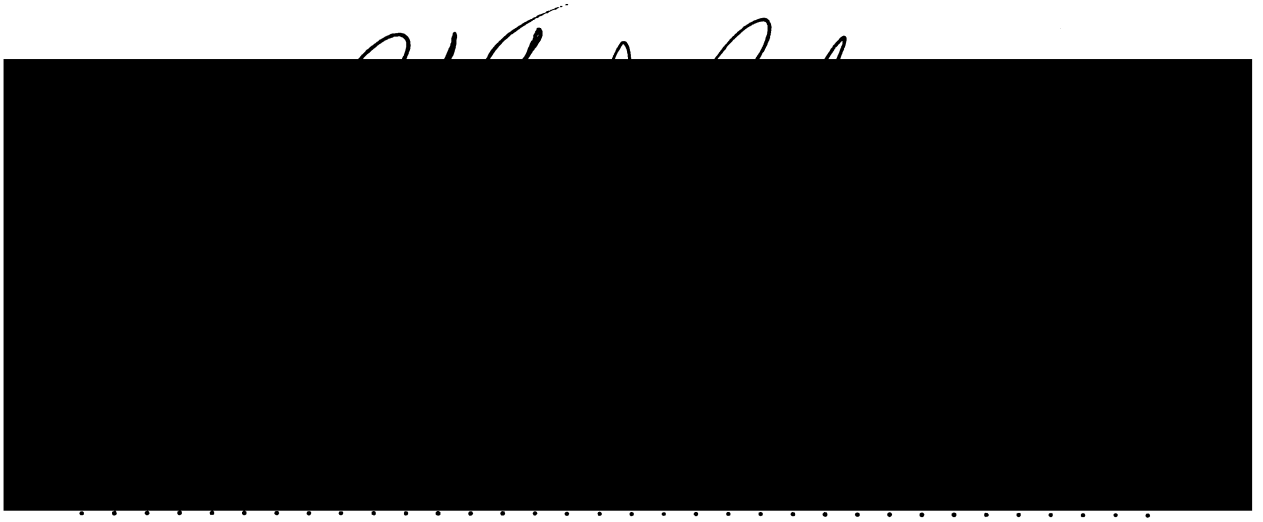

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Laura Smith McKenna, R.N., D.N.Sc.
University of California, San Francisco, 1985

The purpose of this study was to describe the structure and perceived supportiveness of the social networks of battered women, and to explore the possible relationship between those network characteristics and the battered women's level of psychological adaptation.

The study, designed as a cross-sectional survey, used a structured interview and questionnaire approach, including a Demographic and Personal Data Questionnaire developed by the author, the Bradburn Morale Scale, the Brief Symptom Inventory, the Conflict Tactics Scale, the Norbeck Support System Questionnaire, and the Hirsch Support System Map. The data were analyzed using qualitative and quantitative analyses.

The subjects of the study were a heterogeneous group of 112 self-defined battered women aged 18 to 54 who reported at least one physical assault by a cohabiting male.

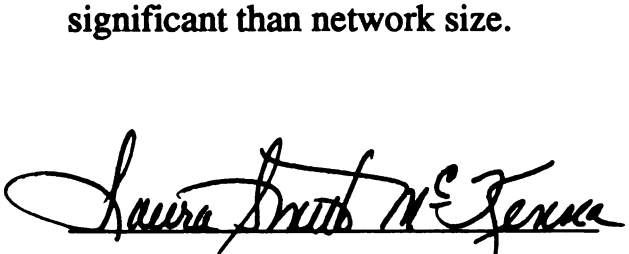
The subjects described a level and type of violence consistent with the violence experienced by other battered women. While the level of psychological distress was higher than in a nonpatient female normative group where the incidence of battering is unknown, the level of psychological distress was lower than in a female psychiatric outpatient normative group. Many discrete symptoms were attributed to the subjects' experience with violence. The subjects also reported feeling less happy than the comparison group, although slightly higher levels of positive affect over negative were reported.

Subjects' networks were comparable in size and frequency of contact to the comparison group, but recent loss was nearly five times greater. The pattern of multiplex, reciprocal relationships with network members contrasted with the uniplex, one-way relationships with batterers. Family networks were dense; friendship networks were low in density.

Family and friends were the two major sources of support, although the perceived level of support available was lower than in the comparison group. Nearly 80% of subjects reported the presence of a confidant. Not all network members knew about the abuse, and nearly one-third of those who knew responded in a nonsupportive or inconsistently supportive manner.

Results of canonical correlation analyses indicated that psychological adaptation was related to sociodemographic characteristics of the women (age, number of children; p=.02), to their experience with violence (relationship length, frequency and severity of violence; p=.01), and to the supportiveness of the network (confidant, % of nonsupportive responses; p=.001). Network structure was not significantly related to psychological adaptation. The Roy Adaptation model was useful in providing a framework for the study.

The study documents that battered women do not live in social isolation, that avoidance of some network members is an adaptive behavior, that age and children are not a liability, and that presence of a confidant may be more significant than network size.



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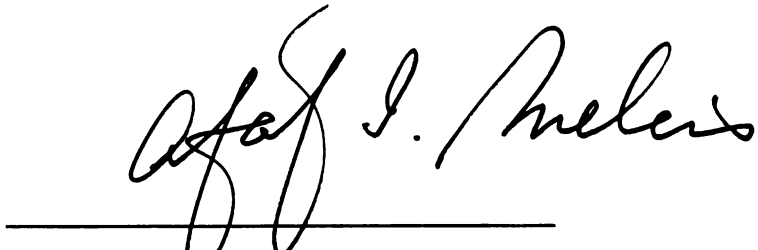

Afaf I. Meleis, Ph.D., Sponsor

Dedicated to my father,
William Phillip Smith, Sr.,
a gentle man who told me
I could do great things.

ACKNOWLEDGEMENTS

While this dissertation has been an independent project, it has not been accomplished in isolation. I have drawn upon the support of family, friends, and colleagues to respond productively and creatively to the challenge of this dissertation project. Although all who contributed support cannot be individually acknowledged, I will name a few.

My husband and closest friend, Colin C. McKenna, has provided safe refuge and a willing ear for me when the demands of this long task were momentarily overwhelming. I acknowledge that his continuing emotional support and tangible assistance with the tasks of everyday life for our family of two, then three, and then four, were essential to the completion of this project. My son, Andrew, and my daughter, Alix, with his help, and with the help of my mother, Harriet D. Smith, have learned to accept and respect my investment in a project which has endured throughout their lifetimes.

I am indebted to Dr. Afaf I. Meleis, chair of my dissertation committee and mentor, who provided a role model for the combination of family life with a distinguished professional career. Her support of the topic, respect for my skills, and encouragement to stretch myself beyond my present limits were motivating factors in the inception and the completion of this dissertation.

I am also indebted to the two other members of my dissertation committee, Dr. Ellen Lewin and Dr. Jane Norbeck. They also have been inspiring role models of rewarding personal life and productive professional career, and have readily shared their expertise in the areas of social network analysis and social support. The high standards of research of all three

members of the dissertation committee were a constant inspiration and guide to me throughout the process of the dissertation.

I am indebted to others as well. I want to thank Lydia Jensen for her tireless searches through the literature, both early in this project when references to battered women were difficult to find, and recently when the task was to determine the relevance of the reference to the project. Donald Chambers patiently went through the data of the study with me, from the process of creating the code book to the interpretation of the computer output. Russell and Rebecca Dobash validated the importance of this study and provided suggestions for new ways to look at the data. Dr. Dorothy Brown gave me much-needed acceptance in times of crisis. Her insights and suggestions have helped me to emerge from the dissertation process with a sense of personal and professional competence. In addition, support group members Kathleen May and Sandra Scheetz, over the years have talked with me, shared experiences with me, and regularly made themselves available to provide whatever support was needed throughout the process.

Four shelter agencies in the Greater Bay Area--Battered Women's Alternatives, La Casa de las Madres, Marin Abused Women's Services, and Mid Peninsula Support Services--actively solicited subjects for this research, and provided space for me to conduct interviews on their premises. Although I am unable to name the courageous women whose experiences are the focus of this study, I want to thank them for their willingness to step forward and share their lives with a stranger. For many, if not all, the process was difficult and painful, and without them this study could not have been completed.

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CHAPTER ONE
INTRODUCTION

Domestic violence has been identified as a major health issue in this country (Friedman, 1977; Koop, 1983), with consequences for victims that interfere with physical, mental, and emotional functioning. This study addresses the mental and emotional health consequences of physical violence in intimate relationships among a sample of battered women in the United States. Specifically, this study will describe the structure and perceived supportiveness of the social networks of battered women, and will explore the possible relationship between these network characteristics and battered women's level of psychological adaptation.

Prevalence of Battering

The only systematic epidemiologic study on domestic violence with a nationally representative sample (Straus, 1977) indicated that approximately 28% of the survey sample had engaged in physical violence during the year prior to the interview. Generalization of the results of that study indicates that in 1976, the year of data collection, approximately 1.8 million American women were beaten in their homes. This figure is believed to be a conservative estimate of the extent of the problem, underestimating the true incidence of battering by perhaps 50% (Stark, Flitcraft, & Frazier, 1979; Straus, Gelles, & Steinmetz, 1980).

Battering has been defined as "...the intentional, illegitimate, or unsanctioned use of verbal or physical control. The point at which an act becomes labeled as illegitimate, however, may be differentially defined..."(Steinmetz, 1977, p. 10). Pagelow's definition (1980, p. 32) "does not include non-physical types of abuse such as intimidation, harassment,

threats, or other forms of psychological force or coercion, unless they occur in conjunction with physical force or coercion." Other definitions address the intention of the batterer, or qualify that injury needs to result from the action, as in the act of restraining another (Walker, 1979, 1984). Many studies document that battering occurs in all socioeconomic, racial, and ethnic groups (Giles-Sims, 1983; Pagelow, 1980; Stacey & Shupe, 1983; Steinmetz, 1978; Walker, 1979, 1984).

Major physical and mental health consequences to women victims of domestic violence have been documented. In a study at the emergency services unit of a large metropolitan hospital in the United States, one in four women seen in a one month period was thought to be battered (Stark et al., 1979). The researchers identified a pattern of assault involving some sexual overtones, with deliberate injuries specifically to the face, chest, breasts, and abdomen of the battered women. Battered women in this study were also three times more likely than those not battered to be pregnant when beaten. In addition to the physical injuries, one in four battered women seen had attempted suicide at least once. One in three was given a psychiatric referral, and alcohol and drug abuse rates were high. This psychological response to battering was previously documented by Hilberman and Munson (1977-78), who found that half of all women referred for psychiatric evaluation through a rural health clinic were battered women.

Domestic violence has life-threatening implications beyond those inherent in the one in four suicide statistic. The battering phenomenon also has serious potential to escalate from pushes, slaps, and shoves to homicide. In 1969, 13% of all homicides in the United States involved domestic violence (Truniger, 1971). In 1979, 40% of female homicide victims were murdered by family members or boy friends.

Sociopsychological theories (social learning theory, symbolic interaction theory) and sociocultural theories (culture-of-violence theory, resource theory) take the social context of the battering situation into consideration in explaining the widespread existence of battering in this country.

Social Context of Battering

Social learning theory views violence as a behavior learned through exposure to violence, role models, and imitation (Bandura, 1977), and proposes that the family serves as the training ground for violence. Pagelow (1978) takes a social learning stance when she states that children, through reinforcement, punishment, and role models, learn what is and is not sex appropriate behavior. The female receives positive reinforcement for non-violent, dependent behaviors; the male for the opposite.

This theory seems quite relevant to explaining the battering phenomenon when one considers the high number of battered women (Parker & Schumacher, 1977) and of batterers (Walker, 1979) who report being abused as children, or who came from homes where violence was observed between their parents.

Walker (1977-78, 1979, 1981a, 1984) proposes that traditional female sex role socialization contributes to a susceptibility factor in women which, combined with frustrated efforts to control the violence in an intimate relationship, impairs effective problem solving or distorts perceptions of the options open to them, and perpetuates the victimization of women through domestic violence.

Straus (1976) views the cultural norms and values permitting and sometimes encouraging husband-to-wife violence as a reflection of male-

dominant society. The preeminence of the role of wife for women and the stigma of being a divorced woman make it difficult for a woman to stop the violence by leaving the marriage. The cultural norm that children cannot be adequately brought up in a single parent home also contributes to women continuing to submit to violent relationships (Straus, 1976).

Dobash and Dobash (1977-78) place the battering phenomenon in an historical context, proposing that violence between spouses is an extension of the socially constructed domination and control of wives by husbands. This explanation does seem to account for the common experience of many battered women who report that the physical abuse in the relationship begins only after marriage.

Stark et al. (1979) take a symbolic interactionist view which concentrates on the subjective, symbolic meaning of the violence, how these meanings are formed, and how they persist. They view the phenomenon of battering as both a consequence of and necessary to the maintenance of the patriarchical structure of our society, and suggest a process by which battering is socially constructed.

This focus on battering as a process of the patriarchical social structure is shared by others (Pagelow, 1977), and seems to explain the failure of the health care delivery system (Stark et al., 1979; Hilberman and Munson, 1977-78), the social welfare system (Dobash, Dobash, & Cavanaugh, 1983), and the criminal justice system (Walker, 1984) to provide adequate services to battered women.

Others espouse the "culture-of-violence" explanation of spouse abuse, an extension of social learning theory which views the family as the training ground for violence. According to this explanation, the learned response of violence is a result of membership in a violent cultural or subcultural group

and reflects socialization into its norms and values. The existence of spouse abuse at all socioeconomic levels and in a variety of ethnic groups does not support this theory, although the perspective, that being male involves membership in a subculture of violence, may be justified by this view (Gelles & Straus, 1979; Toby, 1974).

Resource theory (Goode, 1971) assumes that force or threat of force is found in the family because force is fundamental to all social systems. He states that violence is a resource and is most likely to be used when other resources are insufficient or lacking. O'Brien's (1971) findings are consistent with this theory in that men with lower prestige occupations were more likely to be violent in his study. However, Walker (1979) identified a sample of batterers who were productive, capable community members who were violent only in their own homes. This sample of batterers challenges the resource theory explanation of domestic violence.

Although social learning and symbolic interaction theories more consistently explain the battering phenomenon than do the "culture-of-violence" and resource theories, the necessity of focusing on the context of the battering in any explanation of the phenomenon is widely recognized.

Social Isolation of Battered Women

The literature has assumed that the social isolation of battered women is a contextual factor of domestic violence leading to increased violence against women and perpetuation of the battering phenomenon. It has been proposed that social isolation promotes violence because of the lack of social sanctions which allows violence to escalate or a lack of support which creates a situation of stress leading to violence. It has also been proposed that violence causes the social isolation, driving family and friends away, or that the

batterer purposely creates isolation of his victim to keep her vulnerable (Gelles, 1974; Marsden, 1978).

However, an extensive review of the literature related to spouse abuse and to social support reveals that no study has systematically collected and analyzed data related to the structure of the social networks of battered women, or the amount of social support available to them through their networks.

Gelles' (1973) study is frequently referred to as documenting the social isolation of battered women. However, Gelles' data do not seem to support his conclusions.

In 80 unstructured, conversational interviews, respondents were asked to discuss their neighbors' family problems. The neighbors of Gelles' agency families (families known to engage in physical violence) were knowledgeable about their neighbors' family problems and had many friends in the neighborhood. Other respondents (the agency families) had few friends in the community, did not know their neighbors' family problems, and rarely visited with neighbors or friends. On the basis of these findings, Gelles concluded that violent families are characterized by social isolation and then postulated two causal sequences to account for the violent family's social isolation.

Gelles' narrow definition of social networks--friends in the neighborhood--is not consistent with Litwak and Szelenyi's (1969) suggestion that in industrialized society, primary group structures have changed. Technological advances provide rapid means of communicating over distances, and physical distance from friends or relatives is not necessarily a deterrent to receiving support from those groups. Another study of husband-wife violence in Toronto (Chan, 1978) also neglected

means of communicating other than face-to-face contact in documenting the "social isolation" of violent families.

In a study which used an indepth structured interview technique, Dobash and Dobash (1979) report that their battered women subjects frequently approached neighbors, relatives, friends, and professionals for support in dealing with the violence. The response to these requests for emotional support and material aid varied. Although the women initially contacted those to whom they felt closest, as the violence continued, the number of contacts, especially with professionals (e.g., doctors, police, and social workers), increased. Dobash and Dobash (1979) also found that some battered women were reluctant to leave their mates and move to a new setting without old friends, relatives, and neighborhood supports. This study would seem to refute Gelles' (1973) findings.

This researcher's clinical observations of battered women are also not consistent with the notion that battered women live in social isolation and are unsupported by a naturally occurring network. Although some battered women appear to have more constricted social networks than others, a wide range of variability in size and in supportiveness of the network has been observed. Some women, similar to those described by Dobash and Dobash (1979), express great reluctance to leave the battering relationship for fear that social isolation and lack of support will result. Battered women and their children are sheltered from the batterer by family members, friends, work or school associates, and neighbors, and often seek shelter outside their personal networks only to prevent further harrassment by the batterer. These women often received financial assistance, by bank transfers or wire, from relatives living at a distance, or airplane tickets that allowed them to

move themselves and their children even further from the possible harrassment of the batterer.

Given that the social isolation of battered women has not yet been documented, the empirical question is not why does this isolation exist (Gelles, 1973), but does the battered woman live in social isolation, without support, as she attempts to deal with her physically violent living situation?

Significance of the Study

A priority for research identified by the American Nurses' Association's Commission on Nursing Research is for research that would generate knowledge to guide practice in ensuring that the care needs of high risk groups are met through appropriate strategies. This study addresses an important contextual determinant of psychological adaptation of women living in violent relationships. Research describing the social networks and social support systems of battered women will begin to accumulate knowledge about the usefulness and appropriateness of social network concepts in guiding interventions for battered women in the community. In addition, use of the Roy Adaptation model as a conceptual framework for this study will test the applicability of this model for planning nursing interventions for battered women.

The results of this study will also add to the knowledge base of domestic violence, by beginning to accumulate valuable knowledge to fill the gap in the literature related to the social isolation of battered women.

In summary, battering is a widespread phenomenon in the United States with major consequences for victims that relate to physical, mental, and emotional health. This study will provide an indepth description of

contextual factors that are important for planning effective interventions related to mental and emotional functioning of battered women.

Overview of Dissertation

In Chapter Two, the author introduces Roy's Adaptation model as the conceptual framework of the study and critically analyzes relevant literature from domestic violence, social network analysis, and social support using Roy's model. Chapter Three presents the methods and procedures used to collect and analyze the data of the study. Chapter Four describes the subjects' experience with violence, the subjects' psychological symptom status, and the subjects' state of psychological well-being. Implications and conclusions relative to these findings are also discussed. Chapter Five describes and discusses the implications and conclusions relative to the structure and supportiveness of the subjects' social networks. In Chapter Six, the author describes the pattern of bivariate relationships among the variables of interest in the study and presents the rationale for the composition of the matrices of variables used in the canonical correlation analyses. The relationships between the composite variables (Psychological Adaptation, Sociodemographics, Experience with Violence, Social Network, and Social Support) are also described, and discussed. Chapter Seven summarizes the conclusions of the study, and discusses implications for direct practice and for future research with battered women.

CHAPTER TWO
CONCEPTUAL FRAMEWORK

This chapter of the dissertation presents an analysis of the literature related to psychological adaptation in battered women, and of the literature describing the relevance of social network structure and social support to psychological adaptation. Roy's Adaptation model provides a conceptual framework within which to integrate the literature from domestic violence, social network analysis, and social support.

Roy's Adaptation Model

From the perspective of Roy's Adaptation model (Roy & Roberts, 1981), the battered woman is viewed as a biopsychosocial being in constant interaction with a changing environment. To respond positively to this changing environment, the woman uses both innate and acquired mechanisms (the regulator and cognator) which act in relation to four adaptive modes (physiological needs, self-concept, role function, and interdependence). The regulator predominately acts in relation to the mode of physiological needs; the cognator acts in relation to each of the adaptive modes. In Roy's model, the cognator and regulator relate to each other through perceptions. Specifically, the regulator transforms stimuli into perceptions; perception is the process of the cognator. The subsequent behavioral response both attempts to deal with the need for change and loops through a feedback system into both the cognator and the regulator, effectively becoming the stimulus for further action (Roy & Roberts, 1981). Figure 1 visually represents the process of response to a changing environment. The adaptive mode is the intervening variable between need for change and the woman's

behavior, and is geared toward maintaining or achieving the physiological, psychological, and social integrity of the woman.

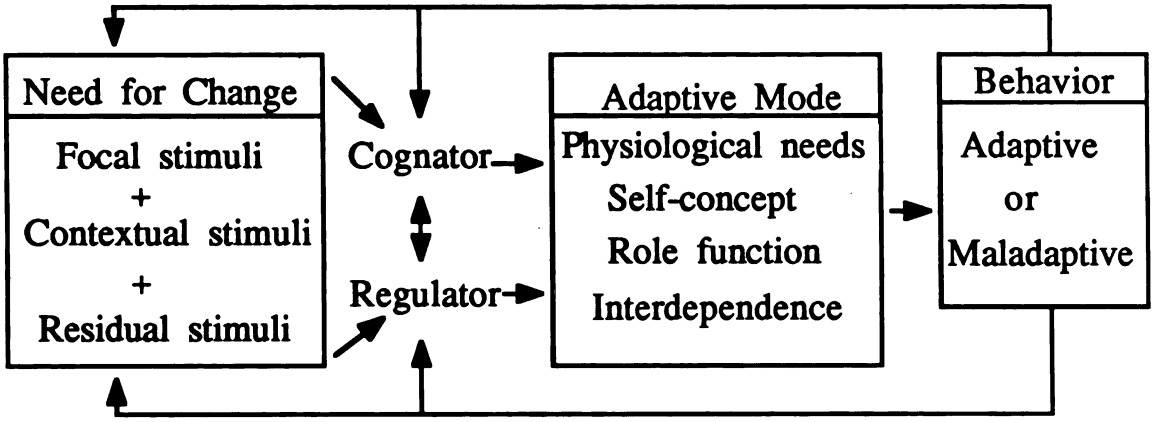

Figure 1. Process of response to a changing environment.

A positive response to the environment is adaptation, and is a function not only of the stimulus to which the woman is currently exposed, but also of her previous level of adaptation. Consequently, the woman's level of adaptation is determined by the cumulative effect of the degree of change immediately confronting her (focal stimuli), all other input present in the situation (contextual stimuli), and other relevant factors whose effects are not or cannot be measured (residual stimuli).

The woman's level of adaptation is therefore, a constantly changing point on a continuum, determining the limits of her capacity to deal with stimuli. The capacity of the woman to adapt is termed her zone of adaption. When the cumulative effect of the stimuli falls outside the woman's zone of adaptation, maladaptive responses may occur which are ineffective in dealing with the stimuli she is confronting.

According to Roy (1976), health is that state in which the person continually adapts to change, and can be viewed as a continuum from extremely poor health (or death) to peak wellness. Problems in adaptation

indicate a need for nursing intervention. The goal of nursing intervention is to promote client adaptation, a state of high-level wellness which frees the client to continually adapt to other stimuli. The client is responsible for active participation in the nursing process, mutually setting goals with the nurse and providing information that forms the basis for nursing assessments. The nurse provides options for the client and, ideally, client and nurse work together to manipulate the stimuli the client is confronting.

Theoretical Linkages

Roy's Adaptation model provides a useful framework with which to conceptualize the situation of the battered woman. In her attempt to deal with a constantly changing abusive environment, the battered woman uses all four adaptive modes (physiological needs, self-concept, role function, and interdependence) as she attempts to maintain or achieve physiological, psychological, and social integrity. Her response to the physically abusive environment is not solely a function of the characteristics of the violence to which she is currently exposed. Her response to the situation is determined by the cumulative effect of the characteristics of the violence (focal stimuli), the characteristics of the situation in which the violence occurs (e.g., location, time of day, presence or absence of others), and the other factors relevant to the situation (e.g., previous experience with violence, perception of social norms). These contextual and residual stimuli vary with the situation of the abuse and the identity of the people involved. If the cumulative effect of the stimuli fall within her current zone of adaptation, her response will maintain or allow her to achieve physiological, psychological, and social integrity, and she will be able to maintain a state of wellness as she continues to deal with her abusive situation.

The response of the battered woman to her violent situation influences her level of adaptation in all four modes. Applying Figure 1, the physiological needs mode operates through the feedback loop to influence psychological and social integrity. Although physiological integrity influences psychological and social integrity, and any separation of the adaptive modes does not truly reflect reality, for purposes of this study which explores the possible relationship of social network characteristics and supportiveness of the network to the subjects' level of psychological adaptation, only the modes of self-concept and interdependence will be used to integrate the literature and concepts from the areas of domestic violence, social network analysis, and social support. For this reason, only those modes will be further discussed in this conceptual framework.

This selective attention to the self-concept and interdependence modes must not be construed to negate the importance of the physiological needs and role function modes. A recent modification and application of Roy's Adaptation Model to abused women emphasizes that the woman's response to the stimuli confronting her is an integrated response involving all four adaptive modes (Limandri & McKenna, 1982). Roles provide the settings in which interdependence develops and increasing evidence in the literature associates role involvement with indicators of psychological adaptation in women (Pearlin, 1975; Wheeler, Lee, & Loe, 1983; Woods & Hulka, 1979). Also important is the fact that acute battering incidents often result in life-threatening physical injuries. The significance of the physiological needs mode in battered women's adaptation in the violent situation cannot be minimized. However, based on the purpose and variables of interest in this study, further discussion of the adaptive modes in relation to the phenomena

of this study will be limited to discussion of the self-concept and interdependence modes.

Self-concept

Looked at individually, the self-concept mode is a system which processes internal stimuli (perception, social learning) and external stimuli (social experience) through an internal mechanism (regulator and cognator) and functions to meet the need for psychological integrity, thus minimizing anxiety. The outcomes of positive mental health and human happiness allow one to assume that positive adaptation has been accomplished (Roy & Roberts, 1981). Applying this model, we see that it is through the self-concept mode that the battered woman organizes her social experiences in a manner that minimizes anxiety and allows psychological adaptation. A battered woman who, at a given point in time, is in a state of positive mental health and reports a subjective sense of happiness can be assumed to be, at that time, in a positive state of psychological adaptation.

Interdependence

The interdependence mode functions, by seeking to meet nurturance and nurturing needs, to maintain social integrity. Inputs for this mode are also internal stimuli (usual coping style) and external stimuli (environmental change demanding a response). Processing of these stimuli through the regulator and cognator results in dependent and independent behaviors which, if effective, allow nurturance and nurturing needs to be met. When one is responded to by another, establishes in-depth relationships with others, and has a feeling of being secure in relationships, we may assume that social integrity has been accomplished (Roy & Roberts, 1981).

It is clear from the description of the self-concept and interdependence modes that, according to Roy's model, the interdependent relationships form the social experiences which lead to positive mental health and happiness, or psychological adaptation. We can therefore anticipate that a battered woman in a positive state of adaptation will report the presence of a social network in which the structure and supportiveness of the interdependent relationships allow her needs for nurturing and nurturance to be met. This expectation and the following review of the literature will be used to generate the research questions, hypotheses, and operational definitions for this study.

Literature Review

This section of the dissertation reviews the literature relevant to psychological adaptation (mental health and happiness) in battered women, and the literature describing the relevance of social network structure and social support to psychological adaptation.

Psychological Adaptation in Battered Women

Most of the literature related to the psychological aspects of battered women has focused on personality characteristics as indications of poor mental health. Psychoanalytic theory, personality theory, and social learning theory frameworks have been used to view psychological aspects of battered women.

In one of the first articles focusing on abused women, Snell, Rosenwald, and Robey (1964) described the wives of battering men as aggressive, masculine, sexually frigid individuals who provoked the beatings as a means of diminishing their guilt over their castrating behavior. The implication was that the personal characteristics of the women somehow contributed to or explained the phenomenon of their being beaten. No recognition was

given to the possible influence of the beatings on the personal characteristics of the women. Although masochism is now regarded as an inadequate concept with which to explain violent relationships, this victim precipitation model is directly responsible for research focusing on the negative personality characteristics of the victim.

This psychoanalytically based view of battered woman as masochist continued (Shainess, 1977; 1979) for a considerable period of time beyond the identification of battering as a major health issue in this country with physical, mental, and emotional consequences for the victims (Friedman, 1977).

In 1978, Star challenged the masochism explanation of the personal characteristics of battered women in a study designed to describe personality characteristics of battered women more objectively. Star used standardized instruments to measure level of hostility and personality traits of two groups of women, one battered (n=46) and one non-battered (n=12). Interpretation of the measure of personality traits indicated that battered and non-battered women displayed low ego strength and were equally (highly) apprehensive, guilt-prone, depressed, lonely, tense, frustrated, and anxious. The battered group was described as more reserved, more rigid, and distrustful, and less dominant than the non-battered group. Overall hostility scores were lower for the battered group. Star concluded that all these factors indicated a passivity of personality which, rather than masochism, accounted for the endurance of physical abuse. Again the emphasis was on personal characteristics of the victim, not inviting, but tolerating the abuse (Star, 1978).

From a different perspective, the value of Star's study is the description of abused women who have sustained different levels of abuse. Star's non-

battered group was operationally a group of 12 women who had voluntarily entered a facility for battered women. They differed from the group of battered women in that they had been emotionally and mentally abused, but not physically abused. The physically abused group demonstrated more severe disturbances in personality and greater repression of anger in response to the physical abuse.

The process of victimization and the effect of the abuse on battered women was emphasized by Walker (1979) in her application of the social learning theory of learned helplessness. This landmark study of 120 battered women expanded the definition of battering behavior and, in the rich narrative of the interviews, addressed the social context and prejudicial myths that exist in this area of violence against women. According to Walker, battered women, like Seligman's (1975) dogs, learn that they have no control over the abusive behavior, and generalize this sense of helplessness to other aspects of their lives where options are, in reality, available. Walker further hypothesizes that sex role socialization supports women's feelings of helplessness.

Walker (1981b; 1984) went on to formally test the applicability of the learned helplessness explanation of the behavior of battered women in a larger study involving 403 self-identified battered women in a geographic area encompassing six Western states. A 200 page questionnaire was administered in face-to-face interviews averaging 6 to 8 hours in length. Walker's findings supported her hypothesis of learned helplessness, "a susceptibility factor that interferes with their ability to stop the batterers' violence towards them once he initiates it" (Walker, 1981b, p. 3). The behavior of a battered woman becomes focused on effectively minimizing injury and staying alive. Walker's conclusion is that there are no personality

traits that differentiate potential battered women from non-battered, but that battered women develop psychological sequelae as a result of the experience of abuse.

Browne (1980) analyzed 400 questionnaires from Walker's (1981b) larger study in an effort to describe the reactions of battered women to the trauma of the battering situation. Specific emotional reactions included depression, denial, shock, anxiety, fear, hostility, anger, and passivity. These reactions changed over time. While shock decreased, depression, anxiety, fear, anger, and hostility increased in this sample of battered women. Browne compared the reaction of battered women to descriptions of victims of other traumas and concluded that the reactions of battered women to the abusive situation are similar to the reactions of victims of disasters. This comparison of the reactions of victims across traumas strongly supports the perspective of behavior as sequelae to battering. Browne further concluded that the behavior of staying in the relationship, in spite of the sequelae, had certain survival purposes for women who recognized the added threat to their lives should they decide to leave the batterer.

Rosewater (1982) administered the Minnesota Multiphasic Personality Inventory (MMPI) to a sample of 118 battered women to determine if battered women presented a specific pattern or profile, and also to determine if the mean profile of battered women could be differentiated from the mean profile of psychotic women. Rosewater found that a mean profile for battered women does exist among her sample and that the mean profile for battered women is similar to the mean profile of a female chronic schizophrenic population. Rosewater further found that the contextual variable, frequency of battering, exhibited the most influence on scale elevations. She strongly recommends that MMPI administration be

accompanied by a thorough and accurate history with special focus on any history of domestic violence.

Shields and Hanneke's (1983) research on the reactions of battered women to marital rape suggests that specific types of violence may produce specific types of reactions. The implication to this research is that the thorough history needs to include a specific description of the violence to which the woman has been exposed.

To summarize, the literature on psychological aspects of battered women has, until recently, focused on negative personality characteristics of battered women within a victim precipitation model. Currently, the context of the abuse is recognized as a significant factor in the emotional and mental health of battered women. Other contextual factors having implications for mental health are the structure and supportiveness of the social network of the individual.

Social Network, Social Support, and Psychological Adaptation

An extensive review of the literature related to spouse abuse and to social support reveals that, prior to 1984, no study has systematically collected and analyzed data related to the social network or social support available to battered women.

Although Gelles' (1973) study is frequently referred to as documenting the social isolation of battered women, the data of that study do not support his conclusion.

Using an informal, unstructured interview technique with representatives from 80 families, Gelles

> received the impression that the violent families were almost completely cut off from their neighbors. They did not know them, they had few friends in the neighborhood, they almost never visited their neighbors, and in short, had few social resources in the community who they could

> turn to for help when they encountered family problems. (Gelles, 1973, pp. 180-181)

Their nonviolent neighbors were knowledgeable about their neighbors and had many friends in the neighborhood. Gelles goes on to conclude from this finding that violent families live in social isolation. No information is available about the length of time each family resided in the neighborhood or about the social network or support systems available to them outside the neighborhood.

Gelles' narrow definition of social networks is not consistent with Litwak and Szelenyi's (1969) suggestion that, in industrialized society, primary group structures have changed. Technological advances provide rapid means of communication over distances, and physical distance from friends or relatives is not necessarily a deterrent to receiving support from those groups. Another study of husband-wife violence in Toronto (Chan, 1978) also neglected means of communicating other than face-to-face contact in documenting the "social isolation" of violent homes.

In a study which used an in depth structured interview technique, Dobash and Dobash (1979) report that their battered women subjects frequently approached neighbors, relatives, friends and professionals for support in dealing with the violence. The number of contacts, especially with professionals, increased as the violence continued. They also report that some battered women were reluctant to leave their mates and move to a new setting without old friends, relatives, and neighborhood supports. This study would seem to refute Gelles' (1974) conclusions.

Hoff (1984) described in great detail the social interactions of battered women with social network members. Network size ranged from 4 to 39 during the battering relationship and from 9 to 23 post-battering. Most

networks increased in size post-battering. Family members were supportive of the battered women; professionals in the network were negative or indifferent to the women. The study is the only formal network analysis involving interviews with network members, and while the narrative is informative, the number of subjects is too small to generalize any of the conclusions of the study.

Networks can be characterized along a number of dimensions. Structural characteristics refer to dimensions of the overall network while characteristics of linkages refer to dimensions of individual relationships. Mitchell and Trickett (1980) outline the major dimensions along which social networks are described. Characteristics measured in studies comparing the networks of psychiatric with non-psychiatric populations include: size (number of individuals with whom the focal person has direct contact), density or connectedness (extent to which members of an individual's network relate to each other independent of the focal person), multi-dimensionality or multiplexity (relationships with more than one function are multiplex), and directedness and reciprocity (degree to which affective and instrumental aid is given and/or received by the focal person). The normative context of the relationship and the relative proportions of kin to non-kin members have also been measured (Mueller, 1980).

The pattern of social networks in general populations appear to be fairly consistent. Mueller reports that the primary network usually consists of 25-40 people; 6-10 are intimates; and 20% of the possible linkages actually occur. The networks of psychiatric populations differ.

Pattison, DeFrancisco, Wood, Frazier & Crowder (1975) found a pattern of 10-12 people in the network of neurotics, often including significant people who were dead or living far away. Ratings on the

interpersonal variables of degree of interaction, emotional intensity, positive emotional regard, instrumentality, and reciprocity were lower and the network usually contained a number of negative relationships. The connectedness of the network was low. Networks of a psychotic population were smaller, with only four or five people, usually family, with a high degree of connectedness, and with ratings of interpersonal variables that were uniformly ambivalent and non-reciprocal.

Henderson, Duncan-Jones, McAuley, & Ritchie (1978) compared the primary group, defined as those with whom one has interaction and commitment, of 50 non-psychotic psychiatric patients with 50 matched controls from a normal population and found results consistent with the study of Pattison et al. (1975). The amount of time spent with primary group members was the same for neurotic and normal populations, but proportionately more of that time was affectively unpleasant for neurotics. They had fewer friends, fewer contacts with persons outside the household and minimal contact with the few attachment figures in their networks.

The Henderson et al. (1978) and Pattison et al. (1975) studies both used self report measures to collect network information. Mitchell (1974) feels that participant observation is the most suitable data collection technique available for analysis of social networks, especially in areas relating to content of social interaction. Use of participant observation as a data collection technique was a strength of the Hoff (1982) study with battered women. Sokolovky, Cohen, Berger, & Geiger (1978) compared the social networks of psychotics with those with no psychotic history and did not rely solely on subjects' reports in collecting data on networks. The researcher's participant observations of social interactions, logs of daily activity, extensive biographical interviewing and the use of a questionnaire were used

in an attempt to avoid a methodological skewing of the data and to provide cross checks on a majority of stated contacts in each personal network. It was recognized early in the study that many persons classified as schizophrenic understated both the number and intensity of their social relationships.

It is interesting to note that the Sokolovsky et al. (1978) study is the first systematic investigation of the social network of schizophrenics. Prior to this study, the social isolation of schizophrenics had been frequently assumed, but no studies documenting the number of relationships or the content of personal contacts of people labelled schizophrenics existed. It is important to note that not even the most impaired group of schizophrenics in this study was totally isolated. However, had self-report measures alone been used for data collection, this finding might not have been made.

Sokolovsky et al. (1978) divided the subjects into three categories: schizophrenics, with chronic residual symptoms (SR), schizophrenics without chronic residual symptoms (S), and those with no psychotic history (NP). This last group is not truly comparable with the normals in Pattison et al. (1975) and Henderson et al. (1978) because some members had severe problems such as alcoholism or may have been admitted to psychiatric hospitals with non-psychotic diagnoses. However, the mean number of personal contacts in the NP group corresponded to the mean network size for the normals in those studies (Henderson et al., 1978; Pattison et al., 1975) in spite of the fact that these individuals were living in single room occupancy hotels in Manhattan. Both schizophrenic groups had significantly smaller networks than the non-psychotic group, lending partial validation to the notion of isolation among schizophrenics. However, measures of density of network showed little difference between psychotics and non-psychotics. The SR group had fewest multiplex relationships and the lowest proportion

of reciprocal relationships in their networks, the S group next and then the NP group.

In summary, the networks of psychiatric populations are usually smaller than networks of the general population, and demonstrate a lower level of multiplex and reciprocal relationships. Findings about density are less clear although the density among kin network members of psychotics tends to be high.

The above studies demonstrate definite differences between social networks of psychiatric and non-psychiatric populations, but the question remains: Of what significance is the fact that differences in social networks between individuals exist? Weiss (1966) reported the findings of a study with the basic assumption that individuals must maintain a number of different relationships, each with a different provision, to establish the conditions for well being. Weiss assumed that an adequate life organization made it possible for the individual to gain each provision as it is felt necessary. A deficit in a required provision would lead to a condition of distress, and Weiss's notion was that the distress was specific to the provision in deficit. The study of recently moved couples supported Weiss's ideas and he concluded that in the absence of membership in a social network which shared their life concerns, individuals experience severe distress.

Blackman and Goldstein (1968) also postulated that a crucial aspect of the environment involves the interaction of an individual with the members of his community. They further postulated that the members of the community or social network of the individual had referral and treatment functions in relation to mental health and that an individual's ability to avoid dysfunction related to his expectation for reciprocation from others in his personal network. This paper focuses on the quality of the response

anticipated rather than the size of the individual's network. This supportive quality of relationships in the personal network is termed social support and several authors have suggested that social support may have a protective effect upon the individual undergoing stress. This protective effect of social support might be significant for the mental health of the woman living in a violent, stressful relationship. However, confusion in the social support literature seems to stem, in part, from the variety of definitions of social support.

Weiss's (1966) concept of social support involved the provisions of attachment, social integration, opportunity to provide nurturance, reassurance of worth, a sense of reliable alliance, exchange of services, and guidance by a variety of relationships in the social network.

Caplan (1974) states that support comes from the social network and is likely to consist of three elements: "the significant others help the individual mobilize his psychological resources and master his emotional burdens; they share his tasks; and they provide him with the extra supplies of money, material, tools, skills, and cognitive guidance to improve his handling of his situation." These elements augment the individual's strengths.

Cobb (1976) conceives of social support as information that an individual is cared for and loved (emotional support), esteemed and valued (esteem support), and belongs to a network of communication and mutual obligation (network support). Kaplan, Cassel, & Gore (1977) state that social support is frequently conceptualized as the "metness" or gratification of a person's social needs (approval, esteem, succorance, etc.) through environmental supplies of social support or by the relative presence or absence of psychosocial support resources from significant others.

Dean and Lin (1977) in an effort to theoretically clarify the concept of social support described both instrumental and expressive functions of primary groups considered supportive: the fulfillment of tasks, satisfaction of individual needs, and maintenance of solidarity.

Kahn (1978, p. 11) defined social support as "interpersonal transactions that include one or more of the following: the expression of positive affect of one person toward the other; the affirmation or endorsement of another person's behaviors, perceptions or expressed views; the giving of symbolic or material aid to another. The key elements in supportive transactions are thus affect, affirmation and aid."

In summary, various definitions of social support have led in part to a confusion in the literature related to social support. However, all of the above theorists agree that social support is a function of the individual's social network and that social support is a significant variable that may be protective against the noxious effects of stress (Caplan, 1974; Cobb, 1976; Dean & Lin, 1977; Kahn, 1978; Kaplan et al., 1977; Weiss, 1966).

Cassel (1976) reviewed a number of studies illustrating the potential importance of lack of appropriate feedback to individuals and the absence of social supports in the susceptibility of the individual to disease, both physiological and psychological. A number of studies have investigated the role of social support in psychological dysfunction.

Eisenberg (1979) reviewed a few articles documenting the relationship between relative social isolation and psychiatric morbidity. He concludes that social environment is an important determinant of health status and asserts that assessment of the social connectedness of the individual is an integral part of any physical and/or psychological exam.

Lowenthal and Haven (1968) in a study with an older population found that the maintenance of a stable intimate relationship is more closely associated with good mental health and high morale than is high social interaction or role status, or stability in interaction and role. Their data showed that if one has a confidant, one can decrease social interaction and run no greater risk of becoming depressed than if social interaction had increased. Further, if one does not have a confidant, one may increase social interaction and yet be far more likely to be depressed than the individual who has a confidant but has lowered his interaction level. Finally, if one has no confidant and retrenches in social interaction, the odds for depression increase dramatically. Similar findings in regard to change in social role were reported. The researchers concluded that the presence of an intimate relationship does serve as a buffer against such decrements as loss of role or reduction of social interaction due to retirement and widowhood.

In addition, Lowenthal and Haven (1968) found that women are more likely than men to have a confidant, and that the identity of this person is fairly evenly distributed among spouse, child and friend. Among women, husbands are least frequently mentioned, while wives are most important for men.

These studies seem to indicate that the size of the battered woman's network may not be as significant as the presence of a confidant, and that the husband-wife conflict may not rule out a confidant since women do not tend to use husbands as confidants as frequently as men tend to use wives.

A study of 84 women with non-psychotic depression by Roy (1978) to explain any class difference in incidence of psychiatric disorder reports that loss of mother before 11 years of age, three or more children under 14 at home, lack of full or part time employment and lack of a confiding marital

relationship are associated with depressive neurosis in working class women. It is interesting to note that several depressed women who had a "poor" marriage claimed they were able to confide in their husbands. This finding is difficult to evaluate since "poor" and "confide" are not defined and no information about the assessment of the confiding relationship is given. One would assume a self-report measure, but this cannot be validated from the report of the study.

Roy's study does indicate the necessity of investigating the quality of the relationship of the battered woman with her mate. The findings may have implications for the mental health of battered women.

Miller and Ingham (1976) in a study involving 337 subjects, examined the association between social support and the severity of some psychological and physical symptoms. The results showed that women reporting the lack of an intimate confidant had psychological symptoms of significantly greater severity than those reported by women who perceived themselves as more adequately supported. Miller and Ingham also observed that the absence of many casual, less intimate friends was also associated with higher symptom level. The results for men showed the same trends, but were less clear.

The Henderson et al. study (1978), previously discussed, found that lack of available attachment figures and of supportive interaction was associated with the presence of neurotic symptoms. The researchers attributed the neurotic symptoms to separation anxiety and the response to loss of those affectional bonds necessary for health. An alternative interpretation of this finding may be relevant to the battered woman, since it is consistent with the findings of Miller and Ingham (1976). Perhaps an excess of negative interaction with an attachment figure, as in an abusive situation, despite any amount of positive interaction, can influence the perception of the

supportiveness of the relationship negatively in a neurotic individual. This is further support for the contention that measures of supportive interactions would be more valid with use of other than self-report techniques.

These studies present evidence of a negative association between social support and psychological dysfunction. If the battered woman is attempting to cope with her violent living situation in social isolation and without adequate social support, she may be at risk for psychological dysfunction.

Research Questions and Hypotheses

It is apparent from the above critical analysis of the literature that no study has addressed the possible relationship between the structure or supportiveness of the battered woman's social network and her level of psychological adaptation. Therefore, congruent with the purposes of this study, and with Roy's Adaptation model, I have formulated the major research question: Is there a relationship between the structure of the battered woman's social network, the supportiveness of the social network, and the battered woman's level of psychological adaptation? Specific questions related to the major research question are:

1) What is the extent of violence to which battered women are exposed?
2) What is the distribution of levels of psychological adaptation among battered women?
3) What are the characteristics of the social networks of battered women?
   a. What is the range of size of the social networks of battered women?
   b. What is the density of the relationships in the social network of

battered women?

c. What is the multiplexity of the relationships in the social networks of battered women?

d. What is the directedness or reciprocity of the relationships in the social networks of battered women?

e. What is the frequency of contact with network members that occurs in the social networks of battered women?

4) How supportive are the social networks of battered women?

a. What are the sources of support available to battered women in their social networks?

b. What types of support are available to battered women through their social networks?

c. What level of support is available to battered women through their social networks?

5) Is there a relationship between the sociodemographic characteristics of battered women and their level of psychological adaptation?

6) Is there a relationship between the characteristics of the violence experienced by battered women and their level of psychological adaptation?

7) Is there a relationship between the structure of battered women's social networks and their level of psychological adaptation?

8) Is there a relationship between the perceived supportiveness of battered women's social networks and their level of psychological adaptation?

These research questions led me to formulate the following hypotheses:

Questions #1 through #4	No hypotheses.
Question #5	1. There is no relationship between the

	sociodemographic characteristics of the battered women and their level of psychological adaptation.
Question #6	2. There is a relationship between the characteristics of the violence experienced by battered women and their level of psychological adaptation.
Question #7	3. There is a relationship between the structure of the battered women's social networks and their level of psychological adaptation.
Question #8	4. There is a relationship between the perceived supportiveness of battered women's social networks and their level of psychological adaptation.

Operational Definitions

To translate the major concepts of the research questions into observable phenomena, the following conceptual definitions were assumed and operationalized.

The definition of battered woman varies in the literature from a woman who has been beaten by her mate (Martin, 1976) to one who has gone through the cycle of violence twice (Walker, 1979) to one who has received "deliberate, severe, and repeated (more than three times) demonstrable injury from her husband" (Parker & Schumacher, 1977, p. 760). For purposes of this study a battered woman is defined conceptually as a woman who has been physically assaulted at least once by a male with whom she has

(had) an intimate, cohabiting relationship, whether or not legally married. This definition is based on the assumption that a woman who is hit once and either leaves the relationship or sets limits to end the violence within the relationship has been battered and has effectively dealt with the noxious stimuli of battering. This definition is operationalized by a woman's positive response to the question, "Have you ever been assaulted by a man with whom you were living at the time?"

An assault is conceptualized as any event involving physical force used against a woman without her consent, regardless of the intent of the action, or severity of injury resulting from the assault. The woman's experience with violence is conceptualized more broadly as any event experienced by the woman, verbal or physical, which she defines as abusive or violent. The subjects' experience with violence is operationalized as the woman's response to the 8 items of the Violence Scale of the Conflict Tactics Scale (CTS), her response to 4 questions about violence directed at her from specific sources as a child or adult (questions 32A through 32D on the Demographic and Personal Data Questionnaire), and her response to the general question (question 32E on the Demographic and Personal Data Questionnaire), "Is there anything else that would help me to understand your total experience with violence?"

Psychological adaptation is conceptualized as a multidimensional construct encompassing a state of positive mental health and a subjective sense of happiness or well-being (Roy & Roberts, 1981). Operationally, the subjects' level of psychological adaptation is defined as the psychological symptom status of the subject as measured by the Brief Symptom Inventory (Derogatis, 1975) and her sense of psychological well-being as measured by the Bradburn Morale Scale (Bradburn, 1969).

The subjects' social network is conceptualized as the pattern of social relationships within which the individual lives. The concept social network is operationalized in this study according to a number of dimensions. Network size is operationalized as the number of individuals listed on the Norbeck Support System Questionnaire (NSSQ) in response to the direction, "Please list each significant person in your life...Consider all the persons who provide personal support for you or who are important in your life for any reason." Network density is operationalized by the score on the Hirsch Support System Map (Hirsch, 1979, 1980) which represents the actual number of relationships that exist among network members as compared to the number of possible relationships. Frequency of contact with network members is operationalized by the subjects' response to question 8 of the NSSQ, "How frequently do you usually have contact with this person? (Phone calls, visits, or letters)". Reciprocity of relationships refers to those relationships characterized by the subjects' response to question 34C of the Demographic and Personal Data Questionnaire as relationships where 1) there is a mutual and equal exchange (reciprocal), 2) the subject primarily gives (other-focused), or 3) the subject primarily receives (ego-focused). Multiplexity of relationships is operationalized as the subjects' response to question 34A on the Demographic and Personal Data Questionnaire, "What kinds of things do you and [network member] do together?" If the relationship serves one function, it is described as uniplex. If it serves more than one function, it is described as multiplex.

Social support is conceptually defined using Kahn's (1978, p. 11) definition of social support as "interpersonal transactions that include one or more of the following: the expression of positive affect of one person toward the other; the affirmation or endorsement of another person's behaviors,

perceptions or expressed views; the giving of symbolic or material aid to another. The key elements in supportive transactions are thus affect, affirmation and aid." The sources, types, and levels of social support are operationalized by the subjects' responses to the Norbeck Social Support Questionnaire (NSSQ). A supportive response related specifically to the battering situation is conceptualized as a network interaction which assists or acknowledges the woman's response to the battering situation. A nonsupportive response is a network interaction which somehow negates the woman's response to the battering situation. Operationally, supportive responses of network members make it easier for the battered woman to deal with the situation; nonsupportive responses make it more difficult to deal with the situation (question 34F on Demographic and Personal Data Questionnaire).

The next chapter, Chapter Three, describes the methods and procedures used to collect and analyze the data of the study.

CHAPTER THREE
METHODOLOGY

The purpose of this chapter is to describe the methods and procedures used to collect and analyze the data of the study. For the purpose of presentation, this chapter has been divided into five sections describing the design, the setting and subjects, the instruments, the procedures used in data collection, and the management of the data.

Design

The major purpose of the design of this study is to answer the specific research question, "Is there a relationship between the structure of the social network of a battered woman, the woman's perception of the supportiveness of that network, and the level of psychological adaptation of the battered woman?" This study of battered women's social networks, perceived social support, and level of psychological adaptation was designed as a cross-sectional survey. Measurements were taken at one point in time using a structured interview and questionnaire approach. This simple correlational design was selected for a number of reasons.

First, given the paucity of other studies related to social network, social support, or psychological adaptation in battered women, systematic observation and description of these phenomena would be of considerable value and add to the present body of scientific knowledge.

Secondly, little research on psychological distress in battered women has been done, and no study has addressed the relationship between these contextual aspects of the battering situation and the level of psychological adaptation of the battered woman. Therefore, a design which allows one to determine if relationships exist between these variables seems appropriate.

A major limitation of the cross-sectional design is that while the existence of relationships between two or more variables can be determined, more complex interrelationships, such as causal relationships, cannot be established. While complex analytical procedures such as multiple regression applied to cross-sectional correlational data can provide weak support for causal models, evidence found in support of one model may also be consistent with other possible models.

Subjects and Setting

The population of interest in this study is the aggregate of women in the United States who are or have been physically abused by their mates. Although estimates range from one in ten (Schulman, 1979) to one in four (Straus, 1977-78) women in the general population who are physically abused by their mates, it is impossible to know the true incidence of this type of violence. The absence of mandatory reporting statutes and the tendency of those involved to not report the phenomenon would lead one to suspect that even these figures represent a conservative estimate of the actual number of physically abused women. Because the characteristics of the entire population are unknown, it is not possible to select a representative sample of the population of battered women. For this reason, a sample of convenience was used with the knowledge that this sampling method limits the generalizability of the findings of this study.

Criteria for inclusion required that each woman be 18 years of age or older, be able to speak and read English, be self-defined as "battered", and report at least one physical assault by a cohabiting male. To increase the representativeness of the sample, subjects included women who have sought help from agencies providing services for battered women, as well as women

from the general public who have sought help from private service givers or who have not yet sought professional help in dealing with this problem.

Access to agency subjects was negotiated through four agencies, each in a different county of the greater San Francisco Bay Area, which provide shelter as well as other supportive services for battered women. Subjects were also solicited through advertisements in local newspapers and newsletters of organizations in the Bay Area, and through word of mouth in the researcher's professional and personal networks. In addition, some women who consented to participate in the study also solicited subjects from their personal and professional networks.

Potential subjects were initially approached by a third party (agency representative, care giver, advertisement, etc.) and told the nature of the study as presented in the Guide for Solicitation of Subjects (see Appendix B). Individuals who consented to be in the study were asked for permission to convey their first name only and telephone number to the researcher along with the best time for the reseacher to telephone. Consenting individuals were also given the name and telephone number of the researcher. Telephone screening of each potential subject was done by the researcher and an interview appointment was scheduled at the subject's convenience.

There is no accurate count of the number of women who responded negatively to the solicitation for subjects. However, one hundred ninety women responded positively to the solicitation for subjects. Of the women who responded positively, one hundred fifteen (60.5%) were interviewed. The demographic characteristics of the seventy-five (39.5%) women who responded positively to solicitation and were not interviewed are not known to the researcher. Because of the anonymity that was thought to be vital to those subjects' participation, the only information recorded was the source of

solicitation (agency or community), the first name of the potential subject, and a telephone number where she could be reached. Table 1 summarizes the information available about the 75 women solicited and not interviewed.

Table 1
Summary of Loss to Participation Of Women Solicited and Not Interviewed

Stage/reason for loss		Source of solicitation[a]				
	n	1	2	3	4	5
Telephone screening						
Unable to contact	10	2	--	--	2	6
Changed her mind	3	1	1	1	--	--
Did not meet criteria	17	--	--	--	--	17
Telephone confirmation						
Unable to contact	12	2	4	5	1	--
Changed her mind	17	4	3	1	4	5
Interview						
Missed appointment	16	2	2	3	4	5
Totals	75	11	10	10	11	33

[a]1= Contra Costa County agency; 2= Marin County agency; 3= San Francisco County agency; 4=Santa Clara County agency; 5=community solicitation.

A frequency distribution of the source of solicitation indicates that 56% (n=42) of the women not interviewed were rather evenly distributed among all four agencies, with the remaining 44% (n=33) of the women not interviewed coming from community solicitation. Further analysis of the women solicited and not interviewed indicates that thirty women were lost to

participation at the stage of telephone screening; twenty-nine women were lost to participation at the stage of confirmation of the interview appointment; sixteen women were lost to participation at the interview stage.

Of the one hundred fifteen women interviewed, three were dropped from the study. Two subjects did not meet the cohabitation criteria. The third subject refused tape recording, spoke rapidly, and was unable to speak at a pace that allowed accurate recording of the data.

Demographic and personal characteristics of the remaining subjects (n=112) were obtained through the interviewer administered Demographic and Personal Questionnaire (see Appendix F) and are summarized in Table 2.

The subjects ranged in age from 18 to 54 years of age with a mean age of 31.6 and a standard deviation of 7.7. While 67.9% of the subjects of this study were Caucasian, 32.1% were from other racial and ethnic groups. Preference for the Protestant or Catholic religions was indicated by the majority of the 78.6% subjects indicating a religious preference.

The marital status of 55.3% of the subjects was divorced or separated; 30.4% were currently married; 12.5% were single, never married; 1.8% were widowed. Although these statistics accurately described the marital status of the subjects of the study, the relationship to the batterer was not always clear. For example, several women who described themselves as divorced or separated, were commonly divorced or separated from a mate other than the identified batterer. The presence of a dependent child often necessitated continuing contact with the batterer, and physical assaults continued despite legal dissolution of the relationship.

Table 2
Demographic and Personal Characteristics of Subjects and Batterers

Characteristic	Subjects n	Subjects %	Batterers n	Batterers %
Age	(n=112)			
18-29	48	42.8	--	--
30-39	48	42.8	--	--
40-49	12	10.8	--	--
50-54	4	3.6	--	--
Racial/ethnic group	(n=112)		(n=90)	
Caucasian	76	67.9	51	45.5
Black	18	16.1	26	23.2
Hispanic	10	8.9	9	8.0
Asian	3	2.7	1	0.9
Filipino	2	1.8	--	--
Arab	2	1.8	2	1.8
Native American	1	.9	1	.9
Religious affiliation	(n=112)			
Catholic	30	26.8	--	--
Protestant	33	29.5	--	--
Christian	10	8.9	--	--
Jewish	7	6.3	--	--
Other	8	7.1	--	--
None	24	21.4	--	--
Marital status	(n=112)			
Never married	14	12.5	--	--
Married	34	30.4	--	--
Divorced	23	20.5	--	--
Separated	39	34.8	--	--
Widowed	2	1.8	--	--

Note. Information regarding batterer is included in table if available.

Table 2 continued

Characteristic	Subjects n	Subjects %	Batterers n	Batterers %
Educational level	(n=112)		(n=112)	
Professional	3	2.7	11	9.8
College graduate	19	17.0	13	11.6
1-3 years college	42	37.5	21	18.8
High school	33	29.5	40	35.7
10-11 years	12	10.7	15	13.4
7-9 years	2	1.8	2	1.8
Under 7 years	1	0.9	3	2.7
Unknown	--	--	7	6.3
Occupational status	(n=111)		(n=112)	
Executive/major professional	0	0.0	6	5.4
Manager/lesser professional	10	9.0	9	8.0
Administrator/ minor professional	10	9.0	14	12.5
Clerk/sales/ technician	45	40.5	5	4.5
Laborer:				
Skilled	4	3.6	28	25.0
Semiskilled	36	32.4	28	25.0
Unskilled	6	5.4	22	19.6
Social class[a]	(n=111)		(n=105)	
I	0	0	6	5.4
II	16	14.4	14	12.5
III	46	41.5	19	17.0
IV	42	37.8	48	42.9
V	7	6.3	18	16.1

Note. Information regarding batterer is included in table if available.

[a]Hollingshead two-factor index of social position was used, with female information substituted for male in the subjects column.

The number of children under 18 years of age ranged from zero to six with only 22 of the subjects reporting no dependent children. At the time of the interview, three subjects reported being pregnant.

The general educational level of subjects was slightly higher than that of their battering mate with 86.7% of the subjects achieving 12 years of education or more. While only 75.6% of the battering mates achieved 12 years of education or more, a greater percentage of battering mates (9.8%) achieved professional levels of education when compared to the study subjects (2.7%). Vocational training in addition to formal educational preparation was reported by slightly more than half of the subjects (57.7%).

The study subjects also occupied positions of higher occupational status than their battering mates. But again, the battering mates occupied major professional/executive status positions (5.4%) while subjects did not. One subject refused to state her occupation, fearing she could be easily identified from that information. Only one subject stated that she had never been employed outside the home, although 48.2% (n=54) of the subjects described themselves as unemployed at the time of the interview. Of those subjects currently employed, 10.3% (n=6) were employed on a part-time basis.

Using the occupational and educational status of the subject, a score of social position was computed for each subject (Hollingshead & Redlish, 1958). The highest concentration of subjects occurred in Classes III (n=46) and IV (n=42). Fewer subjects were categorized in Classes II (n=16) and V (n=7), while no subjects were categorized in Class I. Using the occupational and educational status of the batterer increases representation in Class I, but skews the distribution more heavily toward the lower end of the scale.

Table 3 summarizes the reported household income levels of the subjects. Household incomes in the battering situations ranged from below

$5,000 (5.1%) to above $80,000 (2.0%), with 11.6% (n=13) subjects unaware of the level of household income.

Table 3
Household Income Level

Income level	n	%
5,000-9,999	17	17.2
10,000-19,999	28	28.3
20,000-29,999	13	13.1
30,000-39,999	16	16.1
40,000-49,999	9	9.1
50,000-59,999	6	6.1
60,000 or more	5	5.0

While geographic stability characterizes the majority of women interviewed, further analysis of current living situations indicates a relative instability of residence for most of the sample. While 60.8% (n=68) of women have resided in the Bay Area for 6.5 years or longer, 74.1% (n=83)

Table 4
Length of Time in Current Living Situation

Length of time	In bay area		At current address	
	n	%	n	%
Less than 1 year	17	15.2	83	74.1
1-3 years	18	16.1	11	9.8
3.5-6 years	9	8.0	13	11.6
6.5-9 years	6	5.4	–	–
9.5 years or more	62	55.4	5	4.5
Totals	112	100.0	112	100.0

of the women have lived at their current address for less than one year (see Table 4). In all cases, this relative instability of residence was the result of the subjects' attempt to deal with the abusive relationship.

Approximately 93% (n=104) of the women had left their abusive relationship at least once, and most experienced a series of transient living situations before either returning to the relationship or reaching some semblance of residential stability. The women interviewed were living in shelters for battered women (38.4%), with parents or relatives (9.8%), or with friends (2.7%). Some women lived in their own homes with the batterer (15.2%), while others lived in their own homes without him (12.5%). Some had established residence in another home without the battering mate (15.2%), while a few women (1.8%) were currently living with a new, non-battering mate (see Table 5).

Table 5
Description of Current Living Situation of Battered Women Subjects

Current living situation	n	%
Own home with batterer	17	15.3
Own home without batterer	14	12.6
Other house without batterer	17	15.3
Parents/relatives	11	9.9
With friends	3	2.7
Shelter	43	38.7
With new mate	2	1.8
Other	4	3.6
Total	111	100.0

In summary, the battered women subjects of this study were a

Table 6
Comparison of Battered Subjects from Five Studies (%)

Variable	Study number*				
	1	2	3	4	5
Mean age	29.9	25.0	29.1	32.2	31.0
Ethnicity					
Caucasian	77.9	64.0	94.0	80.0	68.0
Black	14.1	22.0	--	6.0	16.1
Hispanic	3.7	10.0	--	8.0	8.9
Oriental	0.9	1.0	3.0	--	2.7
Other	3.4	4.0	3.0	6.0	4.5
Marital status					
Married	--	72.0	61.0	24.0	30.4
Separated /divorced	29.0	10.0	13.0	65.0	55.0
Cohabiting	--	13.0	26.0	--	12.5
Other	--	2.0	--	9.0	1.8
Occupation					
Unemployed	67.7	56.0	8.0	48.0	48.2
Clerk	22.5	25.0	--	--	40.5
Unskilled	28.6	11.0	60.0	--	5.4
Skilled	14.3	8.0	16.0	--	18.0
Professional	--	--	16.0	--	3.6
Education					
Less than HS	30.6	39.0	29.0	12.0	13.3
High school/ some college	60.8	56.0	67.0	65.0	67.0
College/postgrad	8.6	5.0	--	23.0	19.7

*1=Pagelow (1980), n=350; 2=Stacey & Shupe (1983), n=542; 3=Giles-Sims (1983), n=31; 4=Walker (1984), n=403; 5=McKenna (1985), n=112.

heterogeneous group, aged 18 to 54, representing many races, religions (including no religion), educational levels, occupational groups, social positions and levels of household income.

What each woman interviewed shared with all the others was the experience of assault at the hands of a battering mate. A few women continued to live with their abusive partners (n=17).

Table 6 compares the battered women subjects of this study with subjects of four recent studies focused on battered women (Giles-Sims, 1983; Pagelow, 1980; Stacey & Shupe, 1983; Walker, 1984). Although the battered women of this study are slightly older, more ethnically diverse, more likely to describe themselves as divorced or separated (rather than married), and have achieved slightly higher levels of education, subjects from all five studies are comparable.

Instruments

The subjects of this study were surveyed using an interview schedule incorporating both interviewer- and self-administered questionnaires. The interview schedule followed this sequence:

1. Introductory comments concerning nature and purpose of the study followed by obtaining verbal informed consent.

2. Bradburn Morale Scale (BMS)--a self-administered standardized instrument which measures avowed happiness or a sense of psychological well being (see Appendix G).

3. Section of interviewer-administered Demographic and Personal Data Questionnaire consisting of 21 open-ended and closed-ended questions eliciting information about personal background data of subjects and battering mates (age, marital status, children, education, occupation, race,

income, religious affiliation, living situation) and use of community services for battered women (see Appendix F).

4. Brief Symptom Inventory (BSI)--a self-administered standardized instrument which measures psychological symptom status (see Appendix G).

5. Section of interviewer-administered Demographic and Personal Data Questionnaire consisting of fourteen open-ended and closed-ended questions designed to elicit descriptions of the violence in the battering relationship as well as a detailed history of the subjects' previous exposure to violence. Includes the Conflict Tactics Scale (CTS), an instrument which measures violence in interpersonal relationships (see Appendix G).

6. Social Network/Social Support section of the Demographic and Personal Data Questionnaire which includes the Norbeck Social Support Questionnaire (NSSQ), a self-administered questionnaire that measures multiple dimensions of social support (see Appendix G); the Hirsch Support system Map (SSM), a self-administered instrument designed to measure network density (see Appendix G); and several open-ended and closed-ended questions designed to determine the presence of a confidant, as well as the reciprocity, the multiplexity and the situational supportiveness of the respondent's relationship with each network member.

7. A final section of the Demographic and Personal Data Questionnaire consisting of two open-ended questions designed to elicit information about help-seeking behavior of the respondent. Responses to these questions are irrelevant to the purpose of the current study and have not been included in this report.

The instruments used in this research project were chosen because of their ability to consistently measure the variables of interest in the study as well as ease in administration and economy of time and resources. The

following section contains a description of the research instruments (BMS, BSI, CTS, NSSQ, SSM), and a brief discussion of each instrument's reliability and validity as summarized in Table 7. Information about administration and scoring of each instrument can be obtained from the source listed in Appendix G.

The Bradburn Morale Scale: Partial Measure for Dependent Variable Psychological Adaptation (see Appendix G)

The Bradburn Morale Scale (BMS) is an eleven item self-report instrument designed to measure a sense of psychological well-being. The instrument was initially used in a pilot study of behavior related to mental health (Bradburn & Caplovitz, 1965) and further developed in a larger study (Bradburn,1969) whose purpose was to elaborate the conceptual framework of psychological well-being.

The BMS yields three indices of psychological well being:

1. The Positive Affect Scale (PAS)--five items focusing on pleasurable experiences in the recent past.

2. The Negative Affect Scale (NAS)--five items focusing on unpleasurable experiences in the recent past.

3. The Affect Balance Scale (ABS)--combined measure of both negative and positive feeling indices.

Although the ABS is thought to be the best indicator of the individual's current level of psychological well-being, the PAS and the NAS provide important information about the feeling tone of the individual's recent experiences.

A test-retest approach to estimate the reliability of the BMS yielded uniformly high Q-values for the ten items ranging from a value of .90 to a

value of .97. Gammas for the three scales ranged from .76 on the ABS to .83 on the PAS.

The items of the BMS represent a wide range of pleasurable and unpleasurable experiences likely to be common in a heterogeneous population. Convergent and discriminant validity of the test items is evidenced by the results of cluster analyses. Positive items were moderately intercorrelated (.50), negative items were moderately intercorrelated (.54), and low associations (.02-.09) between items in the two clusters were found (Bradburn & Caplovitz, 1965).

A factor analysis was done on the BMS data obtained in this study. A normal varimax rotation of a 10 X 10 correlation matrix resulted in two factors with eigen values greater than 1.0. The first factor loaded on items reflecting positive affect; the second factor loaded on items representing negative affect. These findings are consistent with the cluster analyses reported by Bradburn & Caplovitz (1965).

Bradburn (1969) found the Affect Balance Scale (ABS) to be a consistent predictor of self-reports of happiness. In this sample also, statistically significant correlation ($r=0.42$; $p<0.05$) was found between the subject's self-report of happiness and her score on the Affect Balance Scale (ABS).

The currently available research demonstrates that the BMS is therefore a reliable and valid tool to measure psychological well-being in this non-clinical female population.

The Brief Symptom Inventory (BSI): Partial Measure for Dependent Variable Psychological Adaptation (see Appendix G)

The Brief Symptom Inventory (BSI) is a 53 item self-report instrument designed by Derogatis (1975) to assess the psychological symptom status of

non-patient, as well as psychiatric, and medical patient populations. The BSI is a brief form of the SCL-90-R, and was developed for use in clinical and research situations where administration time is limited. The BSI yields nine primary symptom dimension scores, as well as three global indices of overall psychological distress (Derogatis, Yevzeroff, & Wittelsberger, 1975). A brief description of the focus of the nine dimensions is provided below.

1. Somatization--seven items focusing on psychological distress arising from perception of physiological dysfunction.

2. Obsessive-Compulsive--six items focusing on unremitting or irresistible subject behavior (thoughts, feelings, and actions) that is disturbing to the individual.

3. Interpersonal Sensitivity--four items focusing on feelings of personal inadequacy.

4. Depression--six items focusing on a broad range of signs and symptoms of clinical depression including withdrawal of interest in life activities, feelings of hopelessness and futility.

5. Anxiety--six items focusing on behaviors usually associated clinically with high anxiety.

6. Hostility--five items focusing on hostile thoughts, feelings and actions.

7. Phobic Anxiety--five items focusing on behaviors observed in phobic anxiety states.

8. Paranoid Ideation--five items focusing on characteristics of paranoid thinking.

9. Psychoticism--five items focusing on degree of social alienation.

There are additionally four items of the BSI which are important clinical indicators, but not focused on any one symptom dimension.

The three global indices which measure the degree of psychological distress currently experienced by the subject are:

1. The Positive Symptom Total (PST)--the number of symptoms experienced by the subject to any degree.

2. The Positive Symptom Distress Index (PSDI)--a measure of the intensity of distress corrected for the number of symptoms reported by the subject.

3. The Global Severity Index (GSI)--combined measure of the number of symptoms with the intensity of reported distress.

Although the GSI is thought to be the single best indicator of the subject's psychological distress levels, the PSDI and PSI are also useful in assessing the subject's psychological symptom status (Derogatis & Melisaratos, 1981).

The test-retest reliability coefficients were calculated on a sample of 60 non-patient subjects tested at two week intervals. Correlation coefficients range from a value of .68 for the Somatization dimension to a value of .91 for the Phobic Anxiety dimension. The correlation coefficient of the GSI was .90, indicating the BSI has a high consistency of test scores over time.

Internal consistency coefficients for the nine symptom dimensions of the BSI were calculated on a sample of 1,002 outpatients using Cronbach's Alpha. Alpha coefficients for all nine dimensions range from a value of .71 on the Psychoticism dimension to a value of .85 on the Depression dimension, indicating internal consistency of the BSI.

Evidence of both convergence and discriminability of the BSI is reported (Derogatis & Melisaratos, 1981; Derogatis & Spencer, 1982). A study originally designed to evaluate concurrent/construct validity for the SCL-90-R with the Minnesota Multiphasic Personality Inventory (MMPI)

was reanalyzed scoring for the BSI. This is possible because all 53 items of the BSI are included in the SCL-90-R. The reanalysis scoring for the 53 items of the BSI resulted in correlation coefficients which were somewhat reduced as compared to the SCL-90-R correlation coefficients, but convergence between the two measures was evident (see Table 7).

A factor analysis was done on the scores of a sample of 1,002 heterogeneous psychiatric outpatients (425 male; 577 female) presenting for initial evaluation at four Eastern treatment facilities. Derogatis and Spencer (1982) report that a normal varimax rotation resulted in nine interpretable factors which accounted for 44% of the variance in the matrix. Seven of the nine symptom constructs were factored with little or no disjuncture of items.

A factor analysis was also done on the BSI data obtained in the present study. A normal varimax rotation failed to converge in 24 iterations. The inability to factor the present data is most likely attributable to the small sample size (n=112).

Initial criterion-oriented validity studies of the BSI suggest it is highly sensitive to changes in psychological symptom status (Amenson & Lewinsohn, 1981; Kremer & Atkinson, 1981; Marshal & Baugsty, 1981) and additional studies are currently being conducted. The currently available research does demonstrate that the BSI is a valid and reliable tool to measure psychological distress in a research situation where time is a critical factor.

Conflict Tactics Scales (CTS): Measure for Variable Level of Violence (see Appendix G)

The Conflict Tactics Scales (CTS) is an instrument comprised of a series of questions designed to measure violence in interpersonal relationships by asking about the choice of tactics used in dealing with conflict. The list of

eighteen items starts with those tactics low in coerciveness and becomes more coercive, reflecting three modes of dealing with conflict:

1. Reasoning Scale--three items describing the use of rational discussion and argument.

2. Verbal Aggression Scale--six items describing the use of verbal and nonverbal acts which symbolically threaten the other.

3. Violence Scale--eight items describing the use of physical force or violence.

The internal consistency of Form N of the Conflict Tactics Scales was assessed using Cronbach's alpha (N=2,143). Reliability coefficients for the Verbal Aggression Scale (.77-.88) and for the Violence Scale (.62-.88) are high (Straus, 1979).

Straus (1979) reports face validity of the Violence Scale of the CTS based on the judgment that each item of the Violence Scale describes an act of actual physical force.

Factor analysis of Form N was done on the scores of 2,143 subjects (960 male; 1,183 female) from a nationally representative sample. A normal varimax rotation of an 18 X 18 correlation matrix resulted in four distinct factors. The four factors correspond to the three theoretical constructs of the instrument design and an additional factor defined by the last two items of the Violence Scale which refer to the use of a knife or a gun. Straus interprets this additional factor as an excessive violence subscore, and suggests that this factor may be used by some to differentiate socially legitimized use of violence in marriage from wifebeating (Straus,1979).

Further evidence of construct validity is reported by Straus (1979) using the results of several studies using the CTS measure of violence. Consistent with relevant theory, the negative relationship between violence and

socioeconomic status (Straus, 1974; Straus et al., 1980) has been found using the CTS measure of violence, as well as the negative relationship between a husband's economic and prestige resources relative to his wife and his tendency to use physical violence (Allen & Straus, 1979). Numerous correlations between CTS scores and other variables are reported (Bulcroft & Straus, 1975; Jorgensen, 1977; Steinmetz, 1977).

The moderate to high reliability of the CTS along with the evidence of construct and content validity justify the use of the Violence Scale of this instrument to quantify physical violence in this study of battered women.

The Norbeck Social Support Questionnaire: Partial Measure for Independent Variables Social Network and Social Support (see Appendix G)

The Norbeck Social Support Questionnaire (NSSQ) is a self-administered multipaged questionnaire developed by Norbeck (1980) to measure multiple dimensions of the concept of social support. The instrument is based on Kahn's (1978) definition of social support as interpersonal transactions which include affect (expressions of liking, admiration, respect or love for another), affirmation (expressions of agreement or acknowledgement of the appropriateness or rightness of another's acts or statements), and/or aid (the giving of tangible assistance).

The scores from the NSSQ form nine subscales which are combined to form three main variables. A brief description of the three main variables is provided below.

1. Total Functional--a sum of the three functional subscales affect, affirmation and aid.

2. Total Network Properties--a sum of the number of members listed in the network, the duration of the relationship and the frequency of contact between the subject and the network members.

3. Total Loss--a sum representing the absence or presence of recent loss, the number of persons lost, and the total amount of support lost in the recent past.

Published normative data for the NSSQ have been developed upon two populations of nursing students and a population of 136 employed adult subjects (47 males; 89 females). Norms are currently being developed on numerous other non-clinical and clinical populations.

The reliability of the NSSQ has been established in two phases using different populations (see Table 7). Phase I established internal consistency and test-retest reliability with two groups of subjects; 75 graduate nursing students in group one and 60 senior nursing students in group two.

Phase I test-retest Pearson correlation coefficients were calculated on a sample of 67 graduate nursing student subjects tested across a one week interval. Pearson correlation coefficients range from a value of .85 for the functional item Aid2 to a value of .92 for the three network property items. The Phase II test-retest correlation coefficients were calculated on a sample of 44 of the original 75 graduate nursing student subjects tested in Phase I. Pearson correlation coefficients at seven months ranged from a value of .58 for the subscale Aid to a value of .78 for subscales Affect and Affirmation.

Internal consistency was tested in Phase I through intercorrelations among all items. The high level of internal consistency among the six functional items (.72-.98), among the three network property items (.88-.96), and among the three loss items (.54-.68) allowed the 12 items to be collapsed into three variables to be used in subsequent analyses.

The uniformly high correlation coefficients reported by Norbeck in both phases of the development of the NSSQ establish the highly satisfactory reliability of the instrument.

Table 7
Summary of Reliability and Validity of Instruments

Instrument	Reliability	n	Evaluation	Results	Validity	n	Evaluation	Results
Bradburn Morale Scale	Internal Consistency	--	--	--	Construct	200	Item-to-scale	.50-.54
	Test-Retest	200	3 day Interval	.90-.97	Concurrent	200	Correlation happiness	.45-.51
Brief Symptom Inventory	Internal Consistency	60	Alpha. Coefficients	.71-.85	Construct	1,002	MMPI	.30-.72
	Test-Retest	60	2 week interval	.68-.91	Concurrent		forthcoming	
Conflict Tactics Scale	Internal Consistency	--	Violence Scale	.62-.88	Construct	--	Correlation physical aggression	high
	Test-Retest	--	--	--	Concurrent	--	--	--
Norbeck Social Support Questionnaire	Internal Consistency	75	Functional Network	.72-.98 .88-.96	Construct	136	Correlation FIRO-B	small to moderate
	Test-Retest	I 67 II 44	one week seven mos.	.85-.92 .58-.78	Concurrent	I 60 II 55	SSQ PRQ	.33-.56 .35-.41
Hirsch Support System Map	Internal Consistency	--	--	--	Construct	--	--	--
	Test-Retest	--	--	--	Concurrent	--	--	--

Content validity for the NSSQ as a measure of perceived support has been built into the instrument by Norbeck's careful adherence to Kahn's (1978) conceptual definition of social support and Barnes' (1972) theory of network analysis in question construction. Each item in the NSSQ directly relates to the conceptual basis for the instrument.

The criterion-related approach to validity testing in Phase I established a relationship between the NSSQ and the Social Support Questionnaire, a known measure of social support developed by Schaefer, Coyne, and Lazarus (1981). In Phase II, the NSSQ was concurrently administered with the Personal Resource Questionnaire (PRQ), another measure of social support (Brandt & Weinert, 1981). Correlations between the NSSQ and the PRQ again indicated a moderate level of concurrent validity. Construct validity for the NSSQ was demonstrated in Phase II by small to moderate correlations between the FIRO-B interpersonal constructs, need for inclusion and need for affection, and NSSQ subscales and composite variables.

The currently available research demonstrates that the NSSQ is a valid and reliable self-report tool with which to measure perceived social support and certain social network properties.

Support System Map (SSM): Partial Measure of Dependent Variable Social Network (see Appendix G)

The Support System Map (SSM) is an instrument developed by Hirsch (1979) to assess the density of relationships among social network members. From a carefully drawn representation of the network relationships, various measures of density can be computed (Hirsch, 1979, 1980). The formulas used to calculate density are summarized in Appendix G.

The Support System Map has face validity and is a reliable mathematical measure of the extent to which relationships which could possibly exist among network members actually do exist.

Procedures of Data Collection

The following procedures were used to collect the data of the study and were developed in collaboration with representatives of agencies providing services for battered women. The special needs of potential subjects for physical safety and for anonymity were taken into consideration in designing these procedures.

1. Appropriate persons in four Bay Area agencies providing services for battered women were contacted to ascertain whether it was possible to obtain battered women subjects for the study from their respective agencies. After receiving an affirmative response from each agency, a request to involve humans as research subjects was submitted to the UCSF Committee on Human Research.

2. Following the approval of the UCSF Committee on Human Research, the research protocol was implemented using a sample of 22 formerly battered women who were staff or volunteers in agencies providing services for battered women. The purpose of this pilot project was to refine the interview schedule and to pretest data processing and analysis techniques.

3. A review of the data from the pilot project led to revisions in the interview schedule. These revisions are detailed in the Report of the Pilot Project (see Appendix D).

4. All agency staff who would solicit subjects were briefly oriented to the purpose and process of the study. Questions were answered, agency contact people were designated, procedures were established to facilitate my

receipt of the names of potential subjects for the study, and the Guides for Solicitation of Subjects were provided to each participating agency (see Appendix B).

5. Advertisements for newsletters and newspapers were written, distributed, and published (see Appendix A).

6. A telephone equipped with an answering machine was arranged to record the first names and telephone numbers of potential subjects responding to community solicitation.

7. Private office space was secured in the community in which to conduct interviews with subjects responding to community solicitations. Subjects solicited through agencies were interviewed in offices provided by the agency.

8. Potential subjects were initially attracted by an advertisement (see Appendix A) or approached by a third party (agency representative, care giver, etc.) and told the nature of the study as presented in the Guide for Solicitation of Subjects (see Appendix B). Consenting individuals were provided with the name and telephone number of the researcher. The first name only and the telephone number of the potential subject were conveyed to the researcher along with the safest time for the researcher to contact the potential subject.

9. Telephone screening of each potential subject was done by the researcher. Subjects not meeting the criteria for the study were thanked for their response and not contacted again. For each potential subject meeting the criteria, an interview appointment was scheduled at her convenience. The potential subject was informed that the researcher would call again within 24 hours of the scheduled appointment to reconfirm.

10. Each appointment was reconfirmed within 24 hours of the time appointed.

11. Decision rules regarding cancelled appointments were made and adhered to during the course of the study (see Appendix E).

12. Interviews were conducted from July 30, 1982 to January 22, 1983 by the researcher alone.

13. Prior to the interview, each subject was initially presented the Information Sheet about Participating in a Research Study (see Appendix C), and allowed opportunity to clarify the information about the study. A verbal informed consent was obtained.

14. Each interview was tape recorded if the subject consented to this procedure. During the interview, the subject's responses were also recorded directly on the instrument by the researcher or the subject.

15. At the end of each interview each subject was thanked for her participation in the study and given ten dollars in cash to cover any expenses incurred by participating in the study (i.e., child care, transportation, etc.). Each subject was also offered a copy of a booklet entitled The Legal Rights of Battered Women in California (1981), and was provided with appropriate referrals relative to any needs identified by the subject and/or the researcher during the course of the interview.

16. Data from interviews were coded, transferred to standard code sheets, and then key punched by a professional key puncher.

17. Under the direction of a data analyst, the data were defined in preparation for analysis using SPSS^X (Nie, 1983).

Method of Data Analysis

Psychological adaptation is a multidimensional phenomenon which for purposes of this study has been conceptualized as a sense of psychological well-being along with the relative absence of psychological symptoms. A conventional multiple regression approach could be used to regress the index of each of these subconcepts on the set of independent variables one at a time. However, the several results yielded by this approach would not allow the researcher to investigate the relationship between the dependent variable as a multidimensional concept and the combinations of independent variables. Because, in this study, the researcher is interested in explaining a combination of dependent variables (the battered woman's level of psychological adaptation) by other sets of independent variables (demographic characteristics of the subjects, total experience with violence, social network structure, and social support), the data collected from the abused women relative to level of psychological adaptation were analyzed by canonical correlation analysis.

Initially, subjects' responses were coded and the data were entered into the computer using SPSS^X (Nie, 1983). In the preliminary analysis, frequency distributions and condescriptive statistics were obtained for all variables of interest in the study. Simple Pearson correlations among the variables of the study were explored and described.

Based on the simple correlations and upon theoretical considerations derived from the conceptual framework, matrices of dependent and independent variables were constructed. Canonical correlation analysis was then performed to determine the existence and strength of any relationships between the set of dependent variables (Psychological Adaptation) and the

sets of independent variables (Sociodemographics, Experience with Violence, Social Network, and Social Support).

The next three chapters, Chapter Four, Chapter Five, and Chapter Six, describe the variables of interest in the study, and the relationships that exist between individual variables and sets of variables. The research questions are answered using qualitative and quantitative data.

CHAPTER FOUR

THE EFFECTS OF EXPERIENCING VIOLENCE

This chapter of the dissertation presents the descriptive data of the study related to the subjects' experience with violence, the subjects' psychological well-being, and the subjects' psychological symptom status. Qualitative and quantitative data are used to respond to research questions one and two.

Experience With Violence

Research question 1 asks, "What is the extent of violence to which battered women are exposed?" The question is answered by describing the length of the battering relationship, the type and frequency of violence experienced within the battering relationship, and the other contexts in which the subjects of this study have experienced violence directed toward them.

Table 8
Length of Battering Relationship,Time to First Violence, and Time Since Last Physical Violence

	Length of relationship		Time to first violence		Time since last violence	
	n	%	n	%	n	%
Less than 6 months	8	7.6	29	26.9	82	76.6
6 months-1 year	22	21.0	39	36.1	13	12.2
1.5-5 years	38	36.2	31	28.7	10	9.4
5.5-9 years	16	15.2	3	2.7	1	0.9
9.5-20 years	18	17.1	4	3.7	1	0.9
Totals	105*	100.0	106*	100.0	107*	100.0

*n varies due to missing data.

Each subject reported at least one physical assault by a male with whom she was living at the time. As summarized in Table 8, these assaults had

occurred as recently as one day prior to the interview and as distantly as ten years before the interview, with 88.8% of subjects reporting assaults within the past year. The length of the battering relationships ranged from less than 6 months (7.6%) to more than 20 years (2.9%). In most relationships (63%), the first assault occurred within the first year of the relationship, often preceding marriage. All 112 subjects indicated that the physical abuse in the relationship was preceded by some form of verbal or emotional abuse.

Table 9
Percentage of Battered Women Subjects Reporting Acts of Violence at Least Once

Act of violence (N=112)	Ever occur	Past year
K. Threw something at you	67.0	48.2
L. Pushed, grabbed, or shoved	98.2	83.8
M. Slapped you	78.4	60.4
N. Kicked, bit, or hit you with a fist	84.5	66.3
O. Hit or tried to hit you with something	55.0	38.8
P. Beat you up	78.4	59.5
Q.Threatened you with a knife or a gun	43.8	32.2
R. Used a knife or a gun	18.9	12.6
S. Other	68.9	48.9

Subjects were asked to describe the first, last, and most serious physical violence that occurred in the relationship, using the Violence Scale (items K through S) of the Conflict Tactics Scale as a guide. The physically violent acts experienced by the subjects of this study ranged from having objects thrown at them to lethal levels of violence involving the use of a knife or a gun. A comparison of the level of the first physical violence with the level of

the most serious physical violence in the relationship indicated that as the relationship continued, the violence progressed from pushes and slaps to acute battering incidents involving severe beatings and, for some, potentially lethal assaults with weapons. In addition, each subject was asked if each type of violence had ever occurred in their battering relationship, and if so, how often had this type of violence occurred in the past year. Table 9 describes the subjects' responses to the Violence Scale of the Conflict Tactics Scale.

A common experience reported by subjects of this study was being pushed, grabbed, or shoved (98.2%); and kicked, bit, or hit with a fist (84.5%) at some time during the battering relationship. Many reported being slapped (78.4%). Many reported such a combination of violent, injury producing blows that the experience could only be described as being beaten up (78.4%). Subject number 3 describes being beaten by her batterer husband:

> ...he beat me up. That was probably the worst thing that happened....I think the worst part of it is that it scared the kids so badly....he came in through the front door and he didn't knock, and uh, we had the night chain on and he broke through the chain and scared the living daylights out of the children. They started running out through the back door....I was scared for my kids. I was afraid he was going to take them and that's what he was screaming that he was going to do. So I went in there and....he jumped out from the front side of the door and slammed the door and said, "Now I've got you." And, my son had hidden underneath the bed and...he kept slamming my head into a chest, a big hope chest....And I can remember grabbing onto, onto things and pulling myself up and pulling myself up, because I was on the ground, on the floor. I crawled in through the living room, underneath tables and things, and got into the kitchen to try to run through the back door....then we heard the sirens finally coming. So he dropped, let go of me, and went outside like nothing had happened and walked out to his car. And I went out and, about all I had was lumps all over my head and some scratches on my face and some bruises starting, out of the whole thing....that was probably the worst beating. Mainly because it went so long, and I was waiting for help.

Subject number 10 describes being beaten by her batterer boyfriend:

> ....And, uh, I didn't have any clothes on....and he grabbed me and choked me, to the point where I couldn't breathe, and then he, uh, hit me, a lot, that time. And I know, I came home with black and blue eyes, uh, my chest and my back were pretty beat up, and he just was real...grossly violent. You know, just kept hitting me and hitting me. He wouldn't stop. And then he realized, after a certain point, that he was really, you know, he was either going to kill me or badly injure me. And that's when he stopped.

While 43.8% (n=48) women reported being threatened with a knife or a gun, another 18.9% (n-21) reported actually being assaulted by their mate with a knife or a gun. Subject 52 describes one attack involving a knife:

> He hit me with, he punched me, he kept hitting me in the head, slugging me in the head. And then he slugged me in the mouth and then he kicked me in the stomach and pulled my hair and he took a, uh, one of those exacto knives, with the razor blade? And he threatened to cut me with it, to cut my clothes off of me and....Uh,I was pretty shook. I'll just say my clothes. I'm not sure if he said me. I just started screaming and his father went and called the police.

Subject 33 describes an assault in which she was threatened with a gun:

> I was sitting on our sofa and I was [sighs] and we were arguing. We'd been having problems....we were arguing and he had a gun. And he pulled the gun to my face....I didn't know it was unloaded....I'm looking down the barrel of a shotgun, and he's telling me he's going to blow me away. What could I do? You know, I, it terrified me. I'm sitting on the sofa, the first thing that went through my mind was, "God, if this is the way I'm supposed to go, I'll go." My hands in God's, my life in God's hands. And I told my husband to go ahead. I couldn't fight him off. And...he didn't shoot me. The gun wasn't even loaded. I didn't know that at the time. It was terrifying. I found out that the gun wasn't even loading, loaded. He was playing his tricks.

Over 40% (n=45) of the subjects reported violent experiences not included in the standard descriptions of violence comprising the Conflict Tactics Scale. Sexual violence, choking, having clumps of hair pulled out of one's head, and methodical burning of arms, legs, and faces with lighted cigarettes are some of the acts also described by subjects under Item S (Table 9). Subject 52 describes one of her experiences:

> he got me by my arm and he started to pull me and I tried, I tried to stop, you know...and, uh, I fell. And he got me by my hair and he drug me out of the parking lot and he hit me in the head a couple of times and

he...got...to the end of the parking lot and he picked me up and I just started screaming and...he dropped me or threw me and he got me by my hair again and hit me a couple times more in the head and he got me all the way across the street...by my hair, on the ground, and uh, my girlfriend was screaming at him and she had come down and was pulling on him, trying to make him let go and, uh, he finally, I...lost a lot of hair. I pulled away and I got up and I took off running and she was still screaming at him and pulling on him, and, uh [sighs] he got in his car and left, and the police came.

These physically violent acts occurred daily in some women's lives (5.4%), and less often in others, but the constant threat of further violence was described by most of the women.

Table 10
Percentage of Battered Women Subjects Reporting Abuse in Other Contexts

Context of abuse	Responds "yes"	Verbal	Physical	Both
Father-to-subject	48.2	4.5	29.7	14.4
Mother-to-subject	55.0	4.5	40.5	9.9
Sibling-to-subject	45.5	2.7	34.8	8.0
Father-to-mother	49.1	8.9	28.6	11.6
Mother-to-father	26.8	8.0	11.6	7.1
Other-to-c/subject[a]	16.4	--	12.7	3.6
Other-to-a/subject[b]	43.2	0.9	29.7	12.5
Other	56.8	--	--	--

[a]Subject abused as child by other than parent or sibling
[b]Subject abused as adult by other mate

Many had experienced or witnessed physical and/or emotional abuse in other contexts (see Table 10). Abuse of mother by father was witnessed more frequently by subjects than was abuse of father by mother. Of the subjects reporting abuse by a parent, physical and/or emotional abuse by mother was more often reported than abuse by father. Abuse by a sibling was reported by nearly one-half of the study subjects, while 16.4% of the

subjects reported being abused as a child by someone other than a member of the immediate family.

Emotional and/or physical abuse had been experienced in other adult relationships by 43.2% of the women. In addition, more than one-half of the women reported other exposure to violence, such as rape, assault by a stranger, and witness to murder.

Although not systematically investigated in this study, some women volunteered the information that they also had been violent in the relationship. One woman reported killing her husband prior to our interview.[1]

In summary, the battered women subjects of this study experienced at least one physical assault by a cohabiting male in the context of a relationship that varied in length from less than 6 months to more than 20 years. In all 112 cases, the physical abuse was preceded by some form of verbal or emotional abuse, and the constant threat of further violence was described by most of the women. The physically violent acts, which ranged from having some object thrown at her to potentially lethal attacks involving the use of a weapon, progressed in seriousness as the relationship continued. The violence occurred daily in the lives of some women and less frequently in others. Many women reported the experience of abuse in other contexts.

Psychological Adaptation

Research question 2 asks "What is the distribution of levels of psychological adaptation among battered women?" The two dimensions of psychological adaptation measured in this study are the psychological symptom status of the subject and the subject's subjective sense of well-being.

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[1]This woman was charged with first-degree murder, and later (September, 1983) convicted of voluntary manslaughter.

Research question 2 is answered by: 1) describing the psychological symptom status of the subjects as reported on the Brief Symptom Inventory (BSI), 2) comparing the psychological symptom status of the study subjects to BSI normative data on nonpatient and psychiatric outpatient psychological symptom status, 3) describing the study subjects' pattern of psychological well-being as reported on the Bradburn Morale Scale, and 4) comparing the study sample's pattern of psychological well-being to that of Bradburn's normative samples.

Psychological Symptom Status

The Brief Symptom Inventory (BSI) is designed to be interpreted at the discrete symptom level, the dimensional level, and the global level. Table 11 presents the discrete symptom items items comprising the 9 primary symptom dimensions of the BSI, the percentage of battered women subjects reporting themselves as symptomatic on each item, and the percentage of symptomatic subjects from two normative groups where the incidence of battering is unknown. Table 12 reports the same information for the four additional items of the BSI.

The two normative groups where the incidence of battering is unknown are 1) a sample of 719 non-patient normal subjects (344 male; 341 female) from a stratified random sampling of one county in a large Eastern state, and 2) a sample of 313 psychiatric outpatients (115 male; 198 female) from the Phipps Clinic, Johns Hopkins Hospital (Derogatis & Melisaratos, 1983). The nonpatient normative group was originally chosen as a comparison group since the group of battered women subjects of this study were not chosen from a clinical sample. However, since initial comparison of group raw score means demonstrated that the subjects of this study scored consistently

higher than the nonpatient normative group on every symptom dimension, and because some subjects indicated the presence of a counselor or therapist in their support network, but no subject was hospitalized at the time of the interview, a second group, the psychiatric outpatient normative group, was included in the comparison.

On the dimensional and global levels, the female component of the normative groups has been isolated for this comparison with battered women subjects since, consistent with the trends noted in the literature (Goldman & Ravid, 1980), the mean of the male normative subjects was lower on each of the symptom dimensions, creating a potentially misleading lower group mean when male and female scores were combined.

The nonpatient normative group reported symptoms in lower proportions than the outpatient normative group with the exception of two symptoms: "the idea that you should be punished for your sins" (Table 11) and "feelings of guilt" (Table 12). At the symptom level, the battered women subjects of this study reported symptoms in greater proportions than the nonpatient normative group with the exception of one symptom, the idea you should be punished for your sins" (Table 11).

On all symptoms comprising the dimensions of Interpersonal Sensitivity, Depression, Hostility, and Anxiety (Table 11), and on three additional items of the BSI (Table 12), the battered women subjects consistently reported symptoms in lower proportions than the outpatient normative group. The pattern varies for the five remaining symptom dimensions (Somatization, Obsessive-Compulsive, Phobic Anxiety, Paranoid Ideation, and Psychoticism) and for one additional item of the BSI.

Table 11
Percentage of Subjects Reporting Symptoms Comprising the 9 Symptom Dimensions of the BSI

Item #	Symptom	Battered women (N=112)	Out patient (N=313)	Non patient (N=719)
Somatization dimension				
2	Faintness or dizziness	41.1	89.8	17.2
7	Pains in heart or chest	32.1	37.7	16.2
23	Nausea or upset stomach	61.6	51.3	22.7
29	Trouble getting breath	29.5	32.9	13.9
30	Hot or cold spells	37.5	40.3	18.0
33	Numbness or tingling in body	42.0	38.0	23.6
37	Feeling weak in parts of body	58.9	53.5	22.1
Obsessive-compulsive dimension				
5	Trouble remembering things	77.0	68.8	42.3
15	Blocked getting things done	75.0	74.8	35.7
26	Having to check/double check	67.9	61.8	28.2
27	Difficulty making decisions	70.5	79.4	28.8
32	Your mind going blank	50.0	52.3	15.8
36	Trouble concentrating	75.9	79.0	27.2
Interpersonal sensitivity dimension				
20	Feelings being hurt easily	72.3	80.6	37.4
21	Feeling people dislike you	42.0	52.2	13.2
22	Feeling inferior to others	44.6	69.3	15.8
42	Feeling self-conscious with others	64.3	74.2	21.3
Depression dimension				
9	Thoughts of ending your life	20.5	45.5	3.0
16	Feeling lonely	80.4	81.5	24.9
17	Feeling blue	84.8	88.2	32.6
18	Feeling no interest in things	54.5	69.4	19.3
35	Feeling hopeless about the future	59.8	77.9	18.2
50	Feelings of worthlessness	52.7	70.8	11.3

Table 11 continued

Anxiety dimension				
1	Nervousness or shakiness inside	75.9	89.8	39.4
12	Suddenly scared for no reason	44.6	50.8	8.6
19	Feeling fearful	69.6	69.6	14.5
38	Feeling tense and keyed up	87.5	89.0	47.8
45	Spells of terror and panic	42.0	45.4	5.8
49	Feeling so restless couldn't sit still	61.6	68.3	23.3
Hostility dimension				
6	Feeling easily annoyed/irritated	84.8	85.6	56.8
13	Temper bursts you cannot control	46.4	53.7	25.3
40	Urge to beat/injure/harm someone	32.1	33.5	7.4
41	Urges to break/smash things	32.1	39.4	10.7
46	Getting into frequent arguments	42.0	49.3	17.7
Phobic anxiety dimension				
8	Afraid in open spaces/street	25.9	30.7	11.3
28	Afraid to travel on buses/trains	26.8	21.2	7.5
31	Avoid places, activities due fear	45.5	48.7	10.2
43	Feeling uneasy in crowds	50.9	46.6	9.3
47	Nervous when left alone	38.4	51.7	10.0
Paranoid ideation dimension				
4	Others to blame for your troubles	49.1	51.4	14.9
10	Most people cannot be trusted	65.2	57.3	27.4
24	Feeling watched or talked about	48.2	52.9	13.1
48	Others not giving credit for your achievements	42.0	50.3	26.7
51	Feel people will take advantage	79.5	62.9	30.4
Psychoticism dimension				
3	Idea someone controls thoughts	42.9	28.5	6.9
14	Feeling lonely when with people	70.5	68.8	10.9
34	You should be punished for sins	28.6	17.9	33.5
44	Never feeling close to another	50.9	59.4	9.6
53	Something wrong with your mind	49.1	73.0	5.8

On the symptoms comprising the Somatization dimension (Table 11), a larger proportion of battered women subjects reported nausea, numbness or tingling, and weakness in parts of the body than the outpatient normative group. While these symptoms are highly associated with functional etiology, each symptom may reflect physical disease or injury. No information about known physical disease or injury is available for the two normative groups, but the following information about physical complaints was volunteered by subjects in this study.

Two symptomatic women reported severe colds. One woman who reported extreme weakness and nausea along with frequent hot or cold spells and moderate chest pain, also reported having a severe virus infection for the past week. One woman reporting extreme numbness and weakness in her body was interviewed the evening before entering the hospital for continued conservative treatment of a herniated disk. Another woman dealing with back problems arising from repeated physical assaults also ascribed some of her somatic complaints to a premenstrual syndrome. Other physical complaints were from women with obvious abrasions and contusions who ascribed them to the injuries sustained in the abusive relationship, and to diagnosed pregnancy, severe arthritis, genital herpes, chronic staphylococcal infections, and hypoglycemia.

As compared to the outpatient normative group on the symptoms comprising the Obsessive-compulsive dimension, a higher proportion of battered women subjects report difficulty remembering things, feeling blocked in getting things done, and having to check and double check what they do (Table 11).

The battered women subjects of this study report a fear of travelling on public transportation and a feeling of uneasiness in crowds in greater

proportions on the Phobic Anxiety dimension of the B.S.I. than the outpatient normative group (Table 11). These seemingly phobic symptoms are often accompanied by threats to life from the batterer. Subject number 52 discusses why she did not seek medical care for her injuries after a severe beating:

> ...I should have gone to the hospital, but I didn't. I was scared to be there in the open like that....I was afraid that, you know, he told me, when I went...when I went, when he beat me up and he followed me to, to my friend's house....he told me that there was nowhere I could go and he would find me. And it only took him 20 minutes to find me...to there, and I believed him, so....when I, I just was afraid to go, you know, the only place I felt safe was at work, and then even after that he was hanging around at work and I had to hide in the back....I slipped out the back way at work and laid down in the back of people's cars and was transported somewhere and picked up by somebody else who transported me somewhere else, and he still found me....It was unbelievable. He would have made a good detective.

A higher proportion of battered women subjects over outpatient normative subjects in the Paranoid Ideation dimension also report feeling that most people cannot be trusted and that people will take advantage of you if you let them (Table 11). Subject number 18 discusses her feeling that she cannot trust men:

> I think a lot of it relates to fear of the batterer...finding me, uh, fear of other strange men in public, uh, you know, fear of, uh, physical...violence again, on my person....I'm a, I'm uncomfortable a lot...out in public, now....But now it's like everywhere I look, I don't, I don't trust any man, you know, I, uh, my whole reassessing men's activities and the way they relate to me, is changed quite a bit. I don't know what to expect right now, so, uh, I'm not, I'm not even making any attempts to analyze it, just watch myself, how I react.

As compared to two normative groups where the incidence of battering is not known, a higher proportion of battered women subjects report Psychoticism dimension symptoms of feeling lonely even with others and

having ideas that someone can control their mind (Table 11). Battered women subjects also report loss of appetite (Table 12) in higher proportions than either the nonpatient or outpatient normative groups.

Table 12
Percentage of Subjects Reporting Symptoms Comprising Four Additional Items of BSI

Item #	Symptom	Battered women (N=112)	Out patient (N=313)	Non patient (N=719)
11	Poor appetite	51.8	44.1	11.1
25	Trouble falling asleep	64.3	68.5	31.3
39	Thoughts of death or dying	42.0	58.4	19.9
52	Feelings of guilt	63.4	17.3	68.2

At the dimensional level, the mean of the battered women subjects of this study is higher on every symptom dimension than the mean for the female nonpatient normative group and lower than the mean for the female outpatient normative group (Figure 2).

When the raw score means and standard deviations for the 3 global measures of psychological symptom status from the BSI are compared with data from the female subjects in the two normative samples (Table 13), the battered women subjects of this study report experiencing a larger number of symptoms (PST) and a greater intensity of distress than the nonpatient female normative group. However, the battered women subjects' distress level (number of symptoms and intensity of distress) is lower than that of the outpatient female normative group.

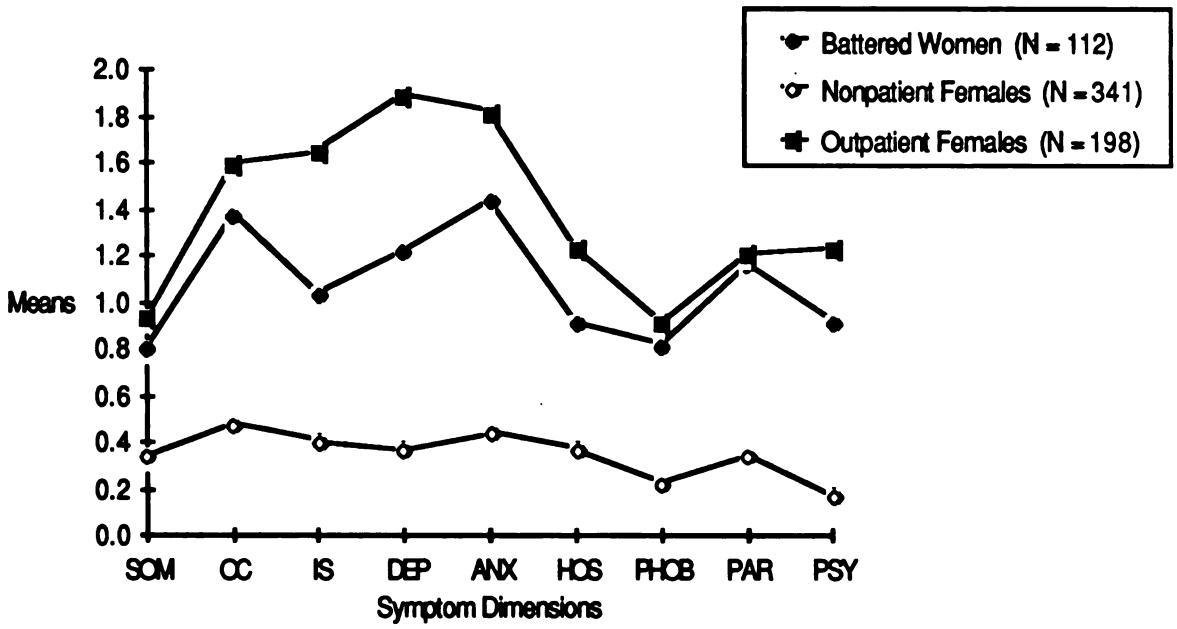

Figure 2. Comparison of BSI symptom dimension means.

In summary, when compared to normative groups where the incidence of battering is unknown, the battered women subjects of this study report a level of psychological distress (number of symptoms and intensity of distress) that is greater than the level of distress reported by a female nonpatient normative group and lower than the level of distress reported by a female outpatient normative group. At the discrete symptom level, the proportion of battered women reporting particular symptoms varied from the general pattern observed in the combined male and female normative groups. Many of these points of divergence can be directly attributed to the subjects' experience with violence.

Table 13
Raw Score Means and Standard Deviations for the 3 Global Measures of the BSI from Battered Subjects and 2 Normative Female Samples

Measure	Battered women (N=112) M	SD	Nonpatient females (N=341) M	SD	Outpatient females (N=198) M	SD
GSI[1]	1.10	0.68	0.35	0.37	1.40	0.72
PSDI[2]	1.93	0.60	1.32	0.43	2.22	0.60
PST[3]	28.38	12.08	12.86	9.97	31.80	11.351

1=Global severity index
2=Positive symptom distress index
3=Positive symptom total

Psychological Well-being

In this study, psychological well-being is conceptualized as a function of two independent dimensions: positive affect and negative affect. The grouping of the ten items of the Bradburn Morale Scale into the two different underlying dimensions of positive and negative affect was confirmed in this sample by factor analysis. A normal varimax rotation of the 10 X 10 correlation matrix resulted in two factors with eigen values greater than 1.0. The first factor loaded on items reflecting positive affect; the second factor loaded on items representing negative affect. These findings are consistent with those reported by Bradburn and Caplovitz (1965). Responses from two other study samples are used to compare with the current findings. These are from a national area probability sample with quotas (NAPSQ), and a random subsample in ten of the largest metropolitan areas from the NAPSQ (Bradburn, 1969).

As indicated in Table 14, the battered women subjects consistently responded "yes" to the feeling-state items in higher proportions than the two normative samples. Both positive and negative feeling states are reported by a higher proportion of the battered women subjects.

Table 14
Distribution of Responses to BMS Feeling-State Items (Percent "Yes") and Comparison With Two Normative Samples

Feeling-state item	Battered women (N=112)	National[a] sample (N=1469)	Metropolitan[b] sample (N=174)
Positive feeling state			
1. Pleased about having accomplished something?	84	84	83
2. That things were going your way?	74	71	65
3. Proud because someone complimented you on something you had done?	80	71	63
4. Particularly excited or interested in something?	82	54	58
5. On top of the world?	41	33	38
Negative feeling state			
1. So restless that you couldn't sit long in a chair?	67	53	56
2. Bored?	60	34	34
3. Depressed or very unhappy?	80	30	30
4. Very lonely or remote from other people?	63	26	27
5. Upset because someone criticized you?	45	18	17

[a]National area probability sample with quotas (NAPSQ), June, 1965
[b]Random subsample in ten largest metropolitan areas from NAPSQ, 1966

Subject number 15 discusses her reason for responding to the item "depressed or very unhappy":

> I've been...lonely, feeling lonely, missing my boyfriend, but not the point where I'll ever go back to him. I think that is a common thing, when you're used to being with someone, and then all of a sudden you're not....and....Looking for employment, you know, you tend after going so many places it's a real downer and you hear the same story. About, uh, the economy. And that sort of put me in a state of depression. I'm sure that I will find something. It's just that everyone is so slow. You go on one end to the other, and then you find that, uh, you're about the 15th person...who wanted to take one job. So that's the depressing part of it.

Subject 101 discusses feeling down this past week:

> Okay, this past...my ex-husband is...what he's trying to do is take all the support check money, and, um just reduce it, and that would change my entire life. So that's what's happening this past week. It's like,my life in...money ways is...changing, may change.When we went to court, uh, his lawyer asked for more time, so we have another court date in February, and in the meantime my lawyer said, um, let's, let's try and settle this out of court....He has remarried,he has a new house...and he just says he can't afford his child. And they make like almost 70,000 dollars together and here I am struggling, working extra doing all kinds of things, and he cuts back...it just would change our whole life....he makes more than twice,I do, what I do, and he,he doesn't want to pay for his child? Because his new wife, wants expensive clothes and wants to fly, her parents are in...and they go...I mean, it, to me it's just not fair. It's just not.

Subject number 5 discusses her reasons for responding to the positive item "on top of the world":

> Somebody gave me a car. Gave me a car, my...in my work, job. And...it's in good condition. There is some body who volunteered to work for the car so it would run, without any expense at all. There should only be no labor, only the parts which,which I have to...buy. So that was, this excited me.

Subject number 75 discusses some recent developments that have her feeling that things are going her way:

> Uh, yes, really in the last two weeks, uh,my ex and I are sitting down and working out the final details, of, uh, finishing our divorce, and...it involves a lot of things around the children and a lot of things around property....and that's, we're also trying, he's opened up a door that we might be able to buy him out of our house, and not have to move. And we've lived there 12 years, so we're kind of excited.

However, with 2 exceptions, the proportion of battered women responding "yes" to the positive feeling-state items is greater than the proportion responding "yes" to the negative feeling-state items. The two noticeable exceptions are the positive item "on top of the world" and the negative item "depressed or very unhappy". This difference would logically lead one to expect that positive affect would be greater than negative affect for a majority of the battered women subjects although both negative and positive affect would be high.

This expectation that positive affect would be greater than negative is confirmed by the distribution of scores on the Positive Affect Scale (PAS), the Negative Affect Scale (NAS), and the Affect Balance Scale (ABS) of the Bradburn Morale Scale. Frequency distributions of these 3 summary measures of the Bradburn Morale Scale are presented in Table 15.

Table 15
Ranges, Means, and Standard Deviations of Bradburn Morale Scale Summary Measures

Measure (N=112)	Range	M	SD
Positive Affect Scale	0-5	3.61	1.38
Negative Affect Scale	-5-0	-3.14	1.48
Affect Balance Scale	-4-4	0.49	2.05

Bradburn found the Affect Balance Scale (ABS)to be a consistent predictor of self-reports of happiness (Bradburn, 1969). Based on the ABS mean of 0.49, one would expect the proportion of battered women subjects describing themselves as happy to be slightly larger than the proportion of battered women subjects describing themselves as unhappy. As demonstrated in Table 16, while 30% and 33% of the national and Metropolitan samples

indicated they were very happy, only 7% of the current subjects responded that they were very happy. Combined with the percentage of battered women describing themselves as pretty happy, 59% of the total sample describe themselves as happy, as compared with 41% not too happy. Although the responses are consistent with the ABS mean of 0.49, this pattern is different from the pattern observed in the normative samples.

Table 16
Distribution of Reports of Happiness and Comparison With Two Normative Samples

Group	N	Percent very happy	Percent pretty happy	Percent not too happy
Battered women	108	7	52	41
National sample[a]	1469	30	53	17
Metropolitan sample[b]	270	33	59	8

[a]Gurin et al. (1960)
[b]Bradburn (1969)

The skewing toward the happier end of the scale in the national and metropolitan samples is representative of the pattern observed in a variety of samples surveyed by the National Opinion Research Center (NORC). Bradburn (1969) reports that in almost all of the NORC samples approximately one third of the respondents described themselves as "very happy" while 5 to 15 percent described themselves as "not too happy". In this study, the proportion of battered women describing themselves as pretty happy is slightly lower, but similar to the other survey samples, while the proportion describing themselves as "not too happy" is more than twice as high as the national sample and five times higher than the metropolitan

sample. The proportion of battered women describing themselves as "very happy" is four to five times lower than found in the other samples. Figure 3 demonstrates the differences in reports of happiness from the 3 groups.

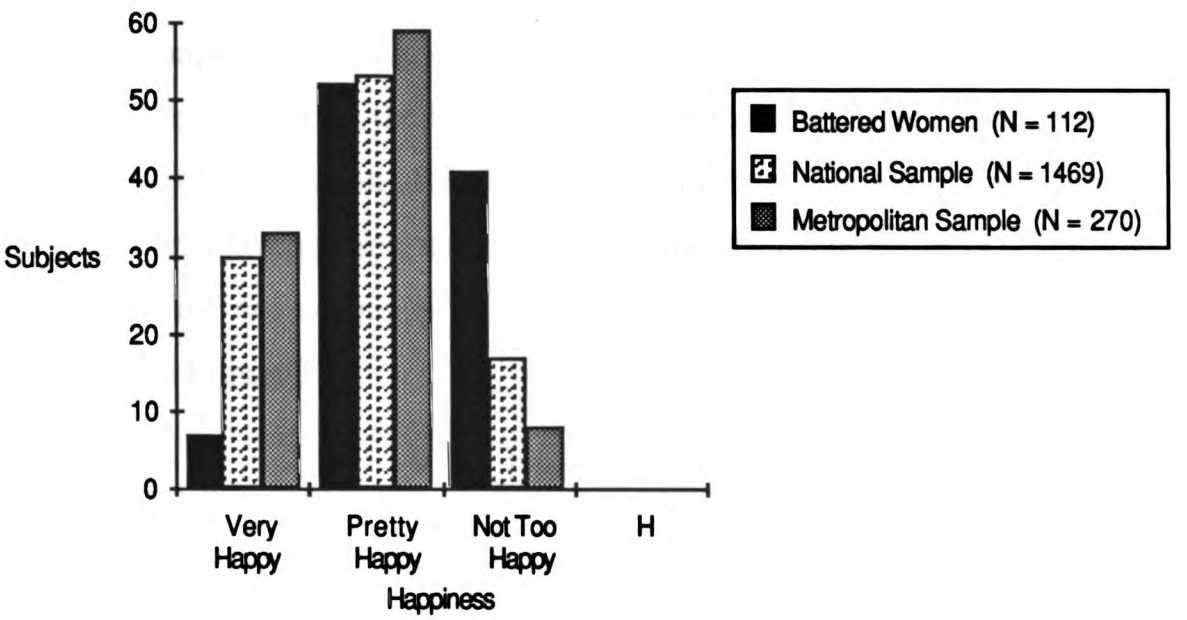

Figure 3. Comparison of reports of happiness.

That the ABS is an indicator of psychological well-being in this sample is further supported by the statistically significant correlation ($r=0.42$; $p>0.05$) between the subject's score on the ABS and her self-report of happiness. This degree of association is, however, far from perfect as demonstrated by the ABS scores of the subjects describing themselves as "very happy". One subject who described herself as "very happy" had an ABS score indicating an excess of negative affect over positive (+3; -4).

In summary, the distribution of responses on the measure of psychological well-being indicates that the battered women subjects of this

study reported high levels of both positive and negative affect, with a slightly higher level of positive affect over negative affect for the majority of subjects. Consistent with this finding, the self-reports of happiness of the study subjects indicate that the proportion of battered women describing themselves as "very happy" and "pretty happy" is slightly higher than the proportion describing themselves as "not too happy". The pattern of self-reports of happiness of study subjects differs from the normative pattern which is skewed toward the happier end of the scale in that the proportion of current subjects describing themselves as "very happy" is 4 to 5 times lower than the normative groups, and the proportion of current subjects describing themselves as "not too happy" is 2 to 5 times larger than the normative groups (see Figure 3).

Discussion

Experience with Violence.

From the detailed descriptions of violence provided by the subjects of this study, it is clear that, in spite of the self-selected character of the present study's sample, the subjects' experience with violence is comparable to descriptions of violence given by other samples of battered women (Dobash & Dobash, 1982; Giles-Sims, 1983; Straus, Gelles, & Steinmetz, 1980; Walker, 1979; Walker, 1984).

Few women needed to be pressed for details of the violence. In response to the simple question, "Can you tell me about that?", most gave elaborate descriptions of acute battering incidents, delivered with a great deal of painful affect, as if the women were reliving the abusive incident. Although I often asked the women if the experience was too painful to continue, no subject requested to terminate the interview. Especially for the women who

had never before told another person about the violence, the act of telling seemed to have some positive value. A few women expressed a sense of relief at having shared their experience with another person, and at having their story believed.

The levels of violence varied. It is significant that the actual use of physical force usually occurred early in the relationship, and was preceded, in every case, by some form of verbal or emotional abuse. It is also important to note that the physical violence occurred repeatedly in the relationships, and progressed from slaps and pushes to potentially lethal acts of violence involving the use of a knife or a gun.

Many women accepted a certain level of violence without defining the use of force as illegitimate. The women were asked, prior to being given a response card listing acts of violence K through S from the Conflict Tactics Scale (CTS), how long had they known the batterer before the first violence in the relationship occurred. After reading the response card, some women reassessed the point in the relationship at which the violence had begun. The response of Subject 75 is typical.

> if you count...pushed, grabbed, or shoved....Our honeymoon night...maybe I should go back to that....Well, I was a little nervous ...and he...was telling me I was cold and frigid toward him. Well, I was scared. I was a virgin. I didn't, you know, know exactly what to do, so he decided that what I needed was a cold shower [batterer] and gave me a cold shower....He had to push me in there. It actually hurt me, you know, doing that. I mean, no matter what, I didn't want a cold shower obviously, but he finally forced me in there, you know. "If you're going to be cold, you're going to be really cold"....I pretty much, you know, forgot about, you know, his actions and if he shouldn't have done that. But I thought, you know, I must, you know, I must be horrible. I'm being really cold to him, you know, so he had some justification to do it.

This acceptance of some types of violence as legitimate may be due to the fact that many of the subjects were raised in violent family settings, and have learned that a certain level of violence in relationships is acceptable.

Approximately half of the subjects had observed physical and/or emotional abuse between their parents, and more than half of the subjects had been abused as children. This finding lends support to the social learning theory explanation of the battering phenomenon.

While the data of the study do not address the incidence of violence against batterers by battered women, one subject did report killing her husband prior to being interviewed. The use of force by a small percentage of battered women has been previously documented (Berk, Berk, Loeske, & Rauma, 1983; Steinmetz, 1978; Walker, 1984), and situations that create a higher risk of homicide have been identified (Browne, 1980; Walker, 1984). A retrospective analysis of this woman's violent living situation indicates the presence of several factors known to increase the risk of lethality: history of physical and psychological battering, involvement of children in the violence, isolation of the battered woman by the batterer, constant threat to the woman's life, and, finally, the presence of a weapon.

This serendipitous finding underscores the importance of thoroughly assessing not only the characteristics of the violence confronting the battered woman, but also her ability to cope with her situation. Although battered women who kill do so for a variety of reasons, the use of lethal violence seems to be a last resort in the woman's attempt to protect herself and her children from physical and mental harm (Browne, 1980; Jones, 1980; Walker, 1984). It is this researcher's opinion that part of that assessment needs to address the battered woman's level of psychological adaptation. In this study, the two indications of psychological adaptation used are the battered woman's psychological symptom status and her subjective sense of psychological well being.

Psychological Symptom Status

From the perspective of Roy's model, psychological symptoms exhibited by the subjects of this study represent a behavioral response designed to deal with the battering situation through the self-concept mode. The purpose of this response is to minimize anxiety and meet the battered woman's need for psychological integrity. Since the symptoms also loop through a feedback system, effectively becoming the stimulus for further action, the psychological symptoms-as-stimuli, in combination with the other stimuli confronting the woman, constitute the need for change (see Figure 1, p. 11).

By logical extension of this model, one could anticipate the presence of a certain level of psychological symptoms in battered women, and assume that, to a highly individualized point, these psychological symptoms would not interfere with her ability to adapt in the battering situation. The data of this study lend support to Roy's Adaptation model.

Consistent with Roy's model, the battered women subjects of this study report a higher level of psychological distress than a female nonpatient normative group where the incidence of battering is not known. It is important to note that, although the battered women subjects of this study report a larger number of symptoms and intensity of distress than that reported by a nonpatient female normative group, the level of psychological distress was lower than that of the female outpatient normative group. It is also important to note that while the incidence of battering is unknown in the two normative groups, many of the points of divergence are attributable to the experience of abuse. While cause and effect relationships cannot be determined from the data of this study, these findings lend support to assertions that battered women develop psychological sequelae as a result of the experience of abuse (Browne, 1980; Walker, 1979, 1984).

The findings related to psychological symptom status in battered women uphold Rosewater's (1982) conclusions that if the influence of having to cope with battering is not recognized, battered women can easily be misdiagnosed as having serious mental illness. For example, a fear of traveling on public transportation may be reasonable for a battered woman. If her battering mate lives in the same city, uses public transportation (or knows she will be dependent on public transportation because he has the family car), is trying to find her, and has told her, repeatedly, that he will kill her if she ever leaves him, the fear may be a reflection of the reality of the battering situation, rather than an agoraphobic symptom.

However, a few of the battered women subjects in this study were, in my clinical judgment, exhibiting behaviors indicative of severe emotional disturbance at the time of the interview. One additional woman had previously been seen by me in a different setting, as an abused woman, in an apparent psychotic episode. In response to gentle probing, it became apparent that she had no recollection of that contact, or of the entire episode. However, at the time of this interview, she was not exhibiting a level of psychological distress that seemed inappropriate to her circumstance, and she was functioning in the community. Since the BSI has been used as a screening measure for psychiatric disorder (Derogatis & Spencer, 1982), and a provisional definition of "caseness", the score on the BSI selected to define a psychiatric case, has been roughly developed, I attempted to validate my clinical observations with the BSI.

Analysis of the BSI results of all five women who were exhibiting severe emotional disturbance indicated that their BSI scores fell within Derogatis' operational definition of "caseness". On the surface, this would seem to support my clinical observations. However, the woman who was not

currently exhibiting distress that seemed inappropriate to the situation, also fell within Derogatis and Spencer's (1982) definition of "caseness". Further analysis of the results of the BSI for all study subjects indicated that approximately 80% of the battered women subjects of the study fell within Derogatis and Spencer's definition of "caseness", in spite of my clinical assessment of their behavior as appropriate, given the violent living circumstances of their lives. Had these women been seen under circumstances similar to those described by Hilberman and Munson (1977-78), all these women would have been referred for psychiatric care.

This finding underscores the need for the administration of standardized instruments to be accompanied by a thorough and accurate history with special attention to any history of domestic violence, and perhaps the assessment by a clinician with an expertise in the physical, mental, and emotional health consequences of exposure to violence, of any client with a history of victimization. There are also implications for the need to develop standardized instruments that will assist the clinician in determining the point at which the battered woman's response to violence indicates an inability to adapt in the battering situation, and, perhaps, the establishment of norms for existing instruments that are specific to women victims of violence. To underscore the question implicit in the literature, what is the percentage of female psychiatric patients who are battered women in whom the influence of having to cope with violence is not recognized?

Psychological Well-being

The instrument used to measure well-being in this study, the Bradburn Morale Scale (BMS), operationalizes the assumption that, despite negative life circumstance, mental health, or a sense of well-being, is possible if

positive events also occur and out balance the negative events. Applying this assumption to the situation of battered women, one could assume that in spite of the necessity of dealing with a constantly changing and unpredictable violent living situation, and in spite of feelings of psychological distress, it is possible that other positive events occurring in the battered woman's life can outbalance the violence and the psychological distress. The results of the BMS in this sample of battered women support that assumption.

As expected, the battered women subjects of this study reported high levels of negative feelings. However, they also reported high levels of positive feelings. In general, the positive affect reported was greater than the negative affect reported, although, when compared to normative groups where the incidence of battering is unknown, fewer battered women reported "feeling on top of the world" and more battered women reported feeling "depressed or very unhappy". Consistent with this finding, the percentage of battered women describing themselves as "happy" and "very happy" is slightly higher than the percentage who describe themselves as "not too happy". Roy's Adaptation model helps to explain this finding.

Roy's model emphasizes the crucial role of perception in adaptation. According to Roy's model, the cognator and regulator act in relation to each other, and to each of the adaptive modes, through perceptions. Applying Roy's model, we see that this excess of positive affect over negative affect is indicative of the process of adaptation through the self concept mode.

The self concept mode organizes the social experiences of the battered woman in a manner that minimizes anxiety, and allows her to continue dealing with other stimuli. The events of her life are perceived in a manner that maximizes her ability to continue coping with the abusive situation, and preserves the woman's psychological integrity. The crucial role of

perception is demonstrated in subject 5's response to the item "on top of the world".

Rather than focus on the fact that she received a car that was not in good running condition, the subject chose to perceive the positive aspects of the events. She was given a car; someone volunteered to put the car in running order with no charge to her for the work done; and she would soon be more mobile and less dependent on public transportation. This positive response to the situation loops back through the feedback system (see Figure 1, p. 11), and becomes further stimulus for the maintenance of psychological integrity.

A negative perception of the event could have operated through the feedback system to increase anxiety which, added to the effect of other noxious stimuli, might place the cumulative effect of the stimuli outside the woman's zone of adaptation and lead to further maladaptive behavior.

The crucial role of perception has been addressed by Lazarus (Lazarus, 1977; Goleman, 1979) who stresses the positive value of the processes of denial and illusion in heathy coping, in certain situations. Rather than define denial as a process that leads to, or is indicative of, pathology, Lazarus points out that denial is a cognitive coping mechanism that can continue to make life worthwhile for the individual facing a stressful life situation (Lazarus, 1977). Other studies support this view (Hackett & Weissman, 1977; Horowitz, 1979; Andreasen, Noyes & Hartford, 1977), and add that perhaps it is early in the life crisis that denial serves the coping process best, allowing the individual to marshall other resources to assist in dealing with the situation (Figley & Sprenkle, 1978; Hogancamp & Figley, 1983; Sprenkle & Cyrus, 1983).

Clinical observations of battered women further demonstrate the healthy coping functions of denial and illusion. In the midst of the confusion that

sometimes reigns in a shelter housing ten women and their children, no child's birthday or family holiday passes without celebration. While negative feelings also exist when women remember other, happier days, the festive spirit of celebration is also expressed, and for a period of time, simple pleasures and safety out balance the negative aspects of disrupted homes and concern about future safety.

I believe it is necessary to underscore Lazarus' (1977) statement that denial can be a feature of healthy coping in some situations, but not in all situations. Especially with battered women, extreme denial can be dangerous. The woman who denies the reality that her life and the lives of her children are in extreme danger, while continuing to place herself and her children in the threatening situation, is different from the woman who uses denial while physically safe in the shelter. Shortly after she has carried out the decision to move to safety, denial can keep up a battered woman's morale during a time when she is extremely vulnerable. Later, she can slowly assimilate the reality of her situation and use more functional means of coping.

The statistical relationships that exist between the woman's exposure to violence, her psychological symptom status, and her level of psychological adaptation will be discussed in Chapter Six. The next chapter, Chapter Five, describes the characteristics of the subjects' social networks, and describes the supportiveness of the network as perceived by the subjects of the study.

CHAPTER FIVE
THE SOCIAL SUPPORT SYSTEMS OF BATTERED WOMEN

This chapter of the dissertation contains the description of the structure and supportiveness of the social networks of battered women. More specifically, the first section describes the characteristics of the subjects' social networks: the characteristics of the network structure, as well as the characteristics of the component linkages. The second section describes the supportiveness of the network as perceived by the subjects of the study. Research questions 3 and 4 are answered using quantitative and qualitative data.

Characteristics of Social Networks

Research question 3 asks, "What are the characteristics of the social networks of battered women?" Subquestions 3a through 3e focus on the structural characteristics of size and density, and on the characteristics of the component linkages: multiplexity, reciprocity, and frequency of contact. The influence of recent loss on the size of the network is also briefly explored.

Size of Network

Research question 3a asks "What is the range of size of the social networks of battered women?" This question is answered by 1) describing the size of the social networks of the sample of battered women subjects and 2) comparing the finding to an employed, nonclinical sample of women where the incidence of battering is unknown (Norbeck, Lindsey, & Carrieri, 1983).

Subjects responded to the instruction, "Please list each significant person in your life. Consider all the persons who provide personal support for you

or who are important to you for any reason, positive or negative". The number of members listed in the battered women subjects' networks ranged from 1 to 35 with a mean number of 11.77.

Table 17 compares the size of the networks of the study subjects with network size of a nonclinical sample of employed women where the incidence of battering is unknown (Norbeck et al., 1983). Comparison of the means of these two independent samples indicates that the mean number of network members for each sample is not statistically significantly different ($p<.05$). The range of size for the known battered sample is broader than the range for the comparison group. A brief description of the smallest and largest networks may illustrate some of the differences between the networks.

Subject number 32 was the only subject reporting a social network with one member, her battering mate of eight years. The subject was a 30 year old unemployed black woman; the batterer was her unemployed ex-husband. The exclusion of all others from her life after the first year of the relationship was described as gradual, with severe beatings occurring in response to her involvement in activities outside the relationship. In spite of being legally divorced from the batterer two years prior to the interview, she had literally spent 24 hours a day in his company for an extended period prior to entering the shelter. The shower she took after entering the shelter 2 weeks prior to the interview was her first shower alone in years.

Subject number 71 was the only subject reporting a network of 3 members: her son, a female friend, and her mother. The subject was a 40 year old employed black clerical worker who had lived in the Bay Area for more than 10 years. The subject's son was currently living back East with

her mother. The female friend was also her roommate whom she had met during her stay in the shelter for abused women.

On the other end of the continuum, subject number five, a 51 year old employed Filipina factory worker reported a social network with 35 members: 23 family members including 9 children, 2 step-children, 5 siblings, 2 in-laws, and 5 cousins, and 12 friends. Although all of her 9 children and 5 siblings were still living in the Philippines, she considered them an important part of her network.

Subject number 3, a 29 year old employed caucasian laborer, reported a social network with 27 members. The network consisted of 10 family members, 11 friends, and 6 current work associates who the subject considered to be important sources of personal support.

Network Loss

Table 17
Comparison of Means, Standard Deviations, and Range of Scores on Loss Variables

	Battered subjects (n=110)			Comparison group[a] (n=89)		
Variable	M	SD	Range	M	SD	Range
Size	11.77	5.68	1-35	12.39	5.09	2-20
Recent loss[b]	0.80	0.40	n/a	0.44	0.50	n/a
Loss quantity[c]	7.89	15.01	0-114	1.09	1.59	0-6
Loss quality[d]	1.87	1.53	0-4	1.16	1.54	0-4
Total loss	10.56	15.69	0-118	2.69	3.38	0-11

[a]Norbeck et al., 1983.
[b]Data dummy coded 0=no and 1=yes.
[c]Number of categories checked; 9 possible.
[d]Based on 5-point rating where 0=none to 4=a great deal.

The loss of network members as a result of attempts to deal with the abusive situation is a common phenomenon reported by study subjects. Approximately 82% of the present study subjects reported the loss of one (n=26) or more (n=66) network members over the year previous to the interview.

Compared to an employed, non-clinical sample of women where the incidence of battering is unknown, the battered women subjects of this study reported recent loss of network members more often, and sustained significantly greater levels of loss. Total loss for the battered women subjects was nearly 5 times greater than the total loss sustained by the comparison group (Table 17).

Density of Network

Research question 3b asks "What is the density of the relationships in the social network of the battered woman?" This question is answered by describing 1) the overall density of the social networks of the battered women subjects of the study, as well as 2) the density of the family network, 3) the density of the friendship network, and 4) the density of the boundary between the family and friendship networks. Indices of density ranged from .00, indicating no linkages, to 1.00, indicating that all possible linkages among network members existed. In Table 18, the mean and standard deviation for each of the density measures from this sample of battered women is compared with that of a sample of other women who are coping with major life changes (Hirsch, 1980).

The mean index of family network density was higher than the comparison group, while mean indices for overall network density were comparable. Friendship network density was lower in the battered group.

In summary, when compared to a nonclinical sample of employed women where the incidence of battering is unknown, the battered women subjects of this study lived in networks similar in size, but sustained greater levels of recent loss, usually related to attempts to deal with the violence. Family networks were found to be quite dense, while overall network density was low.

Table 18
Comparison of Mean Network Density

	McKenna[a]		Hirsch[b]	
Network	n	M	n	M
Family	111	.66	34	.59
Friend	110	.17	34	.23
Boundary	110	.07	34	--
Overall	110	.27	34	.26

[a]McKenna, 1985 (N=112)
[b]Hirsch, 1980 (N=34)

Multiplexity of Relationships

Research question 3c asks, "What is the multiplexity of the relationships in the social networks of battered women?" The complexity of the subject's relationship with a network member was determined by the response to the questions: "How do you know [member's name]?", and "What do you and [member's name] do when you spend time together?". Table 19 describes the multiplexity of the relationships between the battered woman subject and the members of her network list. On the average, a slightly higher percentage of multiplex relationships (56.1%) are reported over uniplex (45.3%).

Multiplex relationships with network members are described in the following responses.

...we work together, uh, I work for him....a sexual relationship. Uh, we go boating. He takes my kids all kinds of places. (Subject 3)

Oh, we've done a lot together. I've lived with her for a couple months....we usually go out to lunch....I've worked with her. (Subject 10)

...is my chauffeur, she's a listener, she's...a good friend all the way around. We enjoy...time together...playing cards, all different games, we go out together. We're going out...dancing. Sometimes we just sit and talk. Sometimes we go shopping. She's a big part of my life right now. (Subject 33)

The following responses were used to describe uniplex relationships with network members.

She's my boss. Just employee-employer. I feel she's really important to me because she's....I got a job because of her. (Subject 3)

I usually don't spend that much time with her. I call her once in a while. I've turned to her for help, because I needed, in a sense, you could say I needed to use her. It's hard to say that, but it was the truth. I needed her as, a place to stay so I can get me some help. I had nowhere else to turn to, so I turned to her. She's needed me before and I've helped her out. But we're not close at all. We're not close at all. (Subject 33)

Nothing....He's just there. (Subject 52)

Table 19
Multiplexity of Relationships With Network Members

Multiplexity (N=102)	M(#)	M(%)
Uniplex	5.2	45.3
Multiplex	6.0	56.1

In contrast to the majority of relationships with other network members, more than one-half of the battered women subjects reported uniplex relationships with their abusive mates (Table 20).

The following response describes a multiplex relationship with the batterer:

> Oh, we ran together, we used to jog together....Uh, windsurfed together, played music together, uh...went camping, did a lot of driving around in the car together. Got high together. Went to school together....We worked together too. (Subject 10)

The following responses were used to describe uniplex relationships with the batterer:

> We talk....To me it's more like talking to a wall....And the next day it's like I didn't, never even had the conversation. I mean...it's like it goes in one ear and out the other, you know. (Subject 33)

> ...most of our visits consist of him coming over and paying me the support check and visiting with the kids a little while and leaving. (Subject 75)

Table 20
Multiplexity of Relationship With Batterer

Multiplexity (N=96)	M(#)	M(%)
Uniplex	56	54.4
Multiplex	47	45.6

Reciprocity of Relationships

Research question 3d asks the question, "What is the directedness or reciprocity of the relationships in the social network of the battered woman?" The reciprocity or directedness of the subject's relationship with a network member was determined by the response to the question, "Do you consider

this a relationship where you primarily give, where you primarily receive, or where there is a mutual and equal exchange?" Tables 21 and 22 summarize the subjects' responses to this question.

Table 21
Reciprocity of Relationships With Network Members

Direction (N=102)	M(#)	M(%)
Reciprocal	7.05	61
Ego focus	2.16	20
Other focus	2.03	18

On the average, a significantly higher percentage of reciprocal relationships (61%) with network members was reported by the battered woman subjects of this study, over those relationships where the subject is the recipient of the exchange , or where the other is the recipient of the exchange (Table 21). In contrast to the relationships with other network members, less than 20 percent of the subjects reported relationships with their batterers in which there was a mutual and equal exchange (Table 22).

Table 22
Reciprocity of Relationship With Batterer

Direction (N=96)	M(#)	M(%)
Reciprocal	19	19.8
Ego focus	4	4.2
Other focus	73	76.0

Frequency of Contact

Research question 3e asks , "What is the frequency of contact with network members that occurs in the social network of the battered woman?"

Table 23
Comparison of Battered Subjects' Average Frequency of Contact* Scores With Two Normative Groups

Measure	Norbeck et al. 1981 (N=75)	Norbeck et al. 1983 (N=136)	McKenna 1985 (N=112)
Mean contact	42.77	44.02	41.96
S.D.	15.36	23.89	19.27
Range	14-78	8-94	.5-121
No. in network	13.00	11.85	11.77
Average contact*	3.29	3.62	3.56

*1=once year or less; 2=few times a year; 3=monthly; 4=weekly; 5=daily.

Table 23 compares the frequency of contact of the battered women subjects of this study with data from two normative samples. The average frequency of contact with individual network members was calculated by dividing the mean contact score (41.96) by the mean number of members in the subjects' networks (11.77). The average frequency of contact with individual network members was weekly to monthly (3.56). This weekly to monthly frequency of contact is comparable to the level of contact in a nonclinical, employed sample of women where the incidence of battering is unknown (Norbeck et al., 1983).

Within each category of network member, the average frequency of contact score varies. As seen in Table 24, the battered women subjects of this study had contact with neighbors, mates, and school or work associates (weekly to daily) more frequently than they had contact with family or

relatives and friends (monthly to weekly). This finding is different from the Norbeck et al. (1983) comparison group where friends accounted for the most contact followed by family or relatives.

Table 24
Mean Frequency of Contact* Scores by Source of Support Category

Category	n	Mean
Spouse/partner	51	4.30
Family/relatives	105	3.61
Friends	101	3.62
Work/school associates	21	4.12
Neighbors	14	4.48
Health care providers	6	2.72
Counselor/ therapist	31	3.51
Minister/priest/ rabbi	15	3.17
Other	33	3.23
Battering mate	107	4.03

*1=once year or less; 2=few times a year; 3=monthly; 4=weekly; 5=daily

To summarize the characteristics of the social networks of the battered women subjects of this study, the social networks described ranged in size from 1 to 35 members with an average of 11 to 12 members. The family networks were found to be quite dense, while overall network density was low. On the average, subjects lost 7 to 8 network members in the year preceding the interviews, usually related to attempts to deal with their violent living situations. The relationships between subjects and network members tended to be multiplex relationships in which there was a mutual and equal

exchange. In contrast, relationships with abusive mates tended to be uniplex relationships in which the battered woman subject was primarily giving to the batterer. On the average, subjects had contact with network members on a weekly to monthly basis, contacting neighbors, mates, and school or work associates more frequently than family or relatives and friends.

Supportiveness of Network

This section describes the supportiveness of the social networks' as perceived by the subjects of the study, responding to research question 4.

Sources of Support

Research question 4a asks "What are the sources of support available to the battered woman in her social network?" This question is answered by 1) describing the sources of support listed in the NSSQ, and 2) describing the relative contribution of each source of support category in the network.

In scoring the NSSQ, sources of support are coded into nine categories. As summarized in Table 25, the source of support category reported by the greatest number of subjects was family or relative (94.6%). The category of friends was the second most frequently reported source of support (90.2%).

The mean scores on Table 25 reflect the relative contribution of each source of support category in the network. The highest mean number of persons listed in the network was for the family or relative category; the second highest was for friends. The frequency distributions for these categories showed that 43.7% of subjects listed six or more family or relatives, and 22.3% listed six or more friends in their networks. Some subjects listed as many as 19 family or relatives or 13 friends.

In contrast to the large numbers of relatives and/or friends listed in the subjects' networks, approximately 80% of the subjects did not list anyone in

categories of work or school associates, or neighbors. Although approximately 50 percent of the subjects described themselves as active in

Table 25
Mean and Range for Each Source of Support Category and Percentage of Subjects Listing Source

Source of support (N=112)	M	Range	In network list
Spouse/partner	0.46	0- 2	45.5
Family/relatives	5.51	1-19	94.6
Friends	3.75	0-13	90.2
Work/school associates	0.34	0- 5	18.7
Neighbors	0.25	0- 6	12.5
Health care providers	0.07	0- 3	5.4
Counselor/therapist	0.41	0- 8	27.7
Minister/priest/rabbi	0.15	0- 2	13.4
Other	0.46	0- 5	29.5

their religion, fewer than 15 percent listed the category minister/priest/rabbi as a source of support. Approximately 30 percent of the subjects included counselor or therapist in the network list, but only 5 percent of subjects included health care providers.

In summary, the major sources of support for the battered women subjects of this study are family or relatives and friends. On the average, subjects listed five to six relatives or family members and three to four friends in their networks. Although other categories of network members were also listed, they were not consistently reported as major sources of support.

Table 26
Means, Standard Deviations, and Range of Scores on NSSQ for Battered Subjects and Comparison Group

	McKenna (N=112)			Norbeck et al.[a] (N=89)		
Subscales and variables	M	SD	Range	M	SD	Range
Affect	62.09	33.69	5-245	101.48	44.65	14-196
Affirmation	56.82	32.57	5-238	92.52	40.64	11-194
Total emotional variable	118.91	65.11	10-483	194.00	85.29	25-390
Aid	48.01	34.62	3-280	87.18	39.93	18-197
Total functional variable	166.53	96.18	18-763	281.18	121.53	43-567
Number listed	11.77	5.68	1-035	12.39	5.09	2-020
Duration of relationships	46.87	24.60	5-151	54.70	22.71	10-100
Frequency of contact	41.96	19.27	5-121	44.84	18.31	8-082
Total network variable	100.51	47.52	11-307	111.93	44.71	20-199
Recent losses	.80	.40	n/a	.44	.50	n/a
Loss quantity	7.89	15.01	0-100	1.09	1.59	0-006
Loss quality	1.87	1.53	0-004	1.16	1.54	0-004
Total loss variable	10.56	15.69	0-104	2.69	3.38	0-011

[a]Norbeck, Lindsey, & Carrieri, 1983.

Type and Level of Support

Research questions 4b and 4c ask respectively, "What types of support are available to the battered woman through her social network?", and "What level of support is available to the battered woman through her social network?"

The NSSQ measures three components of supportive interactions: affect, affirmation, and aid. Subscores for each of these components were obtained and combined to form the variable Total Functional Support. The subscores were later consolidated into two broad categories of emotional support, composed of affect and affirmation, and tangible assistance, corresponding to aid. The mean values on Table 26 reflect the ratings on each type of support for the entire network list and compare those values to values from a nonclinical sample of employed women where the incidence of battering is unknown. In each support category, the comparison group reported higher levels of support available to them through network members.

The level of support per person was calculated by dividing the mean score (for Total Functional Variable) by the mean number of persons in the subject's network and correcting for the number of questions in each subscale. The average ratings per person are: affect, 2.64 (a little to moderately); affirmation, 2.41 (a little to moderately); and aid, 2.04 (a little). The average ratings per person for the comparison group are: affect, 4.02 (quite a bit); affirmation, 3.71 (moderately to quite a bit); and aid, 3.56 (moderately to quite a bit). The comparison group's level of support is consistently higher than that of the battered women subjects of this study.

Situation Specific Support

Research questions 4b and 4c are further answered in this section by summarizing the respondents' responses to the questions designed to elicit information about the situation specific support available to the battered woman subject in her attempts to deal with the violent situation.

For each member listed in her social network, the subject was asked the following questions. "Does [network member] know about the abuse in the relationship with your mate?"; "How does [network member] respond to your being battered?"; "Does this response make it easier or more difficult for you to deal with the situation?"; "How does this response make it (easier or more difficult)?" If a response was assessed by the respondent to make it easier for her to deal with her situation, the response was scored as supportive; if a response was assessed by the respondent to make it more difficult to deal with her situation, the response was scored as nonsupportive.

Examples of behaviors assessed by the subjects to make it easier for them to handle the situation are:

> She cared, she told me she cared, uh, she asked me if I needed anything. She asked me how I felt, why I felt that way....I just blubbered all over her on the phone. She said, "OK, I want you to tell me something. What is the most important thing you want right now? The most important thing. If you could, if I could give it to you right now, tell me the most important thing you would ever want." And so I told her what I wanted, and that was that I don't want him to bother me, I want me and my baby to be happy. I want to be able to support us, you know, meet a nice man, you know, have a relationship without the physical...and I'm blubbering and all this....oh, but God, it felt good. And she said that she understands....That was really great. (Subject 2)

> ...first of all, he thinks it's horrible that any man should, should hit a woman. He considers, he says, well, it's easy for any man to scare a woman. He said that. And he and a friend of his went over and talked to [batterer] about not coming over or bothering me on the telephone. He's talked to [batterer] on the phone to tell him to leave me alone...just

generally, uh, he's totally against it. He's against violence....He makes me know that this is not the way it should be. You know, I don't have to be hit. (Subject 10)

He says he's a real...and what the hell did I ever take him for, you know. [chuckles]....It makes it easier. Because he understands, he gives me a helping hand. He'd give me a ride if I needed it, you know, things like that. If they can. Where so much of they're, you know, mother and baby and everything, you know, they can't do much for me, but moral support is...good enough. (Subject 14)

Examples of behaviors assessed by the subjects to make it more difficult for them to handle the situation are:

Uh, she says she can't understand why anybody would put up with it. And when she says that to me, I, I get so angry with her because I say, "Mom, how can you sit there and say that to me....She says, "Well, I was definitely not as mature as you are now," uh, "Things were harder then," you know, there are always excuses. And I'll tell her, "Mom, you're making excuses." And, uh, she said, "Well, you know, I eventually did get out of it."...making me feel that it was my fault, you know....I think it makes it more difficult because, I mean, she handl, she tolerated it for 17 years, you know, why can't I? You know? Uh, it makes me feel like maybe I'm copping out too early, you know. Maybe I'm being a baby...."Oh, he hit me," you know...I don't know....I mean, I don't want to be, I don't want to be like a crybaby, you know. (Subject 4)

First of all, she didn't want to talk about it at all. You know, it was just a taboo subject. "Do not talk about [batterer] in front of me." Well, it just hurt her. She didn't want anything to do with it. It really bothered her that I would be, you know, going with a man who was like that....So she didn't want me to talk about him. Which made it harder for me because I wanted to, I wanted to. Because there were times when [batterer] and I were having a good relationship, where I thought things were going pretty well....I couldn't even mention his name. (Subject 10)

Uh, because she seemed to want me to, to stay in the relationship and to fix it at all costs. It was my, it was my prerogative to be able to do that. My choice to be able to fix it, because it was my, obviously my behavior that was causing it. Or I should be able to be super-woman and fix it. Because marriage, keeping a marriage together, was the most important thing. I was safe now. Financially, supposedly I was being taken care of. And that's all she ever really wanted for me was to get married and

> get settled someplace, apparently so she doesn't have to worry about me, but yet she never...exhibits worry. (Subject 18)

As indicated in Table 27, approximately 80% of the members listed on the network list knew about the abuse taking place in the relationship. The women often described not telling network members about the abuse as a strategy to avoid a response that would make it more difficult to handle the abusive situation.

> I think he would want me to get out of the relationship....He would be just so disappointed in [batterer]. Even if I...got to get a divorce, that would....He'd just couldn't, I don't think he could handle....easier, not telling him. It would just....it would make my decisions more difficult because...both he and my mother would come up and get involved and I have to make my decisions, myself....come up and become protective and try to take over...and I would tend maybe to regress back to childlike situation, and I don't want that. I want to handle my own situation. (Subject 9)

> Well, I just started working with them and I really don't want them to know, because first of all: I feel that if they knew, that they would hesitate on having me work for them....let me continue working for them....they don't want, wouldn't want me to create or have a scene created at the restaurant because of [batterer]....Which is possible, you know, he could go over there some night and just really raise hell. I don't think he would, but...there is a possibility that that could happen. (Subject 10)

> Uh, I'm a very private person. I never wanted anybody to know that there was anything wrong. So therefore, I've never discussed it with anyone. This is the first time I've discussed it, and the reasons are the same....It was always that I had this, it was always our business, it was our dirty laundry, so I kept it in confidence. (Subject 29)

Of the 80% of network members who knew about the abuse, 55% responded in a manner that was perceived as supportive by the woman, and 27% responded in a manner perceived as nonsupportive. 5% of network members responded in a manner that was sometimes perceived as supportive and sometimes perceived as nonsupportive (Table 27).

Table 27
Situation Specific Supportiveness of Network

Group	M % # listed	M % # know
Know	80	--
Support	45	55
Nonsupport	--	27
Both	--	5

Examples of behaviors assessed by the subjects to be both supportive and nonsupportive are:

> ...she was very friendly to begin with and, of course, when I got there my eye was blackened. She was willing...told me I could stay....she only had a studio....I had a green duffel bag and I asked her, was there someplace I could hang my things? She said, "OK, I'll find you something."....I stayed with her for two weeks and...I never had any place to hang my clothes. They were all rolled up in the duffel bag, and like I said, she was nice in the beginning, but then I got a, a job...and it seems as though as soon as I began to build myself up...She was trying to rip me off. She was telling me I've got to pay this and I've got to pay that, you know, and I had given her, uh, $50....Um, before it was over she had just turned ice cold. See, the only thing I can think of, when people see you're down, they're happy. Not, not all of them, but I think that was her case. She saw, when I was first there I was really down and, uh, then once I got a job and started working, she just,her personality just changed. (Subject 15)

> ...she doesn't think I should be, ever go back in the relationship like....she'd say I'd be stupid if I ever went back....I really appreciate her support and I understand where she's coming from, hating the abuse situation herself, because of her father being an alcoholic and so forth. I can understand where her...where she's hurting in a sense, you know. And probably liking me as a friend, enjoying me as a friend, wouldn't want me, to see me go through this....I understand that. But...I also make it very clear that she understand me as a person. I make my decisions, what pleases me, or what I think best. I just don't take people's advice in the sense and live it. I, I listen to people's advice...and

> then relate it to my own situation and my own life and see if it fits. I do learn things that way. But I do make my own choices. It ticks [her] off sometimes, but...then she'll tell me I have no right to tell you what to do. In other words, she's understanding. (Subject 33)

To summarize the perceived supportiveness of the social networks of the battered women subjects of this study, the major sources of support are family or relatives and friends. Other categories listed are not perceived as major sources of support. Although emotional support and tangible assistance are available to the subjects, the level of support in both areas is consistently lower than that available to a nonclinical sample of employed women where the incidence of battering is unknown. Less than one-half (45%) of the total network knew about the abuse taking place in the relationship and responded in a manner that made it easier for the subject to handle the abusive situation. While some network members (27% of those who knew about the abuse) were consistently nonsupportive of the subject specific to her abusive situation, some (5%) responded in a manner that was sometimes perceived as supportive and sometimes seen as nonsupportive. Not telling some network members about the abuse is often described as a strategy to decrease the nonsupportive response of network members to the abusive situation.

Discussion

Consistent with my impressions of the social networks of battered women seen in other settings, there is a wide range of variability in the size and supportiveness of the social networks of this sample of battered women. This significant finding documents that although some battered women do live in constricted networks, battered women do not, as a group, live in social isolation.

The average number of members in the social networks of this sample of battered women was similar to the average number of members in the social networks of a comparison group of women where the incidence of battering is unknown.

It is also important to note that the average contact of battered women with individual network members is comparable to the frequency of contact reported by the comparison group. The daily to weekly contact with neighbors, mates, and school or work associates reported by this sample of battered women further refutes Gelles' (1974) assumption of social isolation.

However, the total loss experienced by the battered women subjects of this study is nearly 5 times greater than the loss sustained by the comparison group. It is important to note that although the loss was great in this sample of battered women, it did not appear to create a condition of social isolation for most subjects. Recent loss was usually related to an attempt to deal with the violence in the relationship. Some battered women divorced or separated from their battering mate in an effort to end the violence. Similar to other populations experiencing divorce and separation, the women often experienced a change in friendship patterns (Berman & Turk, 1981; Miller, 1978; Spanier & Castro, 1979; Weiss, 1975), and decreased contact with the battering mates' family members (Anspach, 1976) as a consequence of the decision to divorce or separate. Unique to this population is the experience of some women who found it necessary to sever most network ties and to relocate geographically to insure their physical safety. The data indicate that the size of the network in this subgroup was smaller immediately following the move, but, similar to Hoff's (1984) findings, members were replaced as time passed.

Nearly four-fifths of the study sample indicated the presence of a confidant with whom they could discuss the events of, and their feelings about, the abuse in the relationship. If, as in Lowenthal and Haven's study (1968), the presence of a confidant is more important than the size of the battered woman's social network, then even the subgroup of battered women who voluntarily isolate themselves for safety's sake, but who keep a confidant, might achieve or maintain adaptation in spite of great social losses.

The pattern of relationships with network members were a contrast to those with the battering mate. While relationships with battering mates were often described as uniplex, and were characterized by the women as relationships in which they were required to give more than they received, relationships with network members tended to be described as multiplex, involving a mutual and equal exchange.

For those of us concerned about the mental health of battered women, these findings are positive. Interpersonal relationships do exist, and it is within the context of these relationships that social support may be provided. However, the findings related to the battered women's perceptions of the supportiveness of their social networks are less positive.

The members of the family network are identified as a major source of support for the battered women in this sample. The family networks of the battered women subjects of this sample were also found to be quite dense, a finding negatively associated in other samples with adequate support (Hirsch, 1979; Hirsch, 1980; Wilcox, 1981). As expected, the level of emotional support and tangible assistance perceived as available to the battered women through their social networks is consistently lower than that of the comparison group.

It is interesting to note that the most frequent contact with network members is not with either family or friends, the two categories identifed as a major source of support. This apparent underutilization of at least one major source of support may be interpreted as a behavior designed to avoid support for the traditional values around marriage, as opposed to support for change (Bott, 1971; Hirsch, 1980; Wilcox, 1981).

The importance of this finding to those assessing the adequacy of support of battered women, especially those who chose to deal with the violence in the relationship by divorce or separation from their battering mate, cannot be minimized. The observed change in friendship patterns and decreased contact with others outside the battered woman's own family network may create a situation in which the support available to her is antithetical to her needs. In that group of women, network interactions, especially with family members, may become a source of stress rather than of support.

The findings related to situation specific support of the battered woman, as she deals with the battering, indicate that the interpretation of some network interactions as a source of stress rather than support (Fiore, Becker, & Coppel, 1983) may be valid in this population. While 80% of network members were told about the abuse in the battering relationship, slightly more than one third of those who knew about the abuse responded in a manner perceived by the battered woman as nonsupportive or inconsistent. The strategy of not telling some network members about the abuse is interpreted as an adaptive behavior whose purpose is to decrease the nonsupportive or inconsistent response and thereby decrease the noxious stimuli of unmet support expectations. The following application of Roy's Adaptation model clarifies this interpretation.

The battered woman seeks to meet her needs for nurturance through the interdependence mode. The battered woman's need for support as she deals with the battering relationship is not consistently met by some network members. Applying Figure 1 (see p. 11), these unmet needs for nurturance loop through the feedback system, effectively becoming the stimulus for further actions designed to maintain social integrity. Given the situation she is dealing with on a daily basis, the woman perceives the unmet need for support as a potentially overwhelming stimuli (one that could potentially fall outside her zone of adaptation), and acts adaptively to seek support specific to the battering situation from a select group of network members. In this manner she may be successful in meeting her needs for nurturance, and continue to adapt in the battering situation. An alternative action, to continue seeking support where there is nonsupport or, at best, inconsistent support, causes the need for nurturance to increase, and, perhaps, the cumulative effect of this frustrated need with other stimuli, to fall outside her zone of adaptation. This would lead to further maladaptive behaviors. On the basis of this application of Roy's model, we would expect battered women in a positive state of adaptation to report fewer nonsupportive, or inconsistently supportive, responses in their social networks.

The next chapter of the dissertation, Chapter Six, describes the pattern of relationships that exist between the supportiveness of the battered woman's social network and other variables of interest in the study, and the battered woman's level of psychological adaptation.

CHAPTER SIX
CORRELATES OF PSYCHOLOGICAL ADAPTATION

This chapter of the dissertation describes the relationships that exist among the variables of interest in the study. The hypothesis-testing analyses are described and discussed.

Simple Relationships

In an attempt to understand the pattern of relationships which characterize the data of the study, the relationships among selected variables were examined using simple Pearson correlations. Due to the large sample size (N=112), a conservative level of significance (.001) was selected to minimize the chance of Type I error. This section describes the relationships among the variables of interest in the study and gives the rationale for the composition of the sets of variables used in the canonical correlation analysis.

Psychological Adaptation as a Composite Variable

Psychological Adaptation is a multidimensional phenomenon which for purposes of this study has been conceptualized as a sense of well-being along with the relative absence of psychological symptoms. Two measures of psychological adaptation were included in this study: the Bradburn Morale Scale (BMS) and the Brief Symptom Inventory (BSI).

Psychological symptom status was measured by the BSI. To determine the single score that would best represent the study subjects' psychological symptom status, a correlation matrix of all BSI scores was examined (Table 28). Consistently high levels of correlation were observed between the Global Severity Index (GSI), and the Positive Symptom Total (PST), the Positive Symptom Distress Index (PSDI), and each of the nine symptom

Table 28
Pearson Correlation Coefficients* for All Pairs of Items on Brief Symptom Inventory.

Dimension	1	2	3	4	5	6	7	8	9	10	11	12
1. Somatization	--											
2. Obsessive-compulsive	.47	--										
3. Interpersonal sensitivity	.46	.55	--									
4. Depression	.53	.58	.70	--								
5. Anxiety	.56	.58	.66	.70	--							
6. Hostility	.42	.43	.42	.53	.53	--						
7. Phobic anxiety	.43	.49	.47	.52	.66	.44	--					
8. Paranoid ideation	.52	.48	.64	.64	.65	.52	.62	--				
9. Psychoticism	.55	.57	.70	.75	.69	.48	.49	.65	--			
10. Global severity index	.71	.75	.78	.85	.88	.65	.73	.80	.83	--		
11. Positive symptom distress index	.54	.54	.62	.72	.77	.47	.50	.68	.67	.79	--	
12. Positive symptom total	.64	.71	.65	.72	.74	.62	.69	.68	.73	.88	.47	--

* $p<0.001$

dimensions of the BSI. The GSI was therefore judged to be the best single indicator of the level of psychological distress of study subjects and only that score was used in subsequent analyses as the measure of psychological symptom status.

To determine the relationship between the subjects' psychological symptom status and her sense of well-being, a correlation matrix of the 3 summary measures of affect from the BMS and the GSI was examined. The correlation coefficients, as presented in Table 29, demonstrate the independence of negative affect and positive affect in this sample of battered women. From the statistically significant and negative relationship which exists between the Negative Affect Scale (NAS) and the GSI, we may infer that as the study subjects' unpleasurable experiences or negative feelings increase, so does the degree of psychological distress (the number of symptoms and intensity of distress) experienced by the subjects. We may also infer from the relationship between the Affect Balance Scale (ABS) and the GSI, that as the positive affect experienced by the subjects exceeds the negative affect, the degree of psychological distress experienced by the subjects decreases.

Table 29
Pearson Correlation Coefficients for 3 Global Measures of the Bradburn Morale Scale and the Global Severity Index of the Brief Symptom Inventory

Measure	1	2	3	4
1. Positive affect scale	--			
2. Negative affect scale	.03	-		
3. Affect balance scale	.69*	.74*	--	
4. Global severity index	-.18	-.57*	-.53*	--

*p<0.001

As a result of the ability of these 2 measures to summarily describe the subject's psychological symptom status and her sense of well-being, the ABS and the GSI define the composite variable Psychological Adaptation.

Sociodemographics as a Composite Variable

Higher rates of psychological dysfunction among women, as compared to men, are reported in the literature (Dohrenwend, 1975; Dohrenwend & Dohrenwend, 1974, 1976; Goldman & Ravid, 1980; Gove & Tudor, 1973; Weissman & Klerman, 1977). Other demographic variables known to be significant in this finding of gender differences in psychological dysfunction are age, marital status, race, number of children, education, employment status, and income (Goldman & Ravid, 1980), A recent study (Walker, 1984) indicates that age, employment status, and marital status are significant variables in predicting depression in a sample of battered women.

To explore the relationships among the sociodemographic characteristics of the study subjects, their sense of well-being, and their psychological symptom status, a correlation matrix of sociodemographic variables, the GSI, and the ABS was examined. In this study the number of children reported by a battered woman subject is the only variable significantly related ($p<0.001$) to either the degree of psychological distress experienced by the subject or her subjective sense of well-being. We can infer from the correlation coefficients reported in Table 30 that as the number of children reported by a battered woman increases, her sense of well-being increases, and the number of symptoms and intensity of psychological distress decreases. This finding is consistent with Woods (1980), but in contrast to other studies (Pearlin, 1975; Radloff, 1975) which

Table 30
Pearson Correlation Coefficients for Demographic Variables and Two Global Measures of Psychological Adaptation

Variable	1	2	3	4	5	6	7	8	9	10
1. Age	--									
2. Marital status	-.04	--								
3. Number of children	.35*	.07	--							
4. Education	.00	-.01	-.10	--						
5. Social position	-.41*	.06	-.01	-.11	--					
6. Employed	.23	.05	.13	.11	-.12	--				
7. Race	-.10	-.15	.16	-.05	.03	.13	--			
8. Income	.42*	.06	.01	.15	-.50*	.26	.08	--		
9. G.S.I.	-.26	.08	-.28*	.14	.22	-.03	.01	-.21	--	
10. A.B.S.	.26	.02	.34*	-.04	-.10	.13	-.02	.02	-.53*	--

*p<0.001

report that role disenchantment and depression increase with number of children.

Weak relationships, slightly below the selected level of significance ($p>0.001$), exist between one or both of the measures of psychological adaptation and other sociodemographic variables: age ($r=0.26$; $p=0.003$), social position ($r=0.22$; $p=0.014$), and income ($r=-.21$; $p=0.018$). Degree of psychological distress tends to increase with social position, and tends to decrease as age and household income increase. As age increases, sense of well-being also tends to increase.

The race of the subjects, their level of education, marital status, and employment status were not related to either the subjects' sense of well-being or psychological symptom status.

Based on the findings of the Walker study specific to battered women, and the relationship of these variables to each other and to either of the 2 measures of psychological adaptation in this study, the composite variable Sociodemographics consists of: age, employment status, income, marital status, number of children, and social position. The weak to moderate levels of correlation among the variables age, social position, and household income, although statistically significant, are assumed by convention to be small enough to avoid supression of one variable by any other in the canonical correlation analysis (Table 30).

Experience With Violence as a Composite Variable

To explore the relationship between the battered women's experience with violence, their psychological symptom status, and sense of well-being, a correlation matrix of all variables describing the subjects' experience with violence and the two measures of psychological adaptation was examined.

The three violence variables significantly ($p<0.001$) related to either the subjects' sense of well-being or degree of psychological distress are: the length of the battering relationship, the frequency of the physical violence, and the severity of the physical violence as measured by the Violence Scale of the Conflict Tactics Scales.

As demonstrated in Table 31 the subjects' sense of well-being increases and the degree of psychological distress decreases as the length of the battering relationship increases. This finding is inconsistent with Browne's (1980) conclusion that the degree of psychological distress experienced by battered women in response to the trauma of physical assault intensifies over time. However, Browne's study does not address the relationship of characteristics of the violence to the degree of distress experienced by the

Table 31
Pearson Correlation Coefficients for Experience With Violence Variables and 2 Measures of Psychological Adaptation.

	1	2	3	4	5	6	7
1. Length of battering relationship	--						
2. Average frequency of violence	.31*	--					
3. Violence score[1]	-.34*	-.44*	--				
4. Time since last assault	.20	.13	-.38*	--			
5. Other exposure to physical violence	-.09	.15	.01	.07	--		
6. Global severity index	-.34*	-.38*	.35*	-.15	-.09	--	
7. Affect balance scale	.32*	.16	-.13	.12	-.02	-.53*	--

*$p<0.001$

[1]As measured by the Conflict Tactics Scale.

battered women. The lack of relationship between either the subjects' sense of well-being or the degree of psychological distress experienced by the subjects and the length of time since the last physical assault on the women supports the assumption that time alone is not the significant factor in determining the emotional response of the battered women subjects of this study.

In the current sample, as the length of the battering relationship increases, the violence tends to increase in frequency, but the total physical violence score decreases suggesting the types of physical violence are fewer in number (Table 31). The degree of psychological distress experienced by the subjects in this study lessens with more frequent occurrence of physical violence, and becomes greater as the physical violence score increases. This finding suggests that characteristics of the violence may be significant in determining the intensity of the subjects' emotional response to the battering.

The exposure of the battered women subjects in this study to violence in other contexts does not relate to the psychological symptom status of the subjects. This finding does not support Walker's (1981b) hypothesis that exposure to violence in other contexts, particularly childhood, constitutes a susceptibility factor which places battered women at high risk for psychological dysfunction.

Based on the simple relationships described above, and to further explore the findings of Browne (1980) and Walker (1981b) in this sample, the composite variable, Experience With Violence, consists of five variables: the length of the battering relationship, the frequency of physical violence, the severity of physical violence, the time since the last physical violence, and the subjects' exposure to violence in other contexts.

Table 32
Pearson Correlation Coefficients for Social Network Variables and Two Global Measures of Psychological Adaptation.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Number in network	--											
2. Duration of relations	.94*	--										
3. Frequency of contact	.93*	.83*	--									
4. Total (1-3)	.98*	.97*	.95*	--								
5. Multiplex relations	-.16	-.13	-.05	-. 11	--							
6. Reciprocal relations	.10	.06	.12	.09	.16	--						
7. Overall network density	-.14	.07	-.09	-.09	.15	.04	--					
8. Family network density	-.05	.09	.11	.10	.26	.08	.40*	--				
9. Friend network density	.01	-.02	.10	.03	.09	.04	.40*	.10	--			
10. Boundary density	-.05	-.02	.00	-.01	.10	.05	.51*	.15	.29*	--		
11. Global severity index	-.10	-.14	-.10	-.13	-.11	-.12	-.09	-.16	-.11	-.11	--	
12. Affect balance scale	.19	.16	.20	.19	.18	.20	.15	.10	.15	.04	-.53*	--

*p=0.001

Social Network as a Composite Variable

To determine the relationship between the structure of the battered women subjects' social networks, psychological symptom status, and sense of well-being, a correlation matrix of all network variables, the GSI, and the ABS was examined. No single measure of social network characteristics was significantly ($p<0.001$) related to either measure of psychological adaptation. Few significant relationships exist among the network variables (Table 32). The size of the subjects' network, frequency of contact with network members, and the duration of relationships are all highly intercorrelated, consistent with the description of dense family networks given by the study subjects. Each of the measures of family, friend, and boundary density was moderately correlated with overall network density, but only a weak relationship existed between boundary density and friendship network density.

A review of the literature relative to social networks and psychological adaptation (Mitchell & Trickett, 1980) indicates that characteristics of size, density, reciprocity, and multiplexity have been significant variables which distinguish the networks of clinical populations from "normal" populations. Based on this information from the literature and the lack of relationship in this study between any single network measure and either of the two measures of psychological adaptation, the social network matrix was defined by the variables: size of network, percentage of reciprocal relationships in the network, the percentage of multiplex relationships, family network density, friendship network density, and density of the boundary between these two networks.

Social Support as a Composite Variable

Social support as measured in this study consists of general supportiveness of the network and support specific to the battering situation. To determine the relationship between the situation specific support provided battered women subjects, their sense of well-being, and degree of psychological distress, a correlation matrix consisting of all situation specific support variables, the GSI, and the ABS was examined. The only situation specific support variable that was statistically significantly ($p<0.001$) correlated with either of the 2 measures of psychological adaptation is the percentage of network members who know about the abuse and whose response is assessed by the subjects to be nonsupportive. As indicated by the correlation coefficients in Table 33, the degree of psychological distress experienced by the battered women subjects of this study also increases as the

Table 33
Pearson Correlation Coefficients for Situation Specific Support Variables and 2 Global Measures of Psychological Adaptation

Variable	1	2	3	4	5	6	7	8
1. Confidant	--							
2. % who know	.10	--						
3. % who support	.18	.45*	--					
4. % of knowing who support	.21	.10	.90*	--				
5. % of knowing not supportive	-.20	-.05	-.60*	-.66*	--			
6. % of knowing who vary	-.14	-.16	-.23	-.25	-.15	--		
7. G.S.I.	-.22	-.06	-.17	-.17	.37*	.12	--	
8. A.B.S.	.22.	.12	.08	.07	-.14	-.13	-.53	--

* p=0.001

percentage of network members who know about the abuse and are nonsupportive increases. No statistically significant relationship exists between either measure of psychological adaptation and the percentage of network members who know about the abuse and whose response is assessed to be supportive.

No measure of the general supportiveness of the network is related to the degree of psychological distress experienced by the study subjects. However, one general support measure is related to the study subjects' sense of well-being. A weak, ($r=.31$), but statistically significant ($p<0.001$) relationship exists between one subscale of affirmation (Affirm4) and the ABS. This relationship implies that as network members increasingly agree with or support the actions or thoughts of the battered women subjects in general, the subjects' sense of well-being increases.

Several measures of the general supportiveness of the network are related to both the subjects' sense of well-being and degree of psychological distress at a level slightly below the selected level ($p<0.001$). The degree of psychological distress of study subjects tends to increase as the amount of support lost during the previous year increases ($r=.22$; $p=0.01$). The degree of psychological distress experienced by study subjects tends to decrease as the total emotional support from network members increases ($r=-.22$; $p=.009$). Closer examination of the components of total emotional support indicate that as the battered women subjects feel respected or admired by network members ($r=-.24$; $p=0.007$), and as network members increasingly agree with or support the subjects' actions or thoughts ($r=-.27$; $p=0.002$), the number of symptoms and intensity of distress tends to decrease.

As total emotional support increases, the study subjects' sense of well-being also tends to increase ($r=.25$; $p=0.003$). Feeling respected or admired

by network members is an important component of emotional support in this relationship (r=26; p=0.003), as is the subjects' perception of how much they can confide in network members (r=.23; p=0.008). This finding is consistent with the literature related to the presence of a confidant (Lowenthal & Haven, 1968), although presence of a confidant as a situation specific variable is not statistically significantly related to either of the 2 measures of psychological adaptation in this sample of battered women.

As the general measure of tangible assistance increases, the sense of well being of study subjects tends to increase (r=.20; p=0.02), although tangible assistance is not statistically significantly related to the subjects' degree of psychological distress. The short term aid provided by network members is more strongly related (r=.21; p=.02) to this sense of well-being than is long term aid.

Based on the relationship of the variables to either the degree of psychological distress or sense of well-being of study subjects, the literature focus on presence of a confidant as a significant variable related to adaptation, and Kahn's (1979) definition of Social Support, the composite variable Social Support is defined by the variables: 1) percentage of network members who know about the abuse and are nonsupportive, 2) the tangible assistance available to the subjects (Aid), 3) total emotional support perceived by subjects (Affirmation and Affect), 4) the total amount of support lost in the past year, and 5) the presence of a confidant. An additional item, 6) percentage of network members who know about the abuse and are supportive, was added to determine the relationship of this variable to the subjects' level of psychological adaptation.

In summary, statistically significant ($p<0.001$) relationships exist in this study between the following variables:

Table 34
Original Variables Used to Construct Composite Variables

Composite variable	Original variables
Psychological adaptation	-Psychological symptom status (GSI) -Sense of well-being (ABS)
Sociodemographics	-Age -Employment status -Household income -Marital status -Number of children -Social position
Experience with violence	-Length of battering relationship -Frequency of physical violence -Severity of physical violence -Time since last physical violence -Exposure to violence in other contexts
Social network	-Size -Reciprocity -Multiplexity -Family network density -Friendship network density -Family-friend boundary density
Social support	-Presence of a confidant -Total general support lost in past year -Total perceived emotional support -Tangible assistance -Percentage of members who know about the abuse and are nonsupportive -Percentage of members who know about the abuse and are supportive

1) subjects' degree of psychological distress (GSI) and sense of well being, number of children, length of the battering relationship, average frequency of violence, severity of physical violence, and percentage of

network members who know about the abuse and whose response is perceived by the subjects as nonsupportive, and

2) subjects' sense of well-being (ABS) and degree of psychological distress, number of children, length of battering relationship, and the degree to which network members agree with or support the actions or thoughts of the subjects in general.

Other relationships slightly below the selected level of probability ($p<0.001$) also exist.

Composite variables Psychological Adaptation, Sociodemographics, Experience With Violence, Social Network, and Social Support were constructed on the basis of these bivariate relationships and a review of the literature. Table 34 summarizes the variables used to construct each of the composite variables.

Relationship Between Psychological Adaptation and Other Composite Variables

This section reports the results of the exploration of the relationships between the set of variables describing the the subjects' level of psychological adaptation and other sets of variables describing the sociodemographic characteristics of the study subjects, characteristics of the violence experienced by the study subjects, the structure of the study subjects' social network, and the perceived supportiveness of the study subjects' social network. The research questions are answered in each subsection from the results of canonical correlation analyses of the relationship between the composite variable Psychological Adaptation and the other composite variables: Sociodemographics, Experience with Violence, Social Network, and Social Support. The GSI score has been reflected in each of the canonical

correlation analyses to facilitate interpretation of the Psychological Adaptation scores.

Psychological Adaptation and Sociodemographics

Research question 5 asks, "Is there a relationship between the sociodemographic characteristics of the battered woman subject and her level of psychological adaptation?" This section responds to research question 5 by reporting the results of canonical correlation analysis of the relationship between the composite variable which describes the subjects' level of psychological adaptation and the composite variable related to the sociodemographic characteristics of the study subjects.

Table 35 illustrates that two pairs of canonical variates can be extracted between the sets of variables Psychological Adaptation and Sociodemographics. The first pair is moderately correlated (r=.47). No correlation exists between the two canonical variates in the second pair.

Table 35
Canonical Correlation Between Psychological Adaptation and Sociodemographics

Root	Eigenvalue	%	Cum.%.	Canonical correlation	Squared correlation
1	.27946	88.9	88.9	.46736	.21842
2	.03474	11.1	100.0	.18323	.03357

Bartlett's Sequential Significance Test (Table 36) is used to determine the statistical significance of the correlation between the first pair of variates. The first pair of variates is correlated at the conventional level of statistical significance ($p<.05$).

Table 36
Bartlett's Sequential Significance Test for Canonical Correlations Between Psychological Adaptation and Sociodemographics

Step	Wilks lambda	F	Hypoth DF	Error DF	Significance of F
1	.75534	2.08350	12.00	166.00	.020
2	.96643	.58365	5.00	84.00	.712

The structure matrix presented in Table 37 indicates that the canonical variate Psychological Adaptation is equally defined by both variables psychological symptom status and psychological well-being, with both variables very strongly related to the canonical variate. As the subjects' level of psychological adaptation increases, the subjects' sense of well being increases and degree of psychological distress decreases.

The canonical variate Sociodemographics is defined chiefly by the number of children and age of the subject, followed by social position of the family and the employment status of the subject. Interpretation of the structure matrix indicates that as the subjects' level of psychological adaptation increases, the number of children reported by subjects increases, age increases, social position decreases, and the subject is more likely to be employed. Household income is not highly correlated with the canonical variate, but the tendency is for household income to also increase as Psychological Adaptation increases. Marital status is not a significant factor in defining the sociodemographic characteristics of this sample of battered women.

Therefore, a relationship does exist between the sociodemographic characteristics of the battered women subjects of this study and their level of psychological adaptation. When psychological adaptation is defined by psychological well-being and psychological symptom status, and sociodemographic characteristics are chiefly defined by number of children, age, social position, and employment status, 21% of the variance in the study subjects' level of psychological adaptation can be explained by the variance in sociodemographic characteristics of the study subjects (Table 35).

Table 37
Weights for Original Variables Based on First Canonical Correlation Between Psychological Adaptation and Sociodemographics

		Matrix	
Canonical variate	Original variable	Pattern[a]	Structure[b]
Psychological adaptation			
	Psychological symptom status	.58835	.87331
	Psychological well-being	.56439	.86145
Sociodemographics			
	Age	.41558	.77211
	Children	.62615	.80826
	Employed	.17979	.43102
	Household income	-.11945	.26089
	Marital status	.06912	.06063
	Social position	-.28377	-.43172

[a] Standardized canonical coefficients

[b] Correlations between original variables and canonical variate

Psychological Adaptation and Experience With Violence

Research question 6 asks, "Is there a relationship between the characteristics of the violence experienced by the battered woman subject and her level of psychological adaptation?" This section responds to research question 6 by reporting the results of canonical correlation analysis of the relationship between the composite variable which describes the subjects' level of psychological adaptation and the composite variable related to the subjects' experience with violence.

Table 38 illustrates that two pairs of canonical variates can be extracted between the sets of variables Psychological Adaptation and Experience With Violence. The first pair of canonical variates is weakly to moderately correlated (r=.42); the second is weakly correlated (r=.23).

Table 38
Canonical Correlation Between Psychological Adaptation and Experience With Violence

Root	Eigenvalue	%	Cum.%	Canonical correlation	Squared correlation
1	.21670	79.6	79.6	.42203	.17811
2	.05540	20.4	100.0	.22912	.05250

Results of Bartlett's Sequential Significance Test (Table 39) indicate that only the correlation between the first pair of canonical variates is statistically significant ($p<.05$), and only that correlation was further investigated.

Interpretation of the structure matrix presented in Table 40 indicates that the canonical variate Psychological Adaptation is defined by both variables psychological symptom status and psychological well-being, with psychological symptom status being the stronger definer of the two.

Table 39
Bartlett's Sequential Significance Test for Canonical Correlations Between Psychological Adaptation and Experience With Violence

Step	Wilks lambda	F	Hypoth DF	Error DF	Significance of F
1	.77875	2.42402	10.00	182.00	.010
2	.94750	1.27429	4.00	92.00	.286

Psychological symptom status is very strongly correlated with the canonical variate; psychological well-being is strongly correlated. As the subjects' level of psychological adaptation increases, the subjects' sense of well-being increases and degree of psychological distress decreases.

The canonical variate Experience With Violence is chiefly defined by the length of the battering relationship and the average frequency of violence in the relationship, followed by the severity of violence in the relationship as measured by the Violence Scale of the CTS. Interpretation of the structure matrix indicates that as Psychological Adaptation increases, the length of the battering relationship increases, the average frequency of violence increases, and the severity of the physical violence as measured by the CTS decreases. The length of time since the last episode of violence is only weakly correlated with the canonical variate, but the tendency is for level of psychological adaptation to increase as the length of time since the last violence increases. The subjects' past exposure to violence is not a significant factor in defining the subjects' experience with violence in this sample of battered women.

Consequently, there is a relationship between the characteristics of the violence experienced by the battered women subjects of this study and level of psychological adaptation. When psychological adaptation is defined as psychological well-being and psychological symptom status, and the

Table 40
Weights for Original Variables Based on First Canonical Correlation Between Psychological Adaptation and Experience With Violence

		Matrix	
Canonical variate	Original variable	Pattern[a]	Structure[b]
Psychological adaptation			
	Psychological symptom status	.83932	.97442
	Psychological well-being	.26220	.69466
Experience with violence			
	Relationship length	.59917	.81788
	Frequency of violence	.47603	.74973
	Severity of violence[1]	-.18450	-.59029
	Time since last violence	.12127	.36984
	Past violence	.01769	-.03984

[a] Standardized canonical coefficients
[b] Correlations between original variables and canonical variate
[1] As measured by the Violence Scale of the CTS.

characteristics of the violence are chiefly defined by the length of the battering relationship, the average frequency of violence, and the severity of the violence as measured by the Violence Scale of the CTS, approximately 18% of the variance in the subjects' level of psychological adaptation can be explained by the variance in the characteristics of the violence experienced by the battered women subjects (Table 38).

Psychological Adaptation and Social Network

Research question 7 asks, "Is there a relationship between the structure of the battered woman's social network and her level of psychological

adaptation?" This section responds to research question 7 by reporting the results of canonical correlation analysis of the relationship between the composite variable which describes the subjects' level of psychological adaptation and the composite variable related to the structure of the study subjects' social networks.

Table 41
Canonical Correlation Between Psychological Adaptation and Social Network

Root	Eigenvalue	%	Cum.%	Canonical correlation	Squared correlation
1	.11213	87.0	87.0	.31753	.10083
2	.01669	13.0	100.0	.12812	.01641

Table 41 illustrates that 2 pairs of canonical variates can be extracted between the sets of variables Psychological Adaptation and Social Network. The first pair is weakly correlated (r=.32). No correlation exists between the two canonical variates in the second pair.

Table 42
Bartlett's Sequential Significance Test for Canonical Correlations Between Psychological Adaptation and Social Network

Step	Wilks lambda	F	Hypoth DF	Error DF	Significance of F
1	.88441	.95009	12.00	180.00	.498
2	.98359	.30373	5.00	91.00	.909

Bartlett's Sequential Significance Test (Table 42) indicates that no statistically significant correlation exists between the canonical variates Psychological Adaptation and Social Network.

In response to research question 7, no relationship exists between the structure of the social networks of the battered women subjects of this study and level of psychological adaptation.

Psychological Adaptation and Social Support

Research question 8 asks, "Is there a relationship between the supportiveness of the battered woman's social network and her level of psychological adaptation?" This section responds to research question 8 by reporting the results of canonical correlation analysis of the relationship between the composite variable which describes the subjects' level of psychological adaptation and the composite variable related to the subjects' perception of the supportiveness of the network.

Two pairs of canonical variates can be extracted between the sets of variables Psychological Adaptation and Social Support. Table 43 illustrates that the first pair of canonical variates is moderately correlated (.53); the second pair is weakly correlated (.35).

Table 43
Canonical Correlation Between Psychological Adaptation and Social Support

Root	Eigenvalue	%	Cum.%	Canonical correlation	Squared correlation
1	.38172	73.0	73.0	.52561	.27626
2	.14135	27.0	100.0	.35192	.12384

Results of Bartlett's Sequential Significance Test illustrated in Table 44 indicate only the first correlation is statistically significant ($p<.05$), and only that correlation is subsequently investigated.

Table 44
Bartlett's Sequential Significance Test for Canonical Correlations Between Psychological Adaptation and Social Support

Step	Wilks lambda	F	Hypoth. DF	Error DF	Significance of F
1	.63411	3.19745	12.00	150.00	.000
2	.87616	2.14852	5.00	76.00	.069

Interpretation of the structure matrix presented in Table 45 indicates that the canonical variate Psychological Adaptation is defined by both variables psychological symptom status and psychological well-being, with psychological symptom status being the stronger definer of the two. Psychological symptom status is very strongly correlated with the canonical variate; psychological well-being is strongly correlated. As level of psychological adaptation increases, the subjects' sense of well-being increases, and degree of psychological distress decreases.

The canonical variate Social Support is chiefly defined by the percentage of nonsupportive relationships in the network that knows about the abuse, and the presence of a confidante, followed by the percentage of supportive relationships in the network that knows about the abuse, and total general emotional support available from network members. Interpretation of the structure matrix indicates that as Psychological Adaptation increases, the percentage of network members who know about the abuse and are nonsupportive decreases, the presence of a confidant is more likely, and the percentage of network members who know about the abuse and are supportive increases, as does the total general support available from network members. The available tangible assistance and total loss experienced over the past year are only weakly correlated with the canonical

variate, but the tendency is for level of psychological adaptation to increase as the available tangible assistance increases and total loss experienced in the past year decreases.

Table 45
Weights for Original Variables Based on First Canonical Correlation Between Psychological Adaptation and Social Support

		Matrix	
Canonical variate	Original variable	Pattern[a]	Structure[b]
Psychological adaptation			
	Psychological symptom status	.91198	.99313
	Psychological well-being	.14242	.66202
Social support			
	Confidante	.49379	.67742
	Nonsupport	-.71074	-.75332
	Support	-.18329	.43926
	Total loss	-.33697	-.24539
	Emotional support	.50390	.42158
	Aid	-.29898	.28272

[a] Standardized canonical coefficients
[b] Correlations between original variables and canonical variate

Therefore, in contrast to the lack of relationship between the structure of the subjects' social networks, a relationship between the perceived supportiveness of the battered women subjects' social networks and level of psychological adaptation is demonstrated in this sample of battered women. When psychological adaptation is defined by psychological well-being and psychological symptom status, and the perceived supportiveness of the network is defined by the percentage of network members who know about

the abuse and are nonsupportive, the presence of a confidant, the percentage of network members who know about the abuse and are supportive, and the total emotional support available from network members, 28% of the variance in the subjects' level of psychological adaptation can be explained by the variance in the perceived supportiveness of the subjects' social networks (Table 43).

In summary, canonical correlation analyses demonstrate the composite variable Psychological Adaptation is significantly related to the composite variables: Sociodemographics, Experience With Violence, and Social Support, as defined in this study. No statistically significant relationship between level of psychological adaptation and the structure of the subjects' social networks has been demonstrated in this sample of battered women.

Discussion

Statistically significant relationships exist among the variables describing subjects' degree of psychological distress, their sense of well-being, and other individual variables. When these two indicators of psychological adaptation are combined, statistically significant relationships between this composite variable and the groups of variables describing the subjects' sociodemographic characteristics, experience with violence, and perceived social support become more apparent.

Hypothesis #1 is not supported by the findings of this study which demonstrate a moderate correlation exists between the battered woman's level of psychological adaptation and her sociodemographic characteristics. Because the battering phenomenon is observed in all socioeconomic and racial/ethnic groups, the researcher erroneously assumed that all women would be equally affected by the battering. However, certain characteristics

of the battered women are related to their ability to maintain or achieve psychological adaptation . Interpretation of the structure matrix (Table 37) indicates that one could expect to find higher levels of psychological adaptation in older women from lower to middle social classes, with larger numbers of children. The sociodemographic characteristics most strongly defining this relationship are number of children and age.

In contrast with other studies that demonstrate a negative relationship between psychological adaptation and number of children, but consistent with Woods' (1980) findings, the subjects of this study achieve higher levels of psychological adaptation as the number of children increases. One possible interpretation of this finding is that the presence of the children allows the women to meet the need for nurturing at a level that outweighs the effects of other noxious stimuli in the violent environment. Clinical observations of many hypermature children from violent homes (Westra, 1984) support the assumption that the children become nurturing toward the battered woman, allowing her needs for nurturance to also be met. Therefore, as the number of children increases, the age range allows the battered woman's needs for both nurturing and nurturance to be more readily met, increasing her capacity for further adaptation.

The self-perceptions of the battered women may also be favorably influenced by the positive relationship she has with her children, stimulating adaptation through the self-concept mode. I offer this explanation cautiously, however, because such an assumption ignores the fact that some women in the study report also being abused by their children.

Hypothesis #2 is supported by the findings of this study. The results of canonical analysis demonstrate a weak to moderate relationship between the subjects' level of psychological adaptation and their experience with

violence. From the interpretation of the structure matrix (Table 40), one would expect to find higher levels of psychological adaptation among battered women who have been involved for an extended period of time in relationships in which the level of violence is low, but in which battering incidents are frequent. One interpretation of this finding is that if the level of violence is low, the woman's perception of the violence as less physically threatening allows her to decrease her anxiety. Although the data of the study do not address the predictability of the violence, perhaps with frequent, low level assaults, the predictability of the violence eliminates the stress of fear of the next battering incident described by some battered women as the most stressful aspect of the abuse (Walker, 1979). Although the data of the study do not address the injuries received by the women, and even low levels of abuse have the potential for injury and death, perhaps a low level of violence is generally associated with less actual tissue damage. If this assumption is true, than women dealing with this type of violence may actually be confronting a lower level of noxious stimuli and be better able to process it.

Hypothesis #3 is rejected by the findings of this study. No statistically significant relationship exists between the level of psychological adaptation of study subjects and the characteristics of the social networks of battered women in this sample. While this study did not find any evidence for a relationship between the structure of the network and level of psychological adaptation in this population, the finding may be different in a clinical sample of battered women psychiatric patients.

Hypothesis #4 is supported by the findings of this study. A moderate and statistically significant relationship exists between the study subjects' level of psychological adaptation and the perceived level of support available to the

battered women through their social networks. Interpretation of the structure matrix (Table 45) indicates that one could expect higher levels of psychological adaptation among battered women who have few nonsupportive network members and who report the presence of a confidant. Although the presence of supportive network members and the amount of emotional support perceived as available to the women were also correlated with her level of psychological adaptation, they were not as strongly correlated as the presence of a confidant, and of the nonsupportive network members. Combined with the negative findings related to social network structure, the data suggest that for this sample of battered women, the supportiveness of the network is more important than the structure of the network. Specifically, the perceived situation specific supportiveness of the network (the presence of a confidant, and the absence of nonsupportive members in the network), are more strongly related to the battered women's level of psychological adaptation than the general supportiveness. These findings are useful in explaining the behavior of some battered women who avoid potentially nonsupportive network members as an adaptive behavior in dealing with the violent relationship.

Given the findings of the study, the next logical step would seem to be the construction of a matrix of contextual variables consisting of the variables that very strongly defined the relationship of each composite variable with Psychological Adaptation. Theoretically, that matrix would consist of the variables: number of children, age, relationship length, frequency of violence, severity of violence, presence of a confidant, and the percentage of nonsupportive members in the network who know about the abuse. The present sample size is not large enough to support a canonical correlation analysis with a matrix of seven variables. This fact and the

danger of false positive findings based on the statistical basis for the construction of the matrix, make that extension of the analysis in this study unfeasible. However, an extension of the data collection to a larger number of subjects, and a theoretical reconsideration of the matrix structure seem highly desirable. The next logical question to be answered is, "Which of these contextual variables is the strongest predictor of psychological adaptation in battered women?"

The next chapter reviews and summarizes the findings of the study, discusses the limitations of the study, and the implications of the findings for direct services to battered women and future research on psychological adaptation in battered women. The applicability of the Roy Adaptation model to the planning of nursing care for women victims of violence is also discussed.

CHAPTER SEVEN
SUMMARY, LIMITATIONS, AND IMPLICATIONS

The purpose of this final chapter of the dissertation is to review and summarize the major findings of the study, to discuss the limitations of the study, and to briefly discuss the implications of the findings for direct services to battered women and directions for future research.

Summary

The purpose of this study was to describe the structure and perceived supportiveness of the social networks of battered women and to explore the possible relationship between these network characteristics and the battered women's level of psychological adaptation. The subjects of the study were a relatively heterogenous group of 112 self-defined battered women aged 18 to 54. The data of the study were collected in interviews using interviewer- and self-administered questionnaires. Descriptive statistics and the results of canonical correlation analyses were used to respond to the research questions and hypotheses of the study. The research questions and hypotheses of the study are summarized in Table 46

The subjects of this study experienced a level and type of violence consistent with the violence experienced by other samples of battered women (Dobash & Dobash, 1982; Walker, 1979). The violence ranged from pushes and slaps to lethal levels of violence including the use of a knife or a gun. The pattern observed was for the violence to begin early in the relationship, and to progress in severity as the relationship continued. The frequency of abuse varied, and many women reported the experience of abuse in other contexts.

When compared to a normative group of nonpatient females where the incidence of battering is unknown, the study subjects reported a greater level

of psychological distress. However, the level of distress reported by the subjects of this study is lower than that reported by a normative group of

Table 46
Research Questions and Hypotheses

Questions	Hypotheses
1. What is the extent of the violence to which battered women are exposed?	No hypothesis
2. What is the distribution of levels of psychological adaptation among battered women?	No hypothesis
3. What are the characteristics of the social networks of battered women?	No hypothesis
4. How supportive are the social networks of battered women?	No hypothesis
5. Is there a relationship between the sociodemographic characteristics of battered women and their level of psychological adaptation?	1. There is no relationship between the sociodemographic characteristics of the battered women and their level of psychological adaptation.
6. Is there a relationship between the characteristics of the violence experienced by battered women and their level of psychological adaptation?	2. There is a relationship between the characteristics of the violence experienced by battered women and their level of psychological adaptation.
7. Is there a relationship between the structure of battered women's social networks and their level of psychological adaptation?	3. There is a relationship between the structure of the battered women's social networks and their level of psychological adaptation.
8. Is there a relationship between the perceived supportiveness of battered women's social networks and their level of psychological-adaptation?	4. There is a relationship between the perceived supportiveness of battered women's social networks and their level of psychological adaptation.

female psychiatric outpatients where the incidence of battering is unknown. At the discrete symptom level, many symptoms reported by the study subjects can be directly attributed to their experience with violence.

The subjects of this study reported high levels of both positive and negative affect, with a slightly higher level of positive affect over negative. However, the proportion of subjects describing themselves as "very happy" is 4 to 5 times lower than in the comparison group, and the proportion of subjects describing themselves as "not too happy" is 2 to 5 times larger than in the comparison groups.

The social networks of the battered women were comparable in size and frequency of contact to the networks of a nonclinical group of employed women where the incidence of battering is unknown. However, the recent loss experienced by the study subjects was nearly 5 times greater than that of the comparison group. Loss of network members was usually related to the woman's attempts to deal with the violence in the relationship. Relationships with network members tended to be described as multiplex and reciprocal, while relationships with battering mates were described as uniplex and one-way, with the women reporting they gave more than they received in the relationship. Family networks were dense; friendship networks were low in density.

Family and friends were the two major sources of support, although the level of support available to the battered women was consistently lower than that available to a nonclinical sample of employed women where the incidence of battering is unknown. Nearly 80% of the subjects reported the presence of a confidant. In contrast, not all network members knew about the abuse, and nearly one-third of those who did know responded in a manner

that was perceived by the woman to be nonsupportive or inconsistently supportive.

Table 47
Summary of the Hypotheses and Findings of the Study

Hypothesis	Findings
Hypothesis #1 There is no relationship between sociodemographic characteristics of battered women and their level of psychological adaptation.	Rejected Sociodemographic characteristics of battered women explained 21% of the variance in the study subjects' level of psychological adaptation
Hypothesis #2 There is a relationship between the characteristics of the violence experienced by battered women and their level of psychological adaptation	Accepted Characteristics of the violence experienced by battered women explained 18% of the variance in the study subjects' level of psychological adaptation
Hypothesis #3 There is a relationship between the structure of battered women's social networks and their level of psychological adaptation.	Rejected No statistically significant relationship between social network structure and the study subjects' level of psychological adaptation.
Hypothesis #4 There is a relationship between the perceived supportiveness of battered women's social networks and their level of psychological adaptation.	Accepted Perceived supportiveness of battered women's social networks explained 28% of the variance in the study subjects' level of psychological adaptation.

Table 47 reviews the hypothesis testing results of the study. As can be seen, certain sociodemographic characteristics of study subjects were related to their level of psychological adaptation. Specifically, as age and number of

children reported by the subject increased, so did her level of psychological adaptation.

As predicted, the level of psychological adaptation in the battered women subjects of this study was related to the characteristics of the violence experienced by them. As the length of the battering relationship and the frequency of the violence increased, and the severity of the physical violence decreased, the subject's level of psychological adaptation increased.

Contrary to expectations, social network structure had no relationship to the subjects' level of psychological adaptation. The possibility of a relationship between these variates needs to be further explored.

There was a relationship between the supportiveness of the social network of the battered women and their level of psychological adaptation. In the presence of a confidant, as the percentage of nonsupportive relationships in the network decreased, the subjects' level of psychological adaptation increased.

In general, it was demonstrated throughout the study that the Roy Adaptation model was useful in describing and understanding the situation of the battered woman.

Limitations of the Study

There were a number of problems and limitations that were encountered in the process of conducting this study which should be considered in the interpretation of the findings.

The study subjects were not randomly selected, and the reasons for the impossibility of that task have been discussed earlier. However, further limitations exist in regard to the study subjects. The women solicited through shelter organizations were screened by the shelter staff before being asked to participate in the study. The criteria differed from organization to

organization, and from staff member to staff member, and are not clearly articulated because of the subjective nature of the criteria. The staff's concern about the possible exploitation of study subjects was one criteria early in the study, and as that concern subsided, the subjective screening criteria changed again. Later in the study, wider access to shelter subjects was apparent.

Planning the study to avoid exploitation was problematic in the area of providing a stipend for study subjects that would cover the costs of their participation, and yet not be an amount that would unduly influence a woman to participate. The sum of ten dollars was settled upon after an assessment of the costs involved, and, for some subjects, was obviously not an inducement to participate. However, a sum of ten dollars for some study subjects was clearly an amount where inducement was a possibility. A welfare mother, at the end of the month, will do many things to get money to feed herself and her children.

The need to design the study as a cross sectional survey to insure full participation of the study subjects is another feature of this study that limits the generalizability of the findings. To determine causal relationships, a longitudinal design would be ideal. However, for the safety and anonymity of the participants, continued contact is inadvisable with some battered women. For others continued contact is difficult because of the mobility the woman uses to protect herself and her children from harrassment and harm from the batterer. The feasibility of a longitudinal design in future research needs to be explored.

Although subjects came from all social classes, the representation of class was unequal. The findings of future studies might lend themselves to

broader generalization if sampling techniques are selected to take into consideration better representation over classes.

Finally, the measures used may restrict the extent to which these results can be interpreted. Tools need to be developed to measure the variables more sensitively in this population. Specific to this study's purposes, the tools used to measure psychological symptom status and the level of violence experienced by the study subjects need to be further developed. Some of these considerations are applicable to clinical interventions with battered women, as well.

The limitations of this study prevent generalization of the findings to other groups of battered women, but extension of this study to other samples of battered women may demonstrate that the findings of this study have a broader potential for generalization, although perhaps not on a statistical basis.

Implications for Direct Practice

A number of findings derived from this study may have implications for clinicians involved in direct practice with battered women, or with women in general, because the battering phenomenon involves so many.

The importance of a thorough and accurate history, with special attention to the existence and specific description of violence experienced by the woman, is emphasized by the findings that suggest that the psychological distress experienced by a battered woman may be directly attributed to the type and level of violence to which she is exposed. Further, the assessment of the coping abilities of the woman, and assessment of other noxious stimuli she may be dealing with in her violent environment is warranted by the finding that suicidal and homicidal behavior are not uncommon in women whose

level of adaptation is inadequate to meet the level of noxious stimuli they are confronting.

A thorough assessment of the structure and supportiveness of the client's social network gives the clinician an idea of the resources the woman may be able to marshall to assist her to adaptation in her abusive situation. Special attention should be paid to the presence of a confidant and of other members perceived as nonsupportive in the network. The clinician may use the findings of this study to assist the client to develop strategies to decrease the percentage of nonsupportive members in the network. That the clinician not assume the battered woman is living in social isolation is strongly suggested by the results of this study. The finding that some battered women who choose to isolate themselves from network members (i.e., members of a dense family network) are engaging in adaptive behaviors, may help some clinicians to support adaptive behaviors which they currently view as pathological. Battered women who decide to leave their violent relationships to stop the violence may be a group at greater risk for psychological dysfunction because of the social network consequences of the decision to separate or divorce.

Directions for Future Research

An important extension of the present study would be to include measurement of physical parameters of adaptation in battered women. This addition might allow further exploration of the relationship between the woman's experience with violence and her level of adaptation. This extension will also further test the usefulness of the Roy Adaptation model by including the biological adaptive mode.

In keeping with the direct practice implications discussed above, the development and validation of more sensitive and valid instruments to assist

clinicians and researchers to assess battered women, and to avoid misdiagnosis with other clinical groups, is an appropriate focus of future research.

While there was no evidence of a relationship between social network characteristics and psychological adaptation in this study, the possible usefulness of network structure in predicting level of psychological adaptation in battered women needs to be further explored. Replication of this study with other samples of battered women, especially a military sample or a rural sample where network structure may be different, may demonstrate a relationship between these variables in specific types of networks. Attention to other structural characteristics, such as duration of relationships, and application of other statistical techniques to explore the possibility of a nonlinear relationship, are also directions for future research.

Further exploration of the loss in battered women's social networks is another direction for future research. Had the loss of network members been less, the comparatively low level of support available to the battered women in this study might have been higher and more related to level of psychological adaptation. It is also clear that future research should consider the possible interaction effects between loss and experience with violence in determining level of psychological adaptation in battered women.

The present design has allowed the researcher to determine the presence of relationships between psychological adaptation in battered women and certain sociodemographic characteristics, the women's experience with violence, and the supportiveness of their social networks. Research designed to determine the existence of more complex relationships, such as causal relationships, between these variables is now appropriate.

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Appendix A

Advertisements

The following advertisement appeared in the newsletter of La Casa de las Madres, San Francisco's only shelter for battered women and their children:

> La Casa Board member Laura S. McKenna, an R.N. and doctoral candidate at the University of California, San Francisco, is conducting a study to learn more about what resources battered women use (family, friends, church, agencies, etc.) to help them change their life situation.
>
> Interview subjects must be 18 years of age or older; have suffered at least one physical assault by a cohabiting male, and must be able to speak and read English.
>
> All information will be kept confidential. Interviews will be scheduled at the subject's convenience, and carry a stipend of $10 to help pay for any costs incurred in coming to the interview, such as transportation or childcare.
>
> If you would like to participate, call La Casa at 469-7650, leave your first name only, your telephone number, and a time you may be reached. Ms. McKenna will call you back.
>
> Your participation in this study could help improve the lives of many women.

The following advertisement appeared in the newsletter of the Mid-Peninsula Support Network for Battered Women:

> Laura McKenna, a doctoral student at the University of San Francisco is conducting research for her thesis on support systems of battered women. She is seeking participants for her study. If you are a woman who has been physically battered, whether or not you have sought assistance, Laura would like to interview you. All information is totally confidential and a small sum of money is provided to cover expenses such as bus fare and childcare. Call Susan at (415) 964-6503 for more information.

The following advertisement appeared in the personal columns of many bay area newspapers:

> Abused women. Confidential U.C. study. FIRST NAME ONLY. Pays $10. Call Laura 284-9703.

Appendix B

Guide for Solicitation of Subjects

Laura Smith McKenna is a nurse working on a doctoral degree at the University of California, San Francisco. She is conducting a study to learn more about the sources and types of help women use to deal with what happens in a physically violent relationship.

All information will be kept confidential. If you agree to participate in the study, I will give Mrs. McKenna your first name only, your telephone number, and a time when you would want her to call you back. She will call you back and make an appointment with you for an interview which will take from two to three hours. The interview will be scheduled at your convenience, and will be taped if you allow this. You may stop the interview at any time if you become upset, or, if for some other reason, you decide that you no longer wish to participate. At the end of the interview, you will be paid ten dollars to help pay any costs you might incur coming to the interview, like child care or transportation.

If you would like to participate in this study, or if you would like more information before making a decision, I will give your first name and phone number to Mrs. McKenna. She will contact you at a convenient time.

First Name_____

Phone Number_____

A Convenient Time to Call is _____

Criteria for Subjects

1. 18 years of age or older
2. At least one physical assault by cohabiting male
3. Speaks and reads English

Laura Smith McKenna (415) 284-9703

Appendix C

INFORMATION SHEET ABOUT PARTICIPATION IN A RESEARCH STUDY

LAURA SMITH McKENNA, R.N., A DOCTORAL CANDIDATE IN NURSING SCIENCE AT THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO, IS DOING A STUDY TO LEARN MORE ABOUT THE SOURCES AND TYPE OF HELP WOMEN USE TO DEAL WITH WHAT HAPPENS IN A VIOLENT RELATIONSHIP.

IF I AGREE TO PARTICIPATE, LAURA SMITH McKENNA WILL INTERVIEW ME FOR APPROXIMATELY ONE AND ONE-HALF HOURS. DURING THIS INTERVIEW SHE WILL RECORD MY RESPONSES, OR ASK ME TO RECORD MY RESPONSES ON A QUESTIONNAIRE. THE INTERVIEW WILL ALSO BE TAPE RECORDED IF I GIVE HER MY PERMISSION TO DO SO.

IF FOR ANY REASON I DECIDE NOT TO CONTINUE WITH THE INTERVIEW, I CAN END THE INTERVIEW. ENDING THE INTERVIEW OR REFUSING TO PARTICIPATE IN THE STUDY WILL IN NO WAY AFFECT MY ABILITY TO RECEIVE HELP FROM THIS AGENCY.

I UNDERSTAND THAT I WILL ONLY BE IDENTIFIED BY MY FIRST NAME AND THAT NO ATTEMPT TO FURTHER IDENTIFY ME WILL BE MADE.

I WILL BE PAID TEN DOLLARS AT THE END OF THIS INTERVIEW TO HELP ME PAY FOR ANY COSTS I HAVE INCURRED BY COMING TO THE INTERVIEW.

I HAVE TALKED WITH LAURA SMITH McKENNA ABOUT THIS STUDY AND SHE HAS ANSWERED ALL MY QUESTIONS. IF I HAVE FURTHER QUESTIONS, I MAY CALL HER AT (415) 666-4771 or (415) 284-9703.

IF I HAVE ANY COMMENTS ABOUT PARTICIPATING IN THIS STUDY, I SHOULD FIRST TALK WITH LAURA McKENNA. IF FOR SOME REASON, I DON'T WANT TO DO THIS, I MAY CONTACT THE COMMITTEE ON HUMAN RESEARCH WHICH IS CONCERNED WITH PROTECTION OF VOLUNTEERS IN RESEARCH PROJECTS. I MAY REACH THE COMMITTEE BETWEEN 8 AM AND 5 PM, MONDAY THROUGH FRIDAY, BY CALLING (415) 666-1814.

Appendix D

Report of the Pilot Project

Prior to conducting the main study, a small scale pilot was conducted to refine the interview schedule and questionnaires to be used in the main study, and to pre-test data processing and analysis techniques.

Subjects and Setting

Twenty-two formerly battered women who are staff or volunteers with four Bay area agencies providing services to battered women were interviewed by the researcher. Demographic characteristics of the pilot sample are summarized in Table D-1.

The formerly battered pilot subjects ranged in age from 24 to 57 years, with a mean age of 37.7 years. They were primarily Caucasian, divorced from the batterer and not remarried, with a higher percentage of college graduates (55%) than the general population in California (20%).

Instruments

The subjects of the pilot study were surveyed using an interview schedule incorporating both interviewer- and self-administered questionnaires. The instruments used in this pilot project were chosen because of their ability to consistently measure the variables of interest in the study. All instruments had acceptable levels of validity and reliability. This section will briefly discuss the instruments used in the pilot and give the rationale for the decisions made about inclusion of the instrument in the main study.

The Hopkins Symptom Checklist (HSCL). The HSCL is a 58 item self-report instrument designed to measure the psychological symptom status of

Table D-1
Demographic Characteristics of the Pilot Subjects

Characteristic	n	%
Age		
18-29	2	9.1
30-39	13	59.0
40-49	5	22.7
50-59	2	9.1
Racial/ethnic group		
Caucasian	18	81.8
Hispanic	2	9.1
Filipino	1	4.5
American Indian	1	4.5
Marital status		
Never married	2	9.1
Married*	5	22.7
Divorced	13	59.0
Separated	2	9.1
Educational level		
Professional	7	31.8
College graduate	5	22.7
1-3 yrs college	7	31.8
High school	3	13.6

*Not currently married to batterer.

the subject. The HSCL was well accepted by the subjects of the pilot study, although they thought the format of the tool was somewhat threatening. 58 items were typewritten over three pages to provide clarity. While many

subjects thought the typed format made the tool itself less formal, others thought the number of pages seemed somewhat overwhelming.

The Brief Symptom Inventory (BSI). The BSI is a 53 item tool essentially derived from the HSCL which was also administered to subjects in the second half of the pilot study. Information from, and subject response to, both the BSI and the HSCL were compared. Administration time for both instruments was comparable, with subjects completing each questionnaire in under ten minutes. The one page compact format of the BSI was less threatening to the subjects. Although the HSCL has been more widely used than the BSI, three published norms are available for the BSI, and initial information about reliability and validity of the instrument is acceptable. The nine symptom dimensions of the BSI and the three global indices of distress provide an assessment of the psychological symptom status of the subject which is more extensive than the information provided by the five symptom dimensions of the HSCL. On the basis of this comparison, the BSI was substituted for the HSCL in the main study.

The Bradburn Morale Scale (BMS). The BMS is a 12 item self-report instrument designed to measure a sense of psychological well-being. The format of the BMS used in the pilot (1965) was later discovered to have a more recent revision (1969) with acceptable validity and reliability. Three items were dropped from the 1965 version of the BMS by Bradburn as a result of a cluster analysis indicating low correlations with other items in the scale. Two items were added. The new form of the BMS made it possible to score the BMS along either the 1965 or 1969 guidelines. Therefore the 1969 version was used in the main study.

The Demographic and Personal Data Questionnaire is a multi-item questionnaire consisting of open- and closed-ended questions eliciting

information about demographic data and personal background data of subjects, and use of community resources for battered women. This questionnaire was refined to more clearly elicit information about the economic status of the subject, demographic characteristics of the mate, and the subject's total experience with violence. These revisions arose from attempts to classify information obtained from subjects during the course of the pilot interviews, and from recognition of the possible importance of this additional information to other data collected in the study.

The Conflict Tactics Scale (CTS). The CTS is an instrument designed to measure violence in interpersonal relationships. In the main study, eight items from the Violence Scale of the CTS were included in an attempt to quantify the use of physical force or violence experienced by each subject. These questions were administered by the researcher and incorporated into the Demographic and Personal Data Questionnaire used in the main study.

The Personal Orientation Inventory (POI). The POI is a 150 item self-report instrument designed to measure self-actualization. Despite the potentially valuable information about the subject's level of positive mental health which could come from this tool, the pilot subjects' response indicated that the time required to administer the POI (average 20 to 25 minutes) was too long for the subject of this study. The numerous requests for definition of terms used in the Inventory, the availability of other measures of psychological adaptation, and the extensive clerical time used for hand scoring the responses were also influential in the decision to eliminate the POI from the main study.

The Norbeck Social Support Questionnaire (NSSQ). The NSSQ is a self-administered multi-paged questionnaire designed to measure multiple dimensions of social support. The instrument was well received by the

subjects and provided valuable information about the composition and perceived supportiveness of their social networks. This instrument was also used in the main study.

The Hirsch Support System Map (SSM). The SSM is an instrument developed by Hirsch (1979) to assess the density of relationships among social network members. It was well received by the subjects, and provided valuable information about the structure of their social networks. Instructions to the subjects about the SSM were revised to provide more clarity of direction. This revision assured the readability of the data obtained.

Procedures of Data Collection

Procedures around consent for participation and data collection were identical to the main study with the exception that a few women in the pilot study were interviewed in their homes.

Method of Data Analysis

Although the proposed analytical techniques could not actually be carried out on the pilot data because of the small number of subjects (n=22), coding of selected pilot data was done to detect any basic inadequacies of the intended coding system. Minor modifications in the format of the Demographic and Personal Data Questionnaire were made to facilitate coding. Response categories were revised to insure that data collected were appropriate to the desired analytical techniques. Frequency distributions and condescriptive statistics were obtained on selected demographic variables.

Other Modifications to the Main Study

In the pilot, subjects were asked for data about their social networks at the time of the battering situation and for data about their current social networks. This was necessary since pilot subjects were formerly battered women and the differences in the networks at the time of the battering would not be elicited by descriptions of their current networks only. The time involved in collecting data on two networks was extensive. Since the NSSQ would pick up changes in the network over the past year and subjects in the main study were to be currently battered women, the measures of social network and social support were restricted to the current network. This revision was based on the assumption that differences in social network/social support attributed to length of the battering situation or length of time since leaving the battering situation would be inherent in the sample.

Other modifications to the main study were based on the subjects' responses to the interview as well as on direct input elicited from the subjects about the interview process. Initial estimates of one to one and one-half hours for each interview proved inadequate. Pilot interviews lasted from 45 minutes to four hours, and both subjects and interviewer felt physically and emotionally drained at the end of the interview. This exhaustion seemed more from the length of the interview than from the content, although the subject matter is highly emotionally charged. Therefore, the total interview process was scrutinized in an effort to decrease the length of the interview. The information sheet for the main study was revised to indicate that the length of the interview varied from subject to subject, and appointments were scheduled at four hour intervals to allow adequate time to complete the interview.

Appendix E

Decision Rules for Cancelled Appointments

The following decision rules determined the researcher's response to cancelled appointments:

1. If at anytime in the process, a potential subject notified the researcher of a decision not to participate, the woman was thanked for her time and no attempt to recontact her was made.

2. Requests to reschedule appointments at a time more convenient to the subject were accommodated.

3. A minimum of five telephone calls were made to contact a potential subject.

4. If a potential subject did not keep her initial appointment, an attempt to recontact her and reschedule the appointment was made.

5. If a second appointment was scheduled and not kept, and the potential subject did not reinitiate contact with the researcher, reluctance to participate was assumed, and no attempt to recontact the woman was made. If the potential subject initiated further contact, appointments were rescheduled.

Appendix F

Demographic and Personal Data Questionnaire

I.D.#_____

Date_____

Interview Schedule

A. Obtain informed consent[1]_____

B. Administer BMS_____

C. Demographic and Personal Data Questionnaire_____

Answers to the following questions will give me needed information about your background and situation. Please answer the following questions as accurately as you can.

1A. How old are you? _____years

1B. What is your birthdate? ___/___/___

2A. Are you now:
____1. single, never married
____2. married
____3. divorced
____4. separated
____5. widowed

2B. How long have you been (married, divorced, separated, widowed)?
_____

3A. Do you have children?
_____1. no
_____2. yes

[1]Instructions to the interviewer are in bold face and insure uniform administration of instruments.

I.D.#_____

3B. Age and sex of each child:

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

4. What is the highest grade of school that you have completed? (circle one)

Grade School	High School	College	Graduate School
1 2 3 4 5 6 7 8	9 10 11 12	13 14 15 16	17 18 19 20 21 22

Vocational School yes_____; no_____

5A. Have you ever worked outside your home?
_____1. no
_____2. yes

5B. Are you presently employed?
_____1. no
_____2. yes

Full time _____; Part time _____

5C. What is your present (or usual) occupation?

_____

6. What is the highest grade of school that your mate has completed? (circle one)

Grade School	High School	College	Graduate School
1 2 3 4 5 6 7 8	9 10 11 12	13 14 15 16	17 18 19 20 21 22

Vocational School?
_____1. no
_____2. yes

7A. Has he ever worked outside the home?
_____1. no
_____2. yes

I.D.#_____

7B. Is your mate presently employed?
_____1. no
_____2. yes

7C. What is his present (usual) occupation? _____

8A. What is your primary racial/ethnic background?
_____1. Asian
_____2. Black
_____3. Hispanic
_____4. Caucasian
_____5. Native American
_____6. Other (specify)_____

8B. What is your mate's primary racial/ethnic background?
_____1. Asian
_____2. Black
_____3. Hispanic
_____4. Caucasian
_____5. Native American
_____6. Other (specify)_____

9A. What is your household income?
_____1. less than $5,000
_____2. $5,000 to $9,999
_____3. $10,000 to $14,999
_____4. $15,000 to $19,999
_____5. $20,000 to $24,999
_____6. $25,000 to $29,999
_____7. $30,000 to $34,999
_____8. $35,000 to $39,999
_____9. $40,000 to $44,999
____10. $45,000 to $49,999
____11. $50,000 to $59,999
____12. $60,000 to $69,999
____13. $70,000 to $79,999
____14. $80,000 or above
____15. don't know

I.D.#_____

9B. How much of this do you earn?
_____1. less than $5,000
_____2. $5,000 to $9,999
_____3. $10,000 to $14,999
_____4. $15,000 to $19,999
_____5. $20,000 to $24,999
_____6. $25,000 to $29,999
_____7. $30,000 to $34,999
_____8. $35,000 to $39,999
_____9. $40,000 to $44,999
____10. $45,000 to $44,999
____11. $50,000 to $59,999
____12. $60,000 to $69,999
____13. $70,000 to $79,999
____14. $80,000 or above
____15. none

9C. Do you have a personal checking account?
_____1. no
_____2. yes

Do you have a personal savings account?
_____1. no
_____2. yes

9D. Do you have a joint checking account?
_____1. no
_____2. yes

Do you have a joint savings account?
_____1. no
_____2. yes

9E. Do you have charge accounts?
_____1. no
_____2. yes

9F. If yes, in whose name? _____

9G. How are decisions made about how money is spent?

_____

_____

I.D.#_____

10. What is your present religious affiliation?
_____1. Protestant (specify)_____
_____2. Catholic
_____3. Jewish
_____4. Other (specify)_____
_____5. None

11. How would you describe your participation in religious activities?
_____1. Inactive
_____2. Infrequent (1-2 times a year)
_____3. Occasional (about once a month)
_____4. Regular (weekly)

12. Are you currently living with your battering mate?
_____1. no
_____2. yes

13A. If not, where are you living currently?
_____1. Own home without mate
_____2. Apartment or flat without mate
_____3. With parents or other relatives
_____4. With friends
_____5. Safe home
_____6. Shelter
_____7. Other (specify)_____

13B. Was this your initial move upon leaving your mate?
_____1. no
_____2. yes

14. How long have you lived at your present address?
_____1. Less than one year (specify)_____
_____2. 1 to 3 years
_____3. 4 to 6 years
_____4. 7 to 9 years
_____5. 10 or more years

15. How long have you lived in the Bay Area?
_____1. Less than one year (specify)_____
_____2. 1 to 3 years
_____3. 4 to 6 years
_____4. 7 to 9 years
_____5. 10 or more years

I.D.#_____

16. Have you been associated with any agency providing services for abused women?
_____1. no
_____2. yes

17. If yes, which agency have you been associated with?
_____1. Battered Women's Alternatives
_____2. La Casa de las Madres
_____3. Mid-Peninsula Support Network
_____4. Marin Abused Women's Services
_____5. Other (specify)_____

18. How long have you been associated with that agency?
_____1. _____days
_____2. _____weeks
_____3. _____months
_____4. _____years

19. What services provided by that agency are you currently using?
_____1. Crisis line
_____2. Legal advocacy
_____3. Individual counseling
_____4. Support groups
_____5. Child care/children's programs
_____6. Safe home program
_____7. Shelter
_____8. Other (specify)_____
_____9. None

20. What services provided by that agency have you used in the past?
_____1. Crisis line
_____2. Legal advocacy
_____3. Individual counseling
_____4. Support groups
_____5. Child care/children's programs
_____6. Safe home program
_____7. Shelter
_____8. Other (specify)_____
_____9. None

I.D.#_____

21. How did you initially find out about that agency?

_____

_____

_____

D. Administer BSI _____

22. How many years have you been with your current (most recent) mate?
    _____1. Less than 1 year
    _____2. 1 to 5 years
    _____3. 6 to 9 years
    _____4. 10 to 20 years
    _____5. 20 years or more
    _____6. Other

23. How long had you known your mate before the first physical violence?
    _____1. Days
    _____2. Weeks
    _____3. Months
    _____4. Years
    _____5. Other

E. Hand respondent card A_____

Did respondent's assessment of the physically violent acts change when she received Card A?

_____1. no
_____2. yes

If yes, code first assessment in black; code second assessment in red

I.D.#_____

24A. Which of the following describes the level of that first violence? Your mate:

_____1. Threw something at you
_____2. Pushed, grabbed, or shoved you
_____3. Slapped you
_____4. Kicked, bit, or hit you with a fist
_____5. Hit, or tried to hit you with something
_____6. Beat you up
_____7. Threatened you with a knife or a gun
_____8. Used a knife or gun
_____9. Other (specify)_____

24B. Can you tell me about that?

25. At the time of that first violence, did you think of it as:

_____1. Not very serious
_____2. Moderately serious
_____3. Very serious, or
_____4. Other (specify)_____

26A. Which of the following describes the most serious level of physical violence that occurred in your relationship? Your mate:

_____1. Threw something at you
_____2. Pushed, grabbed, or shoved you
_____3. Slapped you
_____4. Kicked, bit, or hit you with a fist
_____5. Hit, or tried to hit you with something
_____6. Beat you up
_____7. Threatened you with a knife or a gun
_____8. Used a knife or gun
_____9. Other (specify)_____

26B. Can you tell me about that?

I.D.#_____

27. How often did this physical violence occur, on the average, in your relationship?
_____1. Daily
_____2. Weekly
_____3. Monthly
_____4. Other (specify)_____

F. Hand respondent card B_____

I'd like to know more about the level of violence you've been dealing with throughout the relationship, and especially throughout the last year.

28. For each of these items please tell me;
First, has it ever occured in the relationship? and
Second, how often in the past year?

no	yes	# times	Item
1._____	2._____	_____	1. Insulted or scared you
1._____	2._____	_____	2. Sulked or refused to talk to you
1._____	2._____	_____	3. Stomped out of the room or house
1._____	2._____	_____	4. Cried
1._____	2._____	_____	5. Did or said something to spite you
1._____	2._____	_____	6. Threat to hit or throw something at you
1._____	2._____	_____	7. Throw or smashed or hit or kicked something
1._____	2._____	_____	8. Threw something at you
1._____	2._____	_____	9. Pushed, grabbed or shoved you
1._____	2._____	_____	10. Slapped you
1._____	2._____	_____	11. Kicked, bit, or hit you with a fist
1._____	2._____	_____	12. Hit or tried to hit with something
1._____	2._____	_____	13. Beat you up
1._____	2._____	_____	14. Threatened you with a knife or a gun
1._____	2._____	_____	15. Used a knife or a gun
1._____	2._____	_____	16. Other

29A. How long ago was the last episode of physical violence?
_____1. _____Days ago
_____2. _____Weeks ago
_____3. _____Months ago
_____4. _____Years ago

I.D.#_____

29B. Can you tell me what happened?

30. At the time of the last episode of physical violence, did you think of it as:
_____1. Not very serious
_____2. Moderately serious
_____3. Very serious
_____4. Other (specify)_____

31A. Is this the first time you have left the relationship?
_____1. no
_____2. yes

31B. If yes; How did you come to leave?

31C. If no; how many times have you left?_____and how did you come to leave?

32A. Have you experienced any form of violence directed at you in other relationships?
_____1. no
_____2. yes

If yes, can you tell me about that?

32B. Have you experienced any form of violence directed at you by your parents?
_____1. no
_____2. yes

If yes, can you tell me about that?

I.D.#_____

32C. Have you experienced any form of violence directed at you by your brothers or sisters?

_____1. no
_____2. yes

If yes, can you tell me about that?

32D. Have you observed any form of violence between your parents?

_____1. no
_____2. yes

If yes, can you tell me about that?

In the last few questions I've been trying to assess your total experience with violence.

32E. Is there anything else that would help me to understand your total experience with violence;

_____1. no
_____2. yes

If yes, can you tell me about that?

In the next part of the interview I would like to talk with you about the people in your life. WOULD YOU LIKE TO TAKE A LITTLE BREAK BEFORE WE GO ON?

F. Administer network list of NSSQ_____

If respondent has been out of the battering situation longer than 6 months, revise network list to represent network while in battering situation.

I.D.#_____

Instructions: I am also interested in your network at the time of the battering.
1. If there is anyone on this list who was not significant at the time you were in the battering situation, draw a red line through the name.

2. If there is anyone who was significant at the time you were in the battering situation whose name is not on the list, please add the name in red.

Was it necessary to direct respondent to place batterer on list?
_____1. no
_____2. yes

G. Administer Support System Map____

H. Complete NSSQ 1 through 9_____

I. Follow up on loss question_____

33A. Is there anyone on this list in whom you have completely confided about your feelings and the battering situation?
_____1. no
_____2. yes

33B. Who?_____

34. For each name on the Network List, ask the following questions, and record on supplemental sheets:
A. How do you know this person?
B. What kinds of things do you do together?
C. Do you consider this a relationship where you primarily give, where you primarily receive, or where there is a mutual and equal exchange?

PROBE: What does this person give to you?

D. Does this person know about the battering?
E. How does this person respond to your being battered?
F. Does this response make it easier or more difficult to deal with your situation?

PROBE: How does this response make it (easier, etc.)?

I.D.#_____

J. Summarize sources and types of help received

35B. Is there any other source of help you have used to deal with your situation?

_____1. no
_____2. yes

If yes, can you tell me about that?

PROBE: What type of help do you get from this source?

36. Are there other types of help you need now with no source for that help?

I. Make appropriate referrals_____

J. Thank subject for participating in the study, offer a copy of The Legal Rights of Battered Women in California (1981), and give ten dollars_____

Appendix G

Instruments

Information about the scoring and administration of the instruments used in this study can be obtained from the following sources:

1) The Bradburn Morale Scale

   Information on both versions of the instrument is contained in these two references:

   Bradburn, N. M. (1969). The structure of psychological well-being. Chicago: Aldine Publishing Company.

   Bradburn, N. & Caplowitz, D. (1965). Reports on happiness. Chicago: Aldine Publishing Company.

2) The Brief Symptom Inventory

   Leonard R. Derogatis, Ph.D.
   1228 Wine Spring Lane
   Baltimore, Maryland 21204

3) The Conflict Tactics Scales

   Murray A. Straus, Director
   Family Violence Research Program
   University of New Hampshire
   128 Horton Social Science Center
   Durham, New Hampshire 03824

4) The Norbeck Social Support Questionnaire

   Jane S. Norbeck, R.N., D.N.Sc.
   Department of Mental Health and Community Nursing
   University of California, School of Nursing
   San Francisco, California 94143

5) The Hirsch Support System Map

   Barton J. Hirsch, Ph.D.
   Professor of Psychology
   University of Illinois
   709 Psychology Building
   603 E. Daniel Street
   Champaign, Illinois 61820

Table G-1
Formulas Used to Calculate Network Density

Measure of density	Formula
Overall network density	X/[N(N-1)/2]
Friendship network density	X/[F(F-1)/2]
Family network density	X/[K(K-1)/2]
Family-friendship network boundary	X/(K)(F)

X=number of actual relationships
N=number of overall network members
F=number of friendship network members
K=number of family network members