JOB DISSATISFACTION IN A HOSPITAL SETTING: TESTING THE SOCIAL SUPPORT MODEL

By

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A Dissertation

Submitted to the School of Graduate Studies

in Partial Fulfilment of the Requirements

for the Degree

Doctor of Philosophy

McMaster University

JOB DISSATISFACTION IN A HOSPITAL: TESTING THE SOCIAL SUPPORT MODEL

DOCTOR OF PHILOSOPHY (1993) McMASTER UNIVERSITY
(Sociology) Hamilton, Ontario

TITLE: Job Dissatisfaction in a Hospital Setting: Testing the Social Support Model

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NUMBER OF PAGES: xvii, 270

ABSTRACT

The purpose of this dissertation is to explore the potential advantages of the "social support model." This model specifies that social supports may mitigate the effects of stressors (e.g., role conflict, role ambiguity) on negative outcomes such as job dissatisfaction. An attempt is made to determine the extent to which an empirical analysis based on the "social support model" permits a more adequate explanation of two measures of job dissatisfaction than that achieved when social supports are omitted from the investigation.

A secondary analysis of data from a study of acute-care hospital employees provides partial support for the contention that the inclusion of social supports in an empirical analysis accounts for a statistically significant increment in explained variance. The analysis reveals that social supports in general and supervisor support (for achievement) in particular have significant impacts on the "general job dissatisfaction" measure. Alternatively, these relationships are not discovered to exist when the dependent variable is "dissatisfaction with job expectations." In a more rigorous test of the social support model, interaction terms are entered into regression equations. The results do not indicate that social supports systematically buffer the effects of stressors.

When compared to the effects of the social support variables, the stressor variables account for a greater amount of variance in the analysis of each of the two measures of job dissatisfaction. The findings on the stressors suggest that the nature of work roles and decision

making are the most important determinants of job-related affect. In sum, the results are largely consistent with previous research on: stressors, buffering effects, and the social support model (for one of the two dependent variables).

The conclusion recommends avenues for future research and addresses a largely neglected issue: why there has been a proliferation of social support research over this past decade.

ACKNOWLEDGMENTS

For their advice and criticism, I would like to thank the members of my dissertation committee: Professors Peter Archibald, Frank Jones, and Susan French. My appreciation is also extended to Professor Victor Marshall for providing me with the data set to conduct the analysis and for his support and guidance throughout my early doctoral studies.

Various individuals in many different ways have played a key role in my completing this dissertation. These include: Frank Cullen, Paula Dubeck, Bruce Link, Brendan Maguire, Richard Mathers, David Miller and Diane Wozniak. I especially thank John Barkans, Stewart Epstein, and Norene Pupo for their help and friendship while we were full-time graduate students at McMaster. I am very grateful to Carol Skiles for her attentive efforts in preparing and typing each draft. Deanna Galan's technical aid in processing the manuscript is appreciated as well.

To Margaret Wozniak, your love and encouragement as my wife have strengthened me at most needed times. My deepest gratitude goes to my father, Frank Wozniak, my brother and sister, Don Wozniak and Emilie Jane Katzenstein, my father-in-law and mother-in-law, Richard and Marilyn Lloyd, and the rest of my family in Pennsylvania and Iowa. All their care and affection has made this endeavor possible. Finally, to my daughters, Melinda Pitzer and Laura Wozniak, and to my son, Eric Wozniak, the joy of having you in my life has inspired me to finish this writing.

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Chapter One

THE EMERGENCE OF THE SOCIAL SUPPORT MODEL: RECONSIDERING THE IMPACT OF ORGANIZATIONAL STRESSORS

In recent years, there has been a proliferation of empirical studies examining stressors in relation to a range of social, psychological, and physical outcomes. Nearly all of the evidence from this research suggests that stressors are detrimental to the quality of a person's life. However, a revisionist stance has emerged questioning the validity of the view that there is a necessary, uncomplicated relationship between stressors and negative outcomes. Analysts are now proposing and empirical data accumulating to confirm the notion that circumstances may mitigate or preclude the negative consequences that might normally be expected to be engendered by stressors. These variables have most frequently been termed social supports.

Those studying the impact of organizational settings on the lives of workers have similarly documented the existence of stressors (e.g., role conflict, role ambiguity, role overload) and the negative outcomes they produce. However, until the last decade, such stressor researchers had only infrequently engaged in the task of systematically analyzing how social supports in work settings (e.g., supervisor support, co-worker support) might operate to limit the job-related negative outcomes experienced by employees. Instead, these studies had typically been informed by a model that focused almost exclusively upon factors which

produced deleterious consequences as opposed to one that also investigated circumstances that might protect people and make their work setting more favorable.

In this light, this dissertation endeavors to explore the potential advantages of a theoretical perspective--the "social support model"--that examines not only sources of negative outcomes but also variables that diminish such outcomes. Specifically, an attempt is made (1) to use the social support model to understand the causal structure of job dissatisfaction among hospital employees on acute-care wards, and (2) to determine the extent to which an empirical analysis based on this perspective permits a more adequate explanation of job dissatisfaction than that achieved when social supports are omitted from the investigation. In addition, the present research seeks to advance this model by assessing the possibility that various types of stressors, social supports, and combinations of stressors and social supports might have very differential effects on a job outcome.

The remainder of this chapter addresses these issues in greater detail. First, the traditional approach to the study of the impact of stressors is considered. Second, the emergence of the competing social support model is delineated. This section discusses conceptual concerns and provides illustrations of the social support perspective. Third, a review is undertaken of empirical studies that have examined the prevalence and consequences of stressors in work organizations. Fourth, a summary is also presented about the growing body of recent research conducted on the existence and effects of social supports in work

organizations. Finally, taken together, this material furnishes a context for specifying the major insights suggested by the social support model and for interpreting the nature of the empirical analysis that is reported and described in the chapters that follow.

THE TRADITIONAL STRESSOR-OUTCOME MODEL

As a prelude to a discussion of the directions that stressor-related research has taken over the past two decades or so, it is necessary to begin by distinguishing between two central concepts: stress and stressors. The concept of stress has not been clearly defined in scientific writings. As House and Harkins (1975:396) note, "the stress literature offers no agreed-upon definition of stress" (cf. House, 1981:35; Kasl, 1978:12; Selye, 1983:1-2).

Nevertheless, it is possible to capture a central theme that runs through most discussions of the concept. Thus, stress is perhaps best viewed as referring to a discomforting affective or psychological state in an individual. Within the field, such terms as frustration, pressure, strain, tension, anxiety, and dissatisfaction are commonly employed as synonyms for the concept of stress. Some examples of empirical measures that have been used to tap this concept are: life dissatisfaction, unwanted pressure, boredom, resource inadequacy, threat, low self-esteem, lack of trust, job tension, job insecurity, professional burnout, and job dissatisfaction (cf. Caplan et al., 1975; Dressel, n.d.; French and Caplan, 1973; House and Rizzo, 1972; Pettegrew et al., 1981; Quinn and Shepard, 1974).

Stressors, on the other hand, have been frequently conceived as conditions that may potentially give rise to stress in individuals. According to Selye (1974:27), "stressors" are "stress-producing factors." In a similar vein, Pettegrew et al. (1981:5) view "stressors" as "stress activators." Social scientists have identified a variety of circumstances that precipitate stress. For instance, some investigators have found a source of stress in life events such as death of a loved one, marital discord, and change in financial or residential status (Dohrenwend and Dohrenwend, 1974). Another analyst has maintained that stress is generated by a discrepancy between culturally prescribed goals and socially approved means to attain these goals (Merton, 1938). Some others have pointed to the condition of status inconsistency as exposing individuals to the rigors of stress (House and Harkins, 1975). Still others have examined how role difficulties within the work setting are experienced as stressful by employees (Kahn et al., 1964).

Over the last several decades, numerous researchers from diverse academic disciplines have explored the relationship between stressors and negative outcomes other than stress. Most often, such scholars have indicated that stressors have the uniformly negative consequence of producing an array of detrimental actions or behaviors. Thus, as Cullen (1984) and Cloward and Piven (1977) have noted, authors have proposed that stressful social situations give rise to deviant behaviors ranging from crime (Merton, 1936) to delinquent behavior (Cohen, 1955; Quicker 1974) to alcoholism (Horton, 1943) to rebellion (Davies, 1962) to suicide (Durkheim, 1951). Similarly, other studies have located in stressful

conditions the origins of physiological (e.g., angina, coronary heart disease, dermatological problems, dyspepsia, severe headaches, high blood pressure, high cholesterol levels, hypertension, ulcers) and mental (e.g., anxiety, depression, fatigue, nervous breakdown, neurosis, psychosis, schizophrenia) disorders (cf. Cooper and Marshall, 1976; French and Caplan, 1973; Gove and Tudor, 1973; Gunderson and Rahe, 1974; House, 1974b; House et al., 1979; Kasl, 1978; Lin et al., 1981; Mortimer, 1979; Warr and Wall, 1975).

In sum, stressors such as role problems, turbulent life events, and structurally-induced inconsistencies have been held to generate a range of dissatisfying affective states--usually grouped under the concept of "stress", deviant social behaviors, and physical pathologies. In this dissertation, the concept of "negative outcome" is utilized to subsume the negative or unhealthy psychological, behavioral, and physical states that researchers have generally argued are linked to stressors.

Significantly, a common logic is at the core of the traditional mode of stressor-related research. Analysts in this vein have typically assumed that stressors necessarily produce stress and other negative outcomes. For the most part, there is little consideration in such analyses of those conditions that may arise in conjunction with stressors and outcomes such as stress to prevent or lessen the potential negative consequences that may otherwise occur. Others in the field, however, have more recently perceived the necessity of undertaking a systematic examination of this possibility. It is to their work that we now turn.

EMERGENCE OF THE SOCIAL SUPPORT MODEL

A growing number of researchers have begun to question the stressor-outcome mode of analysis that has prevailed in stressor-related studies since the 1960's. These investigators have asserted that stressors need not precipitate stress or other negative outcomes. Instead, they have emphasized that other circumstances may occur to prevent or mitigate the potency of the detrimental consequences of stressors. Most often, such variables have been termed "social supports."[1] The first part of this section discusses how social support has been conceptualized in stressor-related literature. After that, research concerning the effects of social support on stressors is examined.

The Concept of Social Support

Various analysts have maintained that studies of social support in relation to stressors became an increasingly popular area of research during the 1970's (Cohen and Syme, 1985b:3; Dean, 1986:6; House et al., 1985:83-84; Lin et al., 1985:247; Wortman and Conway, 1985:281). As Vaux (1988:5) points out, three scholars--Cassel, Caplan, and Cobb--"laid much of the groundwork for discussion and research of social support over the past decade." Hence, it seems fruitful at this point to summarize how each of these stressor scholars delineated the concept of social support.

Although he does not define it formally, Cassel (1974b:545) envisions social support as a protective factor that has a function of "cushioning the individual from the physiological or psychological

consequences of exposure to the stressor situation." In Cassel's analysis (1974b:545), social support is provided by primary groups, particularly those groups most important to the individual.

Like Cassel, Caplan (1974) does not offer a concise definition of social support. Caplan (1974) nonetheless directs attention to the ways a "support system" (i.e., family, friends, members of neighborhoods and the community) may operate to protect individual well-being as demands and changes of everyday life arise. For example, Vaux (1988:6) notes that:

> Caplan did elaborate on the kind of help the support system might provide, suggesting three main sets of activities: helping one mobilize psychological resources to manage emotional problems; sharing demanding tasks; and providing materials, money, skills, and guidance to help in dealing with specific stressors.

In this vein, support systems can be thought of as "attachments among individuals or between individuals and groups that serve to improve adaptive competence in dealing with short-term challenges, stresses, and privations" (Caplan and Killilea, 1976:41).

Cobb (1976:300), on the other hand, furnishes a more precise conceptualization of social support as follows: "Social support is defined as information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations." Furthermore, Cobb specifies three ways that information can be conceived as social support. First, information that one is cared for and loved is important, according to Cobb (1976:300-301), because it meets one's need for affiliation and succorance in social interactions. He thereby calls such information "emotional support." Second, information

that one is valued and esteemed is designated by Cobb (1976:301) as "esteem support" since it "leads the individual to esteem himself and reaffirms his sense of personal worth." Finally, Cobb (1976:301) suggests information that one belongs to a network of mutual obligations provides "belonging support." Here, Cobb (1976:301) stipulates this latter information "must be common in the sense that everyone in the network has the information and shared in the sense that each member is aware that every other member knows."

Although each of these scholars approach the concept of social support differently, there are some commonalties in their views of how social support affects the individual upon encounters with stressful situations. Like Cassel and Caplan, Cobb believes that social support is protective. Specifically, Cobb's (1976:300) review of the literature on life stress leads him to conclude: "It appears that social support can protect people in crisis from a variety of pathological states." Similar to Cassel and Caplan, Cobb also emphasizes that primary groups are key providers of social support. However, Cobb's view of potential sources of social support is a bit more oriented to transitions in the life cycle than the analyses of Cassel and Caplan. Thus, Cobb (1976:301-302) posits:

> Social support begins in utero, it is best recognized at the maternal breast, and is communicated in a variety of ways, but especially in the way the baby is held (supported). As life progresses, support is derived increasingly from other members of the family, then from peers at work and in the community, and perhaps, in case of special need, from a member of the helping professions. As life's end approaches, social support, in our culture, but not in all cultures, is again derived mostly from members of the family.

Influenced by the works of Cassel, Caplan, Cobb, and others (e.g., Dean and Lin, 1977; Gore, 1978; House, 1981; Pearlin et al., 1981), numerous researchers have conducted empirical studies of social support in relation to stressors during the 1970's and 1980's.[2] However, many of these stressor investigators do not concretely define social support and seemingly assume that the concept is a self-explanatory variable that needs only to be operationalized through items in attitudinal scales.[3] In this regard, Turner et al. (1990:46) comment concerning recent developments in stressor-social support literature that: "Although this body of research has advanced our understanding of the significance of social relationships. . ., it has also produced a bewildering array of conceptual and operational definitions. . ." Nevertheless, it would be remiss to disregard the fact that in addition to Cobb, several authors researching stressors have attempted to provide definitions of social support as possible building blocks for future studies in this area.

For example, after reviewing diverse conceptualizations in the literature, House (1981:39) contends that social support commonly refers to:

> An interpersonal transaction involving one or more of the following: (1) emotional concern (liking, love, empathy), (2) instrumental aid (goods or services), (3) information (about the environment), or (4) appraisal (information relevant to self-evaluation).

Similarly, Wethington and Kessler (1986:78) remark that social support can be conceptualized "as a perception of hypothetical resource

availability or as the actual transfer of advice, aid, and affect through interpersonal networks."

Thoits (1982:147-148) makes a distinction between social support and the social support system as exhibited in the following:

> Social support will be defined here . . . as the degree to which a person's basic social needs are gratified through interaction with others. Basic social needs include affection, esteem or approval, belonging, identity, and security. These needs may be met by either the provision of socioemotional aid (e.g., affection, sympathy and understanding, acceptance, and esteem from significant others) or the provision of instrumental aid (e.g., advice, information, help with family or work responsibilities, financial aid). Instrumental aid has socioemotional overtones, of course; practical help from others assures the individual that he or she is cared about. The social support system will be defined as that subset of persons in the individual's total social network upon whom he or she relies for socioemotional aid, instrumental aid, or both (underlining is bold-faced in the original).

Moreover, Thoits (1982:148) says that one of the advantages of these conceptualizations is that they allow stressor investigators to operationalize structural (e.g., size, density, accessibility, and stability of the total social network) and functional (e.g., "the perceived amount and adequacy of socioemotional aid received from various support system members") properties of the social support system. Thoits (1982:148) further concludes that:

> These definitions explicitly direct the researcher's attention to various types, sources, and degrees of support received from significant others, and to the structural properties of support systems, foci which have been lacking in most previous work.

Lin (1986) has developed a formulation of social support that bears a resemblance to the one specified by Thoits (1982). Before presenting his view of social support, Lin (1986:18) stresses that his definition of this concept "represents a synthesis of those offered by researchers during the past ten years . . . and is derived from the theoretical perspective of social resources." He then argues that this concept should be seen as having a social component and a support component. More specifically, Lin (1986:18) proposes that:

> . . . the social component should reflect the individual's linkage to the social environment. This can be represented at three distinct levels: (1) the community, (2) the social network, and (3) intimate and confiding relationships. The support component should reflect the essential instrumental and expressive activities (my underlining).

Summarizing this line of thinking, Lin (1986:18) purports that a "synthetic definition of social support is the perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners."[4]

Four other stressor researchers portray the concept of social support in terms of resources and needs. As an example, Shumaker and Brownell (1984:11) define social support as "an exchange of resources between two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient." According to Turner (1983:110), this term "refers to the clarity or certainty with which the individual experiences being loved, valued, and able to count on others should the need arise." Putting it another way, Jacobson (1986:251-252) notes:

> Studies of types of support are usually associated with "needs" theories of stress. Thus, if stress is defined in terms of unmet needs or the absence of social relationships through which "supplies" may be provided, then social support is defined in terms of resources that meet needs, social relationships through which an individual's needs are met, or both (underlining is bold-faced in the original).

While for Pearlin (1989a:251), "social support represents the resources that one actually uses in dealing with life problems."[5]

This review of attempts by stressor researchers at defining social support suggests various, if implicit, uses of the concept, but also an important conceptual convergence. As House et al. (1985) indicate, theorists use social support to refer to three distinct phenomena, the last of which dominates existing research.

First, House et al. (1985:84) assert that social support "is sometimes defined conceptually or operationally in terms of the existence or quantity of social relationships in general, or of a particular type such as marriage, friendship, or organizational membership." Writers like Lin (1986:19), for example, state that mere membership in community voluntary associations can create a sense of "belongingness" that is inherently "supportive." House et al. (1985:85) believe that the quantity of social relationships, whatever their inherent effects, is best captured by the concept of "social integration or isolation."

Second, House et al. (1985:85) report that social support is often utilized to refer to "the structures existing among a set of relationships (e.g., their density, homogeneity, or range)." House et al. nonetheless prefer the conceptualization here of "social networks." Other researchers

have found it useful to employ terms such as the "support network" (Vaux, 1988:28) or "social support system" (Thoits, 1982:148; Caplan, 1974). The focus is not on the delivery of social support per se, but on an individual's structural location and how this affects the potential for social support to be delivered (Pearlin, 1989a:251).

Third, most often theorists, including House et al. (1985:85) reserve the term social support to denote "the functional content of relationships, such as the degree to which the relationships involve flows of affect or emotional concern, instrumental or tangible aid, information, and the like." The focus here is on how resources are delivered to people to help them meet their personal needs or overcome difficulties (stressors) they encounter in fulfilling their social roles. This dissertation employs this latter conceptualization of social support.

Beyond their efforts to define the conceptual boundary of social support, stressor researchers note the importance of considering three other issues. First, they discern the importance of distinguishing between "supportive behavior" and "support appraisal" (Vaux, 1988:29). At issue is the difference between the actual, behavioral provisions of social support and the subjective perception of whether social support is being offered. Nearly all stressor research to date has employed perceptual measures of social support (Cohen and Wills, 1985; House et al., 1985:95; Vaux, 1988:15).

Second, although distinguishing between support networks and social support, stressor researchers observe the importance of assessing the source of social support--that is, who provides a person with

resources (House, 1981:22). Again, while social support may come from a stranger or an acquaintance, researchers argue for the salience of social support from those closest to an individual: family, friends, co-workers (Caplan, 1974; Lin, 1986; Vaux, 1988).

Third, researchers in this area confirm the need to examine the content of the resources being delivered--not simply who is being supportive, but what the social support is (House, 1981:22). Several typologies of the content of social support have been developed (Barrera and Ainlay, 1983; Cohen and Wills, 1985; House, 1981; Jacobson, 1986; Vaux, 1988; Wills, 1985), but as Lin (1986:20) affirms, two "major . . . clear-cut and identifiable" conceptual dimensions consistently run through these frameworks: instrumental and expressive support. Likewise, Vaux (1988:21) concludes, using slightly different terminology, that social support is best divided conceptually into "instrumental" and "affective" functions.

Expressive support is conceived as mitigating stressors by "gratifying affiliative needs" (Shumaker and Brownell, 1984:23)--for meeting, in Vaux's (1988:21) words, "needs for love and affection, esteem and identity, and belonging and companionship." In the workplace, such social support can occur in the form of positive appraisals from supervisors or from inclusion in informal work groups by co-workers. Such social support can help individuals to handle work (or life) stressors by enhancing their self-concept and feelings of efficacy. Alternatively, an absence of expressive support can mean that affiliative needs are unmet

and that stressors are faced with a weakened self-concept in a potentially hostile work environment.

While the distinction between instrumental and expressive support is conceptually useful, it should be noted that some degree of overlap between these two dimensions can take place. For example, House (1981:25) states that the provision of instrumental support such as a loan or information about a job not only may allow for the achievement of a goal but also may convey positive appraisal and caring. Conversely, emotional encouragement may not only meet affiliative needs but also help an individual to have the confidence to achieve a work-related goal.

In sum, social support is conceived by most stressor researchers as the provision of resources that help individuals to meet their personal needs or to overcome the difficulties (stressors) they encounter in fulfilling their social roles. These resources can be instrumental and aimed at enabling individuals to achieve goals, or they can be expressive and directed at building esteem and providing understanding. The actual delivery of social support must be distinguished from perceptions of whether social support is forthcoming. Finally, since individuals exist within a "support network," it is important to examine the source furnishing the social support.

The Effects of Social Support

The notion that social supports mitigate the negative consequences of stressors has been most fully developed by those analyzing the outcomes of physical and mental illness. A central argument of such researchers is that social supports buffer stressors and reduce the risk of

illness (Cassell, 1976; Cobb, 1976; Dean and Lin, 1977; Dohrenwend and Dohrenwend, 1978; House, 1981; Rabkin and Streuning, 1976). Moreover, some authors in this area have argued that social supports are: (1) frequently neglected, (2) not typically recognized as stressor-mediating or buffering variables, and (3) not systematically linked to stressors, stress, and other outcomes such as illness in empirical studies (Cassell, 1974a; Dean and Lin, 1977; Lin et al., 1979).

In order to treat the concept of social support more rigorously, some analysts have begun to develop a "social support model" as an alternative to the "stressor-outcome model" that dominates much of the past stressor-related research. At this point, it is essential to draw a clear distinction between these two models. Hereafter in the discussion, the social support model is also referred to as the revisionist model because it strives to amend considerations of a direct relationship between stressors on stress and on other various outcomes as usually viewed in what can be termed the stressor-outcome model. For want of a better term, theory or research in the field that assumes such direct, uncomplicated relationships between stressors, stress and other various outcomes is simply called the stressor-outcome model.[6]

In short, the social support model places emphasis upon social support as a fundamental variable in its theoretical and empirical analysis. The stressor-outcome model, on the other hand, does not treat social support as a factor of comparable importance. A detailed elaboration of this point is made in the next section of this chapter. In the discussion that follows, three illustrations of the social support model

are graphically portrayed and described in order to provide concrete representations of how this revisionist model has been developed in the literature.

The work of Rabkin and Streuning (1976) is an example of one of the early efforts to question whether stressors lead directly to stress and other negative outcomes. After an extensive review of research, they (1976:584) state:

> We consider the following sequence of conditions: social stressors ---> mediating factors ---> stress response ---> illness onset. The term social stressors refers to widespread social changes such as migration and personal life changes such as bereavement, which alter a person's social setting . . . . Exposure to social stressors does not cause disease, but may alter the person's susceptibility at a particular time, and as such serves as a precipitating factor. Mediating factors include those characteristics of the support system that influence his perception of stressors and so serve to modify their impact . . . . Stress response is the organism's response to stressful conditions, consisting of a pattern of physiological and psychological reactions, both immediate and delayed. Illness onset is defined by the appearance of clinical symptoms of disease (my underlining).

Within this quote, central variables of the social support model are delineated and a sequential scheme is drawn to research how the variables in this model affect each other. In specific terms, stressors are portrayed as relating indirectly to negative outcomes (i.e., stress and illness) through mediating factors such as social support.

Lin et al. (1979) provide a second illustration of the social support model. Their revisionist thrust becomes apparent as they (1979:109-111) write:

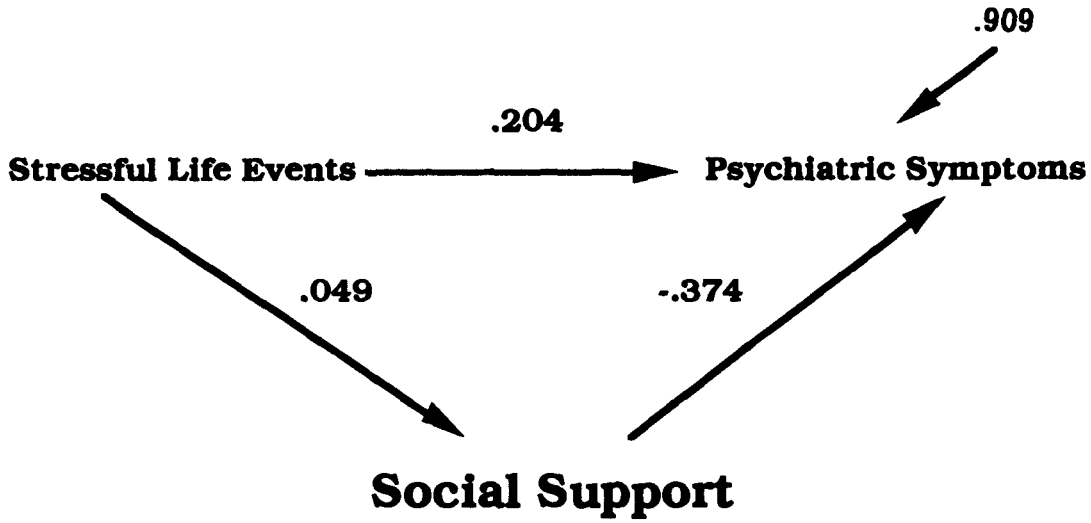
> It is evident that there is a substantial and growing body of literature linking stressors (especially as indicated by stressful life events) to illness. However, several theoretical and

> measurement problems have prevented this body of literature from progressing toward a more rigorous paradigm . . . . Conceptually, there is a need to explore other variables that, along with stressful life events, may figure in the explanation of illness . . . . We may infer that social support copes with the potential stressor-illness relationship by acting . . . as a buffering factor, following the occurrence of life changes, that controls interpretations of the events and emotional response to them . . . . Interestingly, while the mediating role of social support has been extensively suggested, the research evidence for such a relation has so far been partial at best . . . . What is needed is an explicit model specifying the joint effects of social supports and stressors (e.g., stressful life events) on illness.

Following this line of reasoning, Lin et al. (1979) present their version of the social support model as shown in Figure 1.1. In this figure, stressful life events connote stressors, psychiatric symptoms are outcomes, and social support is the variable that intervenes between them (.204, .049, and -.374 are partial coefficients).[7] A major finding in their research is that social support is much more significantly (and negatively) related to psychiatric symptoms than stressors. In addition, they (1979:115-116) state, "the unexplained variance of the illness measure was significantly reduced by the incorporation of the social support scale in the model."

Further, Lin et al. (1979) emphasize that their data reveal that stressors do not mediate between social support and illness. On the other hand, they also assert that in their study, social support has a mediating effect between stressors and illness.[8] The central point of their analysis is that they not only direct attention toward social support as a variable that lessens a negative outcome, but also offer some general evidence that the social support model is more adequate (that is, explains more variance) than the stressor-outcome model.

Figure 1.1. A Social Support Model: Psychiatric Symptoms as a Function of Stressful Life Events and Social Support (R^2 = .174)*



*Adapted from Lin et al., "Social Support, Stressful Life Events, and Illness: A Model and Empirical Test," Journal of Health and Social Behavior 20 (June):115, 1979.

A third example of the social support model is featured in Figure 1.2. The model outlined in this figure illustrates the causal orderings of variables which LaRocco et al. (1980:204) feel, "represent the major focus of concern among those investigating the effects of occupational stress."

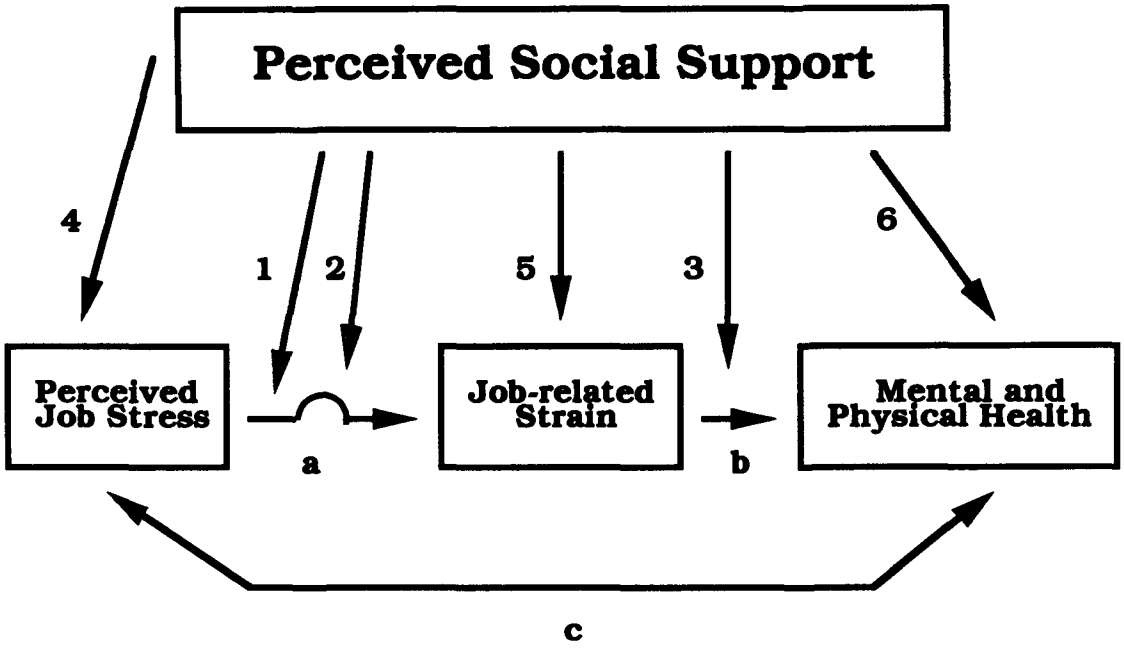
In Figure 1.2, perceived job stress represents a stressor, perceived social support measures social support, job-related strain denotes stress as one negative outcome, and mental and physical health constitute two other negative outcomes. This figure also contains arrows that are numbered to specify the main hypothesis in the model. According to LaRocco et al. (1980:203-204):

> Arrows 1 and 2 (of Figure 1.2) show the buffering hypothesis that perceived social support buffers the effects of perceived job stress on job strain and health. Arrow 3 represents a different but related hypothesis: that social support ameliorates the effects of job-related strain on health indicators . . . . Perceived social support may also have additive or main effects on job stress, job strain, and health, as indicated by the arrows numbered 4, 5 and 6 . . . . Arrows a, b, and c . . . hypothesized effects from stress to job-related strain to health (my parenthesis).

Thus, Figure 1.2 shows various combinations in which social support has potential buffering impacts or effects. For instance, social support may either directly lessen illness symptoms (main effect) or mitigate between (1) stressors and stress, (2) stressors, stress, and health, (3) stressors and health, and (4) stress and health.

Basic commonalties are apparent in all three examples of the social support model. First, all signify efforts to sum up the core of the current issue emanating from the literature concerning the impact of stressors on outcomes; that is, the importance of social support as a variable in need of primary attention in this research area. Second, all indicate that

Figure 1.2. A Social Support Model: Potential Relationships Among Job Stress, Social Support, Job Strain and Health*



*Adapted from LaRocco et al., "Social Support, Occupational Stress, and Health," Journal of Health and Social Behavior 21 (September):203, 1980.

the presence of social supports lessens negative outcomes. Third, all suggest that the social support model provides a more adequate explanation than the stressor-outcome model.[9]

Thus far, the social support model has been addressed above mainly in terms of hypotheses, and with little empirical documentation, except for the work of Lin et al. (1979). Several attempts to apply this model toward empirical analysis have come forth (particularly in relation to health) and existing results connected with the dominant stressor-outcome model have received reinterpretation. For example, like Lin et al. (1979), other researchers have found that social supports diminish the effects of negative health-related outcomes. Regarding alcoholism, Bromet and Moos (1977) note that job dissatisfaction among recovering alcoholic workers may be lessened through supportive family members who tend to cushion any adverse effects involved in readjustment to the work situation. Similarly, in a study of alcoholic tuberculous patients, Jackson (1956) concludes that men who try to stop drinking without support from an organized program have a significantly greater likelihood of being admitted to a tuberculosis treatment center than those trying to refrain with such support.

In terms of mental illness, Lin et al. (1981) show that social support has a greater effect on depression than stressful life events. Likewise, Beels (1978) has identified beneficial effects of support from family and social networks on schizophrenic patients. Swank (1949) also indicates that social support is a mitigating factor between life threat and combat exhaustion among soldiers. Moreover, Dean and Lin (1977) report

various studies offering similar evidence that social support lessens stress while also reducing the risk of physical health problems, some of which include tuberculosis (Holmes, 1956), angina pectoris (Medalie and Goldbourt, 1976) and pregnancy complications (Nuckolls et al., 1972).

However, empirical evidence is far from conclusive about whether social supports consistently lessen the effects of stressors on health. For instance, upon examining recent research, McFarlane et al. (1983:161) comment that while "a number of investigations have shown an independent effect of coping resources (locus of control, social supports) on health . . . it has been more difficult to demonstrate a significant interaction between stressors and coping." Hence, they conclude that the evidence for a buffering role of social supports is best considered as "equivocal." Likewise, Wills (1985:76) maintains that a considerable body of epidemiological literature reveals that some social supports (status support, instrumental support, social companionship) have only main effects on health, while others (esteem support, information support, instrumental support, motivational support) relate to health primarily in terms of interaction effects. On a broader level, Wills (1985) suggests that certain kinds of social support (e.g., a status support like marriage) are rooted in stable social relationships and provide support on a continuing basis; as such, they are likely to have main effects on lessening negative outcomes. Alternatively, some kinds of social support (e.g., talking to a confidant to boost esteem) are likely to become important during moments of heightened stress and thus are likely to

have a "buffering effect" on negative outcomes. As noted later, buffering effects are assessed through interaction terms.[10]

Upon review of the above theoretical and empirical investigations linked to the social support model, it becomes evident that this emergent model reorients current thinking about the effects of stressors on negative outcomes by reinterpreting the relationships between these variables much differently than before. Unlike much past research, this revisionist model does not miss the possible influence of social support as a crucial variable in the analysis of the consequences of stressors. Reflecting this revisionist thinking, Pearlin (1985:43) argues that:

> The intensive interest in social supports among social scientists and policymakers is justified. Any set of circumstances that promises to contribute to the prevention or alleviation of suffering or distress certainly merits close scrutiny. Yet the very intensity of our interest must also serve as a warning to monitor and restrain our judgments of supports: We should not magnify their efficacy, we should not ignore their limits, and we should not fail to establish as a prominent part of our research task the identification of conditions under which they exercise their effects.

As such, a major implication underlying the social support model for future research in this area is that no understanding of the effects of stressors will be complete without taking the potential effects of social support into account.[11]

STRESSORS IN WORK ORGANIZATIONS

Paralleling the dominant stressor-outcome paradigm that has prevailed in stressor-related writings, social scientists have endeavored to illustrate how various aspects of work settings function as stressors. Only in recent years has research emerged that seeks to explore the

operation of social support as a variable which may lessen the effects of stressors on outcomes within work organizations. Below, we first examine the traditional approach of organizational analysts to the study of stressors and outcomes and then proceed on to address the importance of reconsidering such a mode of analysis in light of the recent development of the social support model.

As shown in Table 1.1, a survey of forty organizational studies (representative of past research in this area), reveals that organizational authors have identified and investigated a diversity of organizational stressors. This table further indicates that the predominant stressors utilized in organizational literature include: non-participation in decision making (14 authors); role ambiguity (24 authors); role conflict (24 authors); and role overload (12 authors).

These investigators have also linked organizational stressors to different organizational stresses as well as to a myriad of other outcomes. Some of the variables they have used as measures of organizational stress are: job tension (French and Caplan, 1973; Kahn et al., 1964; Devlin, 1978); low trust, job-related threat, low self-actualization, low self-esteem (French and Caplan, 1973); motivation to work, intention to leave job (Quinn and Shepard, 1974); strain, frustration, unwanted pain (Pettegrew et al., 1981); professional burnout (Dressel, n.d.); and in particular, job satisfaction/dissatisfaction. As illustrated in Table 1.1, this latter variable has been employed as an outcome measure in relation to stressors in 38 of these 40 organizational studies.

Table 1.1 Survey of Various Stressors in Organizational Literature by Author(s)

Author	Organizational Stressor																					
	Clarity/Org. Goals	Concern/Work Quality	Crossing Org. Bounds	Distributive Justice	Job Insecurity	Fast Pacing	Inequity of Pay	Job Complexity	Nonparticip./Decisions	Occ. Differences	Relations with Others	Repetitiveness	Responsibility/Others	Resource Inadequacy	Role Ambiguity	Role Conflict	Role Preparedness	Role Overload	Underutilization	Worker Influence	Unwanted Overtime
*Althouse & Hurrell (1977)									X							X					
*Alutto & Acito (1974)									X												
*Arvey et al. (1976)	X								X												
*Buck (1972)													X					X			
*Caplan (1971)											X				X						
*Caplan et al. (1975)									X						X	X		X	X		
*Cherniss & Egnatios (1978)	X																				
*Coch & French (1948)									X												
*Cooper & Marshall (1978)									X		X		X								
Devlin (1978)															X	X		X			
*Dressel, (N.D.)									X												
*Fallik (1977)									X											X	
*Flora (1977)															X	X					
*French & Caplan (1973)			X			X			X	X	X	X	X		X	X		X			
*French et al. (1960)									X		X										
*Gardell (1974)																				X	
*Hamner & Tosi (1974)															X	X					
*Harris (1976)										X					X						
House & Harkins (1975)				X												X		X			
*House & Rizzo (1972)															X	X					
*House & Wells (1978)		X											X		X	X		X			X
*Johnston & Stinson (1975)															X	X					
*Kahn et al. (1964)															X	X		X			
*Keller (1975)															X	X					
*Kraut (1965)																X					
*LaRocco et al. (1980)							X	X							X			X	X		
*Lawrence (1978)															X	X					
*Lyons (1971)	X														X	X					
*Medrano (1978)															X	X					
*Obradovic et al. (1970)									X												
*Pettegrew et al. (1981)									X						X	X	X	X			
*Pinneau (1975, 1976)								X							X	X			X		
*Quinn & Shepard (1974)					X				X					X	X			X	X		
*Schuler (1975)															X	X					
*Senetra (1976)															X	X					
*Szilagyi (1977)															X	X					
*Thompson (1977)																X		X			
*Van Sell et al. (1976)															X	X					
*Warr & Wall (1975)									X				X		X	X		X			

*Denotes author examining the relationship between stressors and job satisfaction/dissatisfaction.

The variety of outcomes further associated with organizational stressors consist of: physical illness problems such as high blood pressure, poor blood cholesterol, ulcers, severe headaches, heart disease, excessive smoking, gastrointestinal disorders, and dermatological troubles as well as mental disorders such as severe nervousness, depression, neuroses and psychoses (cf. Althouse and Hurrell, 1977; Cooper and Marshall, 1976; French and Caplan, 1973; House, 1974a; House and Wells, 1978; Mortimer, 1979; Warr and Wall, 1975). Some other outcomes directly related to organizational stressors are work-related injuries, fatigue, prejudice, social isolation and political liberation (cf. House and Harkins, 1975; Mortimer, 1979).

It is important to note that the vast majority of organizational stressor studies, like the general stressor research in other fields, has been based on the stressor-outcome model. Within their main findings, such organizational analysts typically make it a point to emphasize whether or not their organizational stressor scales (e.g., role conflict, role overload) bear a direct relationship to their measures of negative organizational outcomes, typically stress (e.g., job dissatisfaction, job tension).

This is apparent in the influential work of Kahn et al. (1964), which has been largely responsible for the development of a significant amount of organizational stressor research (cf. Van Sell et al., 1976). Overviewing their contributions to this area of study, Kasl (1978:31) maintains:

> I wish to turn now to studies of role stress, role conflict, and overload. The model study which gave rise to much of the current work was done almost 15 years ago (Kahn et al., 1964). A good deal of this current work is repetitious and trivial . . .

> involving cross-sectional correlations of self-reports of perceived job environments and reactions to these--in general, two sets of constructs with varying amounts of conceptual overlap. These studies reveal the expected negative correlations between role conflict and ambiguity and components of job satisfaction . . . .

While Kahn and his colleagues (1964) have made some beginning insights into the potential significance of social support and other coping mechanisms (cf. McMichael, 1978:137), the thrust of their research is based on the stressor-outcome model. In the words of Kahn et al. (1964:223):

> The major theme of this investigation has been that role conflict and role ambiguity constitute stress factors in the work environment, and that they produce many manifestations of inner conflict and tension. Inner turmoil, in turn, leads to various responses--some behavioral, some attitudinal--intended to help the individual find an adjustment to the stresses in his work role.

The Institute for Social Research (ISR) at the University of Michigan has conducted numerous empirical investigations which have attempted to further analyze the central propositions of Kahn et al. (1964). Upon undertaking a comprehensive survey of this ISR research, French and Caplan (1973) conclude that a general theory can be derived from such studies about occupational stressors, stresses, and outcomes. In a nutshell, this theory contends that occupational stressors produce psychological and physiological stresses leading to coronary heart disease. Similarly, after examining literature reviews of more recent research dealing with stressors and social supports in the work setting, Kasl and Wells (1985:180) assert:

> A dominant theoretical formulation within this literature has been the so-called Institute for Social Research (ISR)

> model of stress (e.g., Kahn, 1981). This model depicts a presumptive causal schema in a sequence from (1) objective work environmental characteristics to (2) the perceived environment to (3) short-term responses (physiological, behavioral, affective) to (4) health and disease outcomes.

Despite this thrust to the ISR research, Kasl and Wells (1985:180) also observe: "The role of social support can be easily grafted onto this model." That is, it can serve as a buffer or as a "modifier" of stressors or have "an independent (main) effect." Even so, for the purposes of this present research, it is instructive to note that within the current ISR model of stress, social support is <u>not</u> concretely employed as a fundamental variable in the causal scheme as is the case for objective/perceived environments, short-term responses, and health/disease outcomes. Thus, in contrast to the assumptions underlying the social support model, the ISR model is formulated in such a way that empirical analyses can take place without social support being utilized as a study variable. The point here is that both of these reviews (French and Caplan, 1973; Kasl and Wells, 1985) indicate that many other researchers following in the tradition of Kahn et al. (1964) also base their studies of stressors, stress, and other outcomes on the stressor-outcome model.

Hence, a dominant paradigm in the area of organizational stressor research has been one which assumes the direct link between stressors, stresses, and other negative outcomes. However, in light of the recent emergence of the social support model, one can question whether an understanding of stressors and outcomes such as stress in work settings would not be improved by examining the possibility that conditions exist

in organizations that function to mitigate the potentially detrimental consequences of stressful job factors. It is this issue that is discussed in the next section.

SOCIAL SUPPORTS IN WORK ORGANIZATIONS

From the general stressor literature, we have learned of the importance of incorporating the variable of social support into any analysis seeking to understand fully the impact of stressors on stress and other outcomes. We have also seen that the bulk of stressor research in work settings has been guided by the stressor-outcome model. Only recently have stressor researchers made extensive attempts to assess the potentially positive effects of organizational social supports.

For instance, House and Wells (1978) show that social support reduces job stressors and job stresses and improves health. Cobb and Kasl (1977) and Gore (1978) have found that social support modifies the relationship between unemployment (e.g., job loss) and health responses. Caplan (1971) also indicates that favorable work relations serve to lessen the effects of a variety of environmental stressors and psycho-physiological outcomes.

Furthermore, in one of the most systematic investigations of organizational social supports, LaRocco et al. (1980) have re-analyzed the data of three studies (House and Wells, 1978; LaRocco and Jones, 1978; Pinneau, 1975). These three sets of data had previously yielded conflicting results about whether social support buffers the impact of occupational stressors on job-related stress and health. As general stress analysts, LaRocco and his associates (1980) have ascertained the

need to apply the revisionist social support model to the study of stressors in varying organizational contexts. Their research again reinforces the notion that a consideration of the potential effects of social support is essential.

As in the three prior studies, LaRocco et al. (1980) have found that social support does not mitigate the consequences of job stressors on all outcomes (e.g., job dissatisfaction, boredom). However, like House and Wells (1978), LaRocco and his colleagues (1980) differ with the two other studies by reporting that social support does diminish the effects of job stressors on other outcomes (e.g., physical and mental illness). As such, any analysis which ignores the social support variable and instead assumes uniformly negative consequences of stressors across all outcomes in work settings therefore risks advancing potentially erroneous conclusions.

Based on a detailed analysis of existing studies of social supports in work settings, House (1981:83) similarly concludes that: "Data . . . support the proposition that social support can reduce work stress, improve health, and buffer the impact of work stress on health. Although not large, the body of data reviewed here is remarkably consistent." House (1981:83) notes, however, that "not any and every form of social support will reduce every form of work stress." Consequently, he (1981:83) urges that future research be undertaken in order "to specify under what conditions what kinds of social support will have what kinds of effects on stress and health." Notably, this current dissertation attempts to address this issue by examining the

relationships between different types of work-related social support and two types of job dissatisfaction.

Beyond the specific writings of LaRocco et al. (1980) and House (1981), other research is relevant to the study of social support in work settings. Indeed, through the lens of the revisionist social support model, it becomes apparent that numerous investigators of organizational life have anticipated the concept of social support and/or illustrated the ways in which social support mitigates the harsh aspects of work.

Although virtually ignored by current social support scholars, one intellectual predecessor is the work by social psychologists on "group cohesiveness" which emerged in the 1940's and 1950's. This concept may be viewed as having several dimensions, but the major authors in this tradition have defined the core of group cohesiveness as the degree to which members are "attracted to the group" and "motivated to remain in the group" (Shaw, 1971:192; see also Cartwright and Zander, 1953:76; Adams and Slocum, 1971:39).

Informed with this definition, social psychologists have conducted a number of studies on group cohesiveness in laboratory settings, where controlled experiments could be used (Cartwright, 1968). Researchers, however, have broadened their methods to examine group cohesiveness within natural or field settings. Most relevant for the concerns of this dissertation, these settings include work environments, where researchers have analyzed the extent of cohesiveness and how it has

affected such outcomes as employee productivity and social interaction (Shaw, 1971:200-205).

Cohesiveness, which refers to commitment to a group, and social support, which, as noted earlier, refers to the provision of instrumental and/or emotional assistance, are distinct concepts. Even so, they are similar in the sense that they both relate to the nature of interpersonal relations and to the possible effects these relations may have on people's behavior and well-being. Further, the group cohesiveness literature appears to indicate that cohesiveness increases the likelihood that social support will be provided. For example, in a study where female college students were asked to make cardboard checkerboards, Schachter et al. (1960) have found that subjects in groups induced to be cohesive were more amenable to demands to lessen their rate of productivity. That is, group cohesiveness seems to make subjects more willing to assist co-workers whom they believed were expressing discomfort at the pace of the task. Likewise, in another experimental study using college students, Pepitone and Reichling (1960) report that cohesive groups are more likely to respond with hostility when confronted with the experimenter's hostile appraisals. Again, this finding suggests that group cohesiveness may be conducive to subjects supporting one another in the face of psychological discomfort.

The interrelationship between group cohesiveness and social support also is evident in the work of Seashore (1954) and later in Seashore and Bowers (1963). This fact is especially relevant since this research was carried out in work settings. In 1950, Seashore (1954)

undertook an investigation of group cohesiveness by studying 228 groups in the "Midwest Machine Company," a factory that manufactured heavy machinery. Like other researchers, Seashore (1954:97) defines group cohesiveness as the extent to which workers wish "to remain in the group and to resist leaving the group." Notably, he has explored the consequences of group cohesiveness and in so doing ascertained that higher levels of cohesiveness buffeted group members against feelings of "anxiety." This leads Seashore (1954:101) to assert that positive "primary associations" in the workplace are important for an employee to have "feelings of security and the reduction of his anxieties." He notes, however, that the benefits of group cohesiveness often depend on whether the company's management has been supportive or divisive. "To assure a positive benefit to the organization from group cohesiveness," Seashore (1954:102) states, "the administrator might well take steps first to provide the basic conditions of equity and supportiveness which warrant employee confidence in management." In short, managerial support for employees was consequential in insuring that group cohesiveness would be a factor that advanced, rather than undermined, both employee psychological comfort and company organizational goals.

These themes have been expanded and linked more directly to the concept of "social support" in Seashore's collaborative work with Bowers (1963). Between 1958 and 1961, these researchers studied 800 workers at a midwestern packaging company. Their goal was to employ experimental methods to determine whether they could bring about organizational change. In their approach, Seashore and Bowers

(1963:17) consider the work group as the key mechanism that would satisfy employee "ego motives" (e.g., for "status, recognition, approval, acceptance"), in such a way as to enhance organizational goals.

Significantly, in a direct anticipation of the social support model, Seashore and Bowers (1963:17) hypothesize that improving the "supportive (i.e., ego-enhancing) behavior on the part of all members of the group, and especially on the part of the supervisor," is needed to increase worker job satisfaction and productivity. Accordingly, they (1963:19) have developed measures of "supportive behavior by supervisors and peers." (And, as discussed in Chapter Two, their measures of supervisor and peer support for achievement and affiliation are utilized in this dissertation.) Seashore and Bowers have discovered that the organizational intervention improved supportiveness (most clearly evident with supervisory support) and worker satisfaction. While the connection between social support and job satisfaction was not definitively established, Seashore and Bowers (1963:101-106) maintain that the evidence weighed in favor of the conclusion that the experiment in organizational change was successful.

A host of subsequent researchers has also contended that components of interpersonal relationships have a mitigating influence on the potentially strainful aspects of organizational life. Seashore and Bowers (1963) have argued that "supervisory" support is likely to be especially salient, and research has tended to confirm their view. For example, the greater the consideration of subordinates by supervisors (Vroom, 1964; Carroll, 1973), the more supportive style of supervision

(Thompson, 1971), and the less tyrannical the supervision (Strauss, 1976), the greater the job satisfaction. Likewise, in Althouse and Hurrell's (1977) study of the relationship between role stressors (e.g., ambiguity, conflict, overload), social support (e.g., supervisor, co-worker) and job satisfaction, one of the main findings is that the only significant predictor of job satisfaction is supervisor support.[12]

Other organizational analysts have directed attention toward the significance of supportive relations among co-workers within organizational settings. For instance, job satisfaction is likely to be higher if the social integration of employees to their work group is greater (Form, 1973). Moreover, in a summary of the major determinants of job satisfaction, Locke (1976) has indicated that agents in the work place, who maximize employees' chances to get ahead in their jobs and who minimize role conflict and role ambiguity, also tend to increase job satisfaction.

A further illustration of the importance of supportive co-worker relations is apparent in the work of Warr and Wall (1975) which discusses the classic study of the shortwall and longwall approaches used in a British coal mine (cf. Trist and Bamforth, 1951; Trist et al., 1963). In the shortwall system, miners worked in small teams (ranging from 2 to 8 men) that were organized to enhance mutual compatibility. Soon after sophisticated equipment was adopted into the mining operation, the longwall system was introduced as the new form of work organization. This system increased the number of miners in a work team to 40 men, divided the work teams into three shifts, and spread out

the miners so that they toiled much farther apart than they had done before. The major ramification of this change in organizational systems was that miners experienced meaninglessness, social isolation, passivity and the norm of productivity dropped. This study thus reveals how the disruption of social support systems precipitated a range of negative outcomes.

Finally, anticipations of the concept of social support can be found in the early, classic studies of complex organizations, such as those conducted by Gouldner (1954) and Blau (1963). Although they did not use the term "social support" systematically--it is not, for example, listed in their books' indexes--their observations on informal relations nonetheless illuminate the nature of social support within formal organizations.

Between 1948 and 1951, a research team guided by Gouldner utilized interviews and observations to investigate the organizational life of a midwestern gypsum plant. The workforce of 225 people was split between those employed in a subsurface mine and those hired to work in an above-ground factory. Through the case-study method, Gouldner's (1954:17, Chapter 12) main goals were to examine the process of "bureaucratization, hypothetically accounting for its growth or contraction" and to elaborate on Weber's (1947) theory by seeing if types of bureaucratic patterns were discernible (e.g., "mock, representative, punishment-centered"). In so doing, as indicated above, he has offered insights into the conditions under which social support in the plant was more or less likely to exist.

First, Gouldner notes how the increasing bureaucratization of the gypsum plant in essence changed the supervisory style from supportive to impersonal and controlling. Traditionally, the plant was run with an "indulgent" administrative style. Supervisors and workers often had prior friendship ties in the community which were imported into the plant, thus encouraging "intimacy" or expressive support. Workers also were allowed informally to take home spare materials and products (e.g., dry wall), a practice which manifested a supportive managerial style. In time, however, the succession of the old with a new management team resulted in attempts to eliminate informal practices that were viewed as lenient and as inhibiting productivity. The plant thus underwent a transformation in the direction of greater bureaucratization with formal rules, impersonal controls, and a clearer manager-employee status hierarchy being implemented. As Gouldner (1954:98-101) points out, this attempt to use bureaucracy to solve a perceived problem ultimately had the unanticipated consequence of generating fresh "tensions" and employee resistance to the imposed changes. Thus, the reduction in supervisory support may be seen as increasing worker dissatisfaction.

Second, Gouldner (1954) shows how co-worker "informal group solidarity" was shaped by organizational factors. Working in closer proximity and sharing the common "anxiety" over the danger of unpredictable cave-ins, the mine workers displayed much greater solidarity than the surface workers. In effect, Gouldner describes how this solidarity was a precondition for the delivery of expressive and instrumental social support. For example, fears of danger would be

lessened by the transmission of stories about ways to detect an imminent cave-in (e.g., rats would first run out of the mine). Injuries would lead fellow employees to take up collections and to walk off the job in protest. And mine workers would attach "nicknames" to new workers as a way, Gouldner (1954:130) observes, "to integrate the worker into the informal group, signifying that his co-workers had taken cognizance of him as a distinctive individual."

It should be noted, however, that informal solidarity does not mean that workers would only be supportive. As Gouldner (1954:134) describes, "deviants" in the mine, especially those whose behavior threatened safety, were punished by co-workers with "ostracism and isolation." Further, worker solidarity also had, from the perspective of the company and families, dysfunctional effects. Thus, the solidarity of mine workers made them able to resist the implementation of new technology and to sustain a culture that valued absenteeism. Moreover, mine workers were pulled toward drinking with their co-workers, which led them to "evade family obligations" and to embrace patriarchal family roles (1954:135).

Similar to Gouldner, in The Dynamics of Bureaucracy, Blau (1963) examines how organizational factors influenced interpersonal relations and the nature of co-worker social support. From 1948 to 1949, Blau used field methods to undertake a case study on two government agencies: a state employment agency and a federal agency that enforced business regulations. Noting that Weber (1947) largely confined his attention to "official regulations and requirements and their significance

for administrative efficiency," Blau (1963:2-3) argues for the necessity also to explore informal relations--not as "idiosyncratic deviations" but as "consistent patterns that are new elements of the organization."

Insights on social support can be found in Blau's analysis of "competition" and "cooperation" within the state employment agency. One unit or "section" was characterized by worker competition and little co-worker support for one another, but a second unit Blau studied was characterized by strong "cooperative norms," a "network of reciprocal information," and sanctions against non-supportive colleagues.

Blau (1963) traces the differences in cooperative or supportive behavior to the way workers were evaluated in each unit. In the competitive unit, "performance records," that measured the number of employment placements made, were the primary evaluation criterion. As a result, workers illicitly monopolized job listings (e.g., hiding them under their desk blotters) and refrained from assisting co-workers. In contrast, in the cooperative unit, performance was not assessed by statistics on the number of placements but on the quality of the service being provided to clients. Competitive practices were thus seen as inhibiting the professional responsibility to place clients in appropriate jobs, while cooperation--assisting co-workers when possible--was seen as a sign of professionalism to be valued. In short, Blau's analysis exhibits that the building of social cohesion in work groups and the willingness to furnish social support are contingent on organizationally-based incentives.

This perspective also informs his analysis of "consultation among colleagues" in the federal enforcement agency (1963:Chapter 7). In

judging whether businesses had violated the "large and complex body of legal regulations," these workers were often "anxious" about making the correct decision--largely because the "legal validity and effectiveness" of their decisions affected their performance ratings. They faced the additional dilemma of being mandated only to consult with their supervisor about problematic decisions, but also of knowing that their job ratings would suffer if they revealed their lack of expertise too often to supervisors.

To reduce anxiety, workers in the federal employment agency relied on informal and officially illicit relations with co-workers through which assistance with complex decisions could be gained. Importantly, these "instrumental services" (1963:162) or social support were not freely given but rather were enmeshed in a pattern of social exchange. At times, workers engaged in a "partnership of mutual consultation" (1963:131) in which information was equally exchanged. But often those with more expertise provided instrumental assistance in exchange for status. In essence, then, Blau shows how stress-inducing work problems engenders the emergence of an informal system to provide social support. However, he has also discerned that the delivery of social support can itself help to foster status differentiation and that the receipt of social support is not cost-free.

Blau (1963:Chapter 9) contends further that workers in the federal agency took steps to build social cohesion--foster feelings of belongingness among one another--through such practices as rituals at the agency's annual Christmas party and "sending small presents" of

"symbolic significance" on special occasions (e.g., birthdays). This cohesion was important because it allowed workers to provide expressive support when they were faced with the tensions stemming from the conflicts they experienced in enforcing regulations. Blau (1963:171) thereby maintains: "The cohesive work group was a haven where agents felt accepted and secure. Informal contacts in this situation relieved the tensions generated in the field."

Gouldner's and Blau's case studies thus document the existence of social support in organizations and the role it plays in mitigating structurally-induced tensions or stresses. Their research has particular value, however, in illustrating how organizational conditions affect the emergence, degree, and content of social support. This issue has been largely neglected by social support theorists--a point that will be discussed in the final chapter.

In summary, as the overall discussion above reveals, the importance of the variable of social support has certainly not been neglected in organizational research. Implicit again in these various illustrations of organizational studies is the common theme that social support in organizations affects the quality of a worker's experience and hence is a circumstance that must be considered if we are to comprehend the effects of organizations on work life. At the same time, without the benefit of a coherent theoretical model, these organizational researchers who have emphasized the significance of social support in organizations have not often seen themselves as falling within a common

paradigm of analysis. As a result, their insights have often remained independent of one another.

However, the revisionist social support model formulated in general stressor literature does present an opportunity to bind these diverse analyses and findings together into a single paradigm. That is, once this revisionist model is brought into direct view, the impact, shown by various organizational analysts, of social support on stressful work conditions can be brought into sharper focus. This dissertation therefore purports to continue in this tradition of organizational studies by undertaking a broad investigation of social support in order to further illuminate its possible mitigating influence on stressors and job outcomes in organizational settings. The specific thrust of this research is outlined in the final section of this chapter.

Finally, it is possible to locate the social support model within a broader theoretical context. In large part, the model converges most with sociological theories that have focused on the ways in which people adapt to the exigencies of modern industrial life (Durkheim, 1951; Parsons, 1951). Accordingly, it is best seen as a social integration or social cohesion perspective, as opposed to a conflict perspective (cf. Coser, 1977:130-131; Ritzer, 1983:192-193; Wilson, 1983:98-100).

Although the model can be located theoretically, it should be noted that few social support researchers have explicitly linked their work to, or based their variables and empirical analysis on, larger theoretical frameworks. It does not appear that the model emerged as a conscious derivative of an overarching paradigm, since these researchers rarely

make reference to classical or contemporary sociological theory. Instead, the model is informed only implicitly by a social integrationist view of society. As explored in more detail in Chapter Five, this orientation has had the consequence of limiting the range of questions social support researchers have asked.

CONCLUSION: TESTING THE SOCIAL SUPPORT MODEL

As shown earlier, the social support model has provided new and significant insights about the ways in which stressors impact on people's lives. To date, efforts to utilize this model developed outside the field of complex organizations to understand the stressful circumstances of work settings are only now moving beyond the initial stages. This dissertation endeavors first to state explicitly the need to apply the social support model in organizational research and then proceeds to conduct a systematic empirical investigation of this model. Based upon a survey of hospital employees on acute-care wards, the data set that is available for this analysis contains a number of suitable measures of the key variables in the social support model (i.e., organizational role stressors, organizational social supports, and negative outcomes--types of job dissatisfaction). Thus, the use of this data furnishes an opportunity to assess the potential direct or interactive effects of social supports in an organizational setting.

Three major insights drawn from the social support model literature are used to guide this present research. These are:

1. Organizational stressors are positively related to job dissatisfaction.

2. Social supports are negatively related to

job dissatisfaction.

3. The social support model allows for a more adequate explanation of job dissatisfaction than the stressor-outcome model.

The specific research hypotheses regarding the major study variables in the dissertation are further elaborated in Chapter Two. This chapter also describes the basic methodological procedures that are used including data collection, study population, measurement of variables, and research techniques. In Chapter Three, descriptive data are presented on the measures of role stressors, social supports, and job dissatisfaction which have been utilized in this research.

The test of the social support model is reported in Chapter Four. The aim of this chapter is to examine whether social supports lessen the negative outcome of job dissatisfaction. Specifically, the strategy is to determine what occurs to the relationship between organizational stressors and job dissatisfaction when the social support measures are introduced into the analysis. In turn, this enables us to consider whether the social support model is a more adequate approach than the stressor-outcome model. Further, as LaRocco et al. (1980:212) state:

> At the same time, our analysis and review of the literature emphasize the need to specify which stress/strain relationships are most susceptible to buffering effects, which are most susceptible to main effects, and which are relatively impervious to the effects of social support. Also, we need to consider what types and sources of support are most effective in producing what kind of effects (cf. McMichael, 1978; Quinn, 1975).

Thereby, Chapter Four presents an opportunity to examine how various types of organizational stressors most frequently identified in the

literature (e.g., role conflict, role ambiguity) are related to job dissatisfaction, and how various types of social supports (e.g., supervisor, co-worker) affect the impacts of differing organizational stressors on job dissatisfaction.

Finally, Chapter Five offers a summary of the major findings of this research, endeavors to explore their theoretical, ideological, and policy implications, and suggests avenues for improved research in this area.

NOTES

[1]Regarding the rising interest in social supports as variables in stressor-related research, House et al. (1985:84) state: "The Social Sciences Citation Index shows a rapidly accelerating, almost geometric, growth in the number of articles with the term social support in their titles, from 2 in 1972 to 50 in 1982." See also Cobb (1976), Dean and Lin (1977), House (1981:63-85), and Turner (1983) for extensive reviews of empirical studies which suggest that social supports diminish the effects of stressors on negative outcomes.

[2]Some of the predominating variables that have been used in stressor-related research to measure the concept of social support include spouse support, friend support, relative support, neighbor support, community support, supervisor support, co-worker support, and subordinate support (cf. Althouse and Hurrell, 1977; Caplan, 1971; Gore, 1978; House, 1981; Lin et al., 1979; Pinneau, 1975; Wells, 1977).

[3]This point is based on a review of studies of stressors and social supports over the last two decades. For example, as illustrated in Table 5.1, 59 articles researching the relationship between stressors and social support have been published in the Journal of Health and Social Behavior from 1974 to 1990. Only 18 of these articles provide a definition of social support before presenting a discussion of how this concept is operationalized (usually through attitudinal scale items) in the study. These articles are: Lin et al. (1979); Pearlin et al. (1981); Vanfossen (1981); Thoits (1982); Turner and Noh (1983); Kaplan et al. (1983); Lin et al. (1985); Jacobson (1986); Wethington and Kessler (1986); Turner and Noh (1988); Pearlin (1989a); Ross and Mirowsky (1989); Cooper et al. (1990); Dean et al. (1990); LaGory et al. (1990); Loscocco and Spitze (1990); Sherbourne and Hayes (1990); Turner et al. (1990).

Three of these articles (Kaplan et al., 1983; Turner and Noh, 1983; Dean et al., 1990) employ Cobb's (1976:300) definition of social support as the conceptual basis to operationalize their measures of this concept. Three other articles use terms such as "support-supported-supportive" in their definitions of social support. For instance, Lin et al. (1979:109) state, "social support may be defined as support accessible to an individual through social ties to other individuals, groups, and the larger community." With respect to social support, Turner and Noh (1988:28) write that, "the concept refers to a core human requirement, and that a central aspect of this requirement is the experience of being supported by others." For Ross and Mirowsky (1989:208), "emotional intimacy provides social support" which ". . . is the belief that when one has

problems, one has someone to talk to who is supportive and understanding."

Vanfossen (1981:132) deals with the notion of social support by focusing upon expressive support which:

> Can be conceptualized as consisting of two separate dimensions of behavior. One is behavior that expresses appreciation for the value and worth of another person. It involves contributing to and affirming the sense of self that the other would like to have. The other dimension is providing affection toward and closeness for the other.

Turner et al. (1990:46) report that, "a number of researchers have argued against the usefulness of a global concept of social support." Thus, they do not attempt to construct such a definition of social support. They (1990:46) proceed to suggest the value of three categories of social support: "Social embeddedness (the connections of individuals to significant others in their social environment), perceived social support, and enacted support (actions that others perform in rendering assistance)." After further discussion of these three categories, they maintain that only perceived social support (which they do not define) has most relevance to their research topic (teenage pregnancy outcomes).

According to Cooper et al. (1990:263,266), social support "may be conceived usefully as coping assistance" (e.g., material aid, availability of a confidant or someone to socialize with). Similarly, Loscocco and Spitze (1990:315) assert that social support--"the sense of being cared for and loved, esteemed and valued as a person, and part of a network of communication and obligation"--is a coping mechanism that influences well-being. Notably, this latter view of social support closely resembles Cobb's (1976:300) conceptualization mentioned earlier in the discussion.

LaGory et al. (1990:94-95) base their definition of social support on the one formulated by Lin (1986). Sherbourne and Hays' (1990:329,331-332) conception of social support is drawn extensively upon the definition of social support furnished by House (1981). The definitions of social support developed by Lin (1986) and House (1981) are considered in the discussion ahead in this chapter as are the definitions of social support made by Pearlin et al. (1981), Thoits (1982), Lin et al. (1985), Jacobson (1986), Wethington and Kessler (1986), and Pearlin (1989a).

Let it be further noted that Gore's article (1978) does not offer a definition of social support and that Dean and Lin's study (1977) gave much attention to the role of social support systems as possible mediators of stressors. Although they (1977:407) state that a primary group is one of "the type of groups which we conceive as principally

fulfilling social support functions," a concise definition of social support is not included in their writing.

[4]It is interesting to note that in a previous study of life events and social supports, Lin and colleagues (1985:249) conceive of social support in another way, "the degree of access to and use of strong and homophilous ties."

[5]In another study, Pearlin et al. (1981:340) similarly contend that social support is "the access to and use of individuals, groups, or organizations in dealing with life's vicissitudes."

[6]It may be noted that different versions of the stressor-outcome model have been articulated. For example, as illustrated in Cox (1978), some authors focus upon how stressors lead only to measures of stress, whereas others maintain that stressors lead not only to stress but also to a range of other outcomes.

Other writers (French and Caplan, 1973; House and Harkins, 1975; McDonald and Doyle, 1981) assert that stressors result first in the social psychological state of stress and then subsequently in other negative outcomes. That is, in this latter version, stress is viewed as an intervening variable between stressors and outcomes.

On the other hand, researchers such as House (1981) and LaRocco et al. (1980) hypothesize that social supports can mediate not only the direct effects of stressors on negative outcomes (including stress), but also the impact of stress on outcomes when stress is viewed as a variable that intervenes between stressors and outcomes. Again, in this dissertation, the concern is with analyzing whether social supports help to lessen the effects of stressors on job dissatisfaction, a social psychological state that analysts have regarded as a "stress" (House, 1981:82; French et al., 1982:3).

[7]Lin et al. (1979:115) indicate that this model explains 17.4% (i.e., R^2 = .174) of the variance in psychiatric symptoms as the dependent variable. By contrast, the remaining "unexplained" variance is .826 (or 82.6%). This latter number is $1\text{-}R^2$ for the model. The square root of this number is .909, which is the unexplained variance reported in Figure 1.1. This then is what the .909 means and why it is represented by an arrow from outside the model. The model also incorporates two background variables (marital status; occupational status). Both of these variables are not found to have statistically significant effects.

[8]Lin et al. (1979) reach these conclusions upon analyzing psychiatric symptom scores by low, medium, and high levels of social

support and by low, medium, and high levels of stressors. Specifically, Lin et al. (1979:114) report that a series of t-tests show:

> . . . when the social support level was low . . ., the high stressor group experienced greater symptoms than the medium stressor group, and that when the social support levels were medium or high . . ., levels of stressors had no significant effect on symptoms. Further, when the stressor level was high . . ., the low social support group experienced greater symptoms than the high social support group, and when the stressor level was low . . ., the low social support group experienced greater symptoms than the medium social support group. Social support levels had no effect on symptoms when the stressor level was medium. In general, then, the findings suggest that social support performs more of a mediating role between stressors and psychiatric symptoms than stressors do between social support and psychiatric symptoms, but the evidence is inconclusive.

[9]It should be observed here that social supports could potentially lessen the impact of stressors on outcomes in four different ways: (a) they occur after stressors emerge and hence are intervening variables between stressors and outcomes; (b) they occur prior to the emergence of stressors and serve to suppress negative outcomes from arising; (c) social supports and stressors exist simultaneously in an organizational environment, and social supports act to buffer the potentially negative effects of stressors; and (d) social supports have direct effects on lessening negative outcomes, but do not have buffering (or interactive) effects.

As House (1981:31-40) illustrates, the vast majority of researchers in the field have conducted analyses that assume no causal time-ordering (in contrast to views a and b above). Instead, their theoretical understanding of how social supports operate has led them to assume no time-ordering and to investigate both the main or direct effects of social supports as well as their interactive effects (cf. Larocco et al., 1980; Lin et al., 1979; Pearlin et al., 1981; Turner, 1981). Consistent with previous research, this dissertation does not assume a time-ordering of the variables. See Dooley (1985:109-125) for a further discussion and review of various methods commonly employed in stressor-social support studies that have attempted to draw causal inferences from longitudinal data.

[10]See Gore (1985), Kiesler (1985), Thoits (1982), and Turner (1983) for additional research overviews which reach similar mixed conclusions about the nature of the relationship that social supports bear to stressors, stresses, and health-related outcomes.

[11]It should be noted that a degree of overlap may exist between the concept of "stressor" and the concept of "social support." Thus, it may be argued that an absence of social support is itself a stressful condition (though it seems less compelling to suggest that the absence of a stressor is a supportive condition). As seen in this chapter, analysts working in this area do not pursue this line of inquiry. Some evidence has been reported, however, that the presence of certain kinds of social support may increase stress. Cullen et al. (1985a), for example, have found that peer support actually heightens stress among police officers (cf. House, 1981:4). Even here, these findings are treated as unanticipated and generally contradictory of the tendency for social supports to mitigate stress outcomes. Furthermore, the failure to consider the absence of social support as a stressor may be traced to the emergence of the social support model as a revisionist perspective, which has been attempting to correct the dominant focus on stressful work conditions by concentrating on factors that mitigate negative outcomes.

Also, it should be mentioned that negative outcomes in the workplace can perhaps be reduced not simply by focusing on the mitigating effects of social support, but also by reducing stressors themselves. This latter approach would typically involve more fundamental structural change and be more preventative in nature (cf. House, 1981:113-130).

[12]While Althouse and Hurrell's finding on the importance of supervisor support is consistent with past research, their failure to find effects for stressors on job dissatisfaction is anomalous (cf. Kahn et al., 1964), even for multivariate analyses in which supervisor support is included in the equation (Cullen et al., 1985a, 1985b). It is also instructive that the Althouse and Hurrell research reports that role stressors do have an impact on other dependent variables (e.g., boredom). In any case, their findings raise the possibility that the effects of stressors on job dissatisfaction may vary according to the social context which is being studied.

Chapter Two

RESEARCH PROCEDURES

This dissertation intends to assess the social support model through a secondary analysis of data originally collected in an evaluation study of acute-care wards in a Canadian hospital. Below, the background of the data including its origin, collection, and study population is initially discussed. Following this, the measures used to tap the study variables are presented. Finally, the specific hypotheses and methodology guiding the research are identified.

BACKGROUND OF THE DATA

Origin of the Data

During the mid-1970's, a McMaster University research team (Macpherson et al., 1974, 1979a, 1979b, 1979c) conducted a research project supported by the Ontario Ministry of Health. This project examined personnel relations on four acute-care wards at the McMaster University Medical Centre in Hamilton, Ontario.[1] A central thrust of this study involved an evaluation of the effectiveness of these wards in implementing two administrative goals proposed by a group of clinical specialists at the medical centre. First, an attempt was made to change the organization of these wards from the traditional structure of hierarchical authority found in most hospitals toward a human relations framework based upon a "teamwork" approach.[2] The second goal aimed

at facilitating these wards in improving the quality of "psychosocial care" for patients.[3]

In order to determine the extent to which these two administrative goals were accomplished, the McMaster researchers conducted participant observation on the four acute-care wards and also interviewed ward personnel over three periods of time. A first survey took place between November 1974 and February 1975. This initial survey provided data about the personnel's perceptions of their ward before the goals of teamwork and psychosocial care had been instituted at the McMaster University Medical Centre. During March 1975, teamwork and psychosocial care were established as new policy objectives for the four wards under study. Subsequently, a second survey was carried out from April 1975 to June 1975. It furnished information on the personnel's initial attitudes about how these new objectives affected conditions on their ward. A third survey was conducted from November 1975 to February 1976. This final survey was administered in order to follow-up the personnel's reactions to the circumstances on their ward once the policy objectives had been in effect beyond the beginning phase of initiation and re-orientation.

This dissertation undertakes a secondary analysis of data drawn from this McMaster research project. Specifically, these data were obtained from the personnel on the four acute-care wards during the first survey.[4] As mentioned above, this survey was performed before the goals of improving teamwork and psychosocial care were established as policies at the medical centre. As such, the data to be used avoids the

possible contaminating effects of newly-proposed work objectives on the respondents' perceptions of their job setting that might otherwise not normally occur. Further, these data contain all the necessary measures to carry out a systematic testing of the social support model. It should be re-emphasized that the McMaster research project was designed to evaluate the functioning of teamwork and psychosocial care on hospital wards. Hence, this project was not originally conceived for an empirical analysis of the social support model per se. Consequently, the use of data from this project for this present research imposes some limitations that are discussed in Chapter Five.

Data Collection

A team of trained interviewers collected the data utilized in this dissertation. They employed a structured survey to obtain information from the personnel on the four acute-care wards who "had direct contact with patients on the wards to provide service, and who were on the ward at least one half hour, more than twice a week" (Macpherson et al., 1979a:2.5).[5] In all, 166 ward personnel were contacted; 157 agreed to participate in the first survey. Thus, the response rate is 94.5 percent.

The first survey does not contain data concerning which specific personnel on the acute-care wards refused to participate in the interview. Alternatively, the high response rate was attributed by the McMaster researchers not only to the suitability of the survey instrument, about which personnel on the wards offered an unusually large number of favorable comments, but also to the skill and experience of the survey team on the whole (Macpherson et al., 1979a:2.9).

Study Population

The study population consists of 157 personnel on the four acute-care wards who agreed to participate in the first McMaster survey. Table 2.1 illustrates how the McMaster researchers coded these 157 respondents into eight occupational levels ranging from physicians to housekeepers/orderlies. Nurses constitute the largest occupational grouping; physicians make up the second largest group. This table further indicates that the study population is specifically composed of 10 administrative physicians, 16 staff physicians, 17 resident physicians, 18 supervising nurses, 36 registered nurses, 24 nursing assistants, 15 housekeepers/orderlies and 21 specialists. The specialists, in turn, include personnel such as nutritionists, occupational therapists, physiotherapists, social workers, and chaplains.

In the McMaster research project, the unit of analysis was the group (hospital ward) rather than the individual (ward member). Hence, general background characteristics for each respondent (e.g., age, gender, marital status, education, religion, ethnicity, social class) are not available in the McMaster survey. Thus, the present secondary data analysis is precluded from introducing controls for background characteristics of the respondents. The implications of this limitation are addressed in Chapter Five.

MEASURES OF THE STUDY VARIABLES

The basic theoretical model underlying this dissertation suggests that social supports specify the relationship between stressors and negative outcomes such as job dissatisfaction. Since the objective here is

Table 2.1 Breakdown of Occupational Levels in the Study Population

OCCUPATIONAL LEVEL	n	%
1. Administrative Physicians	10	6.4
2. Staff Physicians	16	10.2
3. Resident Physicians	17	10.8
4. Supervising Nurses	18	11.4
5. Registered Nurses	36	22.9
6. Nursing Assistants*	24	15.3
7. Specialists	21	13.4
8. Housekeepers/Orderlies	15	9.6
	157	100.0

*Includes Licensed Practical Nurses and Senior Nursing Assistants.

to empirically investigate this premise, this section presents the measures that are used to operationalize stressor, social support, and job dissatisfaction variables. Following this, occupational level is delineated as a control variable.

Measures of Stressors

As shown in Table 1.1, four major organizational stressors have been most commonly identified within contemporary research. These are: (1) role conflict, (2) role ambiguity, (3) role overload, and (4) non-participation in decision making. The McMaster survey contains scales that tapped each of these variables. The four stressor scales are specified below.

1. Intra-Role Conflict. At this point, it may prove helpful to examine how Kahn and his associates have analyzed role conflict in their path-breaking study of organizational stressors. For example, Kahn et al. (1964:19) define role conflict as the "simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other." To illustrate this concept, they (1964:19) discuss how a supervisor may experience incompatible role pressures at work. For example, an executive orders a supervisor to enforce production schedules on employees. At the same time, the employees inform the supervisor that they prefer relaxed supervision and if pushed too hard, they may rebel. Furthermore, Kahn and his associates emphasize that individuals may encounter distinct types of role conflict while interacting in their social environment.

The McMaster survey contains attitudinal scales taken from Kahn et al. (1964). These scales measure various types of role conflict. In order to maintain conceptual clarity, the definitions for these dimensions of organizational roles furnished by the McMaster researchers are utilized in this dissertation and are set forth below. This procedure is also followed with regard to other study variables that the McMaster researchers developed measures of and provided conceptual definitions for.

Three role conflict scales are included in the McMaster survey. First, intra-role conflict consists of a three-item scale which taps how "different prescriptions and proscriptions from a single member of the role set may be incompatible" (Macpherson et al., 1974:6). Illustrating the concept of intra-role conflict, Kahn et al. (1964:20) cite a situation in which an employee is asked by her supervisor to obtain material that is typically unavailable through normal channels. However, the supervisor forbids the employee from going outside of such channels.

Second, inter-role conflict entails a three-item scale which measures the "extent to which the individual is bothered by conflict between work-role expectations and expectations in his/her other roles" (Macpherson et al., 1974:11). An example of inter-role conflict involves a circumstance in which a worker is subtly advised by his boss to work overtime, while the worker's wife pressures her husband to devote more evening hours tending to their family needs (Kahn et al., 1964:20).

Third, person-role conflict includes a two-item scale which refers to the "extent to which the individual is bothered by a conflict which may

arise between his/her needs and values as a person and demands of his/her role set" (Macpherson et al., 1974:11). Kahn et al. (1964:20) show how person-role conflict can be experienced as follows: "An ambitious young man may be called up short by his associates for stepping on their toes while trying to advance in the organization."

The scope of this dissertation could be broadened by investigating the effects of all three of these role conflict scales on measures of social support and job dissatisfaction. However, the empirical analysis undertaken here is restricted only to the use of an intra-role conflict scale given that the measures of inter-role conflict and person-role conflict have excessively low reliabilities. Specifically, Cronbach's alpha equals .33 for the inter-role conflict scale and .18 for the person-role conflict scale.[6] In contrast, Cronbach's alpha is found to be .57 for the three-item intra-role conflict scale.[7]

In general, every attempt was made in this dissertation to use the exact measures employed by the McMaster researchers. For five of the eight stressors/social supports, this procedure was possible. In three instances, however, it seemed prudent to delete one item per scale. To a large extent, these decisions were dictated by methodological concerns: the attempt to increase scale reliabilities so as to improve the quality of the measures and the need to keep the N of a scale as large as possible.[8] For one scale (peer support for achievement), too few individuals answered one of the scale's items. Since 24 cases would have been lost, the item was deleted. For the two other instances (intra-role conflict; supervisor support for achievement), the wording of an item raised an

additional theoretical concern that the item may not be tapping the construct in question.

In terms of the intra-role conflict scale under consideration here, the deletion of an item raised the Cronbach's alpha from .57 to .66.[9] Further, the deleted item asked if the respondents felt that they had "too much responsibility and authority delegated to them." Some possibility existed that this item might have been interpreted not so much as an intra-role conflict item but more as a workload item; as a result, it could have been potentially confounded with the role overload measure.

A two-item intra-role conflict scale is thus utilized as the first stressor measure. For each item in this scale, the respondents were instructed to use a five-point Likert format (1=never, 2=rarely, 3=sometimes, 4=rather often, 5=nearly all the time) to express which response best applies to their views. The two items in the intra-role conflict scale are:

1. Feeling that you have too little authority to carry out the responsibilities assigned to you.

2. Feeling unable to influence your team's decisions and actions that affect you.

2. Role Ambiguity. As illustrated in Table 1.1, contemporary organizational analysts have devoted much attention to the study of role conflict and role ambiguity among workers. After extensively reviewing such research, Van Sell et al. (1976:2) assert:

> Role conflict and role ambiguity have been conceptualized both objectively (as correlates of structure) and subjectively (as idiosyncratic reactions). Thus, one legitimately could be concerned with two types of empirical indices: actual and perceived.

Van Sell et al. (1976) further emphasize that role conflict and role ambiguity have been measured in organizational studies primarily by subjective indices rather than by objective ones. Likewise, the empirical analysis here is directed toward determining the respondents' perceptions of role conflict and role ambiguity since only subjective measures of these concepts are available in the McMaster survey.

One of the complicating factors in researching the subjective dimensions of role conflict and role ambiguity is that both involve uncertainty about role expectations. Thus, these concepts often appear so similar in meaning that the difference between them may not be easily distinguishable. Warr and Wall (1975:148), however, provide a basic distinction between these concepts as follows:

> Both concepts, role conflict and role ambiguity, refer to a degree of uncertainty about what you are expected to do in a job. In the first case, it is uncertainty in relation to whose expectations are to be met and, in the second case, it is uncertainty as to the nature of those expectations.

In keeping with the way the concept is measured in the McMaster survey, role ambiguity is conceived here as the "extent to which the individual is bothered by a lack of clarity in role expectations stemming from either lack of information or inadequacy of its communication" (Macpherson et al., 1974:10). Kahn et al. (1964:23) capture the essence of the meaning of role ambiguity in the following example:

> Clear-cut plans for a reduction of staff may have been formulated by an organization's executive, but the workers, whose jobs are about to be deleted from the table of organization, may know nothing of these plans nor of the length of time their employment might continue.

In the McMaster survey, role ambiguity is measured by a five-item scale taken from Kahn et al. (1964). Cronbach's alpha equals .60 for the role ambiguity scale, which is employed as a second stressor measure.[10] Regarding items in this scale, the respondents expressed their views in terms of the same five-point Likert format (ranging from 1=never to 5=nearly all the time) used in the intra-role conflict scale. The five items in the role ambiguity scale are:

1. Being unclear on just what the scope and responsibilities of your job are.
2. Not knowing what opportunities for advancement or promotion exist for you.
3. Not knowing what those who supervise your work think of you, how they evaluate your performance.
4. Feeling bothered by the fact that you can't get information needed to carry out your job.
5. Not knowing just what the people on your team expect of you.

3. Role Overload. As stated above, both role conflict and role ambiguity entail uncertain feelings while enacting roles. The former involves uncertainty about whose expectations are to be met; the latter pertains to uncertainty about the nature of the expectations in general. Role overload, on the other hand, refers to "having work to complete which is either too difficult, or of which there is too much, to carry out in the time available" (Warr and Wall, 1975:155). An example of role overload applies to a circumstance in which:

> A person is asked to work on one assignment when he already has some other assignment which also must be completed. If he is to work on the new

> assignment, he may have to stop what he is doing at the time (French and Caplan, 1973:40).

The McMaster survey includes a role overload scale taken from Kahn et al. (1964). This two-item subjective scale (Cronbach's alpha = .76) is used as the third stressor measure.[11] It explicitly measures the "extent to which the individual is bothered by a feeling that he/she cannot fulfill all expectations within given time limits" (Macpherson et al., 1974:11). Again, the respondents used a five-point Likert format (ranging from 1=never to 5=nearly all the time) to express their opinions about items in this scale. The two items in the role overload scale are:

1. Feeling that you have too heavy a work load, one that you can't possibly finish during an ordinary work day.

2. Having conflicting demands made on you by other members of the team.

4. Non-Participation in Decision Making. A number of authors have argued that the failure of workers to participate in decision making is a potentially stressful experience (Althouse and Hurrell, 1977; French and Caplan, 1973; Pettegrew et al., 1981; Warr and Wall, 1975). For example, French and Caplan (1973:49) indicate how lack of participation in decision making can serve as a stressor in the following:

> Of course, there is nothing inherently bad about being a nonparticipant. It all depends on the context. For example, you and I are often glad to be excluded from decision making because we do not have either the time to participate or the need to. We are concerned here, however, with decisions which the person might want to participate in, such as decisions about how he should do his job.

The McMaster survey contains a scale taken from Aiken and Hage (1966) to tap feelings of non-participation in decision making. This four-item scale serves as the fourth stressor measure. Specifically, this scale (Cronbach's alpha = .82) specifies the "degree to which staff members participate in setting goals and policies of the entire organization" (Macpherson et al., 1974:5).[12] For each item in this scale, the responses of the study population are scored in terms of the following Likert scheme: 1=nearly all the time, 2=rather often, 3=sometimes, 4=rarely and 5=never. The four items in the non-participation in decision making scale are:

1. How frequently do you usually participate in the decision to hire new staff?

2. How frequently do you participate in decisions on the promotion of any of the professional staff?

3. How frequently do you participate in ward decisions on the adoption of new policies?

4. How frequently do you participate in hospital decisions on the adoption of new programmes affecting your unit?

Validity of Stressor Measures

The stressor measures for this study are drawn from two main sources. The measures of intra-role conflict, role ambiguity, and role overload are taken from Kahn et al. (1964); the measure of non-participation in decision making is adopted from Aiken and Hage (1966). Because these measures were theoretically derived and examined carefully by the McMaster researchers (i.e., Macpherson et al., 1974), some confidence exists regarding the measures' validity. Further, these

measures often are treated as stressors in the existing literature (see Table 1.1).

Several caveats regarding the measures, however, should be considered in interpreting this dissertation's findings. First, the wording of the intra-role conflict items suggests that they may be tapping the work condition of powerlessness. Thus, these items focus on feelings of having "too little authority" and of having a lack of "influence" over "your team's decisions and actions that affect you." In this regard, Seeman (1959:784) defines powerlessness as "the expectancy or probability held by the individual that his own behavior cannot determine the occurrence of the outcomes, or reinforcements, he seeks."

Second, the role ambiguity measure is concerned with lack of clarity and knowledge about role expectations; face-validity, therefore, is apparent here. On a broader theoretical level, however, this conceptualization approximates the traditional Durkheimian (1951) notion of "anomie." It also is similar to Seeman's (1959:784) usage of "meaninglessness," which occurs "when the individual is unclear as to what he ought to believe--when the individual's minimal standards for clarity in decision-making are not met."

Third, for the role overload measure, one item appears to have language suggesting that it is assessing role conflict: "Having conflicting demands made on you by other members of the team." The other scale item has greater face-validity in that it taps feelings of having "too heavy a work load." Nonetheless, reasons exist for grouping these two items together and for not treating the former item as part of a role conflict

measure. Thus, the first item does not assess only conflict, but conflicting demands. Further, the solid reliability of the role overload scale (Cronbach's alpha = .76) indicates that the two items are measuring the same underlying construct. In contrast, the role overload scale has a zero-order correlation of only .208 with the intra-role conflict scale.

Fourth, the face validity of non-participation in decision making appears evident, since the items tap "frequency of participation in decisions" in areas such as hiring personnel, staff promotions, policy adoption, and programming. In essence, this is a self-report measure of the extent to which employees perceive they are involved behaviorally in decisions affecting their work. On a broader theoretical level, one may make the conceptual leap that a measure such as this is assessing, albeit imperfectly, the potential inability of employees to control the "means of production" in their work setting.

Taken together, these insights suggest that, for three of the stressors, the measures are potentially tapping dimensions of the broader concept of alienating work conditions. Thus, the intra-role conflict scale relates to powerlessness, the role ambiguity scale relates to meaninglessness (or anomie), and the scale for non-participation in decision making relates to perceived levels of employee control of the work process. Conceptualizing the stressor variables as measures of anomic and alienating work conditions may allow for theoretical insights not suggested by the concept of stressor. However, because the measures used in this dissertation were not developed to assess systematically the concepts of anomie and alienation, attempting to draw

substantive conclusions about the effects of anomic and/or alienating work conditions may overstep what the data can support. Still, this issue is discussed again in Chapter Five when the results are summarized.

Finally, it should be noted that two-item measures are used for intra-role conflict and for role overload. While these measures have acceptable reliabilities, two-item measures are limited in their ability to be valid measures of an entire social domain. As such, it is best to consider these as measures of one aspect of intra-role conflict or role overload, and to interpret the results in this light. Further, this cautionary observation would pertain to other measures in this dissertation that rely upon a limited number of items (e.g., the social support variables).

Measures of Social Supports

The measures of social supports employed in this dissertation were initially developed by Seashore and Bowers (1963). They were developed specifically to assess "supportive behavior" in the workplace. These measures, moreover, appear to have face validity. The language used emphasizes "encouragement" and giving "compliments," and when the items are phrased in reverse (i.e., non-supportive) directions, the language accentuates "blaming" the worker.

Before presenting the precise wording of the items and the measurement properties of the scales, several advantages about the measures to be utilized should be mentioned. First, as noted in Chapter One, stressor researchers argue that studies should examine the source

of social support. However, recent commentators note the relative lack of research on sources of social support (Dean et al., 1990:149; House et al., 1985:102). Importantly, Seashore and Bowers (1963) have included as a dimension of their measures whether social support is provided by supervisors or co-workers--the two major sources of social support in the workplace. One limitation is that the McMaster survey does not contain measures of non-work support, such as from family and friends in the community.

Second, as also shown in Chapter One, House et al. (1985) observe the need both to distinguish the provision of social support from concepts such as social integration and social networks and to investigate the content of social support being delivered. Again, the major distinction made in the literature on the content of social support is between instrumental and expressive or affiliative support. The scales formulated by Seashore and Bowers (1963) are particularly useful because they are clear measures of the provision of social support and because they differentiate between support for "affiliation" and for "achievement." This latter point requires some further elaboration.

The items measuring "affiliation" assess whether supervisors and co-workers appraise an individual positively and act in a friendly manner. Words such as "compliment," "blame," and "friendly" are used in the items. These items appear to measure the "expressive" support presented in the literature. For example, House (1981:71) employs as a measure of expressive support the very similar item, "My supervisor goes out of his way to praise good work."

The items measuring "achievement" tap whether supervisors and co-workers "encourage" individuals to perform their job tasks more effectively. The term "encourage" has an expressive quality, and a more direct measure of instrumental support may have involved asking about such behaviors as the provision of information or job training. Still, the "achievement" items appear to be instrumentally oriented because they examine social support which serves as a means to reach the end of improved job performance. Further, the achievement items are quite similar to the measure of instrumental support utilized by House (1981:71): "How much is (your immediate supervisor . . . other people at work) helpful to you in getting your job done?"

In short, the social support measures that are used in this dissertation are consistent with existing measures of social support (House, 1981; Mensch and Kandel, 1988), assess sources of social support, and tap reasonably well the two dimensions (expressive, instrumental) of social support commonly identified by stressor researchers. In all, this present study is able to employ four measures of social support, and in doing so, it addresses House's (1981:22) concern for research on the issue of what social support is being provided, by whom, and with what effect.

One final consideration is that these four social support scales are subjective measures. Thus, the present study examines the extent to which the respondents perceived they had experienced social supports at work as opposed to the objective or actual amount of social supports they may or may not have received on the job. While using objective

measures may advance social support research, the perceptions that individuals have of their work conditions are important phenomena in and of themselves. Moreover, House (1981:27) contends there is a firm reason to use perceptual measures of social support in the following:

> Studies of social support have most often asked people to rate how much emotional support they are receiving from others . . . . This method is . . . appropriate because social support is likely to be effective only to the extent it is perceived. That is, no matter how much your spouse or supervisor feels or acts supportive toward you, there will be little effect on you unless you, in fact, perceive them as supportive.

Below, the four social support measures employed in the analysis are set forth.[13]

1. Peer Support For Achievement. According to House (1981:24), "support may be more meaningful and more easily accepted when coming from a respected peer." One peer support scale in the McMaster survey taps "perceived peer supportiveness related to encouragement and approval of achievement of work goals" (Macpherson et al., 1974:16). Cronbach's alpha equals .69 for this three-item peer support for achievement scale.[14]

The third item was deleted from the peer support for achievement scale in light of two empirical considerations.[15] First, Cronbach's alpha slightly increased to .70 for this scale when this item was dropped from the analysis. Second, and more importantly, 24 respondents (15 percent of the study population) either stated "don't know" or gave "no answer" to this particular item. Thus, by deleting the item from the scale, the number of missing cases decreased from 29 to 12.

A two-item peer support for achievement scale is therefore employed as the first social support measure. For each item in this scale, the respondents were instructed to use a five-point Likert format (1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree) to express which response best applies to their views. The two items in the peer support for achievement scale are:

1. The people on my health care team often encourage each other to do the job in a way that we really would be proud of.

2. The people on my team often encourage each other to think of better ways of getting the work done which may never have been thought of before.

2. Peer Support for Affiliation. As indicated above, the peer support for achievement scale is concerned with perceptions of work peer encouragement and approval. The other peer support scale in the McMaster survey focuses upon perceptions of work peer friendliness and respect. More specifically, the peer support for affiliation scale was conceived to measure "perceived peer supportiveness which reflects affiliative gestures of friendliness and respect without specific focus on job performance" (Macpherson et al., 1974:16).

A two-item peer support for affiliation scale (Cronbach's alpha = .54) is utilized as the second social support measure.[16] The two items in the scale listed below are coded in opposite directions. For item 1, the scoring of responses is: 1=strongly agree, 2=agree, 3=undecided, 4=disagree, and 5=strongly disagree. Responses to item 2 are computed in terms of the same five-point Likert format (ranging from 1=strongly

disagree to 5=strongly agree) used in the peer support for achievement scale. The two items in the peer support for affiliation scale are:

1. The people on my team often blame each other when things go wrong.

2. The people on my team will often compliment a team member who has done his/her job well.

3. Supervisor Support for Achievement. Along with support from fellow employees, a worker may or may not experience support from those who supervise the work place. Moreover, House (1981:99) maintains: "coworker support should vary directly with the degree to which supervisors model supportive behavior and use participative, group-oriented methods of supervision."

Within the McMaster survey, a three-item scale (Cronbach's alpha = .53) assesses the "perceived supervisor supportiveness related to encouragement and approval of achievement of work goals" (Macpherson et al., 1974:16). The third item was deleted from this supervisor support for achievement scale. This step allowed for a slight increase in Cronbach's alpha to .55 and for a decrease in the number of missing cases from 23 to 19. Further, the wording of the deleted item refers to receipt of encouragement not from a "supervisor" per se but from a "team leader."[17] While the language of supervisor and team leader may be viewed as synomymous by most of the acute-care workers, this fact cannot be guaranteed. As such, the deleted item could potentially be tapping a different construct than the two items retained in the scale which make explicit reference to "supervisors."

A two-item supervisor support for achievement scale therefore serves as the third social support measure. Like the peer support for achievement scale, this scale is scored in terms of a five-point Likert format ranging from 1=strongly disagree to 5=strongly agree. The two items in the supervisor support for achievement scale are:

1. Members of my team often have the importance of their jobs stressed to them by my supervisors.

2. My supervisors often encourage the people on my team to think of better ways of getting the work done which may never have been thought of before.[18]

4. Supervisor Support for Affiliation. The McMaster survey contains another supervisor support scale that measures the "perceived supervisor supportiveness which reflects affiliative gestures of friendliness and respect without specific focus on job performance" (Macpherson et al., 1974:16). This three-item supervisor support for affiliation scale (Cronbach's alpha = .62) is used as the fourth social support measure.[19] For items 1 and 3 in this scale listed below, the responses are coded in terms of a five-point Likert format ranging from 1=strongly disagree to 5=strongly agree. The responses to item 2 in this scale are scored in the opposite direction through a five-point Likert scheme ranging from 1=strongly agree to 5=strongly disagree. The three items in the supervisor support for affiliation scale are:

1. My team leader will often compliment the people on my team if they do their jobs well.

2. My team leader often blames others when things go wrong which are possibly not the fault of those blamed.

3. When my team leader has a dispute with somebody on the ward, he/she usually tries to handle it in a friendly manner.

Measures of Negative Outcomes

Several possible dependent variables or "negative outcomes" are contained in the dissertation data set. These measures are derived from previously published "alienation" scales. Specifically, the following three scales are included in the McMaster survey: Pearlin's (1962) four-item "alienation from work," Aiken and Hage's (1966) two-item "alienation from expressive relations," and Aiken and Hage's (1966) five-item "alienation from work." For several reasons, only the last of the three scales could be adapted for use in the present research.

First, Pearlin's measure is omitted from the analysis because its reliability is computed to be .31. Attempts to delete items to boost the reliability (e.g., to .50 or higher) proved unsuccessful. Second, Aiken and Hage's alienation from expressive relations scale includes these two items: "On the whole, how satisfied are you with the people who supervise your work?"; and "On the whole, how satisfied are you with your fellow team members?"[20] As can be seen, the content of these items is very similar to the content of items in the scales measuring peer support and supervisor support. Consequently, the risk of introducing tautological measures into the analysis is sufficiently high to preclude the use of the alienation from expressive relations measure. One further consideration is that the reliability for this scale is only .43.[21]

By contrast, it is possible to adapt Aiken and Hage's alienation from work scale for use in the present study. Within the McMaster project,

this scale was conceived to assess "a feeling of disappointment with career and professional development, as well as disappointment over the inability to fulfill professional norms (Macpherson et al., 1974:7). The first three items in Aiken and Hage's alienation from work scale are:

1. How satisfied are you that you have been given enough authority to do your job well?

2. How satisfied are you with your present job when you compare it to similar positions in the province?

3. On the whole, how satisfied are you that your team leader accepts you in your line of work to the degree to which you feel you are entitled?

The respondents were asked to reply to these items in terms of a four-point Likert scheme (1=definitely satisfied, 2=somewhat satisfied, 3=somewhat dissatisfied, and 4=definitely dissatisfied). At this point, the format of the survey instrument changed. The fourth item used in the McMaster survey is: "Did you have any career expectations or other expectations when you started this job?" Those respondents who answered "no" to the fourth item were instructed to skip the remaining two items in this alienation from work scale. On the other hand, those who responded "yes" to item 4 were instructed to evaluate these two items:

5. On the whole, how satisfied are you with your present job when you consider the expectations you had when you took this job?"

6. How satisfied are you with your present job in light of "career" expectations?"

As with items 1, 2, and 3, the respondents used a four-point Likert format ranging from definitely satisfied to definitely dissatisfied to express their opinions about items 5 and 6. Given the manner in which the survey instrument was constructed, a decision was made to separate Aiken and Hage's measure into two scales. First, items 1, 2, and 3 were combined to make a general "job dissatisfaction" scale (Cronbach's alpha = .73). Second, items 5 and 6 were combined to make a "dissatisfaction with job expectations" scale (Cronbach's alpha = .89).[22]

Clearly, the general job dissatisfaction scale is the preferable measure since the items composing it were presented to all members of the study population. Thus, this scale is used as the major dependent variable in this dissertation research. Alternatively, the dissatisfaction with job expectations scale is characterized by a bias since some members of the study population answered "no" to item 4 in the McMaster-Aiken and Hage measure (Did you have any career expectations or other expectations when you started this job?), and thus they were instructed not to respond to items 5 and 6. In all, 100 respondents (64% of the study population) stated that they <u>did</u> have career expectations and are included in the analyses dealing with the dissatisfaction with job expectations scale.

Due to the reduced sample size, the problems associated with using this latter scale as a measure of a negative outcome and interpreting subsequent results are apparent. With this qualification in mind, however, the advantage of employing this measure can be realized: it allows us to consider how the social support model in general and types

of social support in particular are related to different types of negative outcomes. As such, it enables us to begin to assess the complexity that potentially surrounds the causal effects of social support variables.

Finally, it should be noted that the original Aiken and Hage measure was termed both by these authors and by the McMaster researchers as "alienation from work." In contrast, the present research prefers to consider the two scales derived from this measure as assessing "dissatisfaction" rather than "alienation" per se. This decision was made for two reasons.

First, since the publication of early alienation studies (such as that by Aiken and Hage), there has been considerable debate in the field over the meaning of the theoretical concept of alienation from work, and regarding the empirical question of whether job dissatisfaction items constitute a valid measure of alienation (cf. Archibald, 1976, 1978; Israel, 1971; Mouledoux and Mouledoux, 1974; Rinehart, 1975, 1978; Schacht, 1970). In light of this dispute, it seems difficult to argue that the McMaster survey items are a theoretically and empirically valid measure of alienation from work. Still, in Chapter Five, the implication of viewing the measures as assessing psychic alienation will be considered.

Second, while the items in the scale may or may not adequately measure alienation from work, it is clear that they do ask the respondents to express the extent to which they are satisfied or dissatisfied with various aspects of their work situation. Indeed, the items in the McMaster survey are quite similar to those used in traditional job satisfaction/dissatisfaction studies (cf. Form, 1973;

Hinrichs and Mischkind, 1967; Inkeles, 1960; Sheppard and Herrick, 1972). Accordingly, they appear to have validity as measures of job dissatisfaction.

It is also useful to note that job satisfaction/dissatisfaction has been frequently utilized as a dependent variable or negative outcome in previous tests of the social support model (House, 1981:82; House et al., 1979; House and Wells, 1978; LaRocco and Jones, 1978; LaRocco et al., 1980; Pinneau, 1976). Further, the importance of examining the impact of stressful work conditions on job dissatisfaction finds support in role theory (Sarbin and Allen, 1968:504). Based in part on experimental animal studies (cf. House, 1981:44-46) and in part on stimulus-response psychology, Kahn et al. (1964) have argued that conflicting and ambiguous role expectations strain the organism. In a work setting, they have hypothesized, and then have demonstrated empirically, that non-integrated role expectations result in worker dissatisfaction. Although not explicitly noted by Kahn et al. (1964), this theoretical orientation also has roots in sociological literature. Durkheim (1951), for example, has observed that social disruptions that precipitate normative and structural malintegration (anomie/egoism) generate social pathology. Similarly, Parsons (1951:282) has focused explicitly on how in complex societies, role conflict is "an obvious source of strain and frustration in that it creates a situation incompatible with a harmonious integration of personality with the interaction system."

Based on previous theoretical and empirical research, ample reason appears to exist to assume that stressful work conditions, such as role

conflict and role ambiguity will produce job dissatisfaction. Even so, research issues remain. Social support studies have typically not been conducted in relation to work experiences in health organizational settings, particularly those located in Canada, as is the case in the current research. Similarly, more multivariate analyses are needed to assess the magnitude of the effects on job dissatisfaction of various role-related conditions.

Five other caveats should be added about the dependent variable used in this dissertation. First, as explained above, because this research involves a secondary analysis, a limited pool of items is available for use in formulating the job dissatisfaction measure. As a result, a more refined analysis of job dissatisfaction has not been possible. Thus, previous researchers have explored the possibility that job dissatisfaction and satisfaction, treated as two ends of a continuum in this study (and in many other studies as well), may be separate constructs with different causal sources. Herzberg et al. (1959), for example, have explored how intrinsic work conditions ("content") are linked to job satisfaction, while extrinsic work conditions ("context") are linked to job dissatisfaction (cf. Gruneberg, 1979:11-12). Though this type of analysis is beyond the scope of this dissertation, it offers a fruitful line of inquiry for future tests of how the social support model impacts on work-related affects.

Second, in this dissertation, job dissatisfaction has been defined most broadly as one of the potential "negative outcomes" from stressful work conditions. This categorization leaves open the question of whether

job dissatisfaction is appropriately considered a "stress" (or, to use a synonymous term, a "strain"). Many studies (e.g., Bokemeier and Lacy, 1986; Form, 1973; Gruenberg, 1980; Herzberg et al., 1959; Hinrichs and Mischkind, 1967; Inkeles, 1960; Kalleberg, 1977; Kalleberg and Loscocco, 1983; Sheppard and Herrick, 1972) provide little guidance because they have focused upon job dissatisfaction/satisfaction without explicit reference to whether this affective state is a stress.[23] Further, the concept of "work stress" may be measured more directly by asking whether workers feel pressured, uptight, tense, burned out, or stressed. Alternatively, other researchers have used language similar to the notion of stress when discussing job dissatisfaction/satisfaction. Kahn et al. (1964:85), for example, have termed job dissatisfaction an "emotional reaction." Among social support theorists, there is also a distinct tendency to classify explicitly job dissatisfaction as a stress/strain (French et al., 1982:3-5; House, 1981; LaRocco et al., 1980; Cullen et al., 1985b). Theoretically, job dissatisfaction is considered a stress/strain because it meets the criterion of being a "deviation from the normal state or responses of the person" (French et al., 1982:5). This conceptualization seems persuasive and useful; indeed, no researchers could be found that have argued that job dissatisfaction is <u>not</u> a stress. In any case, social support researchers have consistently treated job dissatisfaction as a potential negative result of stressful work conditions.

Third, some researchers--most notably Selye (1983:18)--have distinguished between stress that is dysfunctional ("distress") and stress that is positive for the organism ("eustress"). Under some circumstances,

it can be imagined that job dissatisfaction could prove personally functional (e.g., motivate a person to work harder or to pursue a different occupation). Nevertheless, researchers consistently treat job dissatisfaction as a distress. This conceptualization, moreover, seems in line with Selye's (1983:20) usage of the concept as a "harmful consequence." On the other hand, Selye (1983:20) has defined eustress as the "pleasant stress of fulfillment"; it is difficult to contend how, in the vast majority of cases, job dissatisfaction would meet this latter criterion.

Fourth, the analysis here is limited to studying job dissatisfaction. It should be noted, however, that levels of job dissatisfaction and other stresses (or negative outcomes) could vary independently of one another. Thus, although job dissatisfaction tends to be positively related to other measures of stress (Cullen et al., 1985b), it is conceivable that satisfied workers could also be distressed in other ways (tension-filled due to the pressures to succeed). Again, exploring this kind of question is beyond the scope of the data used in this dissertation; even so, it is an issue worthy of consideration by future analyses informed by the social support model.

Finally, as noted later in discussions of this dissertation's job dissatisfaction measure, studies tend to show that workers express relatively low levels of job dissatisfaction (Blauner, 1960; Bokemeier and Lacy, 1986; Burstein et al., 1975; Converse et al., 1980:160-164; Form, 1973; Gruenberg, 1980; Inkeles, 1960; Kornhauser, 1965; Mortimer, 1979; Quinn and Staines, 1979; Tausky, 1978:95-96; Wozniak, 1978). Various explanations have been given for this consistent empirical

pattern. Archibald (1978:126), for example, has observed that although workers may be alienated, they may express job satisfaction because they are "only 'instrumentally' attached to their work." Rinehart (1978:8) offers that at least "for some workers expressions of job satisfaction may be a rationalization devised because they feel they ought to be contented with work. To admit otherwise is to define oneself as a failure" (emphasis in original). And Gruenberg (1980:254) cautions that job satisfaction may only be a manifestation of "societal constraints which form the worker's horizon of expectations. These may lead to various accommodating stances, but they do not reflect the real needs of the worker" (emphasis in original). These comments suggest that a complete test of employees' affect toward their work would require moving beyond traditional measures of job dissatisfaction to measures that are more sensitive to the complexities of how workers experience their jobs. As such, while the present dissertation provides a systematic test of the social support model in a setting largely unexplored by social support researchers, it is likely that the results reported here would be qualified if different measures of worker affect were employed.

Control Measure: Occupational Level

As mentioned earlier in this chapter, the McMaster survey does not contain questions asking the status characteristics of the study population. However, a question is included in this survey which asks the respondents to state their "position or job title." These data thus present the opportunity to use occupation as a control variable in this dissertation. Moreover, an adequate test of the viability of the social

support model proposed here requires such a control since previous studies have revealed a relationship between occupation and job dissatisfaction.[24] Notably, various researchers (Blauner, 1960; Carroll, 1973; Form, 1973; Gruenberg, 1980; Inkeles, 1960; Kornhauser, 1965:85; Mortimer, 1979; Tausky, 1978:97-100; Upjohn Institute, 1973:16; Vroom, 1964) maintain that occupational resources (e.g., prestige, organizational level) are generally positively related to job satisfaction (and, of course, negatively related to job dissatisfaction).

One possible strategy for introducing a control for occupation is to assign a prestige score for each of the various occupations listed by the respondents (and categorized by the McMaster researchers). However, this strategy could not be followed because the existing occupational prestige literature (Treiman, 1977; cf. Blishen, 1967; Pineo and Porter, 1967) does not provide prestige scores for all of the occupations (particularly when Canadian prestige scores are examined) in the study population. An alternative approach is employed.

In sum, the McMaster researchers were able to divide the occupations on the four acute care wards into eight occupational levels (these are reported earlier in Table 2.1). To determine both the grouping of occupations into levels and the hierarchy of levels (that is, which level ranked higher than the next), the McMaster researchers relied on extensive participant observation throughout the course of their research project. Survey questions were also helpful in establishing the ranking of occupations.[25]

This combined methodology allowed the McMaster researchers to establish how important or influential occupations were within the medical centre being evaluated. As shown in Table 2.1, the McMaster researchers' rankings correspond quite closely with the general prestige rankings that are available for the occupations in the current study. The only exception to this pattern is that the "specialist" occupations have higher general occupational prestige (cf. Treiman, 1977) than the occupational level it received based on the participant observation conducted by the McMaster researchers.

One last note is necessary here. As set forth in Table 2.1, occupational level is recoded from the original to make the direction consistent with the other study variables (i.e., 1=8, 2=7, 3=6, etc.). This coding is employed when occupational level is introduced as a control variable in the analysis of the social support model.

HYPOTHESES

The theoretical discussion set forth in Chapter One allows for the specification of five main hypotheses. These are set forth below.

First, based on the traditional stressor-outcome model (i.e., Kahn et al., 1964; French and Caplan, 1973), stressors will be positively related to job dissatisfaction. This relationship will occur for each of the four stressor variables (intra-role conflict, role ambiguity, role overload, non-participation in decision making).

Second, based on the revisionist social support model (i.e., House, 1981; LaRocco et al., 1980), social supports will be negatively related to job dissatisfaction. This relationship will occur for each of the four social

support variables (peer support for achievement, peer support for affiliation, supervisor support for achievement, supervisor support for affiliation).

Apart from the specific effects of stressors and social supports on job dissatisfaction, there is the larger issue of which model (stressor-outcome or social support) is the most adequate; that is, which model explains the most variance in the dependent variable? In this light, the third hypothesis is that the social support model (which includes the stressor and social support variables) will explain more variance than the stressor-outcome model.

Moreover, previous research on social supports has examined not only the main effects of social supports on negative outcomes, but also the interaction of social supports with stressors. The aim of this analysis is to assess whether, apart from their direct or main impact on diminishing negative outcomes, social supports have the additional effect of "buffering" individuals from negative outcomes as stressors become more intense (Cullen et al., 1985a; House, 1981:33; Pearlin et al., 1981:348-349; Turner, 1981:363-364). This possibility is typically tested through the use of a multiplicative interaction term. Consistent with previous research in this area (House, 1981; LaRocco et al., 1980; Lin et al., 1979; Norbeck and Tilden, 1983; Pearlin et al., 1981; Thoits, 1982; Turner, 1981; Wethington and Kessler, 1986), multiple regression is used in this dissertation to analyze all tests of the social support model. This procedure employed to investigate buffering effects is explained in greater detail when this analysis is conducted in Chapter Four. These

considerations set the context for the statement of the final two hypotheses.

Fourth, social supports will buffer the effects of stressors on job dissatisfaction.

Fifth, a model which assesses both the main and buffering effects of social supports will explain more variance than either the stressor-outcome model or a social support model that does not test for buffering (or interactive) effects.

STATISTICAL METHODS

As noted above, multiple regression is employed in the data analysis. This statistical technique has been chosen because the social support model is best assessed through a procedure that enables one to assess the effects of several independent variables on a quantitative outcome variable. That is, assessing the independent effects of the stressor and social support variables, as well as interaction effects, necessitates using a technique that allows for these effects to be separated. At the least, regression analysis is an appropriate descriptive statistic for examining the relationships among the study's variables. It is instructive, moreover, that every major study of the social support model--regardless of sampling technique--has utilized regression analysis (House, 1981; LaRocco et al., 1980; Lin et al., 1979; Norbeck and Tilden, 1983; Pearlin et al., 1981; Thoits, 1982; Turner, 1981; Wethington and Kessler, 1986). Accordingly, the analysis conducted in this dissertation conforms to the methodological standards in this area of social support research (House, 1981:131-140).

As discussed in detail later, the dependent variables are skewed somewhat in the direction of low dissatisfaction responses--an empirical pattern that develops for nearly all studies of job dissatisfaction using measures similar to those adopted in this dissertation (Blauner, 1960; Bokemeier and Lacy, 1986; Burstein et al., 1975; Converse et al., 1980:160-164; Form, 1973; Gruenberg, 1980; Inkeles, 1960; Kornhauser, 1965; Mortimer, 1979; Quinn and Staines, 1979; Tausky, 1978:95-96; Wozniak, 1978). To check for possible problems associated with this skewed distribution, a log transformation was employed in a test of the social support models on the two dependent variables. As reported in Chapter Four, this analysis reveals that the skewness does not have a marked effect upon the pattern of statistical results. Accordingly, it does not appear that the tendency toward skewness in the data affected the results reported in this dissertation.

Further, to investigate potential problems in the distribution due to the nature of the measures, a correlation matrix (see Table 2.2) was generated using the nonparametric statistic, Kendall's Tau. When the matrix using Kendall's Tau is compared with the Pearson correlation matrix reported in Table 3.11, it becomes apparent that the relationships generally are in the same direction and of similar magnitudes. The only exceptions, pertaining to change in direction, are between IRC and NPD, RA and NPD, PSAF and OCC, and SSAC and OCC. However, none of these correlations are found to be statistically significant (i.e., using the criterion of $p < .05$ as established in regard to the Pearson correlation matrix in Chapter Three). In terms of change in magnitude, the only

Table 2.2. Kendall Correlations Among the Variables in the Analysis

Variables	RA	RO	NPD	PSAC	PSAF	SSAC	SSAF	JD	DJE	OCC
Intra-Role Conflict (IRC)	.467 n=137 p=.001	.139 n=149 p=.017	-.002 n=151 p=.491	-.192 n=143 p=.003	-.185 n=146 p=.004	-.126 n=135 p=.035	-.236 n=136 p=.001	.476 n=136 p=.001	.399 n=96 p=.001	-.051 n=153 p=.213
Role Ambiguity (RA)		.234 n=138 p=.001	-.011 n=136 p=.434	-.058 n=133 p=.200	-.191 n=135 p=.003	-.124 n=127 p=.034	-.164 n=128 p=.008	.352 n=126 p=.001	.262 n=87 p=.001	-.046 n=138 p=.236
Role Overload (RO)			-.063 n=150 p=.154	-.087 n=143 p=.101	-.144 n=145 p=.017	.117 n=136 p=.042	-.048 n=137 p=.239	.154 n=136 p=.013	.049 n=97 p=.274	-.060 n=153 p=.167
Nonparticipation in Decision Making (NPD)				-.185 n=142 p=.003	-.069 n=146 p=.146	-.078 n=135 p=.119	-.117 n=136 p=.038	.209 n=135 p=.001	.233 n=97 p=.002	-.202 n=154 p=.001
Peer Support Achievement (PSAC)					.413 n=143 p=.001	.223 n=134 p=.001	.269 n=136 p=.001	-.306 n=130 p=.001	-.280 n=92 p=.001	-.043 n=145 p=.260
Peer Support Affiliation (PSAF)						.122 n=137 p=.042	.410 n=138 p=.001	-.318 n=131 p=.001	-.157 n=94 p=.035	.014 n=149 p=.415
Supervisor Support Achievement (SSAC)							.160 n=132 p=.011	-.166 n=127 p=.010	-.138 n=87 p=.056	-.021 n=138 p=.374
Supervisor Support Affiliation (SSAF)								-.317 n=126 p=.001	-.146 n=88 p=.046	.015 n=139 p=.412
Job Dissatisfaction (JD)									.631 n=88 p=.001	.025 n=137 p=.355
Dissatisfaction With Job Expectations (DJE)										.015 n=98 p=.428
Occupational Level (OCC)										

other exceptions are between IRC and SSAC, RA and SSAC, RO and SSAC, NPD and SSAF, SSAF and DJE. That is, for each of these variable combinations, p is less than .05 on the Kendall correlation matrix and greater than .05 on the Pearson correlation matrix. Even so, the differences between the Pearson correlations and Kendall correlations are rather slight ranging from only .002 for IRC and SSAC (-.128 versus -.126) to .023 for SSAF and DJE (-.123 versus -.146). Overall, therefore, these results furnish a degree of confidence that the measures of the variables do not present any difficulties that would preclude the use of multiple regression in the analysis. In short, these data (Table 2.2) provide additional support for the conclusions drawn from this study in Chapters Four and Five.

Finally, it should be noted that tests of statistical significance are used in the analysis. Because the McMaster study surveyed the entire population of workers on the four acute-care wards, inferential statistics are not required. For two reasons, however, it was decided to report the tests of statistical significance.

First, in line with Lipset et al. (1962:471), the purpose of the analysis is not "particularistic," in the sense that it wishes to confine its focus to a "description and explanation of the single case, to provide information concerning its present state, and the dynamics through which it continues as it does." In contrast, the study's purpose is "generalizing," in that it seeks to offer an "empirical basis either for generalizing or for theory" (Lipset et al., 1962:471). Thus, given this orientation, the results are intended to have implications for hospital

workers beyond the acute-care wards of the McMaster University Medical Centre. Accordingly, the use of inferential statistics arguably are in order (cf. Cullen et al., 1985b; LaRocco and Jones, 1978).

It must be noted that the analysis does not meet all the assumptions of regression for use as an inferential statistic (e.g., a purely random sample). The risk of utilizing regression, however, is mitigated by the fact that regression is a robust technique that withstands violations of assumptions (Bohrnstedt and Carter, 1971; Dooley, 1985:119). This is a reason why so many stressor-social support researchers use this technique (cf. Anderson et al., 1983:247; Bohrnstedt and Borgatta, 1981; Land, 1969:33-34). Nonetheless, appropriate caution should be taken in generalizing the results beyond the sample examined in this dissertation research.

Second, on a more practical level, tests of statistical significance can be employed as a means of assessing the magnitude of variables' effects on job dissatisfaction. An alternative strategy would be to focus strictly on the Betas and to employ a standard which assumes that a Beta of .10 or lower is a result that is of negligible substantive importance (cf. Blau and Duncan, 1967:140-145,173). For the present data (given its sample size), all results reported as statistically significant have Betas in excess of .10. As such, using tests of statistical significance as a way of confirming or rejecting the study's hypotheses represents a slightly more conservative test of the model than using the .10 standard.

On balance, it appears that a reasonable basis exists to employ tests of statistical significance. This usage, however, should be seen in light of the caveats noted above. Moreover, for the two major tests of the social support model (Tables 4.4 and 4.12), footnotes have been inserted to discuss what the interpretation of the results would be using a .10 standard.

NOTES

[1]One ward housed the musculoskeletal programme; another included the gastrointestinal and cardiovascular programmes; a third contained the neurosciences programme; and a fourth consisted of family medicine.

[2]Macpherson et al. (1979b:1.2) maintain that the "teamwork" approach on these hospital wards calls for cooperation and flexibility among the ward personnel such that they "develop a sense of responsibility for shared patient care." Thus, this approach is predicated on the assumption that each of these ward personnel will come to acquire a feeling that he/she is making an overall contribution to the team, rather than one of merely doing a job. Ideally, this perception of working on a team (e.g., sharing responsibility with others, working out problems together) will extend to all personnel serving on the wards under study.

[3]According to Macpherson et al. (1979b:7.1):

> A central idea of the (psychosocial) programme is that if a person is admitted to hospital as a result of an automobile accident, good health may require more than setting broken bones. The patient may have been drinking and driving due to an intolerable job or family life. To the extent that physical problems may result from social and psychological problems, adequate health care may require treating psychosocial problems in addition to physical problems (my parenthesis).

Hence, "psychosocial care" entails a practice performed by health personnel that strives to meet the emotional and social needs of patients when they are ill. Specifically, prime consideration is given to the patients' general well-being and not only to their particular illnesses or health problems. Some examples of psychosocial care include: making patients as comfortable as possible during their hospital stay; attempting to lessen the distress of patients; providing patients with literature about their health problems; and enhancing the circumstances of patients leaving for and adjusting to home.

[4]Hereafter, the first survey drawn from the McMaster research project is also termed the "McMaster survey."

[5]See Macpherson et al. (1979c) for a complete listing of the original McMaster survey.

[6]The three items in the inter-role conflict scale are:

1. Thinking that you'll not be able to satisfy the conflicting demands of various people over you.
2. Feeling that you may not be liked and accepted by people you work with.
3. Feeling that your job tends to interfere with your family life.

The two items in the person-role conflict scale are:

1. Feeling that you're not fully qualified to handle your job.
2. Feeling that you have to do things on the job that are against your better judgment.

For each item in these scales, the respondents expressed their views in terms of a five-point Likert scheme (1=never, 2=rarely, 3=sometimes, 4=rather often, 5=nearly all the time). The zero-order correlations among items in the inter-role conflict scale (N=149) are: item 1 and item 2 (r=.220); item 1 and item 3 (r=.126); item 2 and item 3 (r=.136). In the person-role conflict scale (N=154), the zero-order correlation (r) for item 1 and item 2 is .105.

[7]The zero-order correlations among items in the intra-role conflict (IRC) scale (N=152) are: IRC1 and IRC2 (r=.491); IRC1 and IRC3 (r=.089); IRC2 and IRC3 (r=.351).

[8]See Bogue (1981:121-124), Selltiz et al. (1959:182-186), and Smith (1975:59-60) for rationales underlying the methodology of deleting items to improve the reliability of a scale.

[9]The deletion of this item lowered the number of missing cases in the scale from five to four.

[10]The zero-order correlations among items in the role ambiguity (RA) scale (N=138) are: RA1 and RA2 (r=.162); RA1 and RA3 (r=.183); RA1 and RA4 (r=.173); RA1 and RA5 (r=.042); RA2 and RA3 (r=.321); RA2 and RA4 (r=.265); RA2 and RA5 (r=.154); RA3 and RA4 (r=.362); RA3 and RA5 (r=.372); RA4 and RA5 (r=.397).

[11]In the role overload (RO) scale (N=153), the zero-order correlation (r) for RO1 and RO2 is .629.

[12]The zero-order correlations among items in the non-participation in decision making (NPD) scale (N=154) are: NPD1 and NPD2 (r=.683); NPD1 and NPD3 (r=.534); NPD1 and NPD4 (r=.498); NPD2 and NPD3 (r=.575); NPD2 and NPD4 (r=.448); NPD3 and NPD4 (r=.554).

[13]Quantitative measures of perceived social support assume that respondents who state they are receiving social support are in fact doing so. The possibility may exist, however, that such expressions may be an inaccurate perception or, psychologically, an attempt to compensate for felt vulnerability by rationalizing that one has socially supportive relationships. Clearly, issues such as these--which have been unaddressed in the field--would best be assessed through qualitative research. As is discussed in Chapter Five, however, such research remains to be undertaken.

[14]The zero-order correlations among items in the peer support for achievement (PSAC) scale (N=128) are: PSAC1 and PSAC2 (r=.566); PSAC1 and PSAC3 (r=.482); PSAC2 and PSAC3 (r=.294).

[15]This item is: "The people on my team spend hardly any time helping me work myself up to a better job by showing me how to improve my performance" (1=strongly agree, 2=agree, 3=undecided, 4=disagree, 5=strongly disagree).

[16]In the peer support for affiliation (PSAF) scale (N=149), the zero-order correlation (r) for PSAF1 and PSAF2 is .384.

[17]This item is: "My team leader often encourages us to do the job in a way that we really would be proud of" (1=strongly disagree, 2=disagree, 3=undecided, 4=agree; 5=strongly agree). The zero-order correlations among items in the supervisor support for achievement (SSAC) scale (N=134) are: SSAC1 and SSAC2 (r=.392); SSAC1 and SSAC3 (r=.126); SSAC2 and SSAC3 (r=.308).

[18]It may be possible to argue that item 2 could be construed as assessing participation in the work process and thus be confounded with the stressor measure of non-participation in decision making. It seems more defensible, however, not to accept this line of reasoning. Thus, the stressor scale asks explicitly about actual frequency of participation in decisions in concrete areas. In contrast, item 2 never mentions the word participation and, more importantly, is precise in asking the respondents to state not <u>if</u> they are involved in the work process but if <u>supervisors encourage</u> them to develop "better ways of doing things."

[19]The zero-order correlations among items in the supervisor support for affiliation (SSAF) scale (N=139) are: SSAF1 and SSAF2 (r=.224); SSAF1 and SSAF3 (r=.455); SSAF2 and SSAF3 (r=.458).

[20]The four items in Pearlin's alienation from work scale are:

1. Around here, it's not important how much you know, it is who you know that really counts (1=disagree, 2=agree).
2. How often do you tell your superiors your own ideas about things you might do in your work? (1=nearly all the time, 2=rather often, 3=sometimes, 4=rarely, 5=never).
3. How much do you do things in your work that you wouldn't do if it were up to you? (1=never; 2=rarely, 3=sometimes, 4=rather often, 5=nearly all the time).
4. How much say or influence do people in positions such as yours have on the way the ward is run? (1=very great extent, 2=great extent, 3=some extent, 4=little extent, 5=very little extent).

The zero-order correlations among items in Pearlin's alienation from work (PAFW) scale (N=141) are: PAFW1 and PAFW2 (r=-.032); PAFW1 and PAFW3 (r=.425); PAFW1 and PAFW4 (r=.154); PAFW2 and PAFW3 (r=-.085); PAFW2 and PAFW4 (r=.284); PAFW3 and PAFW4 (r=.076). Cronbach's alpha for: PAFW1 and PAFW3 is .41; PAFW1 and PAFW4 is .13; PAFW2 and PAFW4 is .42. Regarding items in Aiken and Hage's alienation from expressive relations scale, the respondents stated their opinions in terms of a four-point Likert scheme (1=definitely satisfied, 2=somewhat satisfied, 3=somewhat dissatisfied, 4=definitely dissatisfied).

[21]In Aiken and Hage's alienation from expressive relations scale (N=151), the zero-order correlation (r) for item 1 and item 2 is .278.

[22]The zero-order correlations among items in the general job dissatisfaction (JD) scale (N=137) are: JD1 and JD2 (r=.541); JD1 and JD3 (r=.497); JD2 and JD3 (r=.433). In the dissatisfaction with job expectations (DJE) scale (N=98), the zero-order correlation (r) for DJE1 and DJE2 is .806.

[23]Literature reviews of job dissatisfaction/satisfaction studies display this tendency as well (see, for example, Blauner, 1960; Carroll, 1973; Johnston, 1975; Locke, 1976; Mortimer, 1979; Robinson and Connors, 1963; Vroom, 1964:99-174).

[24]Parenthetically, occupation is related to stressors (see, for example, Caplan et al., 1980; Cooper and Payne, 1980; French et al., 1982; House, 1980).

[25]For instance, the McMaster survey includes open-ended items such as:

1. Who is your immediate supervisor, the person to whom you directly report?
2. What is his/her position or job title?
3. Is there anyone to whom you're responsible for some of your activities?
4. Please choose the person from this list you consider to be the leader of the health care team.
5. Who is that person and what is his/her position or job title?

Chapter Three

DESCRIPTION OF THE DATA

The central objective of this dissertation is to assess the potential effects of stressors and social supports on job dissatisfaction among hospital employees. Before undertaking the empirical investigation of this social support model, the nature of the data used in this present study is discussed in detail. In particular, it may prove instructive to analyze the extent to which the respondents perceived they had experienced stressors, social supports, and job dissatisfaction while working on acute-care hospital wards.

Chapter Three therefore presents descriptive data on the major variables contained in the research. Specifically, the responses of the study population to each of the stressor, social support, and job dissatisfaction scales are first reviewed. Following this, a correlation matrix among all the study variables is examined. All this is done for two reasons. First, it enhances an understanding of the basic characteristics of the setting being studied. Second, information is provided that is referred to in interpreting the results of the analyses carried out in Chapter Four.

DESCRIPTIVE STATISTICS OF THE STUDY VARIABLES

Stressors

Within this present research, four scales serve as measures of stressors. These scales include: intra-role conflict, role ambiguity, role overload, and non-participation in decision making. Descriptive

statistics regarding the responses to each of the stressor scales are listed in Tables 3.1 to 3.4.

Overall, these tables illustrate that the perceived intensity of the stressors appears to differ depending upon the type of stressor under consideration. As shown in Table 3.1, a substantial majority of the study population expressed relatively low perceptions of intra-role conflict. For example, more than 70% of the respondents stated that they never or rarely feel: too little authority to carry out their assigned responsibilities (item 1) and unable to influence their team's decisions and actions that affect them (item 2). A clear majority of those surveyed also exhibited generally low feelings of role ambiguity (Table 3.2). Approximately 70% asserted that they are never or rarely in the position of not knowing either what opportunities exist for their advancement (item 2) or what the people on their team expect of them (item 5). About 55% also replied that they never or rarely are: unclear about the scope of their job responsibilities (item 1); unsure of what their supervisors think about their performance (item 3); and bothered by the fact that they can't get the information needed to carry out their jobs (item 4).

On the other hand, the respondents' conceptions of role overload were slightly more pronounced than their views of intra-role conflict and role ambiguity. Table 3.3 shows that nearly 40% said they sometimes have too heavy a workload (item 1) and have conflicting demands made on them by other team members (item 2). Close to 40% of the others in the study answered never or rarely concerning both items in the role overload scale.

Table 3.1 Distribution of Intra-Role Conflict by Item

Scale ($\bar{X}$=2.11; SD=.668)	Never	Rarely	Some-times	Rather Often	Nearly All The Time	Don't Know/ No Answer
Item (N=157)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
1. Feeling that you have too little authority to carry out the responsibilities assigned to you. ($\bar{X}$=2.09; SD=.828)	22.3 (35)	51.0 (80)	19.7 (31)	5.1 (8)	0.6 (1)	1.3 (2)
2. Feeling unable to influence your team's decisions and actions that affect you. ($\bar{X}$=2.12; SD=.719)	17.2 (27)	53.5 (84)	24.2 (38)	2.5 (4)	0.0 (0)	2.5* (4)

*Percentages do not add up to 100% because of rounding.

Table 3.2. Distribution of Role Ambiguity by Item

Scale ($\bar{X}$=2.25; SD=.563)	Never	Rarely	Some-times	Rather Often	Nearly All The Time	Don't Know/ No Answer
Item (N=157)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
1. Being unclear on just what the scope and responsibilities of your job are. ($\bar{X}$=2.43; SD=.954)	14.6 (23)	40.8 (64)	33.1 (52)	6.4 (10)	3.8 (6)	1.3 (2)
2. Not knowing what opportunities for advancement or promotion exist for you. ($\bar{X}$=1.99; SD=1.097)	38.2 (60)	33.1 (52)	12.1 (19)	7.0 (11)	3.8 (6)	5.7* (9)
3. Not knowing what those who supervise your work think of you, how they evaluate your performance. ($\bar{X}$=2.26; SD=.917)	21.0 (33)	36.3 (57)	31.2 (49)	5.7 (9)	1.3 (2)	4.5 (7)
4. Feeling bothered by the fact that you can't get information needed to carry out your job. ($\bar{X}$=2.29; SD=.798)	15.3 (24)	41.4 (65)	35.7 (56)	3.2 (5)	0.6 (1)	3.8 (6)
5. Not knowing just what the people on your team expect of you. ($\bar{X}$=2.14; SD=.788)	19.7 (31)	48.4 (76)	27.4 (43)	2.5 (4)	0.6 (1)	1.3* (2)

*Percentages do not add up to 100% because of rounding.

Table 3.3 Distribution of Role Overload by Item

Scale ($\bar{X}$=2.68; SD=.906)	Never	Rarely	Some-times	Rather Often	Nearly All The Time	Don't Know/ No Answer
	%	%	%	%	%	%
Item (N=157)	(n)	(n)	(n)	(n)	(n)	(n)
1. Feeling that you have too heavy a workload, one that you can't possibly finish during an ordinary work day.	19.1	21.7	38.9	12.1	5.7	2.5
($\bar{X}$=2.62; SD=1.111)	(30)	(34)	(61)	(19)	(9)	(4)
2. Having conflicting demands made on you by other members of the team.	8.9	29.9	44.0	14.0	2.5	0.6*
($\bar{X}$=2.71; SD=.909)	(14)	(47)	(69)	(22)	(4)	(1)

*Percentages do not add up to 100% because of rounding.

Table 3.4. Distribution of Non-Participation in Decision Making by Item

Scale ($\bar{X}$=3.85; SD=.965)	Nearly All The Time	Rather Often	Some-times	Rarely	Never	Don't Know/ No Answer
Item (N=157)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
1. How frequently do you usually participate in the decision to hire new staff? ($\bar{X}$=4.40; SD=1.126)	5.1 (8)	4.5 (7)	6.4 (10)	12.7 (20)	70.1 (110)	1.3* (2)
2. How frequently do you participate in decisions on the promotion of any of the professional staff? ($\bar{X}$=4.29; SD=1.137)	4.5 (7)	5.1 (8)	10.8 (17)	14.6 (23)	63.1 (99)	1.9 (3)
3. How frequently do you participate in ward decisions on the adoption of new policies? ($\bar{X}$=3.08; SD=1.223)	14.0 (22)	11.5 (18)	42.7 (67)	14.6 (23)	16.6 (26)	0.6 (1)
4. How frequently do you participate in hospital decisions on the adoption of new programmes affecting your unit? ($\bar{X}$=3.60; SD=1.258)	8.3 (13)	7.6 (12)	33.1 (52)	16.6 (26)	33.8 (53)	0.6 (1)

*Percentages do not add up to 100% because of rounding.

Moreover, most of the personnel under study conveyed relatively high images of non-participation in decision making (Table 3.4). Almost 80% maintained that they never or rarely take part in decisions to hire new staff (item 1) and in decisions to promote any of the professional staff (item 2). A smaller proportion (50%) observed that they never or rarely decide upon the adoption of new programmes affecting their unit (item 4). Another one-third gave sometimes as an answer to this latter item. An exception to this pattern is evident in the responses to item 3 of Table 3.4. Two-fifths of the sample noted that they are sometimes involved in the implementation of new policies on the ward. Another one-fourth claimed that they deal with these issues nearly all of the time or rather often. Hence, most respondents reported that they have some input on decisions about new ward policies, but not much of a say on matters of hiring, promotion, and new hospital programmes.

Tables 3.1 to 3.4 also point out that the scale means for each of the stressor measures rank as follows: intra-role conflict ($\bar{X}$=2.11); role ambiguity ($\bar{X}$=2.25); role overload ($\bar{X}$=2.68); and non-participation in decision making ($\bar{X}$=3.85). Notably, the scale means for intra-role conflict, role ambiguity, and role overload fall below 3.0, which is the midpoint for each of the five-point stressor measures. Conversely, the overall mean for non-participation in decision making lies above the scale midpoint.

Taken together, the data in Tables 3.1 to 3.4 indicate that the study population tended to view intra-role conflict and role ambiguity as less prevalent stressors than role overload and as substantially less prevalent

stressors than non-participation in decision making. In light of the conceptual discussion provided in Chapter Two (see Measures of Stressors), three further observations can be made about the stressor data. First, most respondents believed that they do not necessarily encounter incompatibility (i.e., intra-role conflict) and lack of clarity (i.e., role ambiguity) in the roles they are expected to play on the acute-care wards. Second, the pattern underlying the viewpoints of the ward personnel about whether they experience role overload (too much work to complete given the time required) is less clear-cut. About the same percentage of the sample thought they face such an overload of work either sometimes or never and rarely. Third, a considerable majority of the ward members saw themselves as non-participants in decision making, that is, they infrequently participate in setting policies for their organization, especially about its personnel.

In sum, it seems reasonable to conclude that the study population generally characterized their work experiences on the acute-care wards as not very highly dominated by stressors. Given their responses on the whole, intra-role conflict, role ambiguity, and role overload were viewed as relatively low stressors. Non-participation in decision making, on the other hand, is the only stressor that was perceived as relatively high.

Social Supports

Four scales are used as measures of social supports: peer support for achievement, peer support for affiliation, supervisor support for achievement, and supervisor support for affiliation. Tables 3.5 to 3.8 present the responses to each of the social support scales.

Table 3.5. Distribution of Peer Support for Achievement by Item

Scale ($\bar{X}$=3.70; SD=.639)	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Don't Know/ No Answer
	%	%	%	%	%	%
Item (N=157)	(n)	(n)	(n)	(n)	(n)	(n)
1. The people on my health care team often encourage each other to do the job in a way that we really would be proud of.	0.0	6.4	15.9	65.0	8.3	4.5*
($\bar{X}$=3.78; SD=.691)	(0)	(10)	(25)	(102)	(13)	(7)
2. The people on my team often encourage each other to think of better ways of getting the work done which may never have been thought of before.	0.0	11.5	16.6	60.5	3.8	7.6
($\bar{X}$=3.61; SD=.756)	(0)	(18)	(26)	(95)	(6)	(12)

*Percentages do not add up to 100% because of rounding.

Table 3.6. Distribution of Peer Support for Affiliation by Item

Scale ($\bar{X}$=3.60; SD=.687)	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Don't Know/ No Answer
Item (N=157)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
1. The people on my team often blame each other when things go wrong. ($\bar{X}$=3.54; SD=.906)	5.7 (9)	62.4 (98)	12.1 (19)	16.6 (26)	1.9 (3)	1.3 (2)
2. The people on my team will often compliment a team member who has done his/her job well. ($\bar{X}$=3.69; SD=.730)	0.0 (0)	10.2 (16)	14.0 (22)	66.9 (105)	5.1 (8)	3.8 (6)

Table 3.7. Distribution of Supervisor Support for Achievement by Item

Scale ($\bar{X}$=3.27; SD=.841)	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Don't Know/ No Answer
	%	%	%	%	%	%
Item (N=157)	(n)	(n)	(n)	(n)	(n)	(n)
1. Members of my team often have the importance of their jobs stressed to them by my supervisors.	3.8	25.5	19.1	36.9	5.1	9.6
($\bar{X}$=3.15; SD=1.033)	(6)	(40)	(30)	(58)	(8)	(15)
2. My supervisors often encourage the people on my team to think of better ways of getting the work done which may never have been thought of before.	1.3	19.7	16.6	46.5	7.6	8.3
($\bar{X}$=3.43; SD=.966)	(2)	(31)	(26)	(73)	(12)	(13)

Table 3.8. Distribution of Supervisor Support For Affiliation by Item

Scale ($\bar{X}$=3.88; SD=.615)	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Don't Know/ No Answer
Item (N=157)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
1. My team leader will often compliment the people on my team if they do their jobs well. ($\bar{X}$=3.71; SD=.876)	1.9 (3)	9.6 (15)	10.2 (16)	58.0 (91)	9.6 (15)	10.8* (17)
2. My team leader often blames others when things go wrong which are possibly not the fault of those blamed. ($\bar{X}$=3.89; SD=.867)	18.5 (29)	55.4 (87)	8.9 (14)	7.6 (12)	1.3 (2)	8.3 (13)
3. When my team leader has a dispute with somebody on the ward, he/she usually tries to handle it in a friendly manner. ($\bar{X}$=4.00; SD=.678)	0.6 (1)	3.8 (6)	6.4 (10)	68.2 (107)	15.9 (25)	5.1 (8)

*Percentages do not add up to 100% because of rounding.

Overall, the data indicate that the ward personnel generally viewed their work peers and supervisors as supportive. As shown in Table 3.5, a large majority of the study population expressed relatively high perceptions of peer support for achievement. More than 70% agreed that their team members often encourage each other to do the job in a way they really would be proud of (item 1). Another 64% asserted that their team members often encourage each other about thinking of new and better ways to get the work done (item 2). About the same proportion of those surveyed also conveyed relatively high images of peer support for affiliation (Table 3.6). Approximately 70% concurred with item 2 (people on the team often compliment a member who has done a job well) and differed with item 1 (people on the team blame each other when things go wrong).

In Table 3.8, a considerable majority of the interviewees also exhibited relatively high impressions of supervisor support for affiliation. More than four-fifths affirmed that their team leader usually handles a dispute with someone on the ward in a friendly manner (item 3). Over seven-tenths did not agree with item 2: "My team leader often blames others when things go wrong which are possibly not the fault of those blamed." Close to the same percentage maintained that their team leader will often compliment team members for doing their jobs well (item 1).

Alternatively, the respondents' conceptions of supervisor support for achievement were slightly less pronounced than their views of supervisor support for affiliation. The level of agreement in Table 3.7 falls to 54% for item 2, which taps whether supervisors often encourage team

members to think about new and better ways of getting the work done. Less than a majority (42%) believed that team members often have the importance of their jobs stressed to them by their supervisors (item 1). Nearly 30% disagreed with this latter item and almost 20% were undecided about it.

Tables 3.5 to 3.8 further illustrate that while the overall means for each of the five-point social support measures lie above the scale midpoint (3.0), supervisor support for achievement ($\bar{X}$=3.27) ranks as the lowest social support. By contrast, supervisor support for affiliation ($\bar{X}$=3.88) is the highest social support. Peer support for achievement ($\bar{X}$=3.70) and peer support for affiliation ($\bar{X}$=3.60) are the second and third highest social supports respectively.

In conceptual terms (see Measures of Social Supports in Chapter Two), this means that a large majority of the ward members in this study felt that their supervisors provide emotional support at work through gestures of friendliness and respect (i.e., support for affiliation). However, there was less consensus among these hospital workers about whether they regarded their supervisors as offering instrumental support such as encouragement and approval in achieving work goals (i.e., support for achievement). On the other hand, most of these ward employees thought that they encounter such emotional and instrumental social supports from their work peers.

In sum, perceptions of social supports on the acute-care wards appear to be rather widespread among the study population. Although one scale (supervisor support for achievement) ranked lower than the

others, all four work-related measures of social support investigated in this study were characterized by the sample as relatively high.

Job Dissatisfaction

As emphasized throughout the previous chapters, stressors, social supports, and negative outcomes have been frequently cited as key components of the social support model. Thus far in this chapter, the attitudes of the study population toward various types of stressors and social supports have been examined. By contrast, the section below focuses upon their perceptions of two negative outcomes: job dissatisfaction and dissatisfaction with job expectations.

Table 3.9 contains descriptive statistics for the job dissatisfaction scale. Overall, the data suggest that job dissatisfaction is not highly pronounced among the sample. For each item, the mean falls below the scale's midpoint of 2.5. The mean for the entire scale is 1.56.

The frequency distribution of responses for the items in Table 3.9 is equally instructive in revealing that job dissatisfaction is not intensely felt by the ward members under study. Thus, across the scale's items, the percentage of the respondents expressing dissatisfaction (i.e., answering definitely or somewhat dissatisfied) ranged from 8.9 to 18.5. Alternatively, for each item, a majority of those surveyed said they were definitely satisfied (1) that they "have been given enough authority to do your job well," (2) with their "present job when you compare it to similar positions in the province," and (3) that their "team leader accepts you in your line of work to the degree to which you feel you are entitled."

Table 3.9. Distribution of Job Dissatisfaction by Item

Scale ($\bar{X}$=1.56; SD=.645)	Definitely Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Definitely Dissatisfied	Don't Know/ No Answer
Item (N=157)	% (n)	% (n)	% (n)	% (n)	% (n)
1. How satisfied are you that you have been given enough authority to do your job well? ($\bar{X}$=1.54; SD=.739)	57.3 (90)	32.5 (51)	7.0 (11)	2.5 (4)	0.6* (1)
2. How satisfied are you with your present job when you compare it to similar positions in the province? ($\bar{X}$=1.72; SD=.949)	51.6 (81)	23.6 (37)	11.5 (18)	7.0 (11)	6.4* (10)
3. On the whole, how satisfied are you that your team leader accepts you in your line of work to the degree to which you feel you are entitled? ($\bar{X}$=1.45; SD=.745)	61.8 (97)	21.7 (34)	6.4 (10)	2.5 (4)	7.6 (12)

*Percentages do not add up to 100% because of rounding.

Table 3.10 presents the responses to the scale measuring the second dependent variable, dissatisfaction with job expectations. As explained in Chapter Two (see Measures of Negative Outcomes), the number of respondents on this scale decreased to 100 due to the structure of the original questionnaire. Only those who indicated that they had expectations regarding their job when they were initially employed are included in the analysis here.[1]

Like the pattern of replies for the general job dissatisfaction scale, the data show that intense dissatisfaction with job expectations is not widespread in the study population. Although dissatisfaction is higher on this dependent variable than on the general job dissatisfaction measure (a scale mean of 1.87 compared to 1.56), its mean still remains below the midpoint of 2.5 on the four-point Likert scale used to evaluate the items.

When the individual items in Tables 3.9 and 3.10 are observed, two similar conclusions are apparent. First, the percentages illustrate that dissatisfaction is slightly higher on the job expectations measure. Thus, while the average percentage of dissatisfaction for the three items in Table 3.9 is 12.3, this figure for the items in Table 3.10 is 19.2. And while a majority of the study population answered "definitely satisfied" on each of the general job dissatisfaction items, the percentages of "definitely satisfied" for the job expectations items fall below forty percent. This higher level of dissatisfaction could have two possible sources. It could be the result of a bias introduced by the reduced number of respondents on the job expectations items, or it could be an

Table 3.10. Distribution of Dissatisfaction With Job Expectations by Item

Scale ($\bar{X}$=1.87; SD=.809)	Definitely Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Definitely Dissatisfied
Item	% (n)	% (n)	% (n)	% (n)
1. On the whole, how satisfied are you with your present job when you consider the expectations you had when you took this job? ($\bar{X}$=1.91; SD=.870; N=98)	35.7 (35)	42.9 (42)	15.3 (15)	6.1 (6)
2. How satisfied are you with your present job in light of "career" expectations? ($\bar{X}$=1.83; SD=.829; N=100)	39.0 (39)	44.0 (44)	12.0 (12)	5.0 (5)

accurate reflection of the fact that feelings about aspects of a job are different than attitudes about the fulfillment of expectations brought to the workplace.

Second, it is still the case that the members of the sample tended to express more satisfaction than dissatisfaction concerning the extent to which their job expectations had been fulfilled. Hence, a strong majority gave a satisfied response (i.e., either definitely or somewhat satisfied) when asked how satisfied are you with your present job "when you consider the expectations you had when you took this job" (item 1) and "in light of 'career' expectations" (item 2).

Finally, it should be noted that the level of dissatisfaction and satisfaction found on the measures employed to tap this study's two dependent variables is consistent to that attained in previous research (Blauner, 1960; Bokemeier and Lacy, 1986; Burstein et al., 1975; Converse et al., 1980:160-164; Form, 1973; Gruenberg, 1980; Inkeles, 1960; Kornhauser, 1965; Mortimer, 1979; Quinn and Staines, 1979; Tausky, 1978:95-96; Wozniak, 1978).

Correlation Matrix

Table 3.11 reports the correlation matrix among all study variables. The label for each variable along with its appropriate abbreviation is listed in the left column. For reasons of space, only the abbreviations are presented on the row across the top of the table. Several salient patterns evident in the data are discussed below.

First, the correlation matrix shows that the stressors are generally interrelated. Among the three role stressors--intra-role conflict, role

Table 3.11. Pearson Correlations Among the Variables in the Analysis

Variables	RA	RO	NPD	PSAC	PSAF	SSAC	SSAF	JD	DJE	OCC
Intra-Role Conflict (IRC)	.575 n=137 P=.001	.208 n=149 P=.005	.029 n=151 P=.360	-.223 n=143 P=.004	-.250 n=146 P=.001	-.128 n=135 P=.069	-.298 n=136 P=.001	.571 n=136 P=.001	.506 n=96 P=.001	-.073 n=153 P=.183
Role Ambiguity (RA)		.288 n=138 P=.001	.013 n=136 P=.438	-.102 n=133 P=.120	-.222 n=135 P=.005	-.119 n=127 P=.091	-.205 n=128 P=.010	.467 n=126 P=.001	.331 n=87 P=.001	-.034 n=138 P=.346
Role Overload (RO)			-.078 n=150 P=.169	-.129 n=143 P=.062	-.145 n=145 P=.040	.108 n=136 P=.104	-.045 n=137 P=.301	.192 n=136 P=.012	.083 n=97 P=.209	-.074 n=153 P=.181
Nonparticipation in Decision Making (NPD)				-.215 n=142 P=.005	-.110 n=146 P=.093	-.058 n=135 P=.250	-.124 n=136 P=.074	.249 n=135 P=.002	.251 n=97 P=.006	-.315 n=154 P=.001
Peer Support Achievement (PSAC)					.550 n=143 P=.001	.287 n=134 P=.001	.302 n=136 P=.001	-.297 n=130 P=.001	-.313 n=92 P=.001	-.011 n=145 P=.445
Peer Support Affiliation (PSAF)						.176 n=137 P=.020	.504 n=138 P=.001	-.357 n=131 P=.001	-.170 n=94 P=.051	-.001 n=149 P=.491
Supervisor Support Achievement (SSAC)							.210 n=132 P=.008	-.243 n=127 P=.003	-.116 n=87 P=.142	.046 n=136 P=.293
Supervisor Support Affiliation (SSAF)								-.334 n=126 P=.001	-.123 n=88 P=.126	.020 n=139 P=.404
Job Dissatisfaction (JD)									.728 n=88 P=.001	.005 n=137 P=.473
Dissatisfaction With Job Expectations (DJE)										.038 n=98 P=.353
Occupational Level (OCC)										

ambiguity, and role overload--the correlations are .575 for IRC and RA, .208 for IRC and RO, and .288 for RA and RO. Non-participation in decision making (NPD), however, has a negligible relationship with the three role stressors. This suggests that NPD may be a distinct type of stressor than the other three variables. Thus, NPD assesses self-report frequency, or non-frequency, of participation in decision-making. It is a more concrete measure of the structural access to control in the workplace. In contrast, the other measures tend to focus more on role expectations--whether they have been exceeded (overload), are ambiguous, or are conflicting.

Second, the data also reveal that the social support measures are all positively related to one another. The correlations are highest between peer support for achievement and peer support for affiliation (.550) and between peer support for affiliation and supervisor support for affiliation (.504). Though still statistically significant ($p < .05$), the correlations are less pronounced among the other social supports, with the coefficients ranging from .176 to .302.[2]

Third, there is a strong correlation (.728) between the measures of general job dissatisfaction and dissatisfaction with job expectations. This finding indicates that the two scales may be tapping a similar underlying construct. This is not surprising in light of the fact that both dependent variables are job dissatisfaction measures and that the five items composing the scales were drawn from the work of Aiken and Hage (1966). However, there are two reasons for analyzing the measures separately. On the one hand, as discussed previously, the number of

ward workers responding to each scale was (due to the structure of the McMaster survey instrument) sufficiently different to preclude combining the measures. On the other hand, the relationship of the study variables to the two dependent variables is divergent enough to infer that the measures are at least somewhat distinct and can be analyzed separately (see columns JD and JDE in Table 3.11). That is, to the extent that the stressors and social supports are differentially related to each dissatisfaction scale, it is reasonable to assume that the measures are not assessing an identical construct.

Fourth, the zero-order correlations between the independent and dependent variables are consistently in the direction predicted by the social support model. Thus, all four stressors are positively related and all four social supports are negatively related with the general job dissatisfaction measure. Although the statistical associations are generally less strong, three of the stressors and two of the social supports (one at p=.051) are significantly related in the expected direction to the dissatisfaction with job expectations scale.

Finally, Table 3.11 also lists the correlations of the control variable, occupational level, to all the study variables. Most important for the purposes of the present study is the finding that occupational level is unrelated to both of the dependent variables. Notably, this result is inconsistent with previous research on the relationship of occupation to job dissatisfaction (Blauner, 1960; Carroll, 1973; Form, 1973; Gruenberg, 1980; Inkeles, 1960; Kornhauser, 1965:85; Mortimer, 1979; Tausky, 1978:97-100; Upjohn Institute, 1973:16; Vroom, 1964).

CONCLUSION

The main purpose of this chapter has been to present descriptive statistics of the variables to be employed in the test of the social support model. As noted previously, the value of this undertaking is that it provides a context for interpreting subsequent empirical analyses. It should be observed, however, that many previous social support studies have not furnished the descriptive statistics of relevant independent and dependent variables (cf. Cullen et al., 1985a; Finney et al., 1984; LaRocco et al., 1980; Lin et al., 1979; McFarlane et al., 1983; Pearlin et al., 1981; Thoits, 1982; Turner, 1981; Turner and Noh, 1983). While this apparently has been done to enhance the parsimoniousness of the data presentation in journal articles, it has limited the ability of other researchers to understand the nature of the social surroundings in which the study was conducted and how this may have shaped the subsequent results. In particular, authors have only infrequently reported the extent to which stressors and social supports are perceived in their research setting and then discussed how this may have conditioned their evaluations of the social support model.

In this light, several conclusions regarding the study variables are potentially relevant to understanding the nature of the work environment in which this dissertation research was carried out. First, the acute-care employees did not perceive their work to be substantially dominated by stressors. The three role-related stressors--intra-role conflict, role ambiguity, and role overload--tended to be viewed as relatively low stressors. However, an exception to this pattern was evident with non-

participation in decision making, which was seen as a relatively high stressor by most of the study population.

Second, the respondents indicated that work-related social supports were fairly widespread on the wards. While supervisor support for achievement ranked lower than the other scales (supervisor support for affiliation, peer support for achievement, and peer support for affiliation), all four measures were characterized by the sample as relatively high.

Third, the descriptive statistics on the two dependent variables suggested that job dissatisfaction was not intensely felt by the ward workers. While there appeared to be a higher level of dissatisfaction with job expectations than of general job dissatisfaction, only a minority of the study population stated that they were definitely or somewhat dissatisfied with their jobs or in regard to their initial expectations about their work.[3] The finding of relatively low dissatisfaction is understandable in light of the portrait of the work place drawn from the descriptive statistics: it appears that the setting is characterized by a limited amount of perceived stressors and by a firm degree of perceived social supports.

Finally, the correlation matrix illustrated that the zero-order correlations among the major study variables generally are consistent with those indicated by the social support model. Thus, the data showed that the stressors tended to be positively related with the dissatisfaction measures while the social supports tended to be negatively related to these dependent variables.

NOTES

[1]In Table 3.10, N equaled 98 in item 1 because two respondents (who indicated that they had expectations regarding their job when they were initially employed) gave no answer.

[2]Following convention, $p < .05$ will be utilized as the level of significance to accept or reject the hypotheses throughout the dissertation.

[3]Again, regarding this tendency in the data, it seems instructive to note the qualifications raised in Chapter Two about why job dissatisfaction is usually low among workers (see Measures of Negative Outcomes).

Chapter Four

TESTING THE SOCIAL SUPPORT MODEL

This chapter assesses whether the social support model provides a more adequate explanation of job dissatisfaction than the stressor-outcome model. As indicated at the end of Chapter Two, five specific hypotheses are examined. Two hypotheses pertain to the direction in which the independent variables are associated with the job dissatisfaction measures: stressors are positively related, while social supports are negatively related. A third hypothesis maintains that the social support model explains more variance than the stressor-outcome model. Finally, the fourth and fifth hypotheses focus upon the potential that social supports interact with stressors to "buffer" workers from negative outcomes, and upon the contention that the inclusion of interaction terms furnishes the most empirically adequate and theoretically complete model addressed in this dissertation.

Below, these propositions are discussed for each of the dependent variables included in the analysis: general job dissatisfaction and dissatisfaction with job expectations.

STRESSORS, SOCIAL SUPPORTS, AND JOB DISSATISFACTION

Stressor-Outcome Model

Consistent with the stressor-outcome model, Hypothesis 1 proposes that "stressors will be positively related to job dissatisfaction." It also contends that this will occur for each of the four stressor variables.

As reported in Table 3.11 of Chapter Three, the zero-order correlations for each of the stressor measures are positively and significantly related to the job dissatisfaction scale. The specific correlations are as follows: intra-role conflict = .571; role ambiguity = .467; role overload = .192; non-participation in decision making = .249.

Table 4.1 presents the results of an analysis in which the four stressor variables are regressed on the job dissatisfaction measure. One methodological note is relevant. In this analysis (and at all future points in Chapter Four), Cohen and Cohen's (1975:282-290) method of "plugging with scale means" has been used. Specifically, the mean value of a scale has been substituted for each missing value in a scale. As Cohen and Cohen (1975:268) assert, this is the preferred procedure in multiple regression analysis since "dropping cases is not a generally adequate solution to the missing data problem" (cf. 1975:289-290).[1]

The data in Table 4.1 thus indicate that three of the four stressors continue to have a positive and significant effect on job dissatisfaction. Only role overload is unrelated to the latter dependent variable. Moreover, the stressor variables account for 34.9 percent of the variance in job dissatisfaction.

This empirical investigation is repeated again in Table 4.2 with the exception that occupational level is introduced as a control variable. This factor is not found to be significantly associated to job dissatisfaction. Once again, all stressors but role overload are significantly related to job dissatisfaction in the expected direction

Table 4.1. The Impact of Stressors on Job Dissatisfaction

Variable (N=157)	B	Beta	F	Significance Level
Intra-Role Conflict	.590	.431	31.010	.001
Role Ambiguity	.108	.158	4.020	.047
Role Overload	.058	.058	.713	.400
Non-Participation In Decision Making	.099	.210	10.182	.002

$R^2 = .34883$, Adjusted $R^2 = .33169$

$F_{4,152} = 20.35$, $p < .001$

Table 4.2. The Impact of Stressors and Occupational Level on Job Dissatisfaction

Variable (N=157)	B	Beta	F	Significance Level
Intra-Role Conflict	.600	.438	32.463	.001
Role Ambiguity	.105	.154	3.882	.051
Role Overload	.070	.069	1.033	.311
Non-Participation In Decision Making	.118	.249	13.105	.001
Occupational Level	.112	.124	3.238	.074

R^2 = .36250, Adjusted R^2 = .34139

$F_{5,151}$ = 17.17, $p < .001$

(counting role ambiguity where p = .051). The explained variance here increases marginally to 36.2 percent.

These findings therefore provide general support for Hypothesis 1. In turn, this means that the data are consistent with the pattern of relationships predicted by the stressor-outcome model.

Social Support Model

As discussed in Chapters One and Two, the social support model assumes that social supports are factors which diminish negative outcomes to the extent that they warrant inclusion in theoretical and empirical investigations. In light of this contention, Hypothesis 2 states that "social supports will be negatively related to job dissatisfaction."

As reported in Table 3.11 of Chapter Three, all of the social support measures have negative and significant correlations with job dissatisfaction. These are as follows: peer support for achievement = -.297; peer support for affiliation = -.357; supervisor support for achievement = -.243; supervisor support for affiliation = -.334.

The independent effects of the social support variables on job dissatisfaction are listed in Table 4.3. The regression analysis reveals that all four of the social supports are negatively, but not significantly related to job dissatisfaction. Further, the social support variables explain 16.1 percent of the variance in job dissatisfaction.

Table 4.4 reports the effects of social supports on job dissatisfaction controlling for the stressor variables and occupational level. Notably, while there is a clear tendency for peer support for affiliation to be negatively related to job dissatisfaction, supervisor support for

Table 4.3. The Impact of Social Supports on Job Dissatisfaction

Variable (N=157)	B	Beta	F	Significance Level
Peer Support For Achievement	-.119	-.081	.802	.372
Peer Support For Affiliation	-.241	-.178	3.362	.069
Supervisor Support For Achievement	-.163	-.143	3.360	.069
Supervisor Support For Affiliation	-.171	-.164	3.661	.058

R^2 = .16193, Adjusted R^2 = .13988

$F_{4,152}$ = 7.34, $p < .001$

Table 4.4. The Impact of Stressors, Social Supports, and Occupational Level on Job Dissatisfaction

Variable (N=157)	B	Beta	F	Significance Level
Intra-Role Conflict	.536	.392	25.557	.001
Role Ambiguity	.086	.125	2.619	.108
Role Overload	.080	.080	1.368	.244
Non-Participation In Decision Making	.107	.226	10.644	.001
Occupational Level	.108	.120	3.139	.078
Peer Support For Achievement	.017	.011	.020	.887
Peer Support For Affiliation	-.169	-.125	2.225	.138
Supervisor Support For Achievement	-.161	-.140	4.312	.040
Supervisor Support For Affiliation	-.061	-.059	.621	.432

R^2 = .41029, Adjusted R^2 = .37418

$F_{9,147}$ = 11.36, $p < .001$

achievement is the only social support scale which exerts a significant negative impact on the dependent variable.

Taken together, the data therefore indicate only partial support for Hypothesis 2. That is, although social supports are more negatively than positively related to job dissatisfaction, this relationship does not persist across every type of social support when multivariate analysis is undertaken.[2]

Hypothesis 3 specifies that "the social support model (which includes the stressor and social support variables) will explain more variance than the stressor-outcome model." This hypothesis can be investigated by comparing the amount of explained variance between Table 4.2, which reflects the stressor-outcome model, and Table 4.4, in which the social support variables are introduced. In both instances, occupational level functions as a control variable.

As illustrated previously in Table 4.2, the R^2 for the stressor-outcome model with occupational level included in the analysis is 36.2 percent. Table 4.4 shows that the R^2 for the entire social support model is 41.0 percent. The increase is thus 4.8 percent. A test of the significance of this increment (cf. Cohen and Cohen, 1975:135-136) finds that the increase in explained variance is significant ($F = 2.978$, $df = 4, 147$, $p < .05$).

Two conclusions are suggested by this analysis. First, it is apparent that the stressor-outcome model explains a fairly high amount of variance in job dissatisfaction and that only modest gains are achieved by the addition of the social support variables included in this present

research. Second, it is nonetheless the case that the social support model (which includes the stressor and social support variables) accounts for a statistically significant increment in variance and thus would appear to allow for a more adequate explanation of job dissatisfaction. As such, general support for Hypothesis 3 is indicated.

Log Transformation Analysis

As noted in the methods section of Chapter Two, further analysis has been undertaken to check for the possible effects of skewness of responses on the job dissatisfaction measure. Specifically, a multiple regression test for the social support model has been redone using a log transformation of this dependent variable (see Table E.1. in Appendix E). This procedure is consistent with Norusis' recommendation for positively skewed data (i.e., job dissatisfaction scale: skewness = 1.203; job dissatisfaction scale with log transformation: skewness = .678). For example, Norusis (1983:152) states:

> When the distribution is positively skewed, the log transformation of the dependent variable is often helpful. For negatively skewed distributions, the square transformation is common. It should be noted that the F tests used in regression hypothesis testing are usually quite insensitive to moderate departures from normality.

Similarly, Champion (1981:118) contends that:

> There is no precise interpretation of skewness. Researchers are not in agreement as to how much skewness must be present before deciding that a distribution is not normal in form. One rule of thumb we might apply would be to seriously question normality for any distribution whenever skewness is greater than +1.00 or -1.00. This is purely arbitrary, however. Ultimately, the researcher exercises personal judgment in the matter.

However, in an attempt to assess the consequences of skewness on the study variables, the log transformation analysis reveals that the positive skewness in the job dissatisfaction measure does not appear to influence substantially the findings reported here.

Thus, the R^2 and adjusted R^2 for the log transformation analysis (.414 and .379, respectively) are almost identical to those reported in Table 4.4 (.410 and .374). Moreover, all but one (peer support for achievement) of the relationships remain in the same direction, and the Betas are of similar magnitude. Intra-role conflict and non-participation in decision making continue to be the two most strongly related variables to job dissatisfaction. The only change of note is that supervisor support for achievement is not statistically significant in the log transformation analysis. Even here, however, the Beta is only .03 lower in the log transformation analysis (-.110 versus -.140).

Interaction Effects

Social support researchers often analyze not only the main effects of social supports on negative outcomes (as reported in Table 4.4), but also the interaction of social supports with stressors. The purpose of conducting such a study is to determine whether, apart from their direct or main impact upon reducing negative outcomes, social supports have the additional effect of "buffering" individuals from potentially negative consequences as stressors become high (Cullen et al., 1985a; House, 1981:33; Pearlin et al., 1981:348-349; Turner, 1981:363-364).

In this regard, Hypothesis 4 posits that "social supports will buffer the effects of stressors on job dissatisfaction." And building on this

notion, Hypothesis 5 asserts that "a model which assesses both the main and buffering effects of social supports will explain more variance than either the stressor-outcome model or a social support model that does not test for buffering (or interactive) effects."

Tables 4.5 to 4.8 illustrate the findings regarding the analysis of the interactions between stressors and social supports in relation to job dissatisfaction (controlling for occupational level). Each table introduces four multiplicative interaction terms: a social support is crossed with each of the four stressors. Inclusion of all sixteen interaction terms in a single regression equation is not recommended because this would have required an empirical examination of over twenty variables, clearly an unacceptable number (cf. Cohen and Cohen, 1975:336-337,159-161).

Table 4.5 shows the results of interaction terms formed by crossing each of the four stressors with peer support for achievement. The amount of explained variance is 43.0 percent. This represents an increase over the R^2 in the social support model (Table 4.4) of only 2 percent. This increment is not found to be statistically significant ($F = 1.259$, $df = 4, 143$, $p > .05$). Further, since the gain in explained variance is not significant, the effects of any individual terms within the equation can not be meaningfully analyzed (Cohen and Cohen, 1975:108-109).[3]

This same pattern of results is evident in Tables 4.6 to 4.8 where the other three social support variables are similarly used to form interaction terms. In each case, the incremental change is not statistically significant. Thus, when peer support for affiliation is examined (Table 4.6) in relation with the social support model (Table

Table 4.5. The Impact of Stressors, Social Supports, Occupational Level, and Peer Support For Achievement Interaction Terms on Job Dissatisfaction

Variable (N=157)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.773	.565	8.324	.005
Role Ambiguity (RA)	-.125	-.183	1.084	.300
Role Overload (RO)	.151	.150	.323	.570
Non-Participation In Decision Making (NPD)	.009	.019	.010	.922
Occupational Level	.129	.143	4.261	.041
Peer Support For Achievement (PSAC)	-.324	-.220	1.082	.300
Peer Support For Affiliation	-.143	-.106	1.555	.214
Supervisor Support For Achievement	-.168	-.147	4.630	.033
Supervisor Support For Affiliation	-.080	-.077	1.032	.311
IRC X PSAC	-.041	-.218	1.066	.304
RA X PSAC	.034	.419	3.886	.051
RO X PSAC	-.011	-.084	.087	.769
NPD X PSAC	.014	.243	1.345	.248

$R^2 = .43035$, Adjusted $R^2 = .37856$

$F_{13,143} = 8.31$, $p < .001$

Table 4.6. The Impact of Stressors, Social Supports, Occupational Level, and Peer Support For Affiliation Interaction Terms On Job Dissatisfaction

Variable (N=157)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.984	.718	9.463	.003
Role Ambiguity (RA)	-.147	-.214	1.127	.290
Role Overload (RO)	.289	.286	1.275	.261
Non-Participation In Decision Making (NPD)	.033	.069	.124	.725
Occupational Level	.125	.139	4.155	.043
Peer Support For Achievement	.057	.039	.229	.633
Peer Support For Affiliation (PSAF)	-.261	-.193	.641	.425
Supervisor Support For Achievement	-.186	-.163	5.584	.019
Supervisor Support For Affiliation	-.073	-.070	.873	.352
IRC X PSAF	-.068	-.370	2.187	.141
RA X PSAF	.036	.430	3.564	.061
RO X PSAF	-.030	-.233	.725	.396
NPD X PSAF	.012	.210	.826	.365

$R^2 = .43256$, Adjusted $R^2 = .38097$

$F_{13,143} = 8.38$, $p < .001$

Table 4.7. The Impact of Stressors, Social Supports, Occupational Level, and Supervisor Support For Achievement Interaction Terms on Job Dissatisfaction

Variable (N=157)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.736	.538	11.590	.001
Role Ambiguity (RA)	.019	.028	.034	.854
Role Overload (RO)	.320	.317	4.416	.037
Non-Participation In Decision Making (NPD)	-.016	-.034	.077	.782
Occupational Level	.117	.130	3.649	.058
Peer Support For Achievement	.007	.005	.004	.948
Peer Support For Affiliation	-.158	-.117	1.946	.165
Supervisor Support For Achievement (SSAC)	-.282	-.247	1.384	.241
Supervisor Support For Affiliation	-.086	-.082	1.209	.273
IRC X SSAC	-.037	-.194	1.023	.313
RA X SSAC	.016	.200	.919	.339
RO X SSAC	-.039	-.331	2.516	.115
NPD X SSAC	.023	.404	6.037	.015

$R^2 = .44101$, Adjusted $R^2 = .39019$

$F_{13,143} = 8.67$, $p < .001$

Table 4.8. The Impact of Stressors, Social Supports, Occupational Level, and Supervisor Support For Affiliation Interaction Terms on Job Dissatisfaction

Variable (N=157)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.661	.482	7.308	.008
Role Ambiguity (RA)	-.014	-.021	.011	.917
Role Overload (RO)	-.170	-.168	.666	.416
Non-Participation in Decision Making (NPD)	.098	.207	2.278	.133
Occupational Level	.092	.103	2.159	.144
Peer Support For Achievement	.039	.026	.109	.742
Peer Support For Affiliation	-.183	-.136	2.542	.113
Supervisor Support For Achievement	-.179	-.156	5.292	.023
Supervisor Support For Affiliation (SSAF)	-.276	-.265	2.234	.137
IRC X SSAF	-.018	-.145	.610	.436
RA X SSAF	.011	.200	.797	.374
RO X SSAF	.025	.311	1.999	.160
NPD X SSAF	.002	.059	.146	.703

$R^2 = .43022$, Adjusted $R^2 = .37842$

$F_{13,143} = 8.30$, $p < .001$

4.4), the increase in explained variance is 2 percent ($F = 1.403$, $df = 4, 143$, $p > .05$). Table 4.7, which investigates the supervisor support for achievement interaction terms, shows that the percentage gain in explained variance over the social support model (Table 4.4) is 3 percent and the F score is 1.965 ($df = 4, 143$, $p > .05$). Finally, the analysis of the supervisor support for affiliation interaction terms (Table 4.8) in connection with the social support model (Table 4.4) indicates that the change of explained variance is 2 percent with $F = 1.250$ ($df = 4, 143$, $p > .05$).

Overall, these results do not lend credence to the position that the social supports buffer the stressors or to the view that the inclusion of interaction terms in the analysis allows for a more complete theoretical model. As such, Hypotheses 4 and 5 are not supported by the data.

STRESSORS, SOCIAL SUPPORTS, AND DISSATISFACTION WITH JOB EXPECTATIONS

The analysis of dissatisfaction with job expectations as a second dependent variable is relevant because it allows for a consideration of whether the social support model has different or similar effects across different (though related) dependent variables. Specifically, this permits an assessment of the degree to which the general relationships indicated by the social support model occur as well as an examination of how specific variables may have differential effects across measures of job dissatisfaction. Thus, the same analytical procedure that has been undertaken for job dissatisfaction is carried out again for dissatisfaction with job expectations in the sections below.

Stressor-Outcome Model

As noted previously, Hypothesis 1 posits that stressors are positively related to measures of job dissatisfaction. Following the same logic in the above analysis of the general job dissatisfaction measure (see Tables 3.11, 4.1, 4.2), the zero-order correlations and the results of two regressions are considered here.

First, as reported in Table 3.11, three of the four stressors have a positive and significant relationship with dissatisfaction with job expectations. These are as follows: intra-role conflict (r = .506); role ambiguity (r = .331); non-participation in decision making (r = .251). The only exception to this pattern is role overload (r = .083).

Second, Table 4.9 presents the results of analysis in which the four stressor variables are regressed on the dissatisfaction with job expectations measure. The data indicate that two stressors (intra-role conflict, non-participation in decision making) continue to have a positive and significant effect on dissatisfaction with job expectations. Both role ambiguity and role overload are unrelated to the latter dependent variable. Further, the stressor variables account for 28.9 percent of the variance in dissatisfaction with job expectations.

Third, this empirical investigation is repeated again in Table 4.10 with the exception that occupational level is introduced as a control variable. Occupational level is found to be positively and significantly related to dissatisfaction with job expectations. Once again, intra-role conflict and non-participation in decision making are the only two stressor measures that are significantly related to dissatisfaction with job

Table 4.9. The Impact of Stressors on Dissatisfaction With Job Expectations

Variable (N=98)	B	Beta	F	Significance Level
Intra-Role Conflict	.500	.424	18.865	.001
Role Ambiguity	.076	.124	1.558	.215
Role Overload	-.025	-.028	.088	.768
Non-Participation In Decision Making	.081	.189	4.352	.040

R^2 = .28987, Adjusted R^2 = .25933

$F_{4,93}$ = 9.49, $p < .001$

Table 4.10. The Impact of Stressors and Occupational Level on Dissatisfaction With Job Expectations

Variable (N=98)	B	Beta	F	Significance Level
Intra-Role Conflict	.535	.452	21.785	.001
Role Ambiguity	.072	.119	1.470	.229
Role Overload	-.006	-.007	.006	.941
Non-Participation In Decision Making	.098	.227	6.250	.014
Occupational Level	.149	.184	4.181	.044

R^2 = .32074, Adjusted R^2 = .28383

$F_{5,92}$ = 8.69, $p < .001$

expectations in the expected direction. The explained variance here increases to 32.0 percent.

Viewed as a whole, these findings offer at least partial support to Hypothesis 1. Thus, no stressor has a significant, negative relationship with dissatisfaction with job expectations, while two of the four stressors are positively and significantly associated with this dependent variable.

Social Support Model

As mentioned earlier, Hypothesis 2 maintains that social supports will be negatively related to job dissatisfaction measures. Table 3.11 reports that the zero-order correlations between each of the social support variables and dissatisfaction with job expectations are as follows: peer support for achievement = -.313; peer support for affiliation = -.170; supervisor support for achievement = -.116; supervisor support for affiliation = -.123. Hence, both of the peer support measures are significantly related to dissatisfaction with job expectations (counting peer support for affiliation where p = .051). On the other hand, both of the supervisor support measures are unrelated to the latter dependent variable.

The independent effects of the social support variables on dissatisfaction with job expectations are listed in Table 4.11. The regression analysis indicates that peer support for achievement is the only social support measure investigated here that is significantly related to dissatisfaction with job expectations in the predicted direction. In addition, the social support variables explain only 8.3 percent of the variance in dissatisfaction with job expectations.

Table 4.11. The Impact of Social Supports on Dissatisfaction With Job Expectations

Variable (N=98)	B	Beta	F	Significance Level
Peer Support For Achievement	-.355	-.296	5.164	.025
Peer Support For Affiliation	.060	.051	.123	.727
Supervisor Support For Achievement	-.029	-.029	.077	.782
Supervisor Support For Affiliation	-.041	-.048	.161	.689

R^2 = .08372, Adjusted R^2 = .04431

$F_{4,93}$ = 2.12, p = .084

Table 4.12 presents the impact of social supports on dissatisfaction with job expectations controlling for the stressor variables and occupational level. This table reveals that peer support for achievement and supervisor support for achievement are negatively, but weakly related to dissatisfaction with job expectations, while peer support for affiliation and supervisor support for affiliation have negligible positive relationships with the dependent variable. Indeed, none of the social support measures has a significant relationship with dissatisfaction with job expectations.

In sum, while there is a tendency for the zero-order relationship between social supports and dissatisfaction with job expectations to be in the direction predicted by Hypothesis 2, the multivariate analysis exhibits little evidence substantiating the notion that social supports are negatively related with this outcome. Therefore, Hypothesis 2 is not confirmed by the data.[4]

Hypothesis 3 proposes that the social support model (which includes the stressor and social support variables) will explain more variance than the stressor-outcome model. This hypothesis can be examined by comparing the amount of variance between Table 4.10, which reflects the stressor-outcome model, and Table 4.12, in which the social support variables are introduced. In both cases, occupational level serves as the control variable.

As shown in Table 4.10, the R^2 for the stressor-outcome model with occupational level included in the analysis is 32.0 percent. Table 4.12 illustrates that the R^2 for the complete social support model is 35.3

Table 4.12. The Impact of Stressors, Social Supports, and Occupational Level on Dissatisfaction With Job Expectations

Variable (N=98)	B	Beta	F	Significance Level
Intra-Role Conflict	.530	.448	20.105	.001
Role Ambiguity	.091	.149	2.238	.138
Role Overload	-.014	-.016	.028	.867
Non-Participation In Decision Making	.086	.201	4.417	.038
Occupational Level	.142	.175	3.722	.057
Peer Support For Achievement	-.204	-.170	2.104	.151
Peer Support For Affiliation	.064	.055	.185	.668
Supervisor Support For Achievement	-.063	-.064	.477	.492
Supervisor Support For Affiliation	.101	.118	1.196	.277

$R^2 = .35351$, Adjusted $R^2 = .28739$

$F_{9,88} = 5.35$, $p < .001$

percent. The increase is thus 3.3 percent. A test of the significance of this increment finds that the increase in explained variance is not significant ($F = 1.115$, $df = 4, 88$, $p > .05$).

Overall, the above analysis does not indicate that Hypothesis 3 should be accepted. As noted, adding the social supports does not account for a statistically significant amount of increase in explained variance. Thus, it does not appear that the social support model allows for a more adequate understanding of dissatisfaction with job expectations than the stressor-outcome model.

Log Transformation Analysis

Again, following the same logic in the above analysis of the job dissatisfaction measure, a further investigation has been undertaken to check for the possible effects of skewness of responses on the dissatisfaction with job expectations measure. Specifically, a multiple regression test for the social support model has been redone using a log transformation of this latter dependent variable (see Table E.2 in Appendix E). This log transformation analysis reveals that the positive skewness in the second dissatisfaction measure (i.e., dissatisfaction with job expectations scale: skewness = .854; dissatisfaction with job expectations scale with log transformation: skewness = .090) does not appear to influence substantially the results reported here.

Thus, the R^2 and the adjusted R^2 for the log transformation analysis (.337 and .269, respectively) are almost identical to those reported in Table 4.12 (.353 and .287). Moreover, all relationships remain in the same direction and the Betas are of similar magnitude.

Intra-role conflict and non-participation in decision making continue to be the most strongly related variables to dissatisfaction with job expectations. The only change of note is that in Table 4.12, non-participation in decision making is statistically significant ($p = .038$); in the log transformation analysis, this variable only approaches statistical significance ($p = .054$).

Interaction Effects

This section examines the potential buffering effects of social supports on the relationship between stressors and dissatisfaction with job expectations. As specified in detail earlier, Hypotheses 4 and 5 are both concerned with the issues surrounding the buffering effects of social supports. In order to test these latter hypotheses, this section provides an analysis of the interactions between stressors and social supports in relation to dissatisfaction with job expectations (controlling for occupational level). The results of this interaction analysis are illustrated in Tables 4.13 to 4.16. Again, each table introduces four multiplicative interaction terms: a social support is crossed with each of the four stressors.

Table 4.13 presents the results of interaction terms formed by crossing each of the four stressors with peer support for achievement. The amount of explained variance is 40.8 percent. This represents an increase over the R^2 in the social support model (Table 4.12) of 5.5 percent. This increment is not found to be statistically significant ($F = 1.954$, $df = 4, 84$, $p > .05$).

Table 4.13. The Impact of Stressors, Social Supports, Occupational Level, and Peer Support For Achievement Interaction Terms on Dissatisfaction With Job Expectations

Variable (N=98)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.966	.818	9.163	.003
Role Ambiguity (RA)	-.119	-.195	.613	.436
Role Overload (RO)	.416	.472	1.682	.198
Non-Participation In Decision Making (NPD)	.257	.598	3.221	.076
Occupational Level	.109	.134	1.995	.162
Peer Support For Achievement (PSAC)	.482	.401	1.191	.278
Peer Support For Affiliation	.129	.110	.732	.395
Supervisor Support For Achievement	-.080	-.082	.725	.397
Supervisor Support For Affiliation	.063	.073	.456	.501
IRC X PSAC	-.069	-.436	2.188	.143
RA X PSAC	.032	.468	2.129	.148
RO X PSAC	-.065	-.602	1.972	.164
NPD X PSAC	-.026	-.475	1.842	.178

$R^2 = .40855$, Adjusted $R^2 = .31701$

$F_{13,84} = 4.46$, $p < .001$

Table 4.14. The Impact of Stressors, Social Supports, Occupational Level, and Peer Support For Affiliation Interaction Terms on Dissatisfaction With Job Expectations

Variable (N=98)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.421	.356	1.175	.281
Role Ambiguity (RA)	.073	.121	.128	.721
Role Overload (RO)	.489	.555	1.521	.221
Non-Participation In Decision Making (NPD)	.048	.113	.087	.768
Occupational Level	.138	.170	3.216	.077
Peer Support For Achievement	-.173	-.144	1.421	.237
Peer Support For Affiliation (PSAF)	.287	.245	.290	.592
Supervisor Support For Achievement	-.056	-.057	.341	.561
Supervisor Support For Affiliation	.095	.110	.983	.324
IRC X PSAF	.020	.125	.120	.730
RA X PSAF	.003	.045	.013	.910
RO X PSAF	-.074	-.667	1.701	.196
NPD X PSAF	.003	.065	.022	.882

R^2 = .36844, Adjusted R^2 = .27070

$F_{13,84}$ = 3.77, $p < .001$

Table 4.15. The Impact of Stressors, Social Supports, Occupational Level, and Supervisor Support For Achievement Interaction Terms on Dissatisfaction With Job Expectations

Variable (N=98)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.933	.790	19.221	.001
Role Ambiguity (RA)	.179	.294	2.024	.158
Role Overload (RO)	.024	.027	.014	.907
Non-Participation In Decision Making (NPD)	.044	.102	.404	.527
Occupational Level	.159	.196	4.921	.029
Peer Support For Achievement	-.143	-.119	1.043	.310
Peer Support For Affiliation	.084	.072	.337	.563
Supervisor Support For Achievement (SSAC)	.289	.296	.902	.345
Supervisor Support For Affiliation	.079	.091	.751	.389
IRC X SSAC	-.092	-.579	5.866	.018
RA X SSAC	-.014	-.218	.515	.475
RO X SSAC	.005	.050	.024	.878
NPD X SSAC	.010	.194	.772	.382

$R^2 = .43930$, Adjusted $R^2 = .35253$

$F_{13,84} = 5.06$, $p < .001$

Table 4.16. The Impact of Stressors, Social Supports, Occupational Level, and Supervisor Support For Affiliation Interaction Terms on Dissatisfaction With Job Expectations

Variable (N=98)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.959	.812	14.606	.001
Role Ambiguity (RA)	-.108	-.176	.433	.512
Role Overload (RO)	-.142	-.161	.334	.565
Non-Participation In Decision Making (NPD)	.085	.199	1.291	.259
Occupational Level	.133	.164	3.281	.074
Peer Support For Achievement	-.143	-.119	1.051	.308
Peer Support For Affiliation	.009	.008	.004	.952
Supervisor Support For Achievement	-.083	-.084	.863	.356
Supervisor Support For Affiliation (SSAF)	-.024	-.028	.012	.914
IRC X SSAF	-.057	-.519	5.275	.024
RA X SSAF	.021	.430	2.056	.155
RO X SSAF	.019	.279	.769	.383
NPD X SSAF	.003	.084	.189	.665

$R^2 = .41861$, Adjusted $R^2 = .32863$

$F_{13,84} = 4.65$, $p < .001$

This same pattern of results is apparent in Tables 4.14 and 4.16 where peer support for affiliation and supervisor support for affiliation are similarly used to form interaction terms. In each instance, the incremental change is not statistically significant. Thus, when peer support for affiliation is examined (Table 4.14) in relation with the social support model (Table 4.12), the increase in explained variance is 1.5 percent ($F = .496$, $df = 4, 84$, $p > .05$). Table 4.16, which investigates the supervisor support for affiliation interaction terms, demonstrates that the percentage gain in explained variance over the social support model (Table 4.12) is 6.5 percent and the F score is 2.351 ($df = 4, 84$, $p > .05$).

On the other hand, the analysis of the supervisor support for achievement interaction terms (Table 4.15) in connection with the social support model (Table 4.12) reveals a buffering effect. When the R^2 in these latter two tables are compared, the amount of increase in explained variance of dissatisfaction with job expectations is 8.6 percent. The incremental change is also found to be statistically significant ($F = 3.213$, $df = 4, 84$, $p < .05$). The data in Table 4.15 further reveal that only one interaction term (intra-role conflict X supervisor support for achievement) is found to be statistically significant with dissatisfaction with job expectations ($F = 5.866$, $p = .018$). In other words, supervisor support for achievement buffers the relationship between intra-role conflict and dissatisfaction with job expectations.[5]

Since only one significant result is found out of sixteen tests, the above findings lend little credence to the position that the social supports buffer the stressors (Hypothesis 4) or to the view that the inclusion of the

interaction terms into the analysis allows for a more complete theoretical model (Hypothesis 5). Hence, in regard to the outcome of dissatisfaction with job expectations, Hypotheses 4 and 5 are not supported by the data.

TESTING THE SOCIAL SUPPORT MODEL ON DOCTORS AND NURSES

While the purpose of this dissertation is not to undertake an occupational analysis, the inclusion of two distinct occupational groups in the study population does afford the opportunity to present an additional assessment of the social support model. Specifically, a test of the social support model on both measures of job dissatisfaction is reported separately for doctors (n=43) and nurses (n=78). It should be noted that it is common in social support research to test the effects of social supports across varying dependent variables and varying social situations (cf. House, 1981; LaRocco et al., 1980). The purpose of these analyses is to attempt to specify the circumstances under which social supports either mitigate or have no insulating effects against negative outcomes such as job dissatisfaction.[6]

Table 4.17 reports the analysis on the doctors' sample for job dissatisfaction. As can be seen, intra-role conflict is the only variable in the table significantly related to the dependent variable. Further, a test of the increment in explained variance achieved when the four social supports are added to the stressor variables (see also Table B.1 in Appendix B) reveals that the increment is not statistically significant ($F = .457$, $df = 4, 34$, $p > .05$). Finally, in no instance does the addition of interaction terms produce a statistically significant increment in explained variance (see Appendix B).[7]

Table 4.17. The Impact of Stressors and Social Supports on Job Dissatisfaction for Doctors

Variable (N=43)	B	Beta	F	Significance Level
Intra-Role Conflict	.435	.329	5.081	.031
Role Ambiguity	.140	.207	1.921	.175
Role Overload	-.051	-.050	.102	.751
Non-Participation In Decision Making	.103	.258	2.584	.117
Peer Support For Achievement	-.168	-.109	.274	.604
Peer Support For Affiliation	-.060	-.047	.036	.850
Supervisor Support For Achievement	-.131	-.080	.241	.626
Supervisor Support For Affiliation	-.075	-.053	.068	.796

R^2 = .33897, Adjusted R^2 = .18343

$F_{8,34}$ = 2.18, p = .055

Table 4.18 provides regression data on the doctors' sample for dissatisfaction with job expectations. Again, intra-role conflict is the only stressor variable significantly related to the outcome measure. This table also shows that peer support for affiliation has a significant positive effect on dissatisfaction with job expectations, while supervisor support for affiliation approaches statistical significance ($p = .069$) in the expected direction. Moreover, the increment in explained variance achieved by adding the four social supports to the stressors is not significant ($F = 1.533$, $df = 4, 22$, $p > .05$) and no interaction term is found to be significant (see Appendix B).[8]

Viewed together, these findings indicate that similar to the sample as a whole, intra-role conflict is a stressor for doctors. By contrast, unlike the sample as whole, the level of general job dissatisfaction experienced by the doctors does not appear to be influenced by social supports.

Table 4.19 presents the analysis on the nurses in the sample for the job dissatisfaction measure. Consistent with previous results, intra-role conflict exerts a significant relationship on the dependent variable. However, in contrast to the doctors, social supports appear to influence levels of job dissatisfaction. Thus, peer support for affiliation is significantly related to job dissatisfaction in the predicted direction, while supervisor support for affiliation approaches significance ($p = .096$). Similarly, the increment of explained variance attained when social supports are added to the stressors (see Table C.1 in Appendix C) is significant ($F = 4.247$, $df = 4, 69$, $p < .05$). With regard to the interaction

Table 4.18. The Impact of Stressors and Social Supports on Dissatisfaction With Job Expectations for Doctors

Variable (N=31)	B	Beta	F	Significance Level
Intra-Role Conflict	.623	.482	9.341	.006
Role Ambiguity	.097	.139	.756	.394
Role Overload	.023	.021	.014	.907
Non-Participation In Decision Making	.039	.094	.237	.631
Peer Support For Achievement	-.434	-.279	1.434	.244
Peer Support For Affiliation	.837	.580	4.717	.041
Supervisor Support For Achievement	.176	.117	.398	.535
Supervisor Support For Affiliation	-.867	-.469	3.663	.069

R^2 = .49036, Adjusted R^2 = .30503

$F_{8,22}$ = 2.64, p = .034

Table 4.19. The Impact of Stressors and Social Supports on Job Dissatisfaction for Nurses

Variable (N=78)	B	Beta	F	Significance Level
Intra-Role Conflict	.687	.484	17.746	.001
Role Ambiguity	-.056	-.084	.506	.479
Role Overload	.124	.113	1.268	.264
Non-Participation In Decision Making	.056	.118	1.533	.220
Peer Support For Achievement	.239	.176	2.604	.111
Peer Support For Affiliation	-.267	-.226	4.084	.047
Supervisor Support For Achievement	-.134	-.124	1.525	.221
Supervisor Support For Affiliation	-.149	-.189	2.840	.096

R^2 = .49081, Adjusted R^2 = .43178

$F_{8,69}$ = 8.31, $p < .001$

Table 4.20. The Impact of Stressors and Social Supports on Dissatisfaction With Job Expectations for Nurses

Variable (N=47)	B	Beta	F	Significance Level
Intra-Role Conflict	.411	.384	5.298	.027
Role Ambiguity	.100	.179	.973	.330
Role Overload	.046	.053	.114	.737
Non-Participation In Decision Making	.075	.177	1.378	.248
Peer Support For Achievement	-.059	-.057	.108	.744
Peer Support For Affiliation	-.248	-.260	1.667	.204
Supervisor Support For Achievement	-.095	-.108	.533	.470
Supervisor Support For Affiliation	.213	.342	3.733	.061

R^2 = .37705, Adjusted R^2 = .24591

$F_{8,38}$ = 2.87, p = .013

terms (see Appendix C) only one out of sixteen possible instances is found to be statistically significant: supervisor support for achievement buffers intra-role conflict ($F = 8.194$, $df = 12, 65$, $p < .05$).[9]

Table 4.20 shows the data for the nurses on dissatisfaction with job expectations. Again, intra-role conflict is found to be statistically significant. However, only one social support--supervisor support for affiliation--approaches statistical significance ($p = .061$). Further, when the social supports are added to the stressors (see also Table C.7 in Appendix C), the increment is not significant ($F = 1.608$, $df = 4, 38$, $p > .05$). Finally, no interaction term is found to be significant (see Appendix C).[10]

These results suggest that like doctors and the general sample, intra-role conflict is a stressor that leads to greater job dissatisfaction among nurses. Further, similar to the general sample and in contrast to doctors, social supports have impacts on the nurses' levels of job dissatisfaction (but not on their levels of dissatisfaction with job expectations). However, two interesting findings have emerged. Unlike both the general sample and doctors, there is some evidence that peer support and supervisor support for <u>affiliation</u> lessen job dissatisfaction for nurses. And unlike the general sample and nurses, the data indicate that peer support for affiliation <u>increases</u> dissatisfaction with job expectations for doctors.[11]

CONCLUSIONS

This chapter has presented a test of the social support model. This test involves an assessment of five hypotheses:

1. Stressors will be positively related to job dissatisfaction.

2. Social supports will be negatively related to job dissatisfaction.

3. The social support model (which includes the stressor and social support variables) will explain more variance than the stressor-outcome model.

4. Social supports will buffer the effects of stressors on job dissatisfaction.

5. A model which assesses both the main and buffering effects of social supports will explain more variance than either the stressor-outcome or a social support model that does not test for buffering (or interactive) effects.

Five major conclusions can be drawn from the data analysis and examination of these hypotheses.

First, it appears that Hypotheses 1, 2, and 3 are largely supported for the general job dissatisfaction measure. Thus, there is a clear tendency for stressors to be positively related and social supports to be negatively related to this dependent variable. Further, the addition of social supports to the stressor variables produces a statistically significant increment of explained variance, indicating that a social support model is empirically more adequate than a stressor-outcome model.

Second, while the analysis of dissatisfaction with job expectations reveals general support for Hypothesis 1, there is much less support for Hypotheses 2 and 3. Indeed, in multivariate analysis, social support variables have negligible relationships with the dependent variable. Most importantly, there is no evidence that the social support model achieves

a more adequate explanation of dissatisfaction with job expectations than the stressor-outcome model.

Third, in light of the above findings, it appears that the adequacy of the social support model varies according to the dependent variable under consideration. The implications of this finding are discussed in greater detail in Chapter Five.

Fourth, for both dependent variables, there is little evidence in favor of Hypotheses 4 and 5. Only on infrequent occasions have buffering effects been detected, and thus there is little consistent empirical support that a model that includes interaction terms allows for a more adequate explanation of either measure of job dissatisfaction.

Fifth, the analysis of the doctors and nurses is based on relatively small samples and not central to the purpose of the dissertation which is to present a test of the social support model across the entire staff on the acute-care hospital wards. Nonetheless, this additional investigation suggests a salient, if tentative consideration: it appears that the effects of social supports may vary by occupations. The implications of this insight for future research are addressed in the next chapter.

NOTES

[1]Upon conducting the initial regression analyses in Tables 4.1 to 4.8, it was found that the number of cases in these regression equations decreased from 157 to 113 or less (a reduction of appproximately 28 percent of the study population). Again, Cohen and Cohen (1975:268) recommend usage of the "plugging with scale means" method when such a proportion of missing cases becomes lost in regression analysis. Thus, the social support model will be tested in this dissertation by a conservative technique since plugging all the missing cases with means tends to attenuate correlations and reduce variance.

[2]As noted in the methods section of Chapter Two, one way of assessing the substantive importance of the relationships is to assume that a Beta of less than .10 is of negligible importance. Following this criterion, one additional social support variable could be viewed as being negatively related to job dissatisfaction: peer support for affiliation. This finding would provide added support for Hypothesis 2. Similarly, using the .10 criterion, role ambiguity would be seen as increasing job dissatisfaction. This would mean that of the stressors included in the analysis, only role overload would not be related to job dissatisfaction. Further, it should be noted that the Beta for occupational level also exceeds .10.

[3]Accordingly, unlike the test of the social support model (Table 4.4), no attempt is made here to analyze which Betas are in excess of .10.

[4]As noted in the methods section of Chapter Two, one way of assessing the substantive importance of the relationships is to assume that a Beta of less than .10 is of negligible importance. Following this criterion, one additional social support variable could be viewed as being negatively related to dissatisfaction with job expectations: peer support for achievement. This finding would provide added support for Hypothesis 2. Similarly, using the .10 criterion, role ambiguity would be seen as increasing dissatisfaction with job expectations. This would mean that of the stressors included in the analysis, only role overload would not be related to dissatisfaction with job expectations. Further, it should be noted that the Beta for occupational level also exceeds .10.

[5]It may also be noted that besides intra-role conflict and IRC X SSAC, occupational level is the only other variable in Table 4.15 that has a significant relationship to dissatisfaction with job expectations. However, this latter result is not found to be in the expected direction.

[6]In Tables A.1 to A.4 of Appendix A, a test is also undertaken of the social support model using a dummy variable for doctors and nurses as

the control for occupational category (doctors = 1, nurses = 0). This analysis has been done to explore whether the conceptualization of occupational level in this study may have influenced the results reported here. Overall, the findings are largely consistent in terms of statistically significant and non-significant relationships regardless of the measure of the occupational category employed.

Specifically, for the job dissatisfaction measure, the results are consistent between Table 4.4 and Table A.2 in all but two instances: when the doctors-nurses control variable is used to measure occupational level, this variable is significant but supervisor support for achievement is not found to be significant. However, the increment for the four social supports together is significant in both equations (e.g., for Table 4.2 and Table 4.4, $F = 2.978$, $df = 4,147$, $p < .05$; for Table A.1 and Table A.2, $F = 2.748$, $df = 4,111$, $p < .05$).

Regarding the dissatisfaction with job expectations measure, only one difference has been discovered between Table 4.12 and Table A.4: when the doctors-nurses control variable is used, non-participation in decision making is not found to be significant. Also, the increment for the four social supports together is not significant in both equations (e.g., for Table 4.10 and Table 4.12, $F = 1.115$, $df = 4,88$, $p > .05$; for Table A.3 and Table A.4, $F = .430$, $df = 4,68$, $p > .05$. In sum, across the two dependent variables (and the 9 independent variables included in each equation), the results (between Table 4.4 and Table A.2 and between Table 4.12 and Table A.4) are consistent in 15 out of 18 possible cases.

[7]The specific results of these increment tests are: Table 4.17 and Table B.3 ($F = 1.783$, $df = 4,30$, $p > .05$); Table 4.17 and Table B.4 ($F = 1.399$, $df = 4,30$, $p > .05$); Table 4.17 and Table B.5 ($F = 1.268$, $df = 4,30$, $p > .05$); Table 4.17 and Table B.6 ($F = .815$, $df = 4,30$, $p > .05$).

[8]The results of these increment tests are as follows: Table 4.18 and Table B.9 ($F = 1.979$, $df = 4,18$, $p > .05$); Table 4.18 and Table B.10 ($F = .672$, $df = 4,18$, $p > .05$); Table 4.18 and Table B.11 ($F = .910$, $df = 4,18$, $p > .05$); Table 4.18 and Table B.12 ($F = 1.827$, $df = 4,18$, $p > .05$).

[9]The test of the increment in explained variance for Table 4.19 and Table C.5 is $F = 2.739$, $df = 4,65$, $p < .05$. The other results of the increment tests are: Table 4.19 and Table C.3 ($F = .798$, $df = 4,65$, $p > .05$); Table 4.19 and Table C.4 ($F = .957$, $df = 4,65$, $p > .05$); Table 4.19 and Table C.6 ($F = .971$, $df = 4,65$, $p > .05$).

[10]The results of these increment tests include: Table 4.20 and Table C.9 ($F = .518$, $df = 4,34$, $p > .05$); Table 4.20 and Table C.10 ($F =$

1.792, df = 4,34, p > .05); Table 4.20 and Table C.11 (F = .319, df = 4,34, p > .05); Table 4.20 and Table C.12 (F = .393, df = 4,34, p > .05).

[11]It might be useful at this point to comment on the relationships that differ from the general pattern of findings. First, as Reeder and Mauksch (1979:219) note, nurses typically are seen as receivers and as obedient implementers of medical directives. To accommodate, Freidson (1973:67) suggests, they must either find "satisfaction in such subordination or find some independent source of legitimacy." Accordingly, peer and supervisory support may lessen feelings of subordination and provide a valuable source of legitimacy; feelings of dissatisfaction may lessen as a result.

In contrast, doctors tend to be socialized to be experts--autonomous, if not omnipotent (Freidson, 1973). Reliance on peer affiliation, therefore, might connote dependence, contravene occupational norms, and create feelings of inadequacy and unhappiness. Further, it is possible that the content of physician peer interactions includes not only social support but focuses more fully on the shortcomings of the work setting. Thus, Cockerham (1982:150) cites previous research on three, private university-affiliated hospitals showing that "many doctors . . . were willing to criticize their colleagues for errors in small group discussions and behind the other's backs." Notably, research on police officers also reveals that peer support can increase negative outcomes (Cullen et al., 1985a).

Chapter Five

RECONSIDERING THE SOCIAL SUPPORT MODEL: METHODOLOGICAL AND SOCIOLOGICAL ISSUES

As several authors (Cohen and Syme, 1985b:3; Dean, 1986:6; House et al., 1985:83-84; Lin et al., 1985:247; Wortman and Conway, 1985:281) have noted, the concept of "social support"--though having a rich heritage in earlier organizational and general sociological research--emerged as a distinct, widely used theoretical construct during the mid to late 1970's. This dissertation has been undertaken to provide further empirical assessment of the perspective's proposition that studies of negative work and life outcomes, which do not systematically investigate the effects of social supports, risk being less than complete. More specifically, the present research has examined whether a social support model permits a more adequate explanation of job dissatisfaction among workers on acute-care hospital wards than does the stressor-outcome model.

Below, an effort is made to place the results of the analysis within a larger methodological and sociological/theoretical context. The first section restates the major findings of the study, and then discusses the extent to which methodological considerations may have shaped the results reported here. The second section uses this discussion of the study's limitations to explore avenues for future research in the area of stress and social support. Finally, the third section addresses an issue that has been largely neglected by social support scholars: why there

has been a proliferation of social support research--such as this dissertation--over the past decade. Although it is beyond the scope of this dissertation to furnish a definitive analysis of this issue, an attempt is made to offer general insights into why the construct of social support has evolved as a growing research paradigm.

OVERVIEW OF FINDINGS

A detailed summary of the study's empirical results is presented at the end of Chapter Four (see Conclusions section). It is possible, however, to reiterate several major findings. Thus, the data provide partial support for the contention that the inclusion of social supports in an empirical analysis accounts for a statistically significant increment in explained variance. The analysis reveals that social supports in general and supervisor support (for achievement) in particular have significant impacts on the job dissatisfaction measure for the entire sample.

Alternatively, these relationships are not discovered to exist when the dependent variable is dissatisfaction with job expectations. Further, when interaction terms are entered into the multiple regression equations, the results do not indicate that social supports systematically buffer the stressors included in this analysis. Indeed, the only two "buffering effects" uncovered in the analysis are that supervisor support for achievement buffers intra-role conflict (1) on the dissatisfaction with job expectations measure for the entire sample and (2) on the job dissatisfaction measure in the case of nurses.

When compared with the effects of the social support variables, the stressor variables account for a greater amount of variance in the

analysis of each of the two dependent measures. The stressor of intra-role conflict is found to have the most consistent and largest impact across the various analyses carried out in Chapter Four. More generally, the findings on the stressors suggest that the nature of work roles and decision making are the most important determinants of job-related affect.

As mentioned earlier, the analysis undertaken in this dissertation has been characterized by several limitations. A discussion of these limitations is set forth below. This section is then followed by a consideration of the extent to which the study's results are consistent with previous research and, by implication, are reflecting an underlying empirical reality.

Limitations of the Analysis

Sample . As with any sample that is not selected randomly from a nationwide population, the sample for this study is limited in its representativeness. Thus, as described in Chapter Two, the study population was drawn from four wards (acute-care wards) in one hospital (McMaster University Medical Centre). Clearly then, some caution must be exercised in assessing the generalizability of the results reported in this dissertation.

At the same time, it should be noted that most previous studies, which have analyzed job stressors, social supports, and job dissatisfaction, also have employed samples that are delimited by organizational setting and/or geographical area (Abdel-Halim, 1982; Althouse and Hurrell, 1977; Bedeian et al., 1981; Cullen et al., 1985b;

Feltham, 1983; Fuehrer, 1982; Henderson and Argyle, 1985; Hoodecheck, 1982; House and Wells, 1978; Kleinberg, 1983; LaRocco and Jones, 1978; Orpen, 1982; Scalzi, 1984; Seers et al., 1983).[1] Further, prior studies of health care workers that examined stressors-social supports-job dissatisfaction in a single analysis have been based on samples that are limited not only by a lack of a true national sample, but also by restriction to a single occupational group. For example, Scalzi (1984) conducted a study of "top level nurse administrators" in Los Angeles County; Feltham (1983) surveyed "professional nurses" in the U.S. Army Nurse Corps; and Bedeian et al. (1981) studied "nursing personnel" in an American Veterans Administration Hospital. Therefore, to the extent that the present study investigates a new setting (i.e., a hospital located in Canada) and contains an occupational mixture (i.e., doctors and nurses as well as other acute-care employees), it may have the potential to contribute additional data to the social support literature in general and, in particular, to the research on the relationship of stressors, social supports, and job dissatisfaction among health care workers.

Secondary Analysis. As stated in Chapter Two, the data for this dissertation were taken from the "McMaster Research Project" (Macpherson et al., 1974, 1979a, 1979b, 1979c). The main goals of this project were to assess personnel relations on acute-care hospital wards and to evaluate attempts to bring about improved psychosocial care and teamwork on these wards. On the positive side, the survey instrument of this project included items that enabled the formulation of measures of

the central concepts within the stressor-outcome and social support models. On the other hand, the use of secondary data limited the number, content, and reliability of the measures employed in this dissertation. This issue is discussed in more detail in the following paragraphs.

Independent Variables. The data set allowed for the construction of four role stressor and four social support measures. Generally, this yielded an analysis that is comparable in complexity to previous multivariate studies of the relationship between stressors, social supports, and job dissatisfaction.[2] On the other hand, it is possible that stronger results would have been found if the measures employed in the study had more variation. Further, the nature of the data set precluded the examination of other type of stressors and social supports. One noteworthy example here is the omission of non-work stressors (e.g., stressful life events) and non-work social supports (e.g., family supports, community-based friendships). It would seem that future analyses could benefit from systematic investigations of the inter-relationships among work and non-work stressors and social supports.[3]

Control Variables. The nature of the data set also restricted the extent to which traditional kinds of control variables--such as demographic characteristics--could be included in the analysis (see Chapter Two). To address this issue partially, the control variable of occupational level was introduced into the analysis. Although precise information is not available,[4] it would seem that occupational level would operate, at least to a degree, as a proxy for education and income (and

perhaps gender), and thus minimize the risk that is entailed in omitting demographic controls.

Dependent Variables. Previous research has investigated the impact of the social support model on a range of negative outcomes (see Chapter One). Ideally, it would have been preferred to examine how the stressors and social supports related not only to job dissatisfaction, but also to outcomes such as mental disorders (e.g., depression), physical illnesses, and direct measures of work and life stress (e.g., feelings of anxiety, worry, pressure). Given the nature of the data used here, this kind of comprehensive empirical undertaking was not feasible.

It was possible, however, to create two measures of job dissatisfaction with acceptable reliabilities: "general job dissatisfaction" (.73) and "dissatisfaction with job expectations" (.89).[5] Further, the data analysis revealed that the relationship of stressors and social supports to these two variables differ to some degree (see Chapter Four). This pattern of results suggests that the two measures represent distinct types of dissatisfaction with work experiences.

Even so, several limitations were encountered. First, since only those interviewees "with job expectations" were instructed to answer the "dissatisfaction with job expectations" items, the response rate on these items was approximately two-thirds of the sample (see Chapter Two). Given that bias may have been brought about by this response pattern, caution must be utilized in interpreting the findings on this dependent variable.

Second, as is typical in studies of job dissatisfaction, there was not a wide variation among the dissatisfaction measures (see Chapters Two and Three), with a clear tendency among the respondents to indicate satisfaction with their work. Moreover, it should be noted that missing values were replaced by mean scores (see Chapter Four). Although this is the statistically preferred option (Cohen and Cohen, 1975:289-290), it also contributed to reduced variation in the dependent variables.

It is also appropriate to point out here that means were substituted on all measures in the study (that is, independent variables as well), which diminished variation and made for a more conservative test of the social support model. In addition, the descriptive statistics (see Chapter Three) illustrated that the sample as a whole tended to show fairly high levels of social supports and fairly low levels of stressors.

Taken together, these considerations suggest that the results of the test of the social support model may have been shaped by the social context of the setting in which the study was conducted (that is, generally supportive work relations and moderate role stressors) and by the type of dependent variables employed in the analysis. In other words, it is possible that more, or less, favorable conclusions regarding the salience of the social support model might have been set forth if this dissertation had focused on a different organizational setting and used a wider range of dependent variables.

Consistency With Previous Research

Although the empirical analysis is marked by several limitations, there is reason to believe that the results are not primarily methodological artifacts. This degree of confidence is drawn from the fact that the results of this dissertation are generally, though not completely, consistent with the findings of previous research in the field.[6] As such, it does not appear that the general empirical patterns reported here are unlike those found in a number of prior studies or contrary to what existing stress and social support models would suggest. These issues are elaborated upon below.

Consistency With Stressor-Outcome Model. One finding, noted earlier, which is consistent with most stressor-outcome studies (as well as with work organizational literature in general) is the high level of satisfaction expressed on each job dissatisfaction measure (see Chapters Two and Three). Furthermore, as emphasized throughout this dissertation, the stressor-outcome model hypothesized that stressors should be positively related to negative outcomes, such as job dissatisfaction. Most past research has been generally supportive of this conclusion (see Chapter One). Likewise, this same pattern of results was discovered in the analysis of the hospital data presented in Chapter Four. Thus, even with social supports controlled, intra-role conflict and non-participation in decision making were significantly related to both measures of job dissatisfaction in the predicted direction.

Consistency With Social Support Model. In earlier theoretical discussions, it was observed that researchers have maintained that

social supports are inversely related to negative outcomes and that the social support model allows for a more adequate explanation than the more limited stressor-outcome model. The analysis of the general job dissatisfaction measure was largely consistent with these contentions. Thus, when the social support variables were added to the stressor variables, the increment in explained variance was statistically significant. Further, supervisor support (for achievement) was found to be significantly related to this dependent variable. Similarly, previous stressor research in this vein indicates that supervisor support is often the most strongly related social support when the dependent variable is a work-related negative outcome (Althouse and Hurrell, 1977; Cullen et al., 1985a, 1985b; House and Wells, 1978; Seers et al., 1983; cf. Abdel-Halim, 1982; House, 1981:71-85; Kasl and Wells, 1985).

Conversely, the premises of the social support model were not supported when responses on the dissatisfaction with job expectations variable were analyzed. Two possible explanations for this lack of relationship are possible. First, it may be that the limited response rate on these latter items (two-thirds answered, as noted above) may have introduced a bias. This explanation, however, would depend on those who reply they "have no expectations" being different than those indicating that they "have expectations." Again, it was respondents in this latter group who were instructed to complete the items asking them to state how satisfied they were with their jobs, given their career expectations.

A second explanation for the differential impact of social supports on the two dependent variables is that the two types of dissatisfaction may be unequally susceptible to help by supportive work relations. At least to a degree, the first job dissatisfaction scale tended to tap dis/satisfaction with everyday or concrete aspects of a worker's life (e.g., "authority to do your job well"), while the second scale measured the degree to which people felt aspirations were fulfilled or unfulfilled (e.g., "satisfaction with present job in light of career expectations"). It may be that the former type of feelings is amenable to improvement through supportive work relations (e.g., supervisor providing worker with more authority), while the latter type of feelings is seen and treated as a more personal career issue. Regardless, these considerations suggest one potentially fruitful direction of future research: examining how social support variables differentially influence diverse types of job dissatisfaction outcomes.[7]

Consistency With Buffering Effects. As noted in Chapter One, previous research on the "buffering effects" (interaction term of stressor x support) of social supports has provided inconsistent results. One purpose of the present dissertation was to follow House's call for future research aimed at specifying the conditions under which buffering does or does not take place.

In this regard, House's (1981:83) review of existing job stressor-social support research led him to conclude that "social support can buffer the effects of work stress on health." However, House then observed that social support has "primarily main effects on perceived

stress and job-related affects" such as "job dissatisfactions." It is noteworthy, therefore, that the results of the analysis reported here are largely consistent with the pattern indicated by House. That is, the social supports had a main effect on the general job dissatisfaction measure but, with the exception of two equations, did not have a buffering effect on the variety of tests on the two dependent variables (cf. House, 1980; LaRocco and Jones, 1978; LaRocco et al., 1980).

Consistency With Related Research. In order to assess the extent to which the results reported here were consistent with previous stressor-social support-job dissatisfaction studies that included health care workers, an extensive literature review was undertaken.[8] Unfortunately, the search revealed few published studies that provided a systematic assessment of the social support model on job dissatisfaction[9] and no studies that included doctors as well as nurses in the study population. Instead, the search showed that the research on stressors and social supports in a hospital setting emphasized issues such as:

1. academic performance among medical students (Melbo, 1981; Murphy, 1982);
2. burnout among nurses (Cronin-Stubbs, 1984; Kimmel, 1981; Paredes, 1982; Roelens, 1983);
3. coping among nurses (Bargagliotti, 1984; Terhune, 1984) and medical personnel (Lyon, 1981);
4. health status of nurses (Davenport, 1983; Kuehn, 1984);
5. doctors (Revicki and May, 1985) and nurses (Taerk, 1983) as sources of social support;
6. utility of social support groups for doctors (Reuben et al., 1984), nurses (Amaral et al., 1981; Keller, 1981; Mohl et al., 1982; Moynihan and Outlaw, 1984; Newton, 1984;

Weiner et al., 1983), and medical students (Ficklin et al., 1983; Gardner, 1982; Mitchell et al., 1983).[10]

As a result, no direct comparison with a previous study on workers employed in one hospital setting was possible. Despite this fact, three other studies, discovered in the search, are relevant to the present dissertation research.[11] In general, they support the notion that stressors are positively related to job dissatisfaction, a finding consistent with the present study. Unlike the present study, however, they do not reveal a statistically significant relationship between social support and job dissatisfaction. In these studies, the possibility of buffering effects was not examined empirically.

First, Scalzi (1984) surveyed top level nursing administrators employed across Los Angeles County and found that role conflict, but not role ambiguity and role overload, was positively related to job dissatisfaction. Second, in a study of home/hospital teachers drawn from seven major U.S. cities, Kleinberg (1983) reported that role ambiguity, but not role overload, contributed to higher levels of job dissatisfaction. Third, Feltham's (1983) investigation of professional nurses selected randomly from the U.S. Army Nursing Corps discovered that role conflict, role ambiguity, and non-participation in decision making were all positively related to job dissatisfaction.

As noted earlier, the analysis reported in this dissertation found that intra-role conflict was a stressor with the largest impact on job dissatisfaction. These studies do not present any contrary data. The dissertation analysis also discovered that role overload was not significantly related to job dissatisfaction, another finding that gains

support from these studies.[12] The results on role ambiguity were mixed, with two of the three studies revealing a relationship with job dissatisfaction. In this dissertation, the results were also somewhat mixed, with the role ambiguity-dissatisfaction relationship approaching significance at the .10 level. Finally, the Feltham data found non-participation in decision making to be related to job dissatisfaction. Similarly, this variable was found to be related to both dependent variables in the current study.

As mentioned above, the three studies did not discover social support to be related to their measures of job dissatisfaction. While a similar result in the present study was found with the dependent variable of dissatisfaction with job expectations, the studies' findings on job dissatisfaction must be viewed with considerable caution. Thus, Scalzi did not undertake multivariate analysis of her data, and all of the authors employed single, overall measures of social support rather than measuring the type of social support. Most importantly, none of the studies measured supervisor support, which, as noted before, has been found by previous research to be related to work-related negative outcomes. Further, it should be observed that none of the studies were conducted on a sample that included both doctors and nurses.

Consistency with Occupational Prestige Research. It should be noted that the control variable of occupational level, though not statistically significant in the test of the social support model, was not related inversely to the job dissatisfaction measures. In contrast, previous research has suggested that occupational status tends to lessen

job dissatisfaction (see Chapter Two). Several possible reasons exist for this differential finding.

First, previous studies have typically used occupational prestige rather than level. Prestige tends to be a measure of a worker's socially perceived status within the occupational structure, while level--determined through participant observation by the researchers on the original McMaster research project--tends to assess a worker's concrete place within an organization. The variables, therefore, may measure different concepts and thus produce different results.

Second, the particular work context from which the data were drawn may have influenced the impact of occupation on job dissatisfaction. Thus, the acute-care wards were particularly oriented to psychosocial and group process, and this may have helped to mitigate hierarchical differences. Further, it may be that the nature of work for those toward the upper echelons of the hospital is, in fact, less satisfying. Physicians, for example, are always "on call." Similarly, as Durkheim (1951) has cautioned, affluence may generate high expectations that are not capable of fulfillment; alternatively, Gruenberg (1980:254) has argued that workers can appear satisfied with even "menial jobs" because of constraints placed on their "horizon of expectations." This line of reasoning is open to question, but it perhaps provides an avenue for future research on the effects of occupational level to explore.

Overall Assessment. In sum, with the exception of the occupational level control variable, it appears that the results reported here are largely consistent with previous research on stressors and on buffering effects.

The social support findings are generally consistent with the social support model, though the consistency was not found across both dependent variables. Finally, the stressor findings are consistent with three "related research" studies, while assessing the consistency of the social supports results is marked by methodological difficulties.

Thus, the social support model has been shown to be largely supported by the data used in this present research. After reading this dissertation, however, one may ask if its results may be conceptualized by an alternative framework. Particularly relevant is the relationship of the stressors (i.e., intra-role conflict, role ambiguity, role overload, and non-participation in decision making) to job dissatisfaction.

Two general comments on the issue are pertinent. On the one hand, there are three reasons why there is a utility in conceptualizing intra-role conflict, role ambiguity, role overload, and non-participation in decision making as similar (i.e., stressor) variables. First, it is important to reiterate that in defining these variables as stressors, this dissertation has followed a long tradition in the field of sociology. Extending their classic organizational role analysis, Kahn et al. (1964:21,35,376) conceive of role conflict and role ambiguity as "stressor conditions" and as "role pressures" that "pose for the individual special problems of adjustment." They (1964:67,73,380) proceed to assert that their research results indicate that each of these latter two stressors generates a range of negative outcomes including job dissatisfaction, loss of self-esteem, feelings of futility, job-related tension, and acute anxiety. Similarly, upon reviewing the Kahn et al. study and the related program

of research conducted by the ISR (Institute for Social Research: University of Michigan), French and Caplan (1973:30-31) maintain that along with role conflict and role ambiguity, role overload and non-participation in decision making also have been found to act as "organizational stressors" within research of employees' attitudes of their workplace. French and Caplan (1973:45,52) further report that various studies in this vein reveal that each of these latter two stressors tends to precipitate job dissatisfaction, loss of self-esteem, and job-related threat.

Second, it is therefore apparent that much past stressor research has demonstrated a central point: organizational role stressors, such as the ones mentioned above, generally produce negative outcomes (especially job dissatisfaction).

Third, these organizational role stressors have shown a propensity to be related not only to negative outcomes generally, but also to specific measures developed to tap "work stress," that is, feelings of being bothered, upset, or frustrated when reflecting about one's daily job experiences (Cooper et al., 1990:266-267; Cullen et al., 1985b:520).

On the other hand, in emphasizing the similarities of organizational role stressor variables, the social support model (which includes the stressor and social support variables) does not provide clear insight on the dissimilarities that organizational role stressors may have. As such, this model does not specify the conditions under which particular organizational role stressors are more or less related to particular outcomes.

For example, another approach (as noted in Chapter Two) would have been to conceptualize the "stressor" variables as measures of anomic (role ambiguity) and alienating (intra-role conflict, role overload, and non-participation in decision making) work conditions. Job dissatisfaction may have been viewed not simply as a negative outcome or as a "stress," but as a proxy for psychic alienation. Psychic alienation often is conceived as "loss of interest in, and emotional indifference toward, one's labour,"[13] and the dissatisfaction measure has been derived from Aiken and Hage's (1966) measure of alienation. The theoretical hypothesis suggested is that alienating work conditions--those indicating worker powerlessness, and lack of control (role conflict, role overload, non-participation in decision making)--are closely related to job dissatisfaction. In contrast, the anomic condition (role ambiguity) is hypothesized to be less related, since anomie is seen as more likely to produce feelings of personal confusion or strain (Merton, 1938; Cullen, 1984). The results in this dissertation largely support these theoretical linkages.

In this light, there is a need for future research to consider alternative conceptualizations in developing measures in this area of study. Such research endeavors may potentially offer more theoretical guidance in gaining an understanding of what conditions influence what outcomes. More generally, researchers could perhaps come to see alienation and anomie as variables to be investigated in relation to the issues addressed in the social support model's paradigm of research. If this were done, researchers may also begin to explore how social

supports may or may not mitigate the impacts of alienating and anomic work conditions.

AVENUES FOR FUTURE SOCIAL SUPPORT RESEARCH

As discussed, the present research provides a secondary analysis of survey data drawn from employees of acute-care hospital wards. This approach necessarily limited the parameters and scope of the analysis. Nonetheless, this study can be used to define or gain insight into future directions for social support research.

To begin with, the limitations of the dissertation addressed earlier in this chapter suggest ways in which the current analysis can be improved. Again, the advantage of the dissertation is that it offers one of the few studies that has used the social support model to investigate job dissatisfaction among workers in a health care setting. Yet, it is also clear that this line of research could be extended by employing samples selected from a larger population (national, across hospitals), more diverse measures of social support (non-work as well as work), a full range of control variables, and varied negative outcomes in addition to job dissatisfaction.

Beyond these considerations, it seems reasonable to suggest several other issues that would benefit the extension of not only the specific topic studied in this dissertation but also the general social support model. For the most part, these issues are based on a view of the approach traditionally taken in social support research (which influenced this dissertation research), and, by implication, what is <u>not</u> included in this traditional approach.

In this light, it is possible to identify four major characteristics of the research falling within the stressor-social support paradigm. First, the research has focused primarily on health (physical or mental) outcomes rather than on other negative outcomes. Second, the research has been mainly social psychological in its approach and thus has emphasized subjective or perceptual measures of the relevant variables. Third, the research has been predominantly quantitative rather than qualitative in its orientation. Fourth, the research has been largely astructural in its focus.

In identifying these themes, there is no intention to state that research on stress and social support has not made significant advances. Clearly, quantitatively and theoretically, there has been marked growth in knowledge on stress and social support (House, 1981; Cohen and Syme, 1985a; Lin et al., 1986; Vaux, 1988). Nonetheless, it appears that the tendency to embrace certain approaches has limited the kinds of questions that can be asked and the kinds of advances that might be possible. Below, these issues are explored in more detail.

Health and Non-Health Outcomes

To a great extent, research in the social support paradigm has focused on the impact of stressors/social supports on health, including both physical and psychiatric outcomes. Within the field of sociology, for example, the major publishing forum for such research has been the Journal of Health and Social Behavior. By contrast, few social support articles have appeared in journals such as the American Journal of Sociology, American Sociological Review, Social Forces, Social Problems,

and Criminology .[14] Thus, a review of 361 articles/dissertations appearing in the area from 1980 to 1985 revealed that 63 percent (i.e., 228 writings) had physical or mental health factors as central study variables in the analysis.

Again, this "bias" in the literature has had the positive consequence of increasing knowledge on the interrelationships among stressors, social supports, and health outcomes. Further, as illustrated in Chapter One, some applications of the social support model to other areas have been made (such as the area of job dissatisfaction). On the other hand, the tendency of the model to be tied closely to the field of medical sociology has limited the extent to which scholars have explored its potential implications for furnishing insights into other social phenomena. Thus, we know little about how the variable of social support might facilitate occupational mobility, increase earnings, diminish job-related absenteeism and turnover, or insulate against criminal involvement. As a result, it appears that future research might fruitfully investigate the more general explanatory power of the social support model.

Types of Measures

As noted in Chapter Two, nearly all social support studies have used "perceptual" measures of the major variables in the paradigm (for example, respondents' views of how much role conflict they experienced or of the amount of support they received). Apparently, this choice of measurement procedure has had several sources. First, beginning with the seminal work of Kahn et al. (1964), it has been normative for researchers to employ perceptual measures (cf. Van Sell et al., 1976;

House et al., 1985:95; Cohen and Wills, 1985). Building on previous research, therefore, has typically involved adding a new measure and not necessarily measuring the variable in a fundamentally different way. Second, much of the major research in the area of stressors and social supports has involved secondary analyses of data collected in large-scale surveys which contained primarily perceptual measures (Gore, 1978; LaRocco et al., 1980; Lin et al., 1979; Pearlin et al., 1981; Thoits, 1982; Turner, 1981). Third, as House (1981:27) has observed, there is a theoretical basis for using perceptual measures. Thus, he has asserted that asking "people to rate how much emotional support they are receiving from others" is "appropriate because social support is likely to be effective only to the extent it is perceived" (see Chapter Two).

Given these considerations, there seems to be ample grounds for the past and continued use of perceptual measures in this field of study. Nonetheless, it is equally clear that the social support paradigm might be advanced if greater utilization was made of "objective" or "behavioral" indices. House (1981), for instance, may be correct that it is critical to understand the subjective dimensions of social support. However, this approach still leaves open the question of the extent to which the subjective perception of social support is consistent with the "objective" amount present in a social environment, the circumstances under which the disjunction between perceptions and objective conditions is wider or smaller, and the potential effects of objective conditions independent of an actor's perceptions (cf. Wethington and Kessler, 1986).

Hence, it would seem that future social support research should explore methodological strategies that would allow for the measurement of the "objective" support (and stressors) in a social setting. This might involve employing observational techniques, reviewing corporate records (number of merit raises or hours of training a worker receives), or analyzing an organization's structure (number of "support" staff a worker has).

Beyond the perceptual-objective measurement issue, it is also evident that researchers could improve the understanding of the effects of social supports by appreciating more fully the complexity of the phenomenon. Although exceptions are apparent (Cullen et al., 1985a, 1985b; Seers et al., 1983; Wethington and Kessler, 1986), much of the existing research has assessed only the extent to which social support is present or absent. This approach has not provided information on key factors such as the quality, intensity, duration, type (instrumental or expressive), or source (family, peers, superiors) of social support.

Quantitative and Qualitative Methods

Until this time, the vast majority of research conducted on stressors and social supports has been quantitative (Cohen and Wills, 1985; Kasl and Wells, 1985; House, 1981). For example, apart from a few theoretical essays, no stressor-social support article published in the Journal of Health and Social Behavior (i.e., 1970-1990) has employed qualitative methodology.

Again, this statement is not meant to denigrate the salience of the quantitative research that has appeared. This research has allowed for

multivariate analysis and for a growing accumulation of empirical data. As in other fields of sociological research, a quantitative bias restricts the degree to which insights into the full nature and process of the phenomenon-of-interest, in this case social support, can be achieved. Thus, the current quantitative research tells us little about what people interpret as supportive, the mechanisms through which social support is offered and accepted, how socially supportive relationships are established and sustained, and how people's need for social support varies at different life and/or career cycles. As such, despite highly sophisticated and innovative methodological strategies (Cleary and Kessler, 1982; Dooley, 1985; Finney et al., 1984; Kessler, 1979a; Lin et al., 1986; Pearlin et al., 1981; Thoits, 1982; Wheaton, 1985), the existing research has struggled to clarify the "structure of coping" or the social support process. Clearly, the social support paradigm would be advanced by employing qualitative methodologies including in-depth interviews, participant observation, and detailed case studies.

Larger Structural Context

Although numerous social support articles have focused predominantly on health outcomes and have often appeared in psychologically-oriented journals, the social support paradigm has retained its sociological flavor. Indeed, the very notion of "support" implies that people are embedded in social relationships or, as some have called them, "social connections" (Cohen and Wills, 1985:320). Further, a number of studies have included status characteristics as controls and some have tried to link social supports to such structural conditions as

social class (Kessler, 1979b; Norbeck and Tilden, 1983; Turner and Noh, 1983), gender (Dressler, 1985; Loscocco and Spitze, 1990; Mitchell and Moos, 1984; Williams et al., 1981), and occupation (LaRocco et al., 1980; Lin et al., 1979, 1985; Thoits and Hannan, 1979).

Despite these observations, it still remains that few researchers within the social support paradigm have attempted to situate the notion of social supports or their specific research topic within a larger structural and historical context.[15] Thus, as noted in Chapter One, theorists such as Blau (1963) and Gouldner (1954) in effect did not take the existence of social support for granted but rather explored how organizational conditions--such as the nature of the work task, supervisory style, and criteria used to rate job performance--can influence the emergence, content, and effects on individuals and the company of informal social support. Researchers today may benefit by paying closer attention to the organizational basis of social support. Similarly scholars rarely address the issue of how the nature and effects of social support might vary as macro-level transformations bring about changes in life within family, community, work organizations, and nation. Instead, there has been a tendency to suspend interest in and take-for-granted larger social structures and to allow the social support paradigm to serve as a middle-range theory (Merton, 1957) that guides quantitative research. Once more, the purpose here is not to dismiss such research as abstracted empiricism (Mills, 1959)--clearly it has made important contributions--but only to point to an area that social support researchers might consider in the time ahead.

CONCLUSION: THE SOCIAL SUPPORT MODEL AS A SOCIOLOGICAL PHENOMENON

As observed earlier, social support research proliferated over the past decade. In particular, this can be vividly seen by examining the rate of publication for stressor-social support articles in the Journal of Health and Social Behavior (see Table 5.1). Further, it seems likely that there will be no shortage of future research in this area. Thus, a review of dissertations from 1980 to 1986 revealed that 159 doctoral students completed dissertations on topics that focused on stressors and social support.

While a number of authors have noted the emergence and escalation of the model's popularity, it is instructive that few in the field have explored why this model has emerged at this particular juncture and, when it emerged, why it grew so rapidly in popularity. Indeed, although a few exceptions are evident (Dean, 1986:3-4; Pearlin, 1985:44-52; Vaux, 1988:1-8; Wills, 1985:62-64), most researchers have remained silent on the issue of the model's sociological/theoretical roots. As a result, in ending this dissertation, it seems appropriate to explore, at least in general terms, the social and academic context that helped to give rise to research (such as this dissertation) that focused on stressors and social support.

House et al. (1985) have observed that although earlier authors anticipated the idea of social support, it was not until the last decade that the concept earned considerable and sustained attention. (See also

Table 5.1. Breakdown of Stressor-Social Support Articles Published in the Journal of Health and Social Behavior by Year

SOCIAL SUPPORT ARTICLES

Year	Number	Authors
1970	0	--
1971	0	--
1972	0	--
1973	0	--
1974	1	House (a)
1975	0	--
1976	0	--
1977	0	--
1978	3	Eaton; Gore; Liem and Liem
1979	4	Kessler (a,b); Lin et al.; Thoits and Hannan
1980	3	LaRocco et al.; McFarlane et al.; Ruch et al.
1981	4	Pearlin et al.; Turner; Vanfossen; Williams et al.
1982	4	Cleary and Kessler; Gortmaker et al.; Haw; Thoits
1983	7	Cafferata et al.; Cleary and Mechanic; Kaplan et al.; McFarlane et al.; Norbeck and Tilden; Ruch and Chandler; Turner and Noh
1984	6	Cronkite and Moos; Ferraro et al.; Finney et al.; Lin and Ensel; Mitchell and Moos; Norris and Murrell
1985	3	Dressler; Lin et al.; Wheaton
1986	7	Atkinson et al.; Catalano et al.; Jacobson; Kuo and Tsai; Parry; Wethington and Kessler; Wolinsky et al.
1987	2	Bass and Noelker; Norris and Murrell
1988	2	Mensch and Kandel; Turner and Noh
1989	6	Jacobson; Lennon; Pearlin (a,b); Pollner; Ross and Mirowsky
1990	7	Cooper et al.; Dean et al.; LaGory et al.; Loscocco and Spitze; Mattlin et al.; Sherbourne and Hays; Turner et al.

Articles (N = 59).

Table 5.1.) "The study of social support" they (1985:83) have remarked, "emerged, seemingly out of nowhere, during the 1970's."

These observations suggest the importance of considering why the past decade provided a conducive context for the growth--"seemingly out of nowhere"--of the social support paradigm. What was different about this period?

As noted above, one focal point of the stressor-social support research is the attention given to health rather than alternative social outcomes. At least to a degree, this would appear to be a reflection of the times[16] and a potential source of the model's popularity. Thus, in the past decade or so, something of a health movement has emerged. Indicators of this movement abound: the rise of running clubs, nautilus centers, aerobics classes, and bicycling classics; workout books and videos--such as those of Jane Fonda--breaking sales records; the publication of popular books on wellness, healthy eating, coping, and stress management; an article in Rolling Stone (June 9, 1983) titled: "Looking for Mr. Goodbody: Coed Health Clubs are the Singles' Bars of the Eighties;" the cover of Time (June 6, 1983) which warns, "Stress! Seeking Cures for Modern Anxieties." In this context, it seems plausible that a research paradigm which illuminated how supportive social relations might lessen life stresses and make us healthier--physically and mentally--would "make sense" to people and receive their consideration.

In short, much like the women's movement helped to fuel academic work on gender issues (i.e., Daly, 1978; Firestone, 1970; Freeman, 1984; Rafter and Stanko, 1982; Stephenson, 1973; Tavris and Wade, 1984), so

too, it appears, that the health movement may have helped to give life to social support research. It also seems, however, that other factors contributed to social support receiving continued attention. Thus, as Cole (1975) has contended, paradigms within fields of academic research often experience a life-cycle. Apart from wider social factors, paradigms--or "idea-models" as Collins (1986) has called them--do not rise or fall on the basis of empirical research. Instead, a paradigm becomes popular when it can offer an interesting idea that promises to provide an array of "puzzles" that await to be solved (cf. Hagan, 1973; Cullen et al., 1985c). "The major latent function of theory," Cole (1975:213) has argued, "is to provide puzzles for scientists to work on." This is because such puzzles provide academics with "important" research topics, publication opportunities, the prospect of status acquisition, and career advancement.

The social support model appears to reflect Cole's (1975) criteria for a successful paradigm.[17] As House et al. (1985:84) have asserted, the concept of social support is both interesting and potentially applicable to a range of phenomena:

> The research appeal of social support, however, is based neither on the specificity of the concept nor on the emergence of some uniquely successful empirical measure. Rather, like the related concept of stress, social support has attracted researchers and stimulated research across the biomedical, behavioral, and social sciences because of its integrative promise and intuitive appeal.

Further, within sociology, the Journal of Health and Social Behavior provided a ready forum in which the puzzles within the social support

paradigm (e.g., main versus buffering effects, measurement issues) could be solved and reputations enhanced.[18]

This line of analysis is not based on the suggestion that individual social support researchers were more (or less) careerist in their motivation than other academicians. Rather, the reasoning here suggests that institutional or professional conditions, not individual inclinations, helped to fuel the paradigm's emergence and continued popularity. In this regard, Collins (1986:1337,1339) has agreed with Cole in asserting that "the basic problem of the intellectual career is recognition" and that one of the best strategies for addressing this problem is "to attach oneself to an existing idea-model, become its follower or ally, promote its arguments, buttress it with research, and demolish the claims of its enemies."

Collins, however, has noted that the pressures "to attach oneself to an idea-model" have intensified in recent years--precisely the time in which the social support model emerged and flourished. According to Collins (1986:1339-1341), the growth of sociologists--from under 3,000 in the 1960's to over 10,000 today--created greater competition for academic positions and scholarly recognition. "How then does one make oneself visible when the sheer number of competitors increases by a factor of four or five?" The answer, Collins (1986:1340) suggests, is to attach oneself to a paradigm (like that of social support). "Instead of seeking recognition in the larger field," he observes, "one opts for a smaller arena within which the discourse and the search for originality and for allies can go on." In Collins' view, the larger consequence of this

institutional condition is to create professional malaise, to put "sociology in the doldrums." For purposes of this present study, his research is salient because it points to social circumstances that were conducive to scholars becoming excited over "social supports," an idea with enough "intuitive appeal" to motivate much research--such as this dissertation.

One final consideration is that the social support model has flourished within a political context that across North America has become, at least on the governmental level, increasingly conservative. Social sciences have come under increasing criticism for focusing on unchangeable "root causes" (Wilson, 1975), and "liberal" social problems have been blamed for causing us to "lose ground" in the fight against persisting social ills (Murray, 1984). It seems likely that the political climate has created a professional ambivalence for many researchers: how to maintain progressive or humanist values and secure the government funding needed to undertake research publishable in leading journals?

Although speculative, it can be proposed that the social support model offered one possible adaptation to this ambivalence. On the other hand, the model has a humanistic orientation (cf. Lee, 1978:93-101; Scimecca, 1981) in the sense that it focuses on the circumstances that might mitigate the potentially devastating effects of stressors and save a person from enduring physical and mental difficulties. On the other hand, the paradigm had few obvious ideological trappings. Informed by middle-range theory, largely astructural in focus, often concerned with facilitating more healthful adaptations to unexpected life-events or

ongoing role pressures at work, and highly quantitative in form, the social support paradigm stopped short of asking questions about issues such as social inequality, injustice, and exploitation. In practical terms, this may have made some sense, for as Leggett (1984:165) has noted, "project-decision-making people within NIH would fund research grants for mental stress, but nothing on workers' control."

Moreover, the social support paradigm tended to draw attention toward interventions that did not demand that "root causes" be addressed or that central societal institutions undergo fundamental transformation. Instead, the model indicated that lives could be improved through family members, friends, and supervisors becoming more sensitive and through an organizational culture which embraced the importance of "good" human relations. Indeed, some scholars were optimistic that, in certain instances, enhancing people's quality of life could be done "without great expenditures of time and money and with few negative side effects" (House, 1981:7).[19]

Once again, these comments are not intended to imply that empirical advances have not been made or that scholars have not provided useful insights into policy interventions that could produce meaningful changes. Instead, these remarks are meant to suggest that a broader examination of the social support model's biases and sociological roots can allow scholars to consider the utility of employing more diverse methodological approaches and of asking theoretical and policy-related questions that have remained largely unaddressed. In this light, it is hoped that this dissertation not only has contributed to the existing

empirical literature on social supports, but also has identified paths that future researchers may wish to follow.

NOTES

[1]Although such research tends to characterize the field, some exceptions, of course, are evident. See Caplan et al. (1975), French et al. (1982), and LaRocco et al. (1980) for examples of research on job stressors, social supports, and job dissatisfaction that are not delimited by the parameters of organizational setting and/or geographical area.

[2]These "multivariate studies" specifically referred to here consist of empirical investigations, which have employed multiple regression or path analyses of these variables such as Abdel-Halim (1982); Althouse and Hurrell (1977); Cullen et al. (1985b); Feltham (1983); French et al. (1982); Fuehrer (1982); Henderson and Argyle (1985); Hoodecheck (1982); House and Wells (1978); Kleinberg (1983); LaRocco and Jones (1978); LaRocco et al. (1980); and Seers et al. (1983).

[3]See House (1981:59-111) and House et al. (1985) for overviews of existing research in this vein.

[4]As indicated in Chapter Two (see Study Population and Control Measure: Occupational Level), the self-reported occupation of each of the respondents was originally coded by the McMaster researchers into one of eight occupational levels without direct specification of other background characteristics.

[5]It is difficult to establish consensus among social scientists about what constitutes an "acceptable" reliability for an attitudinal scale. For example, Bohrnstedt and Knoke (1985:361) state that "we strive for indices with alphas of 0.70 or higher," while Cohen and Cohen (1975:64) maintain that "reliabilities of .60 are by no means uncommon in the behavioral sciences; in fact, in some circumstances (psychiatric assessment, opinion surveys), they may even be considered reasonably good."

Notably, as reported in Chapter Two, the reliabilities for eight of the ten scales used in this dissertation (intra-role conflict = .66; role ambiguity = .60; role overload = .76; non-participation in decision making = .82; peer support for achievement = .70; supervisor support for affiliation = .62; job dissatisfaction = .73; dissatisfaction with job expectations = .89) are equal to or higher than the latter criterion of .60 cited by Cohen and Cohen. Moreover, the reliabilities for the other two scales (peer support for affiliation = .54; supervisor support for achievement = .55) are only slightly lower than this criterion.

[6]A major exception to this overall empirical tendency involves the control variable of occupational level. Hence, unlike what is commonly

found in stressor-outcome and work organizational research, occupational level was not consistently discovered to be significantly related to the stressor and job dissatisfaction measures. Indeed, occupational level was significantly related in the predicted direction to only one study variable (non-participation in decision making) listed in the correlation matrix (see Table 3.11 in Chapter Three). The present research also exhibited only two other significant findings pertaining to occupational level. First, occupational level was positively related to dissatisfaction with job expectations when the four stressor variables were regressed on this latter dependent measure (see Table 4.10). Second, in the analysis of the supervisor support for achievement interaction terms on dissatisfaction with job expectations (see Table 4.15), occupational level was positively related to this dependent variable. Both of these latter results, however, were not in the expected direction.

[7]At this point, it seems instructive to recall that the separate tests of the social support model on the doctors and the nurses offered some general evidence that the effects of social supports on each type of job dissatisfaction measure appeared to vary by occupation (see Chapter Four). In this regard, two contrasting findings within this analysis were discovered. First, affiliative support from peers and from supervisors tended to lessen job dissatisfaction (but not dissatisfaction with job expectations) for nurses though not for doctors. Second, such support from peers tended to increase dissatisfaction with job expectations for doctors, but not for nurses. Hence, future research along the lines mentioned above seems particularly relevant in light of these results. That is, such studies may add further insights into how various types of stressors, social supports, occupations, and job dissatisfaction outcomes may relate to each other in a work setting.

[8]Two potential limitations characterize this literature review. First, the citations were drawn from a "Dialog Literature Search" conducted by Information Services, Inc. of Palo Alto, California. This search provided summaries of 361 stressor-social support studies (i.e., 202 journal articles found in Psychological Abstracts and 159 dissertations that appeared in Dissertation Abstracts International). These summaries listed both findings of the research and variables/subjects included in the analysis for each journal article, but only variables/subjects included in the analysis for each dissertation. It is possible, however, that the search was not completely comprehensive and may have missed a citation of possible relevance, perhaps some that deal with a Canadian sample.

Second, the search covered the period of 1980 to 1985--winter 1980 is the earliest citation and September 1985 is the latest citation. Again,

it is conceivable that a study of interest may have occurred prior to this data.

On the other hand, this literature search revealed that a wide range of subjects had been investigated in relation to stressors and social supports during the past five years. For example, this search provided information that made it possible to identify the main subject for each of the 361 studies of stressors and social supports under consideration here. A breakdown of these subjects is presented in Appendix D (see Table D.1).

[9]Specifically, this search discovered nine studies which examined stressors, social supports, and job satisfaction. Three of these studies (Feltham, 1983; Kleinberg, 1983; Scalzi, 1984) investigated health care workers and are discussed later in this chapter. None of these six remaining studies identified in this search analyzed health care workers. For example, in a study of employees of a large processing firm in northern England, Henderson and Argyle (1985) found that socially supportive activities affect stress, but not job satisfaction. Orpen (1982), on the other hand, surveyed clerks employed by a federal agency in South Africa. The main finding of Orpen's research was that social supports (peer, leader) moderated the relationship between role stressors (conflict, ambiguity) and job satisfaction for Black clerks, but not for White clerks.

An adequate comparison of the results of these two studies with those of this dissertation was not possible for several reasons. First, Henderson and Argyle (1985) designed their study to determine how their subjects rated the frequency of engaging in social and work-related activities with four work colleagues. Hence, this latter study did not carry out an empirical test of the social support model per se. Moreover, no multiplicative interaction terms were employed in Henderson and Argyle's regression analysis. Second, Orpen (1982) did not utilize multiple regression and interaction terms in his research and he analyzed his study variables mainly in terms of product-moment correlations. Orpen's study also did not report how each stressor and each social support related separately to job satisfaction among the entire sample.

However, four of the other stressor-support-job satisfaction studies (found in the search) undertook empirical analyses that enabled comparisons to be made with this present dissertation research. First, Fuehrer (1982) studied police recruits from a police department in a large U.S. midwestern city. Similar to this dissertation, Fuehrer found that social support (fellow officer) did not mediate the relationship between role stressors (conflict, ambiguity) and job satisfaction. A finding in

Fuehrer's research that differed with this dissertation was that role stressors did *not* have a significant main effect on job satisfaction. But unlike this dissertation, Fuehrer did not investigate interaction effects among her study variables.

Second, in a study of teachers in four rural Minnesota school districts, Hoodecheck (1982) tested the relationship between stressors (occupational, teaching), social supports (fellow teachers, principals) and job satisfaction. Hoodecheck found that upon regression analysis, the stressor variables had a negative effect on job satisfaction--a result consistent with this present dissertation research. Another result in Hoodecheck's study that was similar to results of this dissertation was that the social support variables had a significant effect on job satisfaction after controlling for all the stressors in the regression analysis. However, like Fuehrer (1982), Hoodecheck did not conduct interaction effects in his analysis.

Third, Seers et al. (1983) studied role stressors (conflict, ambiguity), social supports (co-worker, manager), and job satisfaction among workers in a large U.S. federal government agency. Upon regression analysis, role conflict, but not role ambiguity, was significantly and negatively related to job satisfaction in the Seers et al. study. Also, like this dissertation, Seers et al. discovered little evidence of buffering effects (e.g., interaction effects) between the stressors and social supports on job satisfaction.

Finally, Abdel-Halim (1982) researched the attitudes of managerial personnel of a manufacturing firm located in the U.S. midwest. Like Seers et al. (1983) and this dissertation, Abdel-Halim regressed role conflict and role ambiguity on job satisfaction and found both of these stressors to be negatively related to the dependent measure. However, contrary to this dissertation, Seers et al., and the pattern indicated earlier by House (1981), Abdel-Halim found significant interaction effects between both role stressors and both social supports (work group, supervisor) on job satisfaction. Interestingly, Abdel-Halim did not report the reliabilities of the scales used in his study.

In sum, except for only a few contrary findings, most of the results produced in these latter four studies were generally consistent with those reported in this present dissertation.

[10]Other studies found in this search examined some of these issues in relation to samples of health care personnel which were not drawn from only one hospital setting. These issues and studies are: burnout among nurses (Dick, 1984; Fong, 1984); coping among nurses (Jenkins, 1981) and medical personnel (Barnett, 1981); health status of nurses

(Atlas, 1984; Kleeman, 1983); and doctors as sources of social support (Ben-Sira, 1984).

[11]Earlier in this chapter, Bedeian et al. (1981) were cited as examples of researchers who examined stressors, social supports, and job dissatisfaction. This citation was derived from Feltham (1983) who stated that Bedeian et al. studied the effects of stressors and job dissatisfaction on nurses. However, Bedeian and his associates did not undertake an analysis of the relationship between social support and job dissatisfaction and thus can not be included in the forthcoming discussion.

[12]It is possible that role overload does not create job dissatisfaction among health care workers because occupational socialization (e.g., internships) creates expectations that heavy workloads are a given occupational condition (see, for example, Wolinsky, 1980:283; Mechanic, 1978:392; Reeder and Mauksch, 1979:213). Furthermore, it also seems plausible that role overload, while not generating job dissatisfaction, may function as a stressor that precipitates other negative outcomes (e.g., "burnout," alcohol abuse).

[13]Personal communication from W. Peter Archibald. For further commentary on the concept of psychic alienation, see Archibald (1983).

[14]During the period of December 1986 to 1970, Criminology published only three stressor-social support articles (Cullen et al., 1985a; Ekland-Olson et al., 1983; Long et al., 1986), while Social Forces had only one article (Thoits, 1984) on this topic. No article dealing with stressors and social supports in the same analysis appeared in the American Journal of Sociology , American Sociological Review , and Social Problems during this period. Generally, the American Journal of Sociology and the American Sociological Review have provided more of a publishing forum for research on social networks rather than on the topic of stressors and social supports. For example, since 1970, the American Sociological Review printed 22 articles on social networks. The American Journal of Sociology exhibited 8 articles on this latter subject during this time.

[15]Although numerous longitudinal articles on stressors and social supports have been published (Cronkite and Moos, 1984; Eaton, 1978; Ferraro et al., 1984; Gore, 1978; Kaplan et al., 1983; Kessler, 1979b; Lin and Ensel, 1984; McFarlane et al., 1983; Mitchell and Moos, 1984; Norris and Murrell, 1984, 1987; Pearlin et al., 1981; Ruch et al., 1980; Thoits, 1982; Sherbourne and Hays, 1990; Thoits and Hannan, 1979; Turner, 1981; Turner and Noh, 1988; Turner et al., 1990; Williams et al., 1981), researchers have not generally attempted to place the results of their

findings within the context of the changing nature of North American society.

[16]In particular, interest in health among sociologists has tended to flourish in recent years. For example, Bloom (1986:266) wrote that:

> Today, medical sociology is one of sociology's most active subspecialties. For over fifteen years, the Medical Sociology Section has been the largest section of the American Sociological Association (ASA), with a membership of 993 in 1985 or 8.6 percent of the 11,485 total. This was almost 400 more than the next largest section, Organizations and Occupations, which contained 597, or 5.2 percent of the ASA membership. Although membership in ASA began to decline in 1975, the Medical Sociology Section continued to grow until 1979; since then, the gradient of decline in Section members has been the same as the ASA. As a proportion of the general membership, medical sociology remained steady at about 7.5 percent for seven years, increasing, however, to 8.6 percent in 1985.

[17]By this, it is meant that a theoretical construct (such as the social support model) receives attention, grows, and flourishes.

[18]Furthermore, noted social support researchers acknowledge the efficacy of viewing the social support paradigm as a "puzzle." For instance, while attempting to summarize issues central to the study of social support, Cohen and Syme (1985b:14) maintain that:

> Work investigating the impact of different kinds of support is in its infancy. Our purpose is not to offer any conclusions regarding the important categories of support, but rather to emphasize the importance of the development and use of representative typologies in solving the support puzzle. Understanding which supportive acts cause direct and/or buffering effects on health is especially important for planning interventions, since an efficient and powerful intervention would attempt to provide the kind of support most likely to be beneficial (cf. Vaux, 1988:xiii,30).

[19]See House's (1981:114) final chapter for a concrete discussion of "steps that can and should be taken to enhance social support so as to reduce work stress, improve health, and buffer the impact of stress on health." Similarly, Vaux (1988) explores these issues in chapters

entitled: Social Support Interventions: Prospects and Illustrative Support Interventions.

APPENDIX A

TEST OF THE SOCIAL SUPPORT MODEL FOR DOCTORS AND NURSES

Table A.1. The Impact of Stressors and Occupational Level on Job Dissatisfaction for Doctors and Nurses

Variable (N=121)	B	Beta	F	Significance Level
Intra-Role Conflict	.636	.458	30.067	.001
Role Ambiguity	.085	.126	2.177	.143
Role Overload	.052	.050	.383	.537
Non-Participation In Decision Making	.098	.222	8.435	.004
Occupational Level*	.549	.151	3.924	.050

$R^2 = .34937$, Adjusted $R^2 = .32108$

$F_{5,115} = 12.35$, $p < .001$

*This regression variable includes only Doctors and Nurses (all Doctors are coded as 1, all Nurses are coded as 0).

Table A.2. The Impact of Stressors, Social Supports, and Occupational Level on Job Dissatisfaction for Doctors and Nurses

Variable (N=121)	B	Beta	F	Significance Level
Intra-Role Conflict	.566	.408	23.244	.001
Role Ambiguity	.057	.084	.983	.324
Role Overload	.041	.039	.242	.624
Non-Participation In Decision Making	.088	.198	6.580	.012
Occupational Level*	.752	.207	6.721	.011
Peer Support For Achievement	.114	.080	.689	.408
Peer Support For Affiliation	-.170	-.139	2.018	.158
Supervisor Support For Achievement	-.122	-.102	1.464	.229
Supervisor Support For Affiliation	-.140	-.150	2.660	.106

R^2 = .40800, Adjusted R^2 = .36000

$F_{9,111} = 8.49$, $p < .001$

*This regression variable includes only Doctors and Nurses (all Doctors are coded as 1, all Nurses are coded as 0).

Table A.3. The Impact of Stressors and Occupational Level on Dissatisfaction With Job Expectations for Doctors and Nurses

Variable (N=78)	B	Beta	F	Significance Level
Intra-Role Conflict	.528	.445	17.966	.001
Role Ambiguity	.079	.126	1.338	.251
Role Overload	-.008	-.008	.005	.943
Non-Participation In Decision Making	.081	.194	3.663	.060
Occupational Level*	.600	.180	3.318	.073

R^2 = .31342, Adjusted R^2 = .26574

$F_{5,72}$ = 6.57, $p < .001$

*This regression variable includes only Doctors and Nurses (all Doctors are coded as 1, all Nurses are coded as 0).

Table A.4. The Impact of Stressors, Social Supports, and Occupational Level on Dissatisfaction With Job Expectations for Doctors and Nurses

Variable (N=78)	B	Beta	F	Significance Level
Intra-Role Conflict	.525	.443	15.726	.001
Role Ambiguity	.093	.148	1.684	.199
Role Overload	-.005	-.005	.002	.967
Non-Participation In Decision Making	.073	.174	2.457	.122
Occupational Level*	.518	.155	1.892	.173
Peer Support For Achievement	-.175	-.140	1.025	.315
Peer Support For Affiliation	.060	.051	.115	.736
Supervisor Support For Achievement	-.034	-.032	.075	.785
Supervisor Support For Affiliation	.059	.071	.260	.612

R^2 = .33039, Adjusted R^2 = .24177

$F_{9,68}$ = 3.73, $p < .001$

*This regression variable includes only Doctors and Nurses (all Doctors are coded as 1, all Nurses are coded as 0).

APPENDIX B

TEST OF THE SOCIAL SUPPORT MODEL FOR DOCTORS

Table B.1. The Impact of Stressors on Job Dissatisfaction for Doctors

Variable (N=43)	B	Beta	F	Significance Level
Intra-Role Conflict	.481	.364	6.838	.013
Role Ambiguity	.109	.161	1.327	.257
Role Overload	-.057	-.056	.169	.683
Non-Participation In Decision Making	.132	.329	5.892	.020

R^2 = .30340, Adjusted R^2 = .23007

$F_{4,38}$ = 4.14, p = .007

Table B.2. The Impact of Social Supports on Job Dissatisfaction for Doctors

Variable (N=43)	B	Beta	F	Significance Level
Peer Support For Achievement	-.319	-.207	.938	.339
Peer Support For Affiliation	.057	.045	.031	.862
Supervisor Support For Achievement	-.285	-.174	1.154	.290
Supervisor Support For Affiliation	-.141	-.100	.235	.631

R^2 = .10219, Adjusted R^2 = .00769

$F_{4,38}$ = 1.08, p = .379

Table B.3. The Impact of Stressors, Social Supports, and Peer Support For Achievement Interaction Terms on Job Dissatisfaction for Doctors

Variable (N=43)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.952	0.721	6.191	.019
Role Ambiguity (RA)	-.314	-0.463	1.418	.243
Role Overload (RO)	.115	0.113	.075	.786
Non-Participation In Decision Making (NPD)	-.033	-0.083	.064	.801
Peer Support For Achievement (PSAC)	-.282	-0.183	.330	.570
Peer Support For Affiliation	-.139	-0.109	.207	.653
Supervisor Support For Achievement	.039	0.024	.020	.888
Supervisor Support For Affiliation	-.063	-0.044	.050	.825
IRC X PSAC	-.130	-0.670	4.048	.053
RA X PSAC	.075	1.006	3.861	.059
RO X PSAC	-.041	-0.307	.398	.533
NPD X PSAC	.023	0.401	1.577	.219

R^2 = .46597, Adjusted R^2 = .25235

$F_{12,30}$ = 2.18, p = .041

Table B.4. The Impact of Stressors, Social Supports, and Peer Support For Affiliation Interaction Terms on Job Dissatisfaction for Doctors

Variable (N=43)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	1.145	.867	5.6748	.024
Role Ambiguity (RA)	-0.185	-.273	.5786	.453
Role Overload (RO)	-0.007	-.006	.0002	.989
Non-Participation In Decision Making (NPD)	0.002	.004	.0001	.991
Peer Support For Achievement	-0.082	-.053	.0651	.800
Peer Support For Affiliation (PSAF)	-0.135	-.106	.0469	.830
Supervisor Support For Achievement	-0.097	-.059	.1178	.734
Supervisor Support For Affiliation	-0.067	-.048	.0504	.824
IRC X PSAF	-0.117	-.708	2.7986	.105
RA X PSAF	0.045	.637	2.1861	.150
RO X PSAF	-0.011	-.093	.0348	.853
NPD X PSAF	0.019	.373	.8201	.372

R^2 = .44295, Adjusted R^2 = .22013

$F_{12,30}$ = 1.99, p = .063

Table B.5. The Impact of Stressors, Social Supports, and Supervisor Support for Achievement Interaction Terms on Job Dissatisfaction for Doctors

Variable (N=43)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.547	.414	2.693	.111
Role Ambiguity (RA)	.037	.055	.041	.840
Role Overload (RO)	.330	.325	1.468	.235
Non-Participation In Decision Making (NPD)	-.026	-.065	.080	.779
Peer Support For Achievement	-.082	-.053	.059	.809
Peer Support For Affiliation	-.109	-.086	.114	.738
Supervisor Support For Achievement (SSAC)	-.255	-.155	.337	.566
Supervisor Support For Affiliation	-.162	-.114	.313	.580
IRC X SSAC	-.002	-.009	.001	.975
RA X SSAC	.028	.320	.961	.335
RO X SSAC	-.071	-.562	2.719	.110
NPD X SSAC	.026	.358	2.713	.110

R^2 = .43456, Adjusted R^2 = .20838

$F_{12,30}$ = 1.92, p = .072

Table B.6. The Impact of Stressors, Social Supports, and Supervisor Support For Affiliation Interaction Terms on Job Dissatisfaction for Doctors

Variable (N=43)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.7299	.552	3.2952	.079
Role Ambiguity (RA)	.1419	.209	.1720	.681
Role Overload (RO)	-.4837	-.476	1.1580	.290
Non-Participation In Decision Making (NPD)	.1573	.394	2.0198	.166
Peer Support For Achievement	.0575	.037	.0263	.872
Peer Support For Affiliation	-.2885	-.227	.6919	.412
Supervisor Support For Achievement	-.0630	-.038	.0519	.821
Supervisor Support For Affiliation (SSAF)	-.0208	-.015	.0023	.962
IRC X SSAF	-.0420	-.343	1.1364	.295
RA X SSAF	.0015	.031	.0028	.958
RO X SSAF	.0412	.504	1.1886	.284
NPD X SSAF	-.0002	-.005	.0004	.984

R^2 = .40381, Adjusted R^2 = .16533

$F_{12,30}$ = 1.69, p = .119

Table B.7. The Impact of Stressors on Dissatisfaction With Job Expectations for Doctors

Variable (N=31)	B	Beta	F	Significance Level
Intra-Role Conflict	.659	.510	10.154	.004
Role Ambiguity	.091	.130	.640	.431
Role Overload	-.016	-.015	.008	.928
Non-Participation In Decision Making	.094	.228	2.047	.164

R^2 = .34827, Adjusted R^2 = .24800

$F_{4,26}$ = 3.47, p = .021

Table B.8. The Impact of Social Supports on Dissatisfaction With Job Expectations for Doctors

Variable (N=31)	B	Beta	F	Significance Level
Peer Support For Achievement	-.701	-.450	3.264	.082
Peer Support For Affiliation	.986	.683	5.730	.024
Supervisor Support For Achievement	.190	.127	.476	.496
Supervisor Support For Affiliation	-.885	-.479	3.922	.058

R^2 = .22958, Adjusted R^2 = .11106

$F_{4,26}$ = 1.94, p = .134

Table B.9. The Impact of Stressors, Social Supports, and Peer Support For Achievement Interaction Terms on Dissatisfaction With Job Expectations for Doctors

Variable (N=31)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	1.466	1.134	12.377	.002
Role Ambiguity (RA)	-0.039	-0.056	.021	.886
Role Overload (RO)	0.406	0.372	.890	.358
Non-Participation In Decision Making (NPD)	0.372	0.903	2.874	.107
Peer Support For Achievement (PSAC)	0.902	0.580	2.265	.150
Peer Support For Affiliation	1.000	0.693	8.853	.008
Supervisor Support For Achievement	0.283	0.189	1.349	.261
Supervisor Support For Affiliation	-1.094	-0.592	7.558	.013
IRC X PSAC	-0.136	-0.735	4.796	.042
RA X PSAC	0.031	0.407	.571	.460
RO X PSAC	-0.082	-0.609	1.318	.266
NPD X PSAC	-0.051	-0.827	3.136	.093

R^2 = .71448, Adjusted R^2 = .52413

$F_{12,18}$ = 3.75, p = .006

Table B.10. The Impact of Stressors, Social Supports, and Peer Support For Affiliation Interaction Terms on Dissatisfaction With Job Expectations for Doctors

Variable (N=31)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	0.971	0.752	1.781	.199
Role Ambiguity (RA)	-0.116	-0.167	.082	.778
Role Overload (RO)	1.012	0.925	2.113	.163
Non-Participation In Decision Making (NPD)	0.139	0.337	.171	.684
Peer Support For Achievement	-0.266	-0.171	.427	.522
Peer Support For Affiliation (PSAF)	1.612	1.117	2.502	.131
Supervisor Support For Achievement	0.190	0.127	.382	.545
Supervisor Support For Affiliation	-0.983	-0.532	3.888	.064
IRC X PSAF	-0.035	-0.216	.118	.736
RA X PSAF	0.034	0.492	.435	.518
RO X PSAF	-0.150	-1.162	2.364	.142
NPD X PSAF	-0.019	-0.352	.187	.670

R^2 = .55660, Adjusted R^2 = .26100

$F_{12,18}$ = 1.88, p = .109

Table B.11. The Impact of Stressors, Social Supports, and Supervisor Support For Achievement Interaction Terms on Dissatisfaction With Job Expectations for Doctors

Variable (N=31)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.810	.627	4.985	.038
Role Ambiguity (RA)	.167	.241	.470	.502
Role Overload (RO)	.199	.182	.267	.612
Non-Participation In Decision Making (NPD)	-.066	-.161	.359	.557
Peer Support For Achievement	-.372	-.239	.862	.366
Peer Support For Affiliation	.875	.606	4.595	.046
Supervisor Support For Achievement (SSAC)	-.075	-.050	.020	.890
Supervisor Support For Affiliation	-.840	-.455	3.260	.088
IRC X SSAC	-.048	-.222	.442	.515
RA X SSAC	-.008	-.104	.053	.820
RO X SSAC	.003	.022	.002	.963
NPD X SSAC	.029	.397	2.221	.153

R^2 = .59348, Adjusted R^2 = .32246

$F_{12,18}$ = 2.19, p = .065

Table B.12. The Impact of Stressors, Social Supports, and Supervisor Support For Affiliation Interaction Terms on Dissatisfaction With Job Expectations for Doctors.

Variable (N=31)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	1.258	.974	10.164	.005
Role Ambiguity (RA)	-0.383	-.553	1.396	.253
Role Overload (RO)	0.153	.139	.118	.735
Non-Participation In Decision Making (NPD)	0.121	.295	.931	.347
Peer Support For Achievement	-0.143	-.092	.148	.705
Peer Support For Affiliation	0.500	.347	1.591	.223
Supervisor Support For Achievement	0.347	.232	1.634	.217
Supervisor Support For Affiliation (SSAF)	-0.683	-.369	1.742	.203
IRC X SSAF	-0.082	-.648	4.319	.052
RA X SSAF	0.046	.876	2.672	.119
RO X SSAF	-0.016	-.174	.151	.702
NPD X SSAF	-0.002	-.036	.018	.895

R^2 = .63755, Adjusted R^2 = .39592

$F_{12,18}$ = 2.64, p = .031

APPENDIX C

TEST OF THE SOCIAL SUPPORT MODEL FOR NURSES

Table C.1. The Impact of Stressors on Job Dissatisfaction for Nurses

Variable (N=78)	B	Beta	F	Significance Level
Intra-Role Conflict	.781	.550	22.807	.001
Role Ambiguity	.021	.031	.069	.793
Role Overload	.136	.124	1.420	.237
Non-Participation In Decision Making	.067	.141	2.142	.148

$R^2 = .39496$, Adjusted $R^2 = .36181$

$F_{4,73} = 11.91$, $p < .001$

Table C.2. The Impact of Social Supports on Job Dissatisfaction for Nurses

Variable (N=78)	B	Beta	F	Significance Level
Peer Support For Achievement	.184	.135	1.264	.265
Peer Support For Affiliation	-.313	-.265	4.643	.034
Supervisor Support For Achievement	-.095	-.089	.650	.423
Supervisor Support For Affiliation	-.311	-.393	11.215	.001

$R^2 = .30909$, Adjusted $R^2 = .27123$

$F_{4,73} = 8.16$, $p < .001$

Table C.3. The Impact of Stressors, Social Supports, and Peer Support For Achievement Interaction Terms on Job Dissatisfaction for Nurses

Variable (N=78)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	0.324	0.228	.082	.775
Role Ambiguity (RA)	0.283	0.426	.426	.516
Role Overload (RO)	-1.325	-1.210	1.460	.231
Non-Participation In Decision Making (NPD)	-0.414	-0.872	1.003	.320
Peer Support For Achievement (PSAC)	-1.402	-1.033	1.894	.174
Peer Support For Affiliation	-0.316	-0.268	4.919	.030
Supervisor Support For Achievement	-0.119	-0.110	1.146	.288
Supervisor Support For Affiliation	-0.141	-0.178	2.408	.126
IRC X PSAC	0.047	0.270	.104	.748
RA X PSAC	-0.041	-0.543	.520	.473
RO X PSAC	0.189	1.467	1.742	.192
NPD X PSAC	0.061	1.111	1.308	.257

R^2 = .51465, Adjusted R^2 = .42504

$F_{12,65}$ = 5.74, $p < .001$

Table C.4. The Impact of Stressors, Social Supports, and Peer Support For Affiliation Interaction Terms on Job Dissatisfaction for Nurses

Variable (N=78)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	0.465	0.327	.262	.610
Role Ambiguity (RA)	0.121	0.183	.116	.734
Role Overload (RO)	-0.994	-0.907	2.554	.115
Non-Participation In Decision Making (NPD)	-0.229	-0.483	.629	.431
Peer Support For Achievement	0.167	0.123	1.127	.292
Peer Support For Affiliation (PSAF)	-1.469	-1.246	3.123	.082
Supervisor Support For Achievement	-0.127	-0.118	1.361	.248
Supervisor Support For Affiliation	-0.166	-0.209	3.391	.070
IRC X PSAF	0.029	0.157	.049	.825
RA X PSAF	-0.024	-0.280	.201	.655
RO X PSAF	0.155	1.149	3.267	.075
NPD X PSAF	0.038	0.734	.998	.322

$R^2 = .51913$, Adjusted $R^2 = .43035$

$F_{12,65} = 5.85$, $p < .001$

Table C.5. The Impact of Stressors, Social Supports, and Supervisor Support For Achievement Interaction Terms on Job Dissatisfaction for Nurses

Variable (N=78)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	1.931	1.360	16.6726	.001
Role Ambiguity (RA)	-0.285	-0.428	1.5896	.212
Role Overload (RO)	0.040	0.036	.0101	.920
Non-Participation In Decision Making (NPD)	-0.033	-0.070	.0815	.776
Peer Support For Achievement	0.253	0.187	2.8369	.097
Peer Support For Affiliation	-0.221	-0.187	2.9904	.089
Supervisor Support For Achievement (SSAC)	0.005	0.005	.0001	.993
Supervisor Support For Affiliation	-0.226	-0.286	6.5272	.013
IRC X SSAC	-0.224	-1.219	8.1940	.006
RA X SSAC	0.044	0.516	1.3423	.251
RO X SSAC	0.016	0.118	.0640	.801
NPD X SSAC	0.018	0.334	.8629	.356

$R^2 = .56426$, Adjusted $R^2 = .48382$

$F_{12,65} = 7.01$, $p < .001$

Table C.6. The Impact of Stressors, Social Supports, and Supervisor Support For Affiliation Interaction Terms on Job Dissatisfaction for Nurses

Variable (N=78)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.108	.076	.025	.875
Role Ambiguity (RA)	.093	.141	.121	.730
Role Overload (RO)	.053	.048	.007	.933
Non-Participation In Decision Making (NPD)	-.273	-.574	1.983	.164
Peer Support For Achievement	.233	.172	2.369	.129
Peer Support For Affiliation	-.292	-.248	4.734	.033
Supervisor Support For Achievement	-.127	-.118	1.287	.261
Supervisor Support For Affiliation (SSAF)	-.744	-.940	3.483	.067
IRC X SSAF	.055	.408	.730	.396
RA X SSAF	-.014	-.244	.294	.590
RO X SSAF	.007	.082	.018	.893
NPD X SSAF	.030	.891	3.186	.079

$R^2 = .51953$, Adjusted $R^2 = .43082$

$F_{12,65} = 5.85$, $p < .001$

Table C.7. The Impact of Stressors on Dissatisfaction With Job Expectations for Nurses

Variable (N=47)	B	Beta	F	Significance Level
Intra-Role Conflict	.348	.325	3.912	.055
Role Ambiguity	.112	.201	1.379	.247
Role Overload	.031	.035	.048	.827
Non-Participation In Decision Making	.068	.162	1.206	.278

R^2 = .27155, Adjusted R^2 = .20217

$F_{4,42}$ = 3.91, p = .009

Table C.8. The Impact of Social Supports on Dissatisfaction With Job Expectations for Nurses

Variable (N=47)	B	Beta	F	Significance Level
Peer Support For Achievement	-.116	-.113	.385	.538
Peer Support For Affiliation	-.317	-.332	2.389	.130
Supervisor Support For Achievement	-.050	-.057	.126	.725
Supervisor Support For Affiliation	.055	.088	.241	.626

R^2 = .15524, Adjusted R^2 = .07479

$F_{4,42}$ = 1.93, p = .123

Table C.9. The Impact of Stressors, Social Supports, and Peer Support For Achievement Interaction Terms on Dissatisfaction With Job Expectations for Nurses

Variable (N=47)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	-.447	-.417	.153	.698
Role Ambiguity (RA)	.197	.354	.218	.643
Role Overload (RO)	-.696	-.790	.279	.601
Non-Participation In Decision Making (NPD)	.247	.584	.329	.570
Peer Support For Achievement (PSAC)	-.586	-.573	.271	.606
Peer Support For Affiliation	-.393	-.412	3.083	.088
Supervisor Support For Achievement	-.028	-.032	.038	.846
Supervisor Support For Affiliation	.250	.401	4.501	.041
IRC X PSAC	.103	.790	.485	.491
RA X PSAC	-.007	-.107	.013	.909
RO X PSAC	.100	.956	.316	.578
NPD X PSAC	-.022	-.473	.163	.689

R^2 = .41289, Adjusted R^2 = .20567

$F_{12,34}$ = 1.99, p = .057

Table C.10. The Impact of Stressors, Social Supports, and Peer Support For Affiliation Interaction Terms on Dissatisfaction With Job Expectations for Nurses

Variable (N=47)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	-1.967	-1.836	3.053	.090
Role Ambiguity (RA)	1.196	2.145	5.729	.022
Role Overload (RO)	-1.574	-1.787	2.752	.106
Non-Participation In Decision Making (NPD)	0.046	0.108	.020	.887
Peer Support For Achievement	0.051	0.050	.071	.791
Peer Support For Affiliation (PSAF)	-1.380	-1.449	1.872	.180
Supervisor Support For Achievement	-0.097	-0.110	.554	.462
Supervisor Support For Affiliation	0.242	0.388	4.998	.032
IRC X PSAF	0.377	2.634	4.841	.035
RA X PSAF	-0.188	-2.414	4.910	.033
RO X PSAF	0.237	2.224	3.231	.081
NPD X PSAF	0.008	0.191	.039	.844

R^2 = .48553, Adjusted R^2 = .30395

$F_{12,34}$ = 2.67, p = .012

Table C.11. The Impact of Stressors, Social Supports, and Supervisor Support For Achievement Interaction Terms on Dissatisfaction With Job Expectations for Nurses

Variable (N=47)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.835	.780	2.562	.119
Role Ambiguity (RA)	.106	.190	.224	.639
Role Overload (RO)	-.055	-.062	.013	.909
Non-Participation In Decision Making (NPD)	.038	.089	.049	.826
Peer Support For Achievement	-.028	-.028	.018	.893
Peer Support For Affiliation	-.232	-.244	1.158	.289
Supervisor Support For Achievement (SSAC)	.028	.032	.001	.974
Supervisor Support For Affiliation	.174	.279	2.021	.164
IRC X SSAC	-.080	-.580	.852	.363
RA X SSAC	-.004	-.051	.008	.931
RO X SSAC	.023	.199	.077	.783
NPD X SSAC	.009	.194	.089	.767

R^2 = .39963, Adjusted R^2 = .18774

$F_{12,34}$ = 1.88, p = .073

Table C.12. The Impact of Stressors, Social Supports, and Supervisor Support For Affiliation Interaction Terms on Dissatisfaction With Job Expectations for Nurses

Variable (N=47)	B	Beta	F	Significance Level
Intra-Role Conflict (IRC)	.002	.002	.00001	.998
Role Ambiguity (RA)	.234	.419	.57424	.454
Role Overload (RO)	-.184	-.209	.05323	.819
Non-Participation In Decision Making (NPD)	-.154	-.364	.32036	.575
Peer Support For Achievement	.007	.007	.00138	.971
Peer Support For Affiliation	-.319	-.335	2.14682	.152
Supervisor Support For Achievement	-.099	-.113	.49881	.485
Supervisor Support For Affiliation (SSAF)	-.275	-.441	.21337	.647
IRC X SSAF	.040	.384	.29659	.590
RA X SSAF	-.016	-.299	.23169	.633
RO X SSAF	.025	.339	.11692	.735
NPD X SSAF	.024	.771	.89184	.352

R^2 = .40461, Adjusted R^2 = .19447

$F_{12,34}$ = 1.92, p = .066

APPENDIX D

MAIN SUBJECTS OF RECENT STRESSOR-SOCIAL SUPPORT STUDIES

Table D.1. Breakdown of Main Subjects in Stressor-Social Support Studies Found in the Literature Search Covering the Period of Winter 1980 to September 1985

Stressor-Social Support Studies	
Main Subject	Number
College Students	37
Mothers	31
Females	26
Patients	25
Adults	22
Nurses	21
Families	20
Literature Reviews	19
The Elderly	17
Stressor-Support Models	17
Parents	15
Spouses	14
Schoolteachers	12
Employees	9
Social Workers	8
Viet Nam Veterans	7
Managers	6
Medical Students	5
Alcoholics	4
Children	4
Soldiers	4
Adolescents	3
Community Residents	3
Medical Personnel	3
Physicians	3
Police Officers	3
Blue Collar Workers	2
Parachute Jumpers	2
Rape Victims	2
Abusive Fathers	1
American Indians	1
Clinical Psychologists	1
Counselors	1
Firefighters	1
Fire Survivors	1
Flight Attendants	1
Hotline Volunteers	1
Japanese Americans	1
Lawyers	1
Mental Health Personnel	1
Navy Submarine Students	1
Nursing Students	1
Schizophrenics	1
Tobacco Smokers	1
Welfare Recipients	1
Young Grandmothers	1

Subjects (N = 46); Studies (N = 361).

APPENDIX E

LOG TRANSFORMATIONS OF THE STUDY VARIABLES

Table E.1. The Impact of Stressors, Social Supports, and Occupational Level on Job Dissatisfaction (with Log Transformation)

Variable (N=157)	B	Beta	F	Significance Level
Intra-Role Conflict	.100	.381	24.443	.001
Role Ambiguity	.017	.129	2.862	.093
Role Overload	.016	.084	1.535	.217
Non-Participation In Decision Making	.019	.209	9.190	.003
Occupational Level	.019	.108	2.559	.112
Peer Support For Achievement	-.004	-.016	.038	.845
Peer Support For Affiliation	-.028	-.106	1.624	.204
Supervisor Support For Achievement	-.024	-.110	2.695	.103
Supervisor Support For Affiliation	-.020	-.102	1.890	.171

$R^2 = .41493$, Adjusted $R^2 = .37911$

$F_{9,147} = 11.58$, $p < .001$

Table E.2. The Impact of Stressors, Social Supports, and Occupational Level on Dissatisfaction With Job Expectations (with Log Transformation)

Variable (N=98)	B	Beta	F	Significance Level
Intra-Role Conflict	.129	.416	16.852	.001
Role Ambiguity	.028	.176	3.048	.084
Role Overload	-.004	-.018	.032	.858
Non-Participation In Decision Making	.021	.189	3.819	.054
Occupational Level	.029	.134	2.155	.146
Peer Support For Achievement	-.064	-.202	2.898	.092
Peer Support For Affiliation	.025	.080	.380	.539
Supervisor Support For Achievement	-.009	-.036	.150	.699
Supervisor Support For Affiliation	.026	.113	1.074	.303

R^2 = .33699, Adjusted R^2 = .26918

$F_{9,88}$ = 4.97, < .001

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